

Attachment H
County's Certified FEIR

Charles F. & Judith A. Nichols TRS
(Yanks Air Museum)
PLN120376

FINAL
ENVIRONMENTAL IMPACT REPORT
for the
YANKS AIR MUSEUM & VISITOR SERVING PROJECT

March 10, 1997

prepared for

COUNTY OF MONTEREY
PLANNING AND BUILDING INSPECTION DEPARTMENT

prepared by

DENISE DUFFY & ASSOCIATES
546-A Hartnell Street
Monterey, CA 93940
(408) 373-4341

State Clearinghouse Number: 96061081

Draft EIR: June 21, 1996

Final EIR: March 10, 1997

TABLE OF CONTENTS

1.0 INTRODUCTION	F-1
1.1 Background	F-1
1.2 Public Participation	F-1
1.3 Organization of the Final EIR	F-2
2.0 RESPONSE TO COMMENTS	F-3
2.1 Introduction	F-3
2.2 Comment Letters and Response to Comments	F-3
MITIGATION MONITORING PROGRAM	M-1

REVISED DRAFT EIR

1.0 INTRODUCTION

1.1 Background

This report constitutes the Final Environmental Impact Report (EIR) for the proposed Yanks Air Museum & Visitor Serving Project. The Final EIR consists of responses to comments received during the 45-day public review period and the Revised Draft EIR.

The proposed Yanks Aircraft Museum and Visitor Serving Facility (the Project) consists of a World War II and "Golden Era" aircraft museum, public and private air strip, and associated commercial and visitor-serving facilities. In addition to the aircraft museum and runway with supporting taxiway, the applicant intends to construct a winery with tasting room, two gasoline stations, a 150 room hotel/motel and restaurant, space for Recreational Vehicle (RV) parking, and a two-acre lake on the project site. A detailed description of project characteristics is provided in the *Revised Draft EIR*, Chapter 3.0, Project Description.

The project site is located in unincorporated Monterey County adjacent to the easterly side of, and parallel with, U.S. Highway 101 and northerly of Thorne Road. The site is located in the Central Salinas Valley approximately one-half mile north of the City of Greenfield. The Assessor's Parcel Numbers for the property are 111-012-07-000 and 011-012-12-000.

1.2 Public Participation

The Public Participation subsection outlines the methods the County used to provide public review and solicit input related to the EIR. It is the intent of the County to include this document in the official public record related to the Draft EIR. Based on the information contained in the public record, decision-makers will be provided with an accurate and complete record of all information related to the environmental consequences of the project.

The County notified all responsible and trustee agencies, interested groups, organizations, and individuals that a Draft EIR had been completed for the proposed project. The County used several methods to solicit input during the review period for the preparation of the Draft EIR. The following is a list of the actions taken during the preparation, distribution, and review of the Draft EIR.

- The Notice of Preparation (NOP) was filed with the State Clearinghouse on February 6, 1996. The State Clearinghouse assigned the Clearinghouse Number 96061081 to the proposed project.
- The NOP was distributed by the County to all responsible and trustee agencies, and interested groups, organizations and individuals.

- On June 28, 1996 the Draft EIR was distributed to interested all responsible and trustee agencies, interested groups, organizations, and individuals. The public review period for the Draft EIR ended on August 12, 1996.

1.3 Organization of the Final EIR

The Final EIR has been organized as follows: the complete text of comments received by the County on the Draft EIR during the 45-day public review period, followed by responses; the mitigation monitoring program; the complete text of the Draft EIR revised in response to public and agency comments. Changes to the text of the Draft EIR are shown in **highlighted text**. Deletions are shown **stricken**.

2.0 RESPONSE TO COMMENTS

2.1 Introduction

This section presents as the Response to Comments on the Draft Environmental Impact Report (EIR) for the Project. This section contains all information available in the public record related to the Draft EIR as of August 12, 1996, and responds to comments in accordance with Section 15088 of the California Environmental Quality Act (CEQA) Guidelines.

2.2 Comment Letters and Response to Comments

The following is a list of letters on the Draft EIR in the order received:

- A. Department of Corrections, July 1, 1996
- B. Monterey Bay Unified Air Pollution Control District, July 1, 1996
- C. City of King, July 5, 1996
- D. Federal Aviation Administration, July 8, 1996
- E. Lincoln Handley, Incorporated, July 10, 1996
- F. Regional Water Quality Control Board, July 18, 1996
- G. Monterey County Public Works, Development, August 2, 1996
- H. City of Greenfield, August 5, 1996
- I. CalTrans, August 8, 1996
- J. Monterey County Department of Health, August 9, 1996
- K. LAFCO, August 9, 1996
- L. Monterey County Water Resources Agency, August 12, 1996
- M. Monterey County Planning Department, August 22, 1996
- N. Greenfield Fire Protection District, no date
- O. Monterey County Airport Land Use Commission, August 27, 1996.

Each letter on the Draft EIR is reproduced verbatim in this chapter and identified alphabetically. Comments in each letter and record of public hearing are numbered. Correspondingly numbered responses are presented following each comment letter.

Some comments do not raise significant environmental issues, or do not require additional information. A substantive response to such comments is not appropriate within the context of CEQA. Such comments are responded to with a "comment acknowledged" reference or a statement that no environmental issue has been raised. "Comment acknowledged" indicates that the comment will be forwarded to the appropriate decision makers for their review and consideration.

DEPARTMENT OF CORRECTIONS

Correctional Training Facility

P.O. Box 686

Soledad, CA 93960

Telephone: (408) 678-3951, Ext. 2111



July 1, 1996

Monterey County Planning and
Building Inspection Department
Robert Slimmon, Jr., Director
P. O. Box 1208
Salinas, California 93902

Attention: Luis Osorio
Associate Planner

Subject: Environmental Impact Report - Yanks Air Museum #95-01

Gentlemen:

I have received your letter of June 26, 1996, in which you request input and comments from the Correctional Training Facility regarding construction of the proposed Yanks Air Museum.

We have reviewed the draft of the EIR Report for the proposed construction of an Air Museum and Visitor Complex. We have no objections to this project which is slated to be located at a site adjacent to the City of Greenfield, California.

A1

Sincerely,

A handwritten signature in cursive script, appearing to read "Linda J. Clarke".

Linda J. Clarke
Warden

LETTER A: DEPARTMENT OF CORRECTIONS

RESPONSE A1: Comment is acknowledged.



MONTEREY BAY
Unified Air Pollution Control District

serving Monterey, San Benito, and Santa Cruz counties

AIR POLLUTION CONTROL OFFICER
 Doug Quetta

24580 Silver Cloud Court • Monterey, California 93940 • 408/647•9411 • FAX 408/647•8501

July 1, 1996

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Santa Cruz County

Luis Osorio
 Monterey County Planning Department
 P.O. Box 1208
 Salinas, CA 93902

SUBJECT: YANKS AIR MUSEUM EIR

Dear Mr. Osorio:

Staff has reviewed the DEIR for the Yanks Museum and has the following comments:

1. Page 4-88. There have been 9 exceedances of the State 24-hour PM₁₀ standard rather than 7 since 1986. B1
2. Page 4-89. The DEIR states, "A visitor-oriented development such as the proposed project does not directly relate to the AQMP...." The AQMP addresses all sources of emission growth including mobile source emissions in the emission forecasts, and consistency with these forecasts is used to address the cumulative air quality impacts on regional pollution (ozone). All projects which would emit reactive organic gases or oxides of nitrogen relate very directly to the various air quality plans prepared by the District. B2
3. Page 4-92. The DEIR indicates that during the construction phase of the project approximately 230 lbs/day of PM₁₀ emissions would be generated. These estimates are significantly less than District estimates of 760 lbs/day (38 lbs/day/acre x 20 acres) plus combustion PM₁₀ emissions of 9 lbs/day for a total of 769 lbs/day. The fugitive dust estimates are based on the most current data available (Midwest Research Institute, Improvement of Specific Emission Factors, 1995). The proposed mitigation measures would not reduce projected emissions to less than significant. The FEIR should include modeling to estimate air quality at nearby residences and propose additional mitigation measures as needed. All mitigation measures should be quantified and enforceable. Measures including statements such as "where feasible" and "efforts shall seek to minimize" do not meet these criteria. B3

4. Page 4-94. The DEIR references a NO_x standard. There is no such standard. Additionally, the District's CEQA Guidelines do not require quantification of ROG and NO_x emissions from construction activities because these temporary emissions of these ozone precursors have been accommodated in State- and federally-required air plans. Project construction emissions would not be considered significant, and mitigation measures would not be required as recommended in the document.
5. Page 4-96. The emission calculations for motor vehicles associated with project traffic should be calculated using the most up-to-date URBEMIS model (URBEMIS5). In addition, the trips used for the calculations included in the DEIR (Appendix F) are inconsistent with the trips listed on Table 9. Further, in some cases the trip rates used to prepared Table 9 are low, and their use should justified. For example, ITE used in URBEMIS shows hotel trips at 8.9 rather than 8.7 per unit; sit down restaurant at 205 per 1000 sq. ft. rather than 96.51; and fast food restaurant at 786 rather than 632.12 per 1000 sq. ft. The trip rate for freeway commercial is also very low when compared to ITE which has a range of 54 to 700 per 1000 sq. ft. for various commercial activities. A trip rate of 432 per 1000 sq. ft. for convenience market (16 hours per day) seems a more appropriate rate.

B4

B5

When these new rates were used to generate emission estimates, project emissions are 328 lbs/day of ROG and 444 lbs/day of NO_x (attached). Both exceed the District's significance threshold of 150 lbs/day. Mitigation measures should be identified, and the EIR should quantify the emission reduction effectiveness of each measure, identify agencies responsible for implementation and monitoring, and conclude whether mitigation measures would reduce impacts below significance levels.

B6

6. Page 4-96. The DEIR states that the CO mobile source emissions are above the District's significance threshold of 550 lbs/day. This threshold applies only to stationary sources. The District relies on CO modeling to determine impacts from mobile sources. Because the project does not result in a degradation of intersection or road segments from D to below, CO modeling is not required, and the project would not have a significant impact on CO levels.

Please do not hesitate to call if you have any question.

Sincerely,



Janet Brennan
Supervising Air Quality Planner
Planning and Air Monitoring
Division

cc: Nicolas Papadakis

Enc.

PROJECT NAME: Yanks Museum Date: 07-02-1996

Project Area: North Central Coast (Monterey Bay)

Analysis Year: 2000 Temperature (F): 75 Season: Summer

EMFAC Version: Emfac7f1.1(12/93)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Tot Trips
Winery	680.0/store	1	680
Aircraft Hangers	397.0/store	1	397
Restaurant (Sit Down)	1435.0/store	1	1435
Restaurant (Fast Food)	2594.0/store	1	2594
Hotel	1135.0/store	1	1135
RV Park	6.0/park	1	6
Freeway Commercial	22032.0/store	1	22032
Museum	370.0/store	1	370
Gas Stations	3544.0/store	1	3544

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Duty Autos	72.3	1.2	98.6	0.3
Light Duty Trucks	16.3	0.2	99.5	0.3
Medium Duty Trucks	5.4	1.0	99.0	0.0
Heavy Duty Trucks	2.4	19.6	80.4	N/A
Heavy Duty Trucks	0.8	N/A	N/A	100.0
Motorcycles	2.8	100.0	N/A	N/A

Travel Conditions:

	Residential			Commercial	
	Home-Work	Home-Shop	Home-Other	Work	Non-Work
Trip Length	8.4	15.0	40.0	8.4	8.4
% Started Cold	88.7	40.5	59.0	78.0	27.8
Trip Speed	25	25	25	35	35
Percent Trip	13.0	24.0	63.0		

Project Emissions Report in Lb/Day:

Unit Type	TOG	CO	NOx
Winery	7.67	55.44	9.40
Aircraft Hangers	4.48	32.37	5.49
Restaurant (Sit Down)	16.18	117.00	19.85
Restaurant (Fast Food)	29.25	211.50	35.88
Hotel	12.80	92.54	15.70
RV Park	0.07	0.49	0.08
Freeway Commercial	246.39	1776.58	304.07
Museum	4.14	29.84	5.11
Gas Stations	39.63	285.78	48.91
TOTALS	360.60	2601.54	444.48

Project Emissions Report in Lb/Day (Continued)

Unit Type	FUEL (Gal.)	PM10	SOx
Winery	267.6	1.33	0.86
Aircraft Hangers	156.2	0.78	0.50
Restaurant (Sit Down)	564.7	2.81	1.82
Restaurant (Fast Food)	1020.8	5.08	3.29
Hotel	446.7	2.22	1.44
RV Park	2.4	0.01	0.01
Freeway Commercial	8670.5	43.18	27.97
Museum	145.6	0.73	0.47
Gas Stations	1394.7	6.95	4.50
TOTALS	12669.2	63.09	40.87

LETTER B: MONTEREY BAY UNIFIED AIR POLLUTION CONTROL DISTRICT

RESPONSE B1: Text in Section 4.9 Air Quality has been revised to reflect this comment.

RESPONSE B2: Text in Section 4.9 Air Quality has been revised to reflect this comment.

RESPONSE B3: Text Section 4.9 Air Quality has been revised to state the following: "This ratio suggests that the project-related construction PM₁₀ dust burden will be approximately 769 pounds per day (38 lbs/day/acre x 20 acres = 760 lbs/day, plus combustion PM₁₀ emission of 9 lbs/day)."

Additionally, the text has been revised to state: "The project will result in 110-acres taken out of agricultural production. Agricultural production generates substantial PM₁₀ emissions approximately three to four times per year when fields are disked and worked. During these times, the fields lay without vegetation for several weeks and PM₁₀ levels are approximately 4,180 lbs/day (38 lbs/day/acre x 110 acres = 4,180 lbs/day). The proposed project will result in a reduction of 3,420 lbs/day in PM₁₀ creating a positive impact. Additionally, the proposed project will only be graded one time where as the existing agricultural fields continue to create PM₁₀ impacts several times each year."

Mitigation measures 21 and 22 on page 4-92 have been revised to delete the words "where feasible, seek to, as appropriate".

RESPONSE B4: Text in Section 4.9 Air Quality has been revised to reflect this comment.

RESPONSE B5: As stated in Section 4.9 Air Quality of the FEIR, the proposed project will be characterized by a large number of days with "routine" site operations, mainly pass-by trips associated with the service stations, fast-food restaurants, and overnight stays. "New" trips will be associated with the museum, hangars and employee commute trips.

The museum will attract both visitors from the region as a destination and pass-by trips already traveling Highway 101 adjacent to the site. Pass-by trips are defined as those vehicles that stop on their way between their origin and their true destination. The percentage of pass-by trips is difficult to predict. Current average daily traffic volume on Highway 101 is 21,500 trips north of El Camino Real in the vicinity of the project site. Estimated museum average trip generation is 240 trips per day. Pass-by trips are likely to account for 40% of that average, leaving 144 destination trips. Average trip length for museum destination trips is assumed to be 40 miles.

The winery, hotel, restaurants and gas stations are also likely to generate a significant number of pass-by trips, as well as trips in conjunction with museum visits. The traffic report forecasts a total of 11,096 trips per day for those uses. A conservative estimate of pass-by trips is 60%, leaving 4,438 destination trips. Average trip length for highway services destination trips is assumed to be 15 miles.

Many of the "destination" trips are more likely primarily associated with the air museum or winery. The number of "new" trips generated by this use is likely to be nominal, up to 20% of the 32 average daily trips.

As stated in Section 4.8 of the FEIR, the Institute of Transportation Engineers (ITE) trip rates have been used to estimate the project generated trips for those land uses for which trip data is available. ITE does not have available trip data for museums and winery land uses. Trip generation estimates were calculated based on visitor estimates and expected number of employees. Refer to Section 4.8.3.2 for the project generated traffic information.

The emission calculations for motor vehicles associated with project traffic has been recalculated using the trips as generated in Table 9 and applied to URBEMIS 5 as shown on the attached tables. Project emissions are 102.83 lbs/day of ROG and 140.81 lbs/day of Nox. These emissions do not exceed district standards of 150 lbs/day and, therefore, this is not considered a significant impact. No mitigation measures are required.

RESPONSE B6: Text in Section 4.9 Air Quality has been revised to reflect this comment.

PROJECT NAME: Yanks Air Museum **Date:** 10-03-1996

Project Area: North Central Coast (Monterey Bay)

Analysis Year: 2000 **Temperature (F):** 75 **Season:** Summer

EMFAC Version: Emfac7f1.1(12/93)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Tot Trips
Winery	680.0/winery	1	680
Aircraft Hangers	397.0/store	1	397
Restaurant (Sit Down)	676.0/rest.	1	676
Restaurant (Fast Food)	2086.0/store	1	2086
Freeway Commercial	2074.0/commercia	1	2074
Museum	370.0/museum	1	370
Gas Station	2339.0/Station	1	2339
Hotel	1109.0/hotel	1	1109

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Duty Autos	72.3	1.2	98.6	0.3
Light Duty Trucks	16.3	0.2	99.5	0.3
Medium Duty Trucks	5.4	1.0	99.0	0.0
Heavy Duty Trucks	2.4	19.6	80.4	N/A
Heavy Duty Trucks	0.8	N/A	N/A	100.0
Motorcycles	2.8	100.0	N/A	N/A

Travel Conditions:

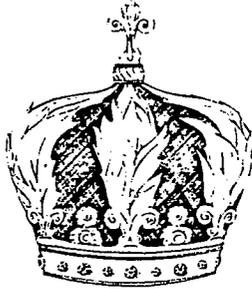
	Residential		Commercial		
	Home-Work	Home-Shop	Home-Other	Work	Non-Work
Trip Length	8.9	8.9	8.9	8.9	8.9
% Started Cold	88.7	40.5	59.0	78.0	27.8
Trip Speed	25	25	25	35	35
Percent Trip	27.3	21.2	51.5		

Project Emissions Report in Lb/Day:

Unit Type	TOG	CO	NOx
Winery	7.90	56.98	9.83
Aircraft Hangers	4.59	33.03	5.73
Restaurant (Sit Down)	7.90	57.05	9.79
Restaurant (Fast Food)	24.56	177.91	30.26
Freeway Commercial	24.22	175.02	30.02
Museum	4.29	30.89	5.34
Gas Station	27.10	195.28	33.79
Hotel	12.95	93.59	16.05
TOTALS	113.51	819.74	140.81

Project Emissions Report in Lb/Day:

Unit Type	FUEL (Gal.)	PM10	SOx
Winery	283.5	1.41	0.91
Aircraft Hangers	165.5	0.82	0.53
Restaurant (Sit Down)	281.9	1.40	0.91
Restaurant (Fast Food)	869.8	4.33	2.81
Freeway Commercial	864.8	4.31	2.79
Museum	154.3	0.77	0.50
Gas Station	975.3	4.86	3.15
Hotel	462.4	2.30	1.49
TOTALS	4057.5	20.21	13.09



*City
of
King*

212 SOUTH VANDERHURST
KING CITY, CALIFORNIA 93930
PHONE (408) 385-3281
FAX (408) 385-6887

July 5, 1996

Luis Osorio
Associate Planner
Monterey County Planning & Building
P.O. Box 1208
Salinas, Ca. 93902

RE: Review of Draft EIR for the Yanks Air Museum EIR #95-01

Dear Mr. Osorio:

Thank you for the opportunity to review the referenced EIR. Our only comment is that the analysis of alternate project locations did not identify Mesa Del Rey Airport in King City as a potential site. Our airport meets a great deal of the development requirements for such a facility.

Please contact me with any questions. Thank you for the opportunity to comment.

Sincerely,

Blaine Michaelis

Blaine Michaelis
City Manager

C1

LETTER C: CITY OF KING, JULY 5, 1996

RESPONSE C1: The text of the Final EIR has been revised to consider the alternative project location of the Mesa Del Rey Airport in King City. The following text has been added to the DEIR:

Mesa Del Rey Airport

The Mesa Del Rey Airport is owned by the City of King, and is located on the north boundary of King City within the City limits. The airport is identified as one of the three aviation facilities in the Monterey County Regional Transportation Plan. Surface access to the Mesa Del Rey Airport is via Lyons Street which becomes Bitterwater Road to the Airport Road entrance. The distance to the City center is approximately 1 mile. The less direct route to the principal airport use area would be via Metz Road. U.S. Highway 101 is the principal north-south highway through King City. Access from the south is via old U.S. 101 (First Street) and from the north via Broadway.

The airport system consists of one runway and associated taxiways. Runway 11/29 is a Visual Flight Rules (VFR) runway 100 feet wide by 4,485 feet in length. Terminal facilities are located on the southwest side of the airport. There are 14 nested hangars with capacity for 14 aircraft and three small hangars. The airport has sufficient hangar capacity for 26 aircraft. A fuel island is located near the hangar and in the apron service area.

Mesa Del Rey Airport has no control tower. There is a radio station at the airport which is used for homing. Mesa Del Rey Airport is essentially an island of city-owned property dedicated primarily to aviation activity. There are new industrial facilities adjacent to the airport. Agricultural land uses surround the airport site and existing county land use and zoning plans reflect this use.

Locating the proposed air museum at this location would result in similar benefits associated with proximity to urban centers and utilization of existing facilities compared with the Marina Municipal Airport, Monterey Peninsula Airport, and Salinas Municipal Airport. The comprehensive land use plan indicates an industrial reserve area on the northeast boundary of the airport. Industrial use is considered ideal as an airport buffer zone. One of the principal reasons for the identification of additional lands for industry on the northeast is that land available for airport oriented industrial development on the southeast is very limited by Airport Road and difficult topography.

The project applicant for Yanks Air Museum is proposing to locate the project adjacent to a major highway (U.S. Highway 101). The uses on the site will benefit from pass-by trips to the hotel, restaurants, museum, retail, gasoline service stations, and RV Parking area. The Mesa Del Rey Airport is not located along a major state highway and would not provide the number of pass-by trips to the facility as the proposed project location.

The Mesa Del Rey Airport industrial reserve area on the northeast boundary of the airport would not allow hotel, restaurants, museum, retail, gasoline service stations, and RV Parking area as provided with the proposed project. The industrial reserve area would need to be modified to allow the proposed uses in the Yanks Air Museum project.

Under this alternative, loss of agricultural land would continue to be an issue, although the site is designated as an industrial reserve area. Traffic would be increased with this alternative. The intersections surrounding the Mesa Del Rey Airport would be adversely affected by the proposed project. Traffic distribution patterns would impact the northern roads in King City such as Broadway, First Street and Metz Road. Services such as sewer collection and treatment and provision of potable water could be provided by existing public and private agencies and/or private companies serving the area.



U.S. Department
of Transportation
**Federal Aviation
Administration**

San Francisco Airports District Office
831 Mitten Road
Burlingame, California 94010

July 8, 1996

Mr. Luis Osorio
Associate Planner
Monterey County
Planning and Building Inspection Department
P. O. Box 1208
Salinas, California 93902

Dear Mr. Osorio:

Airport: Yanks Air Museum
Draft EIR # 95-01

We have reviewed the draft EIR for the subject proposed airport and other proposed building structures of the project. The following are our first concerns and comments:

1. A FAA form 7480-1 (Notice of Proposed Landing Area) be filed with this office for circulation and comment. (Enclosed) This form will provide information needed for an evaluation of the type of airfield proposed. The drawings in the draft EIR appear to indicate a non standard runway and taxiway configuration. The FAA form 7480-1 will have to be completed and final comments before the State of California will issue a permit prior to it's construction.

2. If the State Issues a permit for this airport, a FAA form 7460-1 (Notice of Proposed Construction) will then be submitted to this office for circulation and comments. (Enclosed)

Enclosed are the forms as discussed above.

If there are any questions, contact Jim Cavalier at (415)876-2927.

Sincerely,

Joseph R. Rodriguez
Supervisor, Planning and Programming Section

John L. Pfeifer
Manager, Airports District Office

Enclosures

D1

LETTER D: FEDERAL AVIATION ADMINISTRATION

RESPONSE D1: Comment is acknowledged.

Linc Handley, Inc.

39145 Highway 101 South

Rt. 3, Box 8B • Soledad, California 93960
Telephone (408) 678-3178Mr. Luis Osorio, County Planner
MONTEREY COUNTY PLANNING DEPARTMENT
240 Church Street
Salinas, CA 93901

July 10, 1996

RE: PUBLIC COMMENTS ON PROPOSED YANKS AIR MUSEUM

Dear Mr. Osorio:

As a retired farmer who farmed the subject property, and a resident of this immediate area for the past 70 years, I feel qualified to make the following comments. My ranch is on the NE corner of U.S. 101 and Hudson Road:

FEASIBILITY: Who will visit the museum at this location which is a "whiz by travel spot"? I visited Mr. Nichols Yanks Museum at the Chino Airport where his aircraft are presently located. In an area adjacent to Los Angeles, with a population of 8 million people, there were exactly 3 people visiting this museum (2 in my party). I also visited the aircraft museum run by the City of Chino and the same three people were there.

LOCATION OF RUNWAY & AGRICULTURAL LAND USE: (Map shown in Salinas Californian newspaper 7-4-96). The runway shown is on the best agricultural land. The best crops consistently grown on that ranch were grown in this area. The runway that operated during WW2 was on the poorest, rocky, land now designated as agricultural land! This is NOT in keeping with the Master Plan intended to preserve agricultural land.

It was my understanding that Monterey County wished to avoid development on agricultural land along the 101 corridor in favor of East-West development.

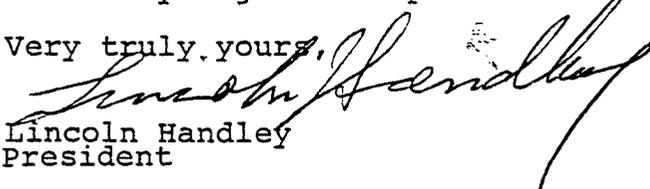
ALTERNATIVE SITES: The newly formed Marina Airport is adjacent to a major tourist area. This would appear to be a viable site with population to draw from. The harsh winds on the Greenfield site would be a poor choice.

ECONOMIC IMPACT: The Salinas Californian March 4, 1992 issue reported salaries to be paid between \$12-\$18 per hr. This is not a realistic figure for restaurant and motel help. They also state "restaurants" will be on site. Every restaurant between Salinas and King City has closed after only brief periods of operation. People are looking for fast food services as evidenced by the success of Burger King and Macdonalds in Soledad and King City.

NOISE LEVELS: There are three homes located just North of Hudson Road that will be subjected to noise in the takeoff pattern if present runway is permitted, (considering usual Northwest winds). Even South winds will place these homes in the landing pattern, both directions present a potential hazard as the runway appears to align with these houses.

If further information is needed as to my objections please do not hesitate to contact me.

Very truly yours,



Lincoln Handley
President

LH:d

LETTER E: LINC HANDLEY, INC. JULY 10, 1996

RESPONSE E1: Comment is acknowledged. The comment does not raise a significant environmental issue.

RESPONSE E2: As indicated on page 4-11 of the Final EIR, the project will result in the conversion of approximately 111 acres of agricultural land to commercial and airport uses. As indicated by the Stories index ratings and soil grades, soils on the site are classified as "prime" and are well suited for general intensive farming. This is a significant unavoidable impact, as identified in the Final EIR.

RESPONSE E3: Please refer to Section 7.0 Alternatives of the Final EIR for a complete discussion of the alternatives regarding the Marina Municipal Airport Alternative location.

RESPONSE E4: The comment does not raise a significant environmental issue. The comment is acknowledged and will be forwarded to the appropriate decision-makers.

RESPONSE E5: Please refer to Section 4.3 Airport Safety of the Final EIR for a discussion of airport noise contours and overflight safety. The existing residential dwellings units located north of Hudson Road are located approximately 1,800 feet from the northerly project boundary. The airfield is designed to operate from south-to-north. The noise modeling of aircraft operations reflects this runway use pattern and the CNEL contours are shown on Figure 12 of the Final EIR. Figures 12A, 12B, and 12C of the FEIR depict the Airport Impact Area, Runway Protection Zones (RPZs) and Approach Surfaces.

In terms of noise impacts, these dwelling units are located outside of the CNEL 60 contour. Based on state and Federal guidelines, the single-family residential land uses are compatible with the proposed airport operations. The state regulations include the following information: "The standard for the acceptable level of aircraft noise for persons living in the vicinity of airports is here by established to be a community noise equivalent level (CNEL) of 65 decibels." Federal Aviation Regulation Part 150 states that all land uses are considered compatible with noise levels of less than the day / night average noise level, (Ldn) 65. Also, FAA Order 5050.4A, Airport Environmental Handbook, states that no noise analysis is needed for proposals involving airplanes on utility type airports whose forecast operations do not exceed 90,000 annual adjusted operations. The implied adjustment refers to operation by time of day. These numbers of operations result in cumulative noise levels not exceeding LDM 60 or more than 5,500 feet from the start of takeoff. Annual operations have been estimated at approximately 25,000 to 30,000, all occurring during daylight hours. Thus, the level of activity is well below the threshold identified by FAA as requiring a noise analysis.

In terms of hazard, the dwelling units are located outside FAA specified runway protection zones (RPZ) and other safety areas. The dwelling units do not appear to be obstructions as defined by Federal Aviation Regulation Part 77, Objects Affecting Navigable Airspace. FAA will confirm this upon submission of FAA Form 7480-1, Notice of Landing Area Proposal. This notification to FAA

is required in order to construct or otherwise establish a new airport, or activate an airport. As a general comment on safety, the design of the airfield facilities will be in conformance with FAA airport design standards. FAA is the federal agency responsible for the safety of aircraft operations and navigable airspace.

The subject homes located north of the airfield may be overflown by the traffic pattern of the proposed airport; however, the risk of hazard due to aircraft accident appears to be very low due to their location outside of the runway protection zones and other safety areas.

The following impact and mitigation measures have been added to Section 4.3 Airport Safety of the Final EIR:

Impact: The proposed project has the potential for complaints from occasional and periodic aircraft overflights. This is a potentially significant environmental impact that can be reduced to a less-than-significant level by implementation of the following mitigation measures.

- 1A. The airport landing strip shall only be used during daylight hours.
- 1B. Prior to approval of the Runway Use Permit, the project applicant shall work with the County of Monterey to develop specific operating procedures to reduce overflights of certain areas.

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD --
CENTRAL COAST REGION**

81 Higuera Street, Suite 200
San Luis Obispo, CA 93401-5414
(805) 549-3147



July 18, 1996

Mr. Luis Osorio, Associate Planner
Monterey County
Planning and Building Inspection Department
P.O. Box 1208
Salinas, CA 93902

Dear Mr. Osorio:

Review of Draft EIR for Yanks Air Museum (SCH 96061081) - EIR #95-01

Thank you for the opportunity to comment on the Draft EIR for the subject facility. As acknowledged in the document, this Board is concerned with the overdraft condition and high nutrient loading of the Salinas Groundwater Basin. The following comments are submitted:

One of the mitigation measures proposed is connecting the project to the City of Greenfield's sewer and water system. Other portions of the EIR specify constructing an on-site sewerage facility and drilling a drinking water supply well. If an on-site sewerage facility is contemplated, Waste Discharge Requirements for the treatment facilities, reclamation facility, bio-solids disposal, and storm water discharge must be obtained from this office.

F1

Page 2.4, second paragraph, alludes to a drinking water limit of 10.0 mg/l without specifying the constituent. This should be clarified for the general public.

F2

The EIR estimated reclaimed water from sewage flow to be approximately 70,000 gallons per day and calculated nutrient loading using this flow value. The EIR mentions the proposed winery includes production facilities but fails to include the nutrient loading or the discharge flow values from this operation. If the winery is going to have its own treatment and disposal facility, a permit from this office must be obtained. If the winery discharge is to be included with the wastewater flow, additional capacity may be needed. The nutrient loading would have to be adjusted to include the flow from the winery.

F3

The wastewater treatment plant is proposed to be designed for 70,000 gallons per day based on sewage flow estimates of 62,000 gallons per day. This estimated doesn't agree with the stated wastewater generation of 70,000 gallons per day on page 4-36. The proposed 70,000 gallons per day design doesn't allow much room for expansion, infiltration, or upset conditions. The diurnal fluctuations of flow in relationship to the hydraulic and organic limiting components of the proposed treatment facility must be considered.

F4

The proposed RV parking area does not have sewerage facilities nor pump out stations. These may be needed to prevent indiscriminate dumping. Are either planned for the future? If so, capacity in the treatment plant should be reserved.

F5

The detention time in the effluent/reclaimed water storage pond is proposed to be 20 days. This is not adequate due to irrigation schedules, the time needed for working the land between crops, delay between irrigation and harvesting time, and climatic conditions. The 120 days proposed by the County would be satisfactory to this office.

F6

Since all the effluent is going to be discharged to the irrigation/reclamation pond and then be used for irrigation of food crops, contingency plans must be provided for emergency situations such as power outages, equipment failure, plant upset conditions, etc. Having a pond available for diversion to during upset conditions may be prudent.

F7

Section 4.11.1 states water supply and wastewater collection and treatment were not considered as continuous public services because the applicant "proposes to provide water service and wastewater treatment privately on-site". Earlier sections of the EIR specifically mention utilizing the City of Greenfield's services rather than on site services as mitigation measures. Drilling a domestic supply well was mentioned as being unsuccessful. These discrepancies need to be clarified.

F8

Section 4.12.2 states pesticides may be stored on site and refers the reader to the water quality section of the EIR. The water quality section does not address storage of pesticides and should be modified to do so.

F9

If you have any questions, please call Ron Sherer at (805) 549-3688..

Sincerely,



Roger W. Briggs
Executive Officer

cc: State Clearinghouse
1400 Tenth Street
Sacramento, CA 95814

rhs\Yanks.EIR\p:\CM
Task: 121:01
File: Monterey County

LETTER F: CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, JULY 18, 1996

RESPONSE F1: As stated Section 3.0 Project Description of the FEIR, the proposed project includes an on-site sewerage disposal system. The following text was added to Section 3.5 Required Permits and Approvals: "Waste Discharge Requirements for the treatment facilities, reclamation facility, bio-solids disposal, and storm water discharge must be obtained from the Regional Water Quality Control Board (RWQCB)."

RESPONSE F2: Section 2.7 Summary and Section 4.5 Water Quality and Supply of the FEIR have been revised to state the following: "The projected concentration of percolating recharge water will be below the drinking water limit of 10.0 mg/l of nitrogen, but slightly above the County's target concentration of 6.0 mg/l of nitrogen."

RESPONSE F3: According to the applicant, the winery included in the project will produce an estimated 105,000 cases of wine per year. Based on extensive monitoring in the Napa Valley area, winery wastewater flow is normally estimated on the basis of 2.4 gallons per case of wine over a 60-day "crush" period, with a daily peaking factor of 2.0. Accordingly, the estimated peak daily wastewater flow for the winery is :

$$(105,000 \text{ cases}) (2.4 \text{ gals/case}) (2.0) / (60 \text{ days}) = 8,400 \text{ gpd}$$

The wastewater treatment plant is proposed to be designed for 70,000 gpd, with estimated flows of 62,000 gpd, not including the winery wastewater; the 8,000 gpd difference (70,000 - 62,000) was a contingency allowance. The estimated winery discharge of 8,400 gpd will increase the overall flows to 70,400 gpd, utilizing all of the surplus capacity (i.e., the contingency allowance) of the treatment plant. Consequently, the treatment plant capacity should be increased slightly (e.g., 72,000) to accommodate the winery flows and still include a small contingency allowance. Mitigation has been revised to recommend expansion of the wastewater treatment plant capacity to 72,000 gpd.

Monitoring data for Napa Valley wineries has shown the nitrate (i.e. nutrient) content in winery wastewater to typically be less than 1.0 mg/l. As such, the winery wastewater will actually serve to dilute the sewage flow. No adjustment in the nitrate loading analysis is necessary; the analysis provided in the DEIR is already overly conservative in assuming a daily wastewater flow of 70,000 gpd for 365 days of the year.

RESPONSE F4: See Response F3. The 70,000 gpd treatment plant capacity was used as the basis for the nitrate loading analysis to be conservative. With the addition of the estimated 8,400 gpd peak flow from the winery (for up to 60 days a year), the nitrate loading analysis, based on a year-round flow of 70,000 gpd is still conservative. No change in the analysis is needed.

With respect to the 70,000 gpd treatment plant capacity, a slight increase should be considered (e.g., 72,000) to provide some reserve capacity during the winery "crush" season. An allowance for infiltration is not needed. According to Tom Odom, City of Greenfield City Manager, the City's sewer system experiences no infiltration / inflow problems. Also, capacity for plant expansion is

not necessary, since there is no plan to provide sewer service to any other properties or facilities except the defined project. Expansion would require separate CEQA review.

With respect to plant upsets and diurnal fluctuations in wastewater flows, the proposed SBR system (providing batch treatment) is ideally suited and designed to dampen normal fluctuations in flows. Also, as a wastewater reclamation facility, emergency storage for three days of wastewater flow will be required by Monterey County. This requirement is more than sufficient to accommodate treatment plant upsets.

RESPONSE F5: As indicated in Section 3.4 Project Characteristics of the Final EIR, a 3.4-acre site is designated for RV parking. The RV parking area is not proposed as an overnight RV Park. The parking area could accommodate up to 80 recreational vehicles. No RV sewerage disposal is proposed. Electricity will be provided as a hookup option. Potable water will be provided onsite.

According to Chapter 21.57.040 B of the Monterey County Codes, major recreational equipment may be parked only for temporary, active loading or unloading purposes, upon any publicly used street, alley, highway, municipal off-street parking lot, or other land, public place not to exceed 24 hours in any 48 hour period.

If the applicant decides to submit an application for an RV Park in the future, the applicant will be required to follow applicable County codes for RV Parks, including the provision of sewerage facilities/pump out stations, etc.

RESPONSE F6: The County has required 120 days for the detention time in the effluent/reclaimed water storage pond as stated in Mitigation Measure 12 in the Final EIR.

RESPONSE F7: Mitigation Measure 11 in Section 4.7 of the Final EIR has been revised to add "Contingency plans must be provided for emergency situations such as power outages, equipment failure, or plant upset conditions. Having a pond available for diversion to during upset conditions may be prudent."

RESPONSE F8: The project applicant proposes to provide water service and wastewater treatment onsite. Section 4.7 Water Quality and Supply of the Final EIR found that the water quality of the onsite wells is unacceptable for domestic uses. Mitigation Measure 4 indicates that the applicant shall obtain water service from the City of Greenfield or, as an alternative, the applicant shall prepare additional investigations, testing and engineering studies to verify the ability to provide onsite domestic water supply that meets all applicable drinking water requirements.

Additionally, the Final EIR indicates that the operation of the proposed wastewater treatment system could result in health and safety impacts due to plant upset, failure or improper operation. Mitigation Measure 11 states that the applicant shall prepare and submit a comprehensive plan for operation and maintenance (O&M) of the proposed wastewater treatment and disposal facilities. As an alternative to completing the identified mitigation for an on-site treatment

wastewater system, the applicant shall make necessary arrangements to extend sanitary sewer service from Greenfield to the project site.

Section 4.11.1 of the FEIR has been revised to state: "Water supply and wastewater collection and treatment are discussed in Chapter 4.5 Water Quality and Supply and Chapter 4.7 Wastewater Disposal."

RESPONSE F9: Chapter 4.12 has been revised to state: "The project site may occasionally store a small amount of pesticides on the project site for landscaping purposes. The small amount of pesticides to be stored will be insignificant."

DEPARTMENT OF PUBLIC WORKS
COUNTY OF MONTEREY

MEMORANDUM

TO: Planning & Building Inspection Department
Attn: Luis Osorio

FROM: Development

SUBJECT: YANKS AIR MUSEUM - DRAFT EIR

CW for Herb Naslund

DATE: August 2, 1996

Attached are comments from our Transportation Engineer for the Yanks Air Museum, located in the Greenfield area.

HCN/cw
Attached: Comments on Draft EIR

MEMORANDUM

TO: Herb Naslund, Development Engineer

FROM: Ghassan M. Zebdaoui, PE, Transportation Engineer *GMZ*

SUBJECT: Comments on the Draft EIR for Yanks Air Museum & Visitor Serving

DATE: August 2, 1996

The following are our comments on the above mentioned EIR:

Reference is hereby made to the memo to you from Neal Thompson (not dated) regarding the previous draft EIR for subject. My comments are merely related to that memo and to addressing Neal's previous comments on the subject EIR:

Section 4.8.3.4 Post-Project Traffic Conditions Analysis:

Neal's comment as to "provide specific data (narrative, sketch, etc.) to determine what length of additional lane is required and if, in-fact, the structure provides adequate width to accommodate additional lanes" were not addressed yet by Denise Duffy & Associates.

Neal's recommendation of installing traffic signals (Section 4.8.2.3) was also ignored.

GMZ/gmz

cc: George Divine, Transportation and Development Engineer
Neal Thompson, Traffic Engineer
CalTrans District 5

Master File: Rancho Chualar II Project
c:\projects\eir\Yanks.EIR

**DEPARTMENT OF PUBLIC WORKS
COUNTY OF MONTEREY**

MEMORANDUM

TO: Planning & Building Inspection Department
Attn: Luis Osorio

FROM: Development

SUBJECT: YANKS AIR MUSEUM DRAFT EIR *CW for Herb Naslund*

DATE: August 13, 1996

Attached are comments from our Environmental Services Section for the Yanks Air Museum, located in the Greenfield area.

HCN/cw
Attached: Comments, Environmental Services

DEPARTMENT OF PUBLIC WORKS
COUNTY OF MONTEREY

MEMORANDUM

TO: Herb Naslund
Development Services/Engineer

FROM: Mark Clifford
Sanitation Superintendent

SUBJECT: DRAFT EIR FOR YANKS MUSEUM AND VISITORS CENTER

DATE: August 9, 1996

We have reviewed the draft EIR and offer the following comments:

1. Page 4-34, Section 4.5.3.2. states the City of Greenfield will provide a future water tank with a 1 000 000 gallon capacity for fire flow protection, if the project is connected to the Greenfield system. However, on Page 4-39, Section 4.5.3.3 the City is committed to providing a tank with a capacity of 100 000 gallons. Correct capacity should be consistent throughout the report based upon Code requirements.
2. Page 4-39, Section 4.5.3.3, Public Water Demand, projected total daily water usage is 78 280 gallons per day (gpd), with estimated service station flows of 1500 gpd. Appendix D, Sanitary Sewer Flow Quantities GPD, indicate service station flows of 12 000 gpd, a difference of 10 500 gpd. Potable water quantities on page 4-39 should be corrected to 88 780 gpd. If all dining facilities, with the exception of fast food restaurants, use approximately 20% of daily water consumption for actual food preparation, then total wastewater flows become 71 024 gpd, and plant capacity should be increased accordingly.
3. Page 4-53, section 4.7.2.2, states plant daily operations can be performed by public agency personnel. If County personnel are utilized and the plant should experience after-hours alarms or emergencies our responses could be seriously delayed due to current personnel residential locations. Installation of a Supervisory Control and Data Acquisition (SCADA) computerized system capable of remote plant adjustments may alleviate some of the potential for spills and extended response times.
4. Page 4-57, section 4.7.3.2, Wastewater Alternatives Comparison, states a 12" force main will be needed to convey raw wastewater from the project to the Greenfield treatment plant at a total cost of approximately \$730 000, or \$69 per foot. This report should indicate whether or not two (2) lift stations needed to pump the raw wastewater to the Greenfield facility are included in these costs.

The draft still does not adequately address concerns for sludge dewatering/disposal/hauling, plant staffing and emergency responses, plant equipment and structure redundancy, or adequate plant capacity (including I&I and seasonal flows and loading from the winery). The answers to these issues are of interest to us in the event that Monterey County be required to operate the facilities now or in the future.

LETTER G: MONTEREY COUNTY PUBLIC WORKS, DEVELOPMENT, AUGUST 2, 1996

RESPONSE G1: The Project Study Report (PSR) will be prepared by the project applicant for the traffic improvements once environmental clearance is obtained, partly in order to determine the nature of the mitigation improvements to be incorporated in the preliminary design process. Substantial design work is required to complete the PSR. In the situation where the improvement project is initiated by Caltrans, both the environmental process and the preparation of the PSR are under their control and review. Both of these processes can proceed simultaneously and be adjusted or modified as the project progresses. In the case of a private development project, the process becomes more of a step-by-step procedure with the obtaining of the environmental clearance and plan approval first, in part to obtain project entitlements and establish preliminary approvals for the project, and in part to identify project mitigation requirements and other conditions and permit processes to determine whether, under those set of conditions and requirements, the project remains viable.

In order to provide Caltrans with an additional measure of assurance, it is recommended that the following mitigation measure be added Section 4.8 Traffic and Circulation of the Final EIR:

19A. The applicant shall coordinate with Caltrans and submit a Project Study Report (PSR) to Caltrans for the widening of the overpass roadway at El Camino Real and modification to the southbound on-ramp to U.S. 101, and for the widening of the overpass road and modification of the northbound on and off-ramps for U.S. 101, together with any other associated improvements required as a part of the ultimate design of the proposed improvement project.

RESPONSE G2: Section 4.5 Water Quality and Supply has been revised to indicate the City will provide a water tank with a capacity of 1,000,000 gallons.

RESPONSE G3: The potable water demand for two service stations is 3,750 gallons per day (gpd). Appendix D indicates that the sanitary sewer flow for two service stations is approximately 3,000 gpd. The 3,750 gpd for water demand is a reasonable assumption for two service stations. The total domestic demand for the project is 65,280 gpd.

RESPONSE G4: Comment noted. Mitigation 11 of the FEIR has been amended with the addition of the following language at the end of the first paragraph "... If operated by County personnel, installation of a Supervisory Control and Data Acquisition (SCADA) computerized system capable of remote plant adjustments should be considered to alleviate some of the potential for spills and extended response times."

RESPONSE G5: The cost estimate for sewer connection to the City of Greenfield treatment plant includes: one lift station at \$110,000; 10,560 lineal feet of pipeline at \$40/foot; two borings under the freeway at \$150,000; and engineering costs of \$60,336.

RESPONSE G6: The comments in this letter are noted. With regards to sludge dewatering / disposal / hauling, please refer to Mitigation 13. Please refer to Mitigation 11 and Responses F4 and F7 regarding plant shipping and emergency response. Adequate plant capacity is addressed in Response F3.



City of Greenfield

CITY HALL: P.O. Box 127/ Greenfield, California 93927 / (408) 674-5591
CORPORATION YARD: (408) 674-2635

August 5, 1996

Luis Osorio
Associate Planner
Monterey County Planning & Building Inspection Department
Post Office Box 1208
Salinas, California 93902

RE: *Draft EIR Review - Yanks Air Museum and Visitor-Serving Facility #95-01*

Dear Mr. Osorio,

The City of Greenfield has reviewed the Yanks Air Museum and Visitor-Serving Facility EIR. We have the following comments:

1. Page 2-1, Section 2.2 Summary of Project Description: EIR text indicates the air-strip will be a "full-blown" airstrip for public and private use, not just for fly-in events tied to the air museum. Perhaps that information should be clear here in this discussion. H1
2. Page 2-2, Section 2.5 Environmentally Superior Alternative: It is the City's understanding that sewer and water system hook-up will be by agreement and with annexation. H2
3. Page 2-4, Mitigation 4: The mitigation states the requirement for annexation to the City. We suggest the mitigation be amended to: H3

"To ensure a suitable source of potable water for the project, the applicant and the City with the aide of grants shall install necessary pipeline facilities and obtain water service from the City of Greenfield. The County of Monterey acknowledges and agrees with this annexation requirement. This agreed-to annexation will require LAFCo approval."

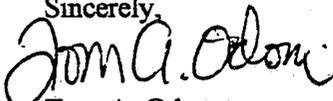
4. Page 2-7, Mitigation 11, last paragraph: The last sentence should clearly state the source of water is from the City of Greenfield, and that the County agrees to the annexation. We suggest the mitigation's last paragraph be reworded to: H4

"As an alternative to completing the identified mitigation for an on-site treatment wastewater system, the applicant shall make necessary arrangements to extend the sewer service from the City of Greenfield to the project site. This will entail annexation to the City. This annexation has been agreed to by the County of Monterey, but will require LAFCo approval as well."

5. Page 2-9, Mitigation 23: The mitigation allowing 48 hours for corrective action is unacceptable. Extreme winds are the norm for this area. *Dust complaints should be addressed within 24 hours, or sooner as the situation warrants.* H5
6. Page 2-11, Mitigation 28: This mitigation addressing on-site security must address and include the Greenfield Police Department. Please amend the mitigation to state the project applicant shall consult with the City of Greenfield Police Department, not only Monterey County Sheriff's Department. The issue of memorandum of understanding must also be addressed. H6
7. Page 3-6, Section 3.4 - Project Characteristics: It is unclear whether there will be RV parking, or an RV Park. Perhaps the intended use could be more clearly stated. H7
8. Figure 3: If there is to be a full service winery with juice tankers, etc... is their access to the winery the same as for visitors? Is there a farm access road planned to keep ag machinery and visitors apart? H8
9. Page 3-19, Last bullet, under permits required: *Annexation approval* must be included with the approval of service agreements by the Monterey County LAFCo. H9
10. Page 4-3, Section 4.2.2.1 Regional Setting: Change the City's population to 9,324 as per the State Department of Finance numbers dated January 1996. Change corresponding footnote #2 to 1996. H10
11. Page 4-34, Section 4.5.3.2 Ground Water Quality, 7th line down the paragraph: The word "*uses*" must be inserted after "domestic." H11
12. Page 4-37, last paragraph: At second to last sentence, change "Walnut Street" to "*Pine Avenue*". H12
13. Page 4-38, Mitigation 4: This section correctly states the City's understanding of the City/County relationship. This wording should be used throughout. H13

These are the City's comments at this time. We do wish to reserve the right to further comment on the project in any respect it reflects upon, or impacts, the City of Greenfield. Thank you for your consideration in requesting the City's comments. If you have any questions on our comments or would like to discuss them further, please do not hesitate to call me at 674-5591.

Sincerely,



Tom A. Odom,
City Manager

LETTER H. CITY OF GREENFIELD, AUGUST 5, 1996

RESPONSE H1: The comment has been incorporated into the text of Section 2.0 Summary of the Final EIR.

RESPONSE H2: Per Jim Colangelo, LAFCO Executive Director, annexation to the City of Greenfield is not required. LAFCO could consider approval of contract extending services to the site in accordance with Government Code Section 56133. The text in Section 2.0 Summary of the Final EIR has been revised.

RESPONSE H3: Please refer to Response H2. The text in Section 2.0 Summary and 4.5 WATER Quality and Supply and 4.7 Wastewater Disposal has been revised to state the following:

“ Annexation to the City of Greenfield is not required. LAFCO could consider approval of contracts extending services to the site in accordance with Government Code Section 56133.”

RESPONSE H4: Please refer to Response H2. The text in Section 2.0 Summary and 4.7 Wastewater Disposal has been revised to state the following:

“ Annexation to the City of Greenfield is not required. LAFCO could consider approval of contracts extending services to the site in accordance with Government Code Section 56133.”

RESPONSE H5: The text in Section 2.0 Summary and 4.9 Air Quality has been revised to incorporate this comment.

RESPONSE H6: Section 2.0 Summary and 4.11 Public Services of the Final EIR has been revised to reflect these changes.

RESPONSE H7: Section 3.0 Project Description of the Final EIR, the following sentence was incorporated: “The site is not proposed as an overnight RV Park.”

RESPONSE H8: The project applicant has indicated that a farm access road will be planned to keep agricultural machinery and visitors apart.

RESPONSE H9: The comment has been incorporated into the text in Section 3.0 Project Description of the Final EIR.

RESPONSE H10: The comment has been incorporated into the text in Section 4.2 Land Use and Planning of the Final EIR.

RESPONSE H11: The comment has been incorporated into the text in Section 4.5 Water Quality and Supply of the Final EIR.

RESPONSE H12: The comment has been incorporated into the text in Section 4.5 Water Quality and Supply of the Final EIR.

RESPONSE H13: Please refer to Response H2. Mitigation 4 has been revised to state the following: "To ensure a suitable source of potable water for the project, the applicant shall install necessary pipeline facilities and obtain water service from the City of Greenfield. Annexation to the City of Greenfield is not required. LAFCO could consider extending services in accordance with Government Code 56133."

DEPARTMENT OF TRANSPORTATION

50 HIGUERA STREET
SAN LUIS OBISPO, CA 93401-5415
TELEPHONE: (805) 549-3111
TDD (805) 549-3259
INTERNET <http://www.dot.ca.gov/dist05/>

LETTER "I"



August 8, 1996

5-MON-101-54.78
Yanks Air Museum
(DEIR) SCH #96061081

Mr. Luis Osorio
County of Monterey Planning & Building
P.O. Box 1208
Salinas, CA 93901

Caltrans District 5 staff has reviewed the above-referenced document. The following comments were generated as a result of the review:

- a. District staff is of the opinion that it may be premature to discuss mitigation measures for the Thorne Road/Route 101 Intersection without the benefit of a Project Study Report (PSR). Historically, PSR's have proven to be a reliable tool for determining what improvements may be needed as a result of rapid, freeway intensive development. Please be aware that there is no shelved document of this sort and that District staff is of the opinion that in a situation such as this, sponsorship of a PSR is the responsibility of local, lead agencies and project proponents. I1
- b. Staff expressed some serious doubt regarding the efficacy of improving the south-bound side of the structure without widening the overcrossing itself. I2
- c. It appears that too much confidence is placed on transit and other TDM measures as a viable trip reduction strategy for a tourist oriented development. Our experience indicates that these strategies have their greatest effect on employees not visitors and would therefore offer little in the way of appreciable mitigation. I3
- d. An encroachment permit must be obtained before any work can be conducted within the Caltrans right-of-way. Please be advised that prior to obtaining an encroachment permit, you are required to have design plans reviewed by this office and an environmental document approved by the lead agency. Biological and archaeological surveys must specifically address impacts in the state right-of-way. Should you have further questions regarding encroachment permits, please contact Steve Senet, Permits Engineer, at (805) 549-3152. I4

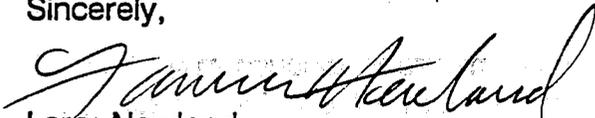
Mr. Luis Osorio
August 8, 1996
Page 2

Please understand that the Department is charged with the primary obligation of preserving and protecting the operational integrity of the State Highway system. The principle way we accomplish this is by insisting that local lead agencies condition development to fully mitigate their traffic impacts. Unfortunately, this is not always a straight forward endeavor with a standard traffic study and may at times require a more encompassing and detailed analysis. It is for this reason we are suggesting that the production of a PSR may be necessary to provide this analysis. With such an analysis we can ensure that any mitigation measures called for in the final conditions of approval will be consistent with the long range improvements of this interchange.

15

I believe it would be in the best interest of all for County and Caltrans staff to meet and confer about this project in the very near future. If you have questions or wish to arrange such a meeting please contact me at (805) 549-3683. Thank you for the opportunity to comment.

Sincerely,



Larry Newland

District 5

Intergovernmental Review Coordinator

cc: S Strait, D Heumann, DM Murray, A Delgado, S Senet, TL Rochte,
AK Loe, SJ Chesebro

MON-101-54-78.EIR

LETTER I. CALTRANS, AUGUST 8, 1996

RESPONSE I1: Refer to Response to Comment G1.

RESPONSE I2: Refer to Response to Comment G1.

RESPONSE I3: The traffic impact analyses for project traffic did not consider any reduction in project trips as a result of the proposed TDM program for the specific reasons cited by Caltrans. The vast majority of project trips will be by tourists/visitors, and the TDM would likely have little effect on trip reductions for those parties. There could be some small trip reduction in tourist trips for special events, depending upon the extent to which bus tours can be successfully marketed. The TDM was incorporated as a support program primarily for the project's employees. However, even for the small number of employee trips, no TDM trip discounts were incorporated into the traffic impact analysis. Trip discounts were appropriately applied to project trip generation due to the mixed use nature of the development. A tourist stopping at the winery for wine tasting, having lunch at one of the restaurants, and buying gas at the gas station generates only two trips (one in and one out), rather than six trips (one trip in and one out each for the winery, restaurant, and gas station). The project trip impacts will be entirely mitigated by the recommended roadway and freeway ramp improvements.

RESPONSE I4: The applicant is aware of the need for obtaining an encroachment permit. The encroachment permit will be granted after the plan check approval by Caltrans of the proposed project improvement plans, consistent with the results of the approved Project Study Report (PSR).

RESPONSE I5: Refer to Response to Comment G1.

MONTEREY COUNTY



DEPARTMENT OF HEALTH ROBERT J. MELTON, M.D., M.P.H., Director

FAMILY AND COMMUNITY HEALTH ENVIRONMENTAL HEALTH HEALTH PROMOTION
MENTAL HEALTH ALCOHOL AND DRUG PROGRAMS EMERGENCY MEDICAL SERVICES

- 1270 NATIVIDAD ROAD, SALINAS, CALIFORNIA 93906-3198 (408) 755-4500
- 1200 AGUAJITO ROAD, MONTEREY, CALIFORNIA 93940-4898 (408) 647-7650
- 1180 BROADWAY, KING CITY, CALIFORNIA 93630 (408) 385-8350

PLEASE REPLY TO ADDRESS CHECKED

MEMORANDUM

August 9, 1996

TO: Luis Osorio, Project Planner

FROM: Mark Dias, Division of Environmental Health, Land Use

SUBJECT: Comments and Recommendations: DRAFT EIR for YANKS AIR MUSEUM

I have had the opportunity to review the Draft EIR and have the following comments:

1. **General Adequacy of DEIR.** Overall, the vast majority of the concerns previously raised regarding water and sewerage issues have been addressed by the Draft EIR. As a result, the Final EIR should serve as a useful tool in deciding the best alternatives for the project. There still remains the need for some critical input from the applicant regarding public services from the City, however these are not CEQA issues per se. J1

2. **Sections 4.4.3.3 Overflight, and 4.10.3.5 Aircraft Noise Impacts.** It is acknowledged that the only established criteria used by the County is the Noise Element of the General Plan. These criteria are based on 24 hour averages, which generally work well for continual noise sources such as traffic. It should be noted however that compliance with the General Plan criteria does not in-and-of itself insure that adverse impacts will not occur on adjacent land uses. This is especially true for intermittent noise sources such as overflights. Intermittent noise sources are well documented to be frequently more annoying than constant noise sources, and result in complaints. J2

The potential for complaints from occasional and periodic overflights should be considered a potentially significant environmental impact. Professional judgement should be used in establishing criteria to evaluate the extent of the impacts and any needed mitigations such a modified flight patterns, hours of operations, maximum numbers of flights, etc. J3

In addition, the Draft EIR lacks an evaluation of the special events at the airport. These events should be considered either a part of the application or reasonably foreseeable projects and therefore should be described and analyzed for impacts. J4

3. **Availability of Water Meeting Drinking Standards.** As of this time the applicant has not shown there is an on-site water supply that meets State and Federal drinking water standards. The applicant will soon decide whether to connect to the City or to provide proof their own new system is feasible by installing and testing a new well. J5

As per the application materials, the applicant is proposing to construct their own separate water system. Based on nitrate trends it is anticipated that nitrate levels for even new wells will eventually exceed State and Federal standards, leaving treatment as the only option in the future. Therefore, the Final EIR should address the additional potential impacts from treating the water and disposing of large quantities of brine (containing concentrated nitrates, etc) from a large treatment plant. Discharge permits would likely be needed.

J6

4. **Expanded Water Supply Alternatives Discussion.** The superior alternative for water supply should also be analyzed similar to that method used in Table 6. The fact that the City has access to property adjacent to the Salinas River and therefore is much less likely to have nitrate contamination should also figure into the alternatives analysis. This discussion should appear in sections 4.5.3.3, 4.11, and 7.2.2.2.

J7

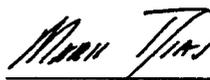
5. **Wastewater Mitigation #11.** Mitigation 11 should be expanded to include any design and operational changes to allow the treatment of winery wastes based on peak loadings.

J8

6. **Sec 4.12 Human Health and Safety.** In the event that chlorine is needed to disinfect the treated wastewater, the storage and transportation of chlorine should be included in the list of hazardous materials and addressed in this section.

J9

Thank you for the opportunity to comment on the Draft EIR and we look forward to the receiving the Final EIR. We hope to resolve the water and sewer connection issues with the applicant shortly and will be submitting a list of recommended conditions sometime after that.



Mark Dias, R.E.H.S. IV
Supervising Environmental Health Specialist

- cc: Walter Wong; Director, Division of Environmental Health
Mary Anne Dennis, Branch Chief
Tom Odom, City of Greenfield
Matt Zidar, MCWRA
Al Mulholland, MCWRA
Michael Whelan, 13470 Dalewood St., Baldwin Park CA 91706
Nick Hall, Denise Duffy and Assoc.

MD/md/YANKS-D.EIR

LETTER J. MONTEREY COUNTY DEPARTMENT OF HEALTH, AUGUST 9, 1996

RESPONSE J1: Comment noted.

RESPONSE J2: Please refer to Response E5 regarding noise impacts. There is always potential for occasional complaints due to overflights, regardless of activity. Overflights will occur by smaller aircraft during daylight periods (when ambient noise levels are expected to be higher) which significantly reduces the potential for single event impacts.

RESPONSE J3: Refer to Response E5. The proposed airport will be operated only during daylight hours. The proposed 25 to 30 thousand annual flight operations is considered to be commensurate with a small and low activity airport. The overflights will occur at an elevation of 800 to 1,000 feet. The flight pattern will be primarily from south-to-north with a right-hand turn to the downwind leg of the approach to the runway. The runway will be operated primarily in a single direction (i.e., south-to-north). The airport impact boundary is approximately one mile or less from the runway. The airport operation will be confined as not to impact the CNEL 60 noise contour. These modifications to the normal operation for the airport will reduce the impacts to a less-than-significant level.

The normal flight pattern will be from south-to-north with a left-hand turn to the west for out bound aircraft. The aircraft with the most potential for impacting the existing residential dwelling units located north of Hudson Road in terms of noise will be at elevations of 500 to 800 feet above the surface. The aircraft will be moving in a northwesterly direction away from the existing dwelling units. Overflights will be at an elevation of approximately 1,000 feet above the surface, therefore, these aircraft should not produce noise in excess of that created by traditional farm machinery.

RESPONSE J4: As indicated in Section 3.0 Project Description of the Final EIR, the characteristics of special events are not known at this time. The following wording has been added to Section 3.0 of the EIR: "The applicant has proposed that special events such as air shows be held at the site on weekends several times per year. The applicant will be required by the County to gain special operating permits for special events which would result in large crowds, excessive noise or congested traffic conditions. At such time, the applicant will be required to satisfy the requirements of the County concerning traffic congestion, parking, scheduling, etc. based on the specific characteristics of the event. During special events, the County may require remote parking lots, shuttle services, and other methods to reduce congestion of area roadways, as a condition of special event permits. Special events entailing noisy activities will require a permit from County staff. Acceptability of the time, location and magnitude of noise generating events will be evaluated by County staff as part of the activity permit."

RESPONSE J5: This comment accurately reflects the current status regarding the water system.

RESPONSE J6: Although the project does not propose to install and operate a water treatment plant for nitrate removal, if such a treatment system were required in the future it would likely

involve Reverse Osmosis (RO) or similar technology. This type of treatment generates a brine waste product. Brine, or water with a relatively high salt and mineral concentration, generated by the RO plant as a by-product of the reverse osmosis process could pose a significant waste disposal problem. While RO is a demonstrated technology suitable for a community water system, there are relatively few working examples, partially because of the requirements for handling the brine waste stream, as well as the high capital costs and energy demands associated with the operation.

RO systems are reported to have recovery efficiencies of approximately 80%, meaning that 20% of the raw water source is lost as a waste by-product. This brine must be handled as a waste flow subject to permitting by the Central Coast Regional Water Quality Control Board. The disposal options are normally limited to ocean discharge, deep well injection, or evaporation ponds. Discharge to a sanitary sewer system, especially one producing reclaimed wastewater, is not viable. It is also highly unlikely that ocean discharge and deep well injection would be feasible for the project site. This leaves only evaporation ponds as a viable brine waste disposal option. Under worst case conditions, assuming RO treatment of the full domestic water supply for the project (88 acre-feet /year-AF/yr), capacity would be required for evaporation of about 18 AF/yr of brine wastewater. This would be a significant impact that would potentially: (a) alter the character and use of the site; and, b) increase the overall amount of water pumped from the groundwater basin under the project. Also, the treatment plant would require a skilled operations staff similar to that required for the wastewater treatment plant.

RESPONSE J7: The following is a comparative review of the three water supply alternatives. This discussion has been added to section 4.5.3.3 and 7.2.2.2. Section 4.11 refers the reader to 4.5 Water Quality and Supply section of the EIR.

Operation and Maintenance. An on site well water supply that meets all drinking water standards would be the simplest alternative from an operation and maintenance (O+M) standpoint. Extension of water service from Greenfield would require somewhat greater O & M for the distribution system. An on site water treatment plant would require substantially more O & M than either of the other alternatives.

Regulatory Compliance. The Greenfield water system meets all drinking water standards. There is uncertainty as to whether or not an on-site well can be developed that meets drinking water standards. An on-site well requiring treatment would have even greater uncertainty and difficulties associated with regulatory compliance.

Public Health Risk. The rating of the water supply alternatives in terms of public health risk is based on regulatory compliance. The Greenfield system is an established, proven supply that meets public health criteria. The on site well options presently pose uncertainty as to the ability to meet minimum public health requirements.

Water Conservation. An on site treatment plant (e.g., for reduction of minerals or nitrate concentration) could involve the production of a brine waste stream, requiring greater pumping of groundwater.

Energy Use. Construction and operation of an on-site water treatment plant would have the greatest energy requirements. Piping of water from Greenfield to the project site would have slightly greater energy requirements than an on site well. However, this could change, depending upon how deep an on-site well would have to be drilled to obtain suitable water quality.

As indicated in the summary shown in Table 4A, connection to the City of Greenfield and the development of an on site well not requiring treatment would be roughly equal with regards to environmental impacts.

Table 4A Comparative Ranking of Water Supply Alternatives*			
Impact Issue	On-Site Well		Connection to Greenfield Water System
	No Treatment Required	With Treatment Plant	
Operation and Maintenance	1	3	2
Regulatory Compliance	2	3	1
Public Health Risk	2	3	1
Water Conservation	1	2	1
Energy Use	1	3	2
Total	7	14	7
Source: Questa Engineering Corporation, Nov. 1996. * Low score = best ranking			

RESPONSE J8: See response to RWQCB Comment F3 and F4. The following language has been added to Mitigation 11:

“The treatment plant capacity should be expanded to approximately 72,000 gpd, in order to accommodate estimated peak winery wastewater flows during the “crush” period. Any operational changes during the “crush” period should be evaluated and identified in the O & M Manual.”

RESPONSE J9: On page 4-111 of the DEIR, the following wording was added:

“**Chlorine:** The proposed project will need to store, transport, and utilize chlorine to disinfect the treated wastewater. “



MONTEREY COUNTY

LOCAL AGENCY FORMATION COMMISSION

(408) 755-5065 P.O. BOX 180, SALINAS, CALIFORNIA 93902

JAMES J. COLANGELO
EXECUTIVE OFFICER

August 9, 1996

Mr. Robert Slimmon, Director
Monterey County Planning & Building Inspection Department
P.O. Box 1208
Salinas, CA 93902

Subject: Yanks Air Museum EIR #95-01

Bob
Dear Mr. Slimmon:

Thank you for sending the Draft Environmental Impact Report (EIR) for the Yank's Air Museum project to the Local Agency Formation Commission. Staff has reviewed the document and has provided the comments below. The proposed project would be located north of Greenfield on 111 acres. It would consist of an aircraft museum and air strip, a winery, two gasoline stations, a 150-room motel and restaurant, and RV parking facilities, totaling over 500,000 square feet of building space. We understand the project would be built in phases over a 5 year period in response to market demand.

Although annexation to the City of Greenfield is not proposed as part of the project at this time, LAFCO would be involved in the approval of contracts for extensions of water and sewer service by the City of Greenfield if required as part of the project, or in annexation to or formation of a County Service Area, if necessary.

Based on staff's review of this document within the framework of the Commission's adopted policies, the following comments should be addressed:

1. All references to water and service delivery by the City of Greenfield should made consistent throughout the EIR. The references found on pages 2-4, 2-7, 4-38 and 4-61 should be revised to indicate that annexation to the City is not required and LAFCO could consider approval of contracts extending services to the site in accordance with Government Code Section 56133.

K1

2. Should the project be approved with an on-site sewage disposal system, instead of connection to the City's system, the formation of a County Service Area or other governmental entity might be necessary and require LAFCO approval. The references on pages 3-19 and 4-61 should be revised to reflect LAFCO's role in approving that change.

K2

3. The EIR indicates that police and fire services will be adequate and will not be adversely impacted by the project with the appropriate mitigation. In order to understand the impact on the Greenfield Fire Protection District and on the County Sheriff's Department, the EIR could include additional information regarding the type of equipment that might be necessary for fire protection of the airport facility, as well as the relationship and mutual aid agreements with the City of Greenfield police department, who in some cases may be the first to respond to an incident.

K3

4. The EIR contains information regarding the Sphere of Influence that requires minor clarifications. The sphere map for the City of Greenfield as shown on Figure 10 should be revised to adequately differentiate between the Urban Service and the Urban Transition areas, as indicated on the legend. The Sphere of Influence definition on page 5-4 should be revised to eliminate the word "ultimate" in accordance with Government Code Section 56076. The statement on page 6-1 should be revised to indicate that the sphere boundary is adjacent to the project boundary.

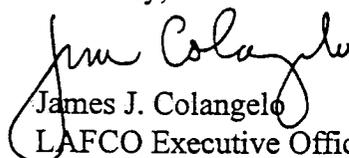
K4

5. Because the project may stimulate growth, particularly to the south of the site, the statement on page 4-19 regarding restriction of future development within runway protection zones should be clarified. The EIR should indicate where the runway zones are located, what the restrictions would be and whether agricultural easements or zoning changes would be necessary.

K5

These comments have been sent to the LAFCO Commissioners and will be discussed at the next LAFCO meeting. Should any additional concerns or comments be raised, they will be forwarded to you as soon as possible. Thank you for the opportunity to review the document. The EIR was well-written and comprehensively researched. Should you have any questions regarding these comments, please contact our office at 755-5065.

Sincerely,


James J. Colangelo
LAFCO Executive Officer

c: LAFCO Commissioners

K. LAFCO, AUGUST 9, 1996

RESPONSE K1: The text in Section 2.0 Summary, 4.5 Water Quality and Supply and 4.7 Wastewater Disposal has been revised to state the following:

“Annexation to the City of Greenfield is not required. LAFCO could consider approval of contracts extending services to the site in accordance with Government Code Section 56133.”

RESPONSE K2: The text in Section 3.0 Project Description and 4.7 Wastewater Disposal has been revised to state the following:

“If the on site sewerage disposal system is approved, the formation of a County Service Area or other governmental entity may be necessary and require LAFCO approval.”

RESPONSE K3: As indicated in Section 4.11 Public Services of the Final EIR, the impact states that uses associated with the development of the airport landing strip may require additional fire fighting equipment for the Greenfield Fire Department. General aviation airports that are not certified as a Federal Aviation Regulations (FAR) Part 139 air carrier airport are not required to maintain and operate Airport Rescue and Firefighting Facilities. The applicants insurance carrier will require applicable fire fighting capabilities within reach of the airport. The FEIR identifies mitigation requiring that the project applicant consult with the volunteer chief and his consultant to review project plans to determine the need for mitigation and ensure that adequate on-site and off-site facilities are available to support the proposed airstrip based on proposed levels of activity (Mitigation 26).

The text in Section 2.0 Summary and 4.11 Public Services has been revised to state the following:

“A memorandum of understanding shall be developed between the Monterey County Sheriff’s Department and Greenfield Police Department regarding a mutual aid agreement.”

RESPONSE K4: Figure 10 has been revised to adequately differentiate between the Urban Service and the Urban Transition areas. The text in Section 5.0 Cumulative Impacts and 6.0 Growth Inducement has been revised to incorporate this comment.

RESPONSE K5: Refer to Section 4.3 of the Final EIR. The surrounding area within a one mile radius of the airport runway is designated as agricultural (40 acre minimum). Most of the surrounding property is subject to Williamson Act Contracts which have a 20 year term. The County’s General Plan and zoning restrict the surrounding area to very low density residential use of land (i.e., one dwelling unit per 40 acres). Requests for development within the proposed runway protection zones will be subject to environmental review, height limitations, and development restrictions that would not allow for the accumulation of population. The maximum height limitation of any future structures that may be located at the southerly property line of the project will be approximately 12 feet. It is not anticipated that agricultural easements or zoning changes will be necessary to restrict development within the runway protection zones (RPZ).

Runway protection zones are trapezoidal areas located off each end of the runway. In the case of the proposed airport, they begin 150 feet beyond the runway end and extend a distance of 1,000 feet as shown in Figures 12A, 12B, and 12C. For the assumed critical aircraft, the required RPZ has an inner width of 500 feet and an outer width of 700 feet. There are no structures currently located within these areas.

In order to develop in the vicinity of public airports, building sponsors must file with the FAA, FAA Form 7460-1, Notice of Proposed Construction or Alteration. As part of the FAA review of these notices, location with respect to the runway protection zones is considered. FAA will typically not approve airport or local urban development within the RPZ.

WATER RESOURCES AGENCY

MEMORANDUM

County of Monterey

DATE: August 12, 1996

TO: Luis Osorio, Associate Planner

FROM: Al Mulholland, A.R.M.
Hydrologist/Water Resources PlannerSUBJECT: Draft Environmental Impact Report,
Yanks Air Museum

The Monterey County Water Resources Agency has reviewed the Draft EIR for the Proposed Yanks Air Museum, and has the following comments:

1. Page 4-30, last paragraph - The last two sentences should be changed to read "The Monterey County Water Resources Agency is in the process of developing the Salinas River Basin Management Plan (BMP). The BMP will address the sea water intrusion problem through conjunctive use. Several alternatives, which are comprised of structural and non-structural components, are under consideration for the BMP. The Draft Environmental Impact Report and Draft Plan Document for the BMP should be out in early 1997." L1
2. Page 4-32, Section 4.5.2.4 - The existing amount of water used is stated as 1,969 acre feet per year. Is this a typo? What is the correct number? L2
3. Page 4-47, second paragraph - The third sentence has a typo. The sentence should be changed from "2 inches per year" to "2 inches per hour". L3
4. Page 4-60, Table 6 - The table is very dark and hard to read, a better graphic should be used. L4
5. Page 5-5, first paragraph - The second and third sentences are in error. The SWRCB has started the adjudication process but they have made no suggestions to the Monterey County Water Resources Agency. Also, the Agency can not ban new development, that decision would be made by the Monterey County Board of Supervisors. L5

The second sentence should be deleted and the third sentence should be changed to read "Should the SWRCB determine that the County and the SWRCB can not reach an agreement on short and long term programs and implementation schedules, the SWRCB will proceed with the process for adjudication, in preparation for State takeover of local decision making

over water resources management in the Salinas Valley".

The Agency would like to thank you for the opportunity to comment on this project. If you have any questions, contact me at (408) 755-4860.

L. MONTEREY COUNTY WATER RESOURCES AGENCY, AUGUST 12, 1996

RESPONSE L1: Section 4.5 Water Quality and Supply of the Final EIR has been revised to incorporate the comment.

RESPONSE L2: Section 4.5 Water Quality and Supply of the Final EIR has been revised to state the following: "The present estimated agricultural use of the water on the 111-acre site is 277 to 333 acre feet per year."

RESPONSE L3: Section 4.6 Surface Hydrology and Drainage of the Final EIR has been revised to incorporate the comment.

RESPONSE L4: Section 4.7 Wastewater of the Final EIR has been revised to incorporate the comment.

RESPONSE L5: Section 5.0 Cumulative Impacts of the Final EIR has been revised to incorporate the comment.



MONTEREY COUNTY
PLANNING AND BUILDING
INSPECTION DEPARTMENT

MEMORANDUM

August 22, 1996

To: Denise Duffy and Associates
 Nick Hall, Project Manager

From: Luis A. Osorio, Associate Planner

Subject: Comments on DEIR for the Yanks Air Museum

The following are the comments from the Monterey County Planning and Building Inspection Department on the DEIR:

CHAPTER 3.0 PROJECT DESCRIPTION

Section 3.4 Project Characteristics

3.4.1 Aircraft Flight Activity: Comments on the ADEIR relative to hours of operation for flight activities and the increased weekend and holiday flying activities have not been addressed. Additionally, what are touch and go operations? Are they the same as take off and landings? (Paragraph 1, p. 3.7)

M1

3.4.3: Off-street parking facilities

Last line, last paragraph, p. 3.7: This line would read better if revised to say "Spaces for recreational vehicles (RVs) will also be provided".

M2

Figure 3 (Master Plan): For easier reference, this figure should be relocated either before Section 3.4.1 (Aircraft Flight Activity) or at the end of Section 3.4.3 (Off-Street Parking Facilities).

M3

Table 1 (Parking Requirements): The table indicates 250 spaces are required for the hotel; with 150 rooms proposed for the hotel, this figure allocates 100 spaces for employees, restaurant and meeting rooms. It is unclear how the "spaces required" were determined for both the hotel and fast food restaurants. If the number of employees and the square footage of the restaurant and meeting rooms of the hotel are unknown (notice that Table 19 indicates a range of 150-160 employees for the hotel), how was this figure calculated? It seems that the slot for the required parking for the hotel should be left blank if the necessary information for its calculation is not available, instead of including inaccurate information.

M4

3.4.6 Farming and Open Space: Reference should be made to the fact that the 111-acre site was taken out of the Williamson Act encompassing the existing 430-acre parcel.

M5

3.4.9 Project Phasing and Schedule: Phase II: The first sentence is grammatically incorrect. It should state either "...the central element of the..." or "...the focal element of...". The following paragraph should be complemented with a statement indicating that improvements to the Thorne Road Off-Ramp require the approval of Cal Trans. Also refer to comments by Cal Trans on recommended improvements within its right-of-way.

M6

Section 3.5 Required Permits and Approvals

The second paragraph in this section states that "the winery and associated vineyards appear to be a permitted use in the existing agricultural zoning". The Zoning Ordinance includes vineyards as an allowed use in the farmlands zoning district while wineries are allowed with a use permit. It is not mentioned whether or not these components of the project would require discretionary permits under the new land use and zoning designations. A statement should be included in this regards.

M7

Under permits required it should be clarified that the sewage treatment plant and water system would require use permits and permits by State agencies only if the project is not connected to Greenfield's sewer treatment and water services. Furthermore, it should be clarified that agreements with the City of Greenfield and their approval by LAFCO would only be required if the facility is to be connected to those services. As they are currently stated it appears that use permits, service agreements and approvals would all be required.

M8

CHAPTER 4.0 ENVIRONMENTAL SETTING, IMPACTS & MITIGATION MEASURES

4.2 Land Use and Planning

4.2.2.1 Regional Setting: The first sentence of subsection 4.2.2.2 "the project site is located in unincorporated Monterey County" would appear to fit better after the first sentence in this paragraph.

M9

4.2.2.2 Existing and Surrounding Land Uses: The City of Greenfield City Council recently approved an amendment to Greenfield's Sphere of Influence. The proposed project site is now located within the boundaries of the Urban Service Area of the Sphere of Influence. Eventhough this amendment requires final approval by LAFCO, paragraph 4 under this subsection must be revised to reflect this amendment. Contact the City of Greenfield for details.

M10

Figure 9. Surrounding Land Uses: Comments on the ADEIR have not been addressed. This map is still missing the city boundary and the delineation of the county zoning districts referred to in the text (p.4.3). What are the limits of the "HC-UR" and "F/40-UR" districts shown on the

M11

map? Additionally, the “Residential Reserve” and “Light Industrial” districts of the Greenfield General Plan should also be delineated. As it is, this map does not serve its purpose as an illustration. (See enclosed copy of the map with recommended improvements)

Figure 10. City of Greenfield Sphere of Influence: Map should include a clear delineation of the urban service area and the urban transition area. The map should indicate the amendment to the urban service area recently approved by Greenfield’s City Council. The sewer treatment plant site should also be identified.

M12

4.2.2.5 Agricultural Resources : Under “Williamson Act Preserves” a general statement should be included reflecting the fact that the proposed project site was previously a part of a Williamson Act contract encompassing a 430-acre parcel.

M13

4.2.3.3 Land Use Compatibility: The specific purpose of the Right To Farm Ordinance is “..to express the intent of the County to preserve and protect agricultural activities and to insulate lawful agricultural activities from nuisance complaints from suburban or urban uses on adjoining properties”. Including this specific language in this paragraph would serve a better purpose than merely mentioning that the Ordinance was “intended to promote understanding between farmers and urban uses”.

M14

Chapter 21.66.030 (F)(2)(a)(b)(c) of the Zoning Ordinance (Standards for Agricultural Uses), requires that “New development adjacent to Agricultural Uses shall be required to establish a well defined buffer zone within the area to be developed”. Further, this chapter of the Ordinance requires that “the easement shall be sufficient to protect agriculture from impacts of new residential or other incompatible development and to mitigate against the effects of agricultural operations on the proposed uses”. An additional statement should also be added to this section of the EIR indicating measures on how the project would comply with the requirements of this Chapter of the Ordinance.

M15

4.2.3.5 Consistency With Central Salinas Valley Area Plan Land Use Policies: The consistency analysis for Policy 28.1.1.3 (CSV) indicates that “the applicant is required per County regulation to obtain a Use Permit subsequent to the adoption of the general plan amendment and rezoning”. Since the project is proposed to be completed in phases it is likely that several discretionary permits would be required for different phases. This sentence should be revised to indicate that various discretionary permits (as opposed to a use permit) would be required after the adoption of the general plan amendment and rezoning.

M16

The consistency analysis for Policy 30.0.3.1 (CSV) states that “it is recommended that the applicant dedicate an agricultural conservation easement on the 329-acre parcel to remain in agricultural production”. It should be specified that the easement must be dedicated in perpetuity (Would be required by the Planning and Building Inspection Department as a condition of approval). Reference should be made to the fact that the 329 acres are already under a Williamson Act contract.

M17

CHAPTER 5.0 CUMULATIVE IMPACTS

5.2.1. Land Use and Planning : This paragraph indicates in part that “With the exception of the project site, potential development described above will occur either within the city limits or within the city’s SOI”; further, it states that “..the project site is located outside the City’s SOI...”. Reference should be made to the proposed amendment to the urban service area recently approved by Greenfield’s City Council. If this amendment is approved by LAFCO, the project site would then be located within the urban service area of the SOI.

M18

CHAPTER 6.0 GROWTH INDUCEMENT

The City of Greenfield has recommended a specific route for the connection of the project to city services in the event that this alternative is chosen by the applicant. The City has also indicated that provision of these services would be by agreement and with annexation. It is unlikely that the City or LAFCO would approve the connection through any other route or without annexation of the project site. (See their comments on the DEIR)

M19

The City’s recommended route (Figure 14) would go through the City’s existing SOI and lands in unincorporated areas. As the SOI is the logical and required direction for future growth, it can be anticipated that this area would be developed previous to the annexation of additional territory to the City’s boundary (as indicated in the first paragraph on p. 6-2). Extension of these services through the SOI would provide a currently nonexistent service to properties within this area which, combined with the development of the project, would almost definitely accelerate the pace of its development. The discussion in this Chapter of the EIR must specifically state that connection to city services through the City’s recommended route, as opposed to connection through an alternative route or the construction of on-site sewer treatment and water service, would have definitive growth-inducement impacts on the area within the SOI.

M20

7.0 PROJECT ALTERNATIVES

7.2.4 Alternate Location: Include a statement on why the King City airport was not considered as an alternative location.

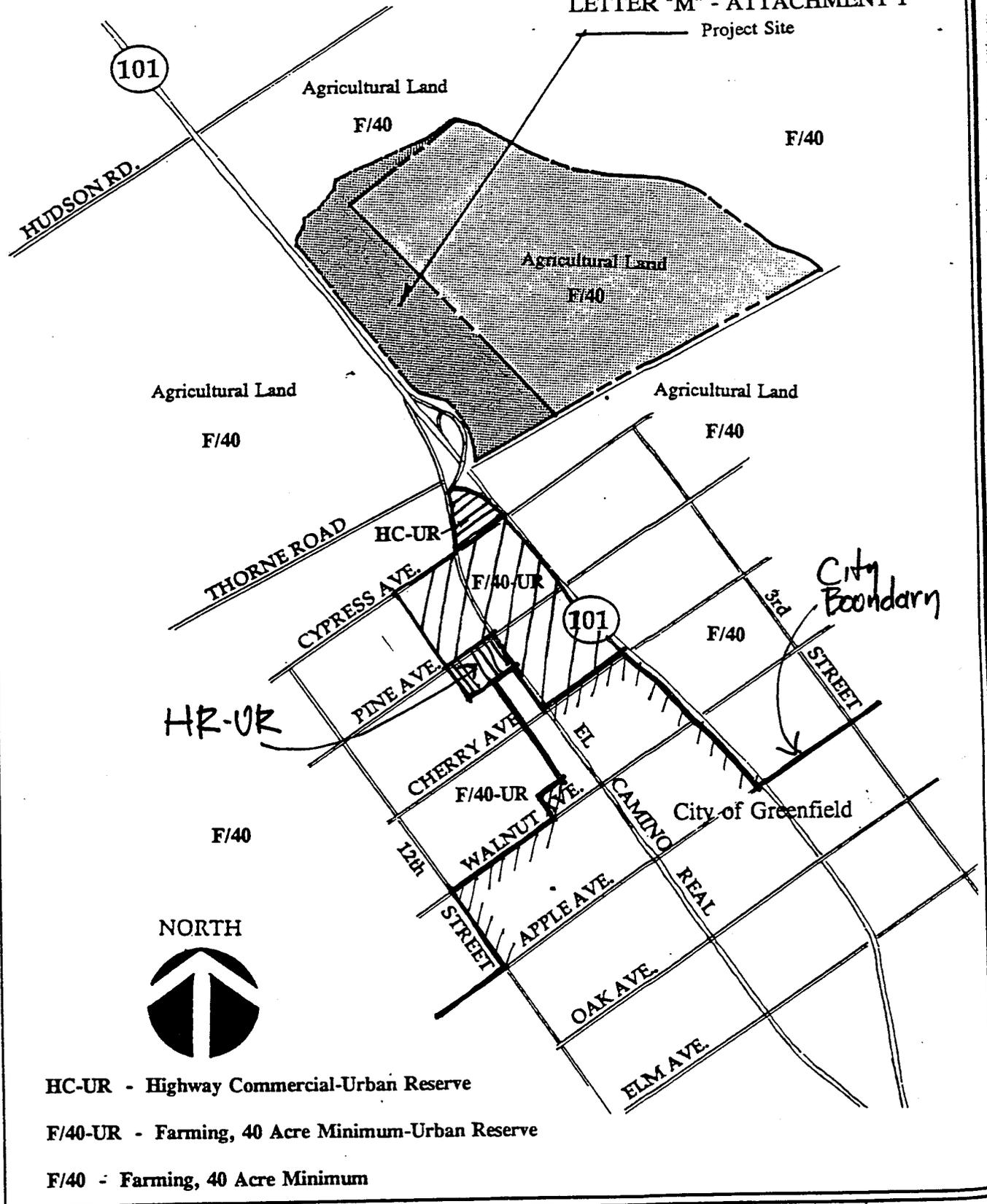
M21

- cc. Bob Slimmon Jr., Director of Planning and Building Inspection
- Nick Chiulos, Chief of Planning Services
- Wes Arvig, Supervising Planner MPSVAT
- Mary Ann Dennis, Environmental Health
- Owen Stewart, Water Resources Agency
- Herb Naslund, Public Works Department
- Mary Claypool, IGA

RECOMMENDED IMPROVEMENTS

LETTER "M" - ATTACHMENT 1

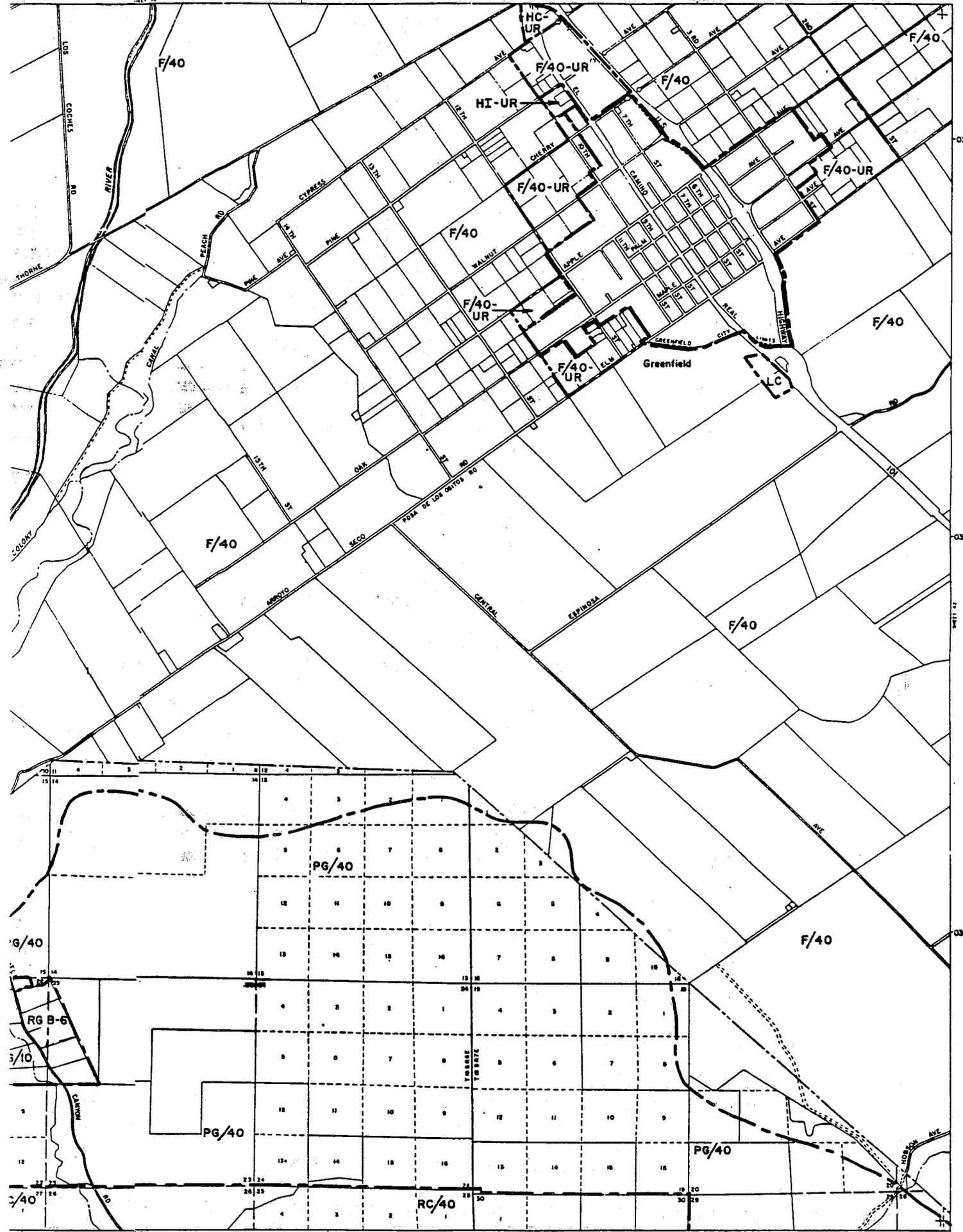
Project Site



Surrounding Land Uses

Figure 9

THE ZONING PLAN OF THE COUNTY OF MONTEREY LETTER "M" - ATTACHMENT 2



M. MONTEREY COUNTY PLANNING DEPARTMENT, AUGUST 22, 1996

RESPONSE M1: Refer to Section 4.3 of the Final EIR. The hours of operation of the airport will be only during daylight hours. No control tower or instrument landing devices are anticipated or proposed. The anticipated flight activity is 25 to 30 thousand flight operations annually. The level of activity is well within the volume ascribed to small, low activity airports. Increased weekend and holiday flying activities would be associated with special events planned for the museum and airport operation. The special events will be subject to review and approval of the County pursuant to its regulations for such type of activity. Impacts that may be caused by the special events will be addressed during the permit process associated with each individual event. Touch and go operations are associated with flight training and practice, and refer to a landing followed by an immediate takeoff. They are considered to be "local operations", versus "itinerant" operations involving travel to or from another airport. Pilots practice landing and takeoffs by performing a touch and go operation.

RESPONSE M2: Section 3.0 Project Description of the Final EIR has been revised to incorporate the comment.

RESPONSE M3: Figure 3 has been relocated to page 3-7 of the Final EIR.

RESPONSE M4: The number of the hotel's employees, square footage of the restaurant and the meeting rooms are uncertain at this time. On page 3-14 of the DEIR, Table 1 has been revised to leave the spaces required section blank under the hotel proposed use.

RESPONSE M5: In Section 3.0 Project Description, a sentence was added which states the following: "The 427-acre ranch was included in Agricultural Preserve No 71-41. The property was placed in Agricultural Preserve by the previous owner, Paul Masson Winery Incorporated. The property was recently taken out of Agricultural Preserve. The 111-acre project site is no longer subject to the restrictions of the Williamson Act Agreement."

RESPONSE M6: In Section 3.0 Project Description, the text was revised as requested. In addition, the sixth paragraph has been amended to state the following: "The Thorne Road Off-Ramp at U.S. Highway 101 will be improved to meet Caltrans requirements to provide better access to the project site."

RESPONSE M7: In Section 3.0 Project Description, text has been revised to state the following: "The winery and associated vineyards would require discretionary permits under the new land use and zoning designations."

RESPONSE M8: In Section 3.0 Project Description, text has been revised to state the following: "If the on-site sewerage disposal and water system is approved, the following permits would be required:"

- Waste Discharge Requirements for the treatment facilities, reclamation facility, bio-solids disposal, and storm water discharge must be obtained.
- A wastewater discharge permit for the Division of Environmental Health;
- A use permit for a sewage treatment plant from the Monterey County Planning Department
- Possible service agreement from the City of Greenfield; and
- Approval of service agreements by the Monterey County Local Agency Formation Commission (LAFCO).
- The formation of a County Service Area or other governmental entity for the onsite sewerage disposal system may be necessary and require LAFCO approval.

RESPONSE M9: The text in Section 4.2 Land Use and Planning has been revised to reflect this comment.

RESPONSE M10: The text in Section 4.2 Land Use and Planning has been revised to state the following: "The City of Greenfield City Council recently approved an amendment to Greenfield's Sphere of Influence. The proposed site is now located in the boundaries of the Urban Service Area of the Sphere of Influence. This amendment will require final approval by LAFCO."

RESPONSE M11: Figure 9 has been revised to incorporate these comments.

RESPONSE M12: Mr. James Colangelo, LAFCO Executive Director, provided DD&A with the Urban Service Areas and the Urban Transition Areas. Figure 10 has been amended to incorporate these comments.

RESPONSE M13: The following sentence was added to Section 4.2 Land Use and Planning of the EIR: "The proposed project was previously part of a Williamson Act contract encompassing a 430-acre parcel."

RESPONSE M14: In Section 4.2 Land Use and Planning, text has been amended to incorporate the requested revisions.

RESPONSE M15: Section 4.2 Land Use and Planning has been amended to incorporate the requested revisions. Additionally, the following sentence was added to the text on page 4-10: "As stated above, development of the proposed project is not likely to create land use conflicts between agricultural operations and the proposed airport and commercial activities because the site plan allows for open space buffers and non-sensitive uses on all sides of the development."

RESPONSE M16: Section 4.2 Land Use and Planning has been amended to incorporate the requested revisions.

RESPONSE M17: Section 4.2 Land Use and Planning has been amended to incorporate the requested revisions.

RESPONSE M18: Section 5.0 Cumulative Impacts has been amended to incorporate the requested revisions.

RESPONSE M19: Comment noted.

RESPONSE M20: Section 6.0 Growth Inducement of the FEIR has been revised to state the following: " The sewer and water connection to city services through the City's recommended route would have definitive growth-inducement impacts on the area within the SOI."

RESPONSE M21: Refer to Response to Comment C1, which provides an alternative analysis of the King City airport site.



Greenfield Fire Protection District

Post Office 2550

Greenfield, California 93927

Attn: Robert Slimmon, Jr.
 Planning and Building Inspection Dept.
 P.O. Box 1208
 Salinas, CA 93902

Re: Comment on Draft EIR for the Yanks Air Museum
 #95-01

We have reviewed the Draft EIR, prepared by Denise Duffy & Associates, June 21, 1996, for the Yanks Air Museum, and offer the following comments:

A. The Draft EIR mentions that no automatic fire sprinklers are contemplated to be installed in the buildings.

N1

B. The Draft EIR (Page 2-9, Fire Protection and Page 4-107, 4.11.2.1 Fire Protection) also states that " proposed buildings will be constructed in compliance with the applicable uniform building and safety codes, no additional mitigation measures are required. This is a less-than-significant impact.

This paragraph should read "...proposed buildings will be constructed in compliance with the applicable California Building and Fire Codes; appropriate Fire Flow capacity will be provided by the water supply system; and, access to the site, buildings and facilities acceptable to the Greenfield Fire Protection District will be incorporated in the development of the Site. Provided all buildings are equipped the automatic fire sprinkler systems, this is a less-than-significant impact.

N2



Greenfield Fire Protection District

Post Office 2550

Greenfield, California 93927

Please note that Required Fire Flow will be reduced if all buildings are equipped with automatic fire sprinkler systems, since fires in sprinklered buildings are extinguished with significantly less water than fires in non-sprinklered buildings. Also the requirement to manage runoff of contaminated used fire water will be reduced because of the reduced water demand.

Additionally the requirements for access to the site and to individual buildings can be eased because the magnitude of fires that occur will be anticipated to be reduced significantly.

N3

MITIGATION

25. In addition to circulation plan, mitigation statement should include reference to the installation of automatic fire sprinkler systems in all buildings to reduce the Fire Flow requirement, used fire water containment requirements, and Site and building access requirements. These features should be discussed with the District for resolution prior to completion of the preliminary design of the traffic circulation access system, water delivery and waste systems.

N4

C. Uses associated with the development will require additional equipment and personnel. Installation of automatic fire sprinkler systems in all buildings will reduce the requirement significantly.

N5

The Mitigation listed in Item 26 is appropriate. This consultation should occur prior to the completion of the preliminary design of the traffic circulation access system, water delivery and waste water systems.



Greenfield Fire Protection District

Post Office 2550

Greenfield, California 93927

If you have any questions regarding these matters
call 408 241-2996. (FAX 241-7104)

GREENFIELD FIRE PROTECTION DISTRICT


Eric D. Sitzenstatter, Jr. P.E.
Fire Protection Engineer
4100 Moorpark Avenue #109
San Jose, CA 95117-1707



Hugo Scattini, President
P.O. Box 216
Greenfield, CA 93927
408 674-2254

N. GREENFIELD FIRE PROTECTION DISTRICT, NO DATE

RESPONSE N1: Section 4.5 Water Quality and Supply of the FEIR has been revised to take out the statement indicating that the applicant is not proposing fire sprinklers. As stated in mitigation measure 26, the project applicant shall consult with the volunteer chief and his consultant for the Greenfield Fire Protection District prior to completion of the preliminary design to review project plans to determine the need for mitigation and ensure that adequate on site and off site facilities are available to support the proposed air strip based on proposed levels of activity. The Greenfield Fire Protection District has indicated that if all buildings are equipped with automatic fire sprinklers systems, this is a less than significant impact.

RESPONSE N2: Section 2.0 Summary and 4.11 Public Services of the DEIR has been revised to incorporate the comments.

RESPONSE N3: Refer to Response to Comment N1.

RESPONSE N4: Refer to Response to Comment N2.

RESPONSE N5: Mitigation measure 26 has been revised to state that "the project applicant shall consult with the volunteer chief and his consultant for the Greenfield Fire Protection District prior to completion of the preliminary design to review project plans to determine the need for mitigation and ensure that adequate on site and off site facilities are available to support the proposed air strip based on proposed levels of activity."



MONTEREY COUNTY

AIRPORT LAND USE COMMISSION

(408) 755-5025 - P.O. BOX 1208 SALINAS, CALIFORNIA 93902

ROBERT SLIMMON, JR., DIRECTOR OF PLANNING & BUILDING INSPECTION
AND SECRETARY OF THE COMMISSION

August 27, 1996

Luis Osorio
Associate Planner
Monterey County Planning and Building Inspection
P.O. Box 1208
Salinas, CA 93902

SUBJECT: Comments on Draft EIR for Yanks Air Museum Project
EIR #95-01, File #SH94002

Dear Mr. Osorio:

The Monterey County Airport Land Use Commission considered the Draft Environmental Impact Report for Yanks Air Museum on August 26, 1996, and offers the following comments:

1. The discussion on airport safety in section 4-3 should indicate that the principal method of protecting surrounding land from the noise and safety impacts created by the airport is through the preparation of a Comprehensive Airport Land Use Plan (CLUP), as required by section 21675 of the California Public Utilities Code. It is the responsibility of the Monterey County Airport Land Use Commission (ALUC) to prepare and adopt the CLUP, and the ALUC will rely extensively on the data presented in the EIR when preparing the plan. It is therefore essential that the Final EIR contain a complete analysis of the proposed airport's safety impacts. 01
2. The FEIR should provide a map identifying existing surrounding land uses. Overlain on that map should be a diagram showing the location and configuration of the Runway Protection Zones (RPZs) and common flight tracks. The last paragraph of section 4.3.3.1 states that, "RPZs will be defined during the airport permitting process." This information should be provided now so that decision makers and the public may evaluate the potential safety impacts caused by the project during the permit hearing process. 02

LETTER O. MONTEREY COUNTY AIRPORT LAND USE COMMISSION

RESPONSE O1: The applicant has stated that they will comply with the requirements of the Airport Land Use Commission (ALUC) with respect to the required Comprehensive Airport Land Use Plan (CLUP). Additional information and maps have been prepared in accordance with the specifications set forth in the Airport Land Use Planning Handbook prepared for Caltrans Division of Aeronautics, and has been included in Section 4.3 of the Final EIR. An application will be filed with the ALUC to include the required specific information.

RESPONSE O2: The Final EIR provides additional information and maps in accordance with the specifications set forth in the Airport Land Use Planning Handbook prepared for Caltrans Division of Aeronautics.

RESPONSE O3: Maps have been provided by the project applicant for the delineation of existing land uses and development activity which have been incorporated into the Final EIR. The surrounding area within a 1 mile radius of the airport runway is designated as agricultural (40 acre minimum). The County's general plan and zoning restrict the surrounding area to very low density residential use of land (i.e., one dwelling unit per 40 acres). Refer to Section 4.3 of the Final EIR for a discussion of existing development and development potential in the Runway Protection Zone (RPZ).

The Runway Approach Surface, Runway Protection Zones, and Airport Impact Area is identified in Figure 12A, 12B, and 12C. The northern Runway Approach Surface overlaps Highway 101 past Hudson Road. The southern runway Approach Surface is located north of Walnut Avenue, northeast of the City of Greenfield. The Airport Impact Area overlays the northern portion of the City of Greenfield and the northern Sphere of Influence. Figure 12B provides the City's General Plan designation for areas within the Airport Impact Area. Greenfield Elementary school is located within the Airport Impact Area. Proposed land uses within the City's Sphere of Influence include Highway Commercial Urban Reserve (HC-UR), Highway Industrial Urban Reserve (HI-UR), and Farmlands - 40 acre minimum.

RESPONSE O4: Refer to Section 4.3 of the Final EIR and Response K5 for a discussion of the RPZs. As indicated, a portion of each RPZ is located offsite. The northerly RPZ is located on the top of a steep slope. The surrounding land configuration physically prohibits construction of any building or structure that would have an impact on the RPZ. The location of the southerly RPZ is such that the building restriction at the southerly property line will be approximately 12 feet in height. The Object Free Zone (OFZ) located at each end of the runway is totally contained on the proposed project site. The adjoining property has historically been used for row crops. No structures currently exist within the RPZ and none are proposed. Development within the RPZ areas would be subject to review and approval of the FAA.

Although it is desirable that the airport operator have control of all land within the RPZ's, it is not imperative. U.S. Department of Transportation Federal Aviation Administration Advisory Circular 150/5300-13 contains the following statement:

Where it is determined to be impracticable for the airport owner to acquire and plan the land uses with the entire RPZ, the RPZ land use standards have recommendation status for that portion of the RPZ not controlled by the airport owner.

Federal Aviation Regulations Part 77 require that the FAA Regional office receive notice of any construction which will pierce an imaginary surface extending outward from the airport boundary at a slope of 100:1. This Notice of Construction criteria is different from the imaginary flight surfaces defined for the airport runways. When the FAA receives a Notice of Construction, an aeronautical study is undertaken to determine whether or not the proposed construction might create an airspace hazard or have an adverse effect on the operation of the airport navigational aids. The result of the study and appropriate FAA recommendations are forwarded to the applicant / agency for their consideration.

RESPONSE O5: As indicated in Section 7.0 of the Final EIR, alternative project sites were analyzed as part of this EIR.

**MITIGATION MONITORING PROGRAM
for the
YANKS AIR MUSEUM
AND VISITOR SERVING FACILITY**

MITIGATION MONITORING PROGRAM

A. Introduction

This mitigation monitoring program has been prepared in compliance with Public Resources Code (PRC) Section 21081.6 (AB 3180 of 1988). It describes the requirements and procedures to be followed by the project proponents and their contractors to ensure that all mitigation measures adopted by the County of Monterey as part of this project will be implemented as described in the EIR for the Yanks Air Museum and Visitor Serving Center.

A mitigation monitoring program should, at a minimum, identify the following:

- what entity, including department if applicable, is responsible for monitoring the mitigation;
- what action is being monitored and how;
- what schedule is required to provide adequate monitoring; and
- what mechanism identifies the monitoring is complete.

B. Organization of the Monitoring Program

This section contains an impact summary and detailed discussion of each mitigation measure presented in Chapter 2.0, *Summary of Environmental Impacts*, in the Final EIR. A conceptual approach to monitoring is presented for each mitigation measure. The monitoring procedures will enable the County of Monterey to implement a monitoring program which complies with PRC 21081.6. The mitigation monitoring procedure is organized as follows:

- **Mitigation Measure:** Identifies the mitigation measure
- **Responsibility:** Identifies responsibility for implementing the mitigation measure. Generally, the responsibility for implementing mitigation measures rests with the applicant.
- **Timing:** Identifies when the mitigation measure should be in place and monitoring is completed. Typical milestones identified in the monitoring program for this project are upon "occupancy" (occupancy of first building), recording of Conditions, Covenants and Restrictions (CC&R's) (recorded with Final Map), and issuance of building permits.
- **Verification:** Identifies responsibility for ensuring that the mitigation measure was implemented.

C. Enforcement of Mitigation Measures

The mitigation monitoring program for the project will be adopted by resolution of the County of Monterey Board of Supervisors. The project sponsor will be required to submit a Tentative Map and Final Map, a landscaping plan, design guidelines, and CC&R's, subject to the review and approval of the County. These various documents will incorporate pertinent mitigation measures and associated conditions to ensure that project impacts during the design, construction and operation phases are maintained at a less-than-significant level.

D. Mitigation Monitoring Plan

Airport Safety

Impact Summary: The proposed project has the potential for complaints from periodic overflights.

Mitigation:

1A. The airport landing strip shall only be used during daylight hours.

- **Responsibility:** Property owner
- **Timing:** Upon issuance of Use Permit
- **Verification:** Monterey County Planning & Building Inspection Department

1B. Prior to approval of the Runway Use Permit, the project applicant shall work with the County of Monterey to develop specific operating procedures to reduce overflights of certain areas.

- **Responsibility:** Property owner
- **Timing:** Prior to approval of Use Permit
- **Verification:** Monterey County Planning & Building Inspection Department

Geologic and Geotechnical Hazards

Impact Summary: The project site will likely be subject to severe ground shaking in the event of a major earthquake. The degree of potential property damage would vary with the magnitude and duration of the seismic event.

Mitigation:

1. All engineering analysis and structural design shall incorporate the following design seismic parameters: 0.50g mean peak horizontal ground acceleration; 0.35g repeatable high ground acceleration; duration 31 seconds.
 - **Responsibility:** Property owner
 - **Timing:** Prior to issuance of Building Permit
 - **Verification:** Monterey County Planning & Building Inspection Department

Mitigation:

2. Incorporate recommendations for foundation design included in the geotechnical feasibility study prepared for the project by Haro, Kasunich & Associates (Report # M4394) into final map.
 - **Responsibility:** Property owner
 - **Timing:** Prior to issuance of Building Permit
 - **Verification:** Monterey County Planning & Building Inspection Department

Water Quality and Supply

Impact Summary: The projected concentration of percolating recharge water will be below the drinking water limit of 10.0 mg/l of nitrogen, but slightly above the County's target concentration of 6.0 mg/l of nitrogen.

Mitigation:

3. The applicant shall submit a landscaping plan subject to the review and approval of the Monterey County Planning Department which describes the methods to be employed to ensure that trees and plants that do not require high nitrogen-based fertilizer use are maximized on the site, and that plants such as turf grass which require high fertilizer use are minimized.
 - **Responsibility:** Property owner
 - **Timing:** Prior to issuance of building permit
 - **Verification:** Monterey County Planning & Building Inspection Department

Impact Summary: The water quality of the onsite wells is unacceptable for domestic uses. The mineral content (e.g., TDS and sulfate) is in excess of secondary drinking water standards, which are based on consumer acceptance criteria. More importantly, the nitrate concentration of 92 mg/l in the well water exceeds the primary drinking water standard of 45 mg/l. The well water cannot be used for domestic supply unless the nitrate is removed by treatment and the project includes no provision for water treatment.

Mitigation:

4. To ensure a suitable source of potable water for the project, the applicant and the City with the aid of grants shall install necessary pipeline facilities and obtain water service from the City of Greenfield. Annexation to the City of Greenfield is not required. LAFCO could consider approval of contracts extending services to the site in accordance with Government Code Section 56133.

Alternatively, if the applicant elects not to obtain domestic water service from Greenfield in favor of on-site groundwater, then additional investigations, testing and engineering studies shall be completed to verify the provision of an on-site domestic water supply that meets all applicable drinking water requirements. If this option is pursued it shall constitute a "future study" that would be subject to additional environmental review in accordance with CEQA.

- **Responsibility:** Property owner
- **Timing:** Prior to issuance of required permits or occupancy of the facility as determined by the responsible agencies
- **Verification:** Monterey County Health Department and Public Works Department, LAFCO, Monterey County Planning & Building Inspection Department

Impact Summary: The total average annual water demand for the project (domestic supply, irrigation water, and lake evaporation) is estimated to amount to 185.5 acre-feet. This represents a reduction in ground water pumping of approximately 170 to 226 acre-feet/year as compared with the present estimated agricultural use of water on the 111-acre project site of 277 to 333 acre-feet/year. The preceding estimate of net reduction in local ground water pumping is applicable if the project obtains its entire water supply from on-site wells.

Mitigation:

5. Should the County require the use of an on-site wastewater treatment plant, the applicant shall submit a wastewater treatment plant design subject to the review and approval of the Monterey County Health Department, County Public Works Department, RWQCB, and State Health Department which provides for the safe and convenient use of reclaimed water on the adjacent farmlands owned by the applicant, and the proposed vineyard.
- **Responsibility:** Property owner

- **Timing:** Prior to issuance of required permits or occupancy of the facility as determined by the responsible agencies
- **Verification:** Monterey County Health Department, Monterey County Public Works Department and RWQCB

Mitigation:

6. Design of the proposed project facilities shall include provisions to minimize impacts on the ground water basin by implementing water conservation practices. At a minimum, these design considerations include:

- Use of low-flow fixtures, including shower heads with a maximum flow capacity of 2.5 gallons per minute and toilets using 1.5 gallons per flush.
- Use of low water use or native plant material and low precipitation sprinkler heads, bubblers, drip irrigation system and timing devices.

- **Responsibility:** Property owner
- **Timing:** Prior to issuance of Building Permit
- **Verification:** Monterey County Planning & Building Inspection Department

Mitigation:

7. Design of the proposed detention ponds shall include provisions to increase infiltration rates for runoff to ensure that detention ponds function as percolation ponds.

- **Responsibility:** Property owner
- **Timing:** Prior to issuance of required permits or occupancy of the facility as determined by the responsible agencies
- **Verification:** Monterey County Health Department, Monterey County Planning & Building Inspection Department

Impact Summary: Construction related water use could total almost 0.65 acre-feet.

Mitigation:

8. Water supplied for fill compaction and dust minimization shall be reclaimed or subpotable where feasible.

- **Responsibility:** Property owner
- **Timing:** Prior to issuance of Grading Permit

- **Verification:** Monterey County Public Works Department and Monterey County Planning & Building Inspection Department

Surface Hydrology and Drainage

Impact Summary: While the drainage plan is adequate as proposed, no provision for maintenance has been provided in the Master Plan.

Mitigation:

9. The applicant shall submit a comprehensive plan for drainage system maintenance, subject to the review and approval of the Monterey County Public Works Department. At a minimum, the plan should address the design features, personnel, equipment, scheduling, and procedure for cleaning and maintenance of the infiltration basins to prevent the development of nuisance conditions and to maintain the long-term infiltration capacity of the basin soils.
- **Responsibility:** Property owner
 - **Timing:** Prior to issuance of required permits or occupancy of the facility as determined by the responsible agencies
 - **Verification:** Monterey County Public Works Department

Impact Summary: Storm water discharges associated with construction activities where clearing, grading, and/or excavation of land occurs would have the potential for polluting the Salinas River under the jurisdiction of the U.S. Army Corps of Engineers.

Mitigation:

10. The applicant shall submit evidence to the Monterey County Planning and Building Inspection Department that a General Construction Activity Storm Water Permit has been obtained from the RWQCB.
- **Responsibility:** Property owner
 - **Timing:** Prior to issuance of Grading Permit
 - **Verification:** Monterey County Planning & Building Inspection Department and Monterey County Public Works Department

Wastewater Disposal

Impact Summary: Operation of the proposed wastewater treatment system could result in health and safety impacts due to plant upset, failure or improper operation.

Mitigation:

11. The applicant shall prepare and submit, for review by the Monterey County Health Department and Public Works Department, a comprehensive plan for operation and maintenance (O&M) of the proposed wastewater treatment and disposal facilities. This plan need not be detailed to the level of an O&M Manual, but it should provide sufficient description of the required/planned maintenance personnel, activities, equipment and procedures to assure that the proposed on-site treatment and disposal system will be adequately operated for the protection of public health. The plan shall identify the preferred operator of the plant, either a certified plant operator under private contract, or a County Sanitation District or County Service Area. Contingency plans must be provided for emergency situations such as power outages, equipment failure, or plant upset conditions. The plan shall also identify a diversion pond as necessary.

The treatment plant capacity shall be expanded to approximately 72,000 gpd, in order to accommodate estimated peak winery wastewater flows during the "crush" period. Any operational changes during the "crush" period should be evaluated and identified in the O&M Manual.

As an alternative to completing the identified mitigation for an on-site treatment wastewater system, the applicant shall make necessary arrangements to extend the sewer service from the City of Greenfield to the project site. Annexation to the City of Greenfield is not required. LAFCO could consider approval of contracts extending services to the site in accordance with Government Code Section 56133.

- **Responsibility:** Property owner
- **Timing:** Prior to issuance of required permits or occupancy of the facility as determined by the responsible agencies
- **Verification:** LAFCO, Monterey County Health Department, Monterey County Public Works Department, and City of Greenfield

Mitigation:

- 11A. If an on-site sewerage disposal system is approved, the formation of a County Service Area or other governmental entity may be necessary and require LAFCO approval.

- **Responsibility:** Property owner
- **Timing:** Prior to issuance of required permits or occupancy of the facility as determined by the responsible agencies
- **Verification:** LAFCO, Monterey County Planning & Building Inspection Department, and Monterey County Public Works Department

12. The applicant shall provide a revised wastewater treatment facilities plan, for review and approval of the Monterey County Health Department and the Public Works Department, identifying and describing the means for complying with the County requirements for 3-day short-term storage and 120-day long-term wastewater storage.

- **Responsibility:** Property owner
- **Timing:** Prior to issuance of required permits or occupancy of the facility as determined by the responsible agencies
- **Verification:** Monterey County Health Department, Monterey County Public Works Department, Monterey County Planning & Building Inspection Department

Mitigation:

13. The applicant shall supply supporting information for the wastewater facility, for review and approval by the Health Department and Public Works Department, describing the plans for sludge disposal, indicating the method of dewatering and the available capacity at the receiving facility.

- **Responsibility:** Property owner
- **Timing:** Prior to issuance of required permits or occupancy of the facility as determined by the responsible agencies
- **Verification:** Monterey County Public Works Department and Monterey County Health Department

Traffic and Circulation

Impact Summary: Traffic generated by the proposed project will cause the intersection of the overpass road of El Camino Real with the northbound ramps to the Highway 101 to drop from LOS A under existing conditions to LOS D in the p.m. peak hour.

Impact Summary: Traffic generated by the project will substantially increase the turning movements at the intersection of El Camino Real with the southbound on-ramp to U.S. 101 and the El Camino Real overpass road.

Mitigation:

14. The applicant shall submit detailed design plans to the Monterey County Public Works Department that identify the bridge configuration required to accommodate project traffic. The design plans shall include the following items: 1) widening of the northbound off-ramp to accommodate two lanes, one through lane and one through/right lane, and 2) relocation of the intersection approximately 100 to 150 feet northerly in order to increase the length of the off-ramp and its storage capability.

- **Responsibility:** Property owner
- **Timing:** Prior to issuance of required permits or occupancy of the facility as determined by the responsible agencies
- **Verification:** Monterey County Public Works Department and Caltrans

Mitigation:

15. The developer shall widen the south leg of the intersection to provide one through lane and an added separate right turn lane into the project site.

- **Responsibility:** Property owner
- **Timing:** Prior to issuance of the required permits or occupancy of the facility as determined by the responsible agencies.
- **Verification:** Caltrans, Monterey County Public Works Department

Mitigation:

16. The developer shall establish the project entrance opposite the relocated intersection at the northbound on/off ramp and Livingston Road, and provide two inbound lanes and two outbound lanes.

- **Responsibility:** Property owner
- **Timing:** Prior to issuance of required permits or occupancy of the facility as determined by the responsible agencies
- **Verification:** Monterey County Public Works Department and Caltrans

Mitigation:

17. The developer shall realign and extend the County's access road to the properties south of the project site along the east side of the freeway to connect into the project access road. The developer shall install a traffic signal or provide funds for future traffic signal installation.

- **Responsibility:** Property owner
- **Timing:** Prior to issuance of required permits or occupancy of the facility as determined by the responsible agencies
- **Verification:** Monterey County Public Works Department and Caltrans

Mitigation:

18. The applicant shall dedicate to the County of Monterey the Livingston Road extension and the project access road between Livingston Road and the freeway right of way.

- **Responsibility:** Property owner
- **Timing:** Prior to issuance of required permits or occupancy of the facility as determined by the responsible agencies
- **Verification:** Monterey County Public Works Department and Caltrans

Mitigation:

19. The developer shall widen the overpass road on the southerly side, west of the overpass structure, without widening the structure itself to provide a separate left turn lane to the southbound on-ramp with a single through lane to El Camino Real to accommodate both left and right turn movements at that intersection.

- **Responsibility:** Property owner
- **Timing:** Prior to issuance of required permits or occupancy of the facility as determined by the responsible agencies
- **Verification:** Monterey County Public Works Department and Caltrans

Mitigation:

19A. The applicant shall prepare and submit to Caltrans and the Monterey County Public Works Department a Project Study Report (PSR) for all proposed future work within the Caltrans right-of-way for the widening of the overpass roadway at El Camino Real and modification to the southbound on-ramp to U.S. 101, and for the widening of the overpass road and modification of the northbound on and off-ramps for U.S. 101. Mitigations required in the PSR and the PSR itself shall be completed prior to issuance of any occupancy permit on any phase of the project. The following improvements shall be constructed and completed as applicable prior to occupancy of any structure, *unless* replaced or amended by mitigations required by the PSR.

- a. The applicant shall submit detailed design plans to Caltrans and Monterey County Public Works Department. The design plans shall include the following items: widen the northbound off-ramp to accommodate two lanes, one through lane and one through/right lane, and relocate the intersection approximately 100 to 150 feet northerly in order to increase the length of the off-ramp and its storage capability.

- b. The developer shall widen the south leg of the newly relocated intersection to provide one through lane and an added separate right turn lane into the project site.
 - c. The developer shall widen the overpass road on the southerly side westerly of the overpass structure to provide a separate left turn lane to the southbound on-ramp with a single through lane to El Camino Real to accommodate both left and right turn movements at that intersection.
 - d. The developer shall modify, as necessary, the entrance of the southbound on-ramp to accommodate the widening of the overpass road. The developer shall signalize this intersection or provide funds for future signalization.
- **Responsibility:** Property owner
 - **Timing:** Prior to issuance of required permits or occupancy of the facility as determined by the responsible agencies
 - **Verification:** Monterey County Public Works Department and Caltrans
20. The developer shall modify, as necessary, the entrance of the U.S. 101 southbound on-ramp to accommodate the widening of the overpass road.
- **Responsibility:** Property owner
 - **Timing:** Prior to issuance of required permits or occupancy of the facility as determined by the responsible agencies
 - **Verification:** Monterey County Public Works Department and Caltrans

Air Quality

Impact Summary: Construction of the air museum, runway and commercial facilities will generate temporary emissions of fugitive dust from soil disturbance and combustion emissions from on-site construction equipment, from off-site trucks moving dirt and delivering construction materials, and from worker travel.

Mitigation:

21. Limit the area under construction up to 10 acres at any one time.
- **Responsibility:** Property owner
 - **Timing:** Prior to issuance of Grading Permit
 - **Verification:** Monterey County Planning & Building Inspection Department

Mitigation:

22. During construction, grading efforts shall minimize dust generation through the implementation of the following dust suppression techniques:

- Water all active construction areas at least twice daily. Frequency should be based on the type of operation, soil, and wind exposure;
 - Apply chemical soil stabilizers on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days);
 - Plant vegetative ground cover per the specifications of a landscape plan approved by the County of Monterey Planning & Building Inspection Department as soon as possible;
 - Prohibit all grading activities during periods of high wind (over 15 miles per hour);
 - Cover inactive storage piles;
 - Install wheel washers at the entrance to construction sites for all exiting trucks.
- **Responsibility:** Property owner
 - **Timing:** During grading and construction
 - **Verification:** Monterey County Planning & Building Inspection Department

Mitigation:

23. Post a publicly visible sign which specifies the telephone number and person to contact regarding dust complaints. This person shall respond to take corrective actions within 24 hours, or sooner as the situation warrants.

- **Responsibility:** Property owner
- **Timing:** Prior to issuance of Grading Permit
- **Verification:** Monterey County Planning & Building Inspection Department

Public Services

Fire Protection

Impact Summary: The development of the proposed buildings associated with the project will have an impact on the demand for fire protection. The proposed buildings will be constructed in compliance with the applicable uniform building and safety codes and applicable fire codes specific to the site.

Mitigation:

25. The applicant shall submit the project site plan and circulation plan to the Greenfield Fire Protection District for review and approval.

- **Responsibility:** Property owner
- **Timing:** Prior to issuance of Building Permit
- **Verification:** Greenfield Fire Protection District, Monterey County Planning & Building Inspection Department

Impact Summary: Uses associated with the development of the airport landing strip may require additional fire fighting equipment for the GFPD. General aviation airports that are not certified as a FAR Part 139 air carrier airport, do not maintain and operate Airport Rescue and Firefighting Facilities. The applicants insurance carrier will require applicable firefighting capabilities to be within reach of the airport.

Mitigation:

26. The project applicant shall coordinate with the volunteer chief of the GFPD and his consultant prior to completion of the preliminary design to review project plans and determine the need for mitigation to ensure adequate on site and off site facilities to support the proposed airstrip.

- **Responsibility:** Property owner
- **Timing:** Prior to issuance of Building Permit
- **Verification:** Greenfield Fire Protection District, Monterey County Planning & Building Inspection Department

Police Protection

Impact Summary: The development of the proposed project will have an impact on the demand for police protection.

Mitigation:

27. Architectural measures to decrease vulnerability to crime, such as improved lighting, locks, landscaping, alarm systems, and video surveillance cameras shall be implemented into the project. Architectural plans shall be reviewed by the Crime Prevention Unit, Community Services Division, of the Sheriff's Department prior to issuance of the building permit.

- **Responsibility:** Property owner
- **Timing:** Prior to issuance of Building Permit
- **Verification:** Monterey County Sheriff's Department, Monterey County Planning & Building Inspection Department

Mitigation

28. Prior to issuance of occupancy permit, the project applicant shall consult with the Monterey County Sheriff's Department and the Greenfield Police Department to determine the need for the provision of onsite private security. A memorandum of understanding shall be developed between the Monterey County Sheriff's Department and Greenfield Police Department regarding a mutual aid agreement.

- **Responsibility:** Property owner
- **Timing:** Prior to issuance of Occupancy Permit
- **Verification:** Monterey County Sheriff's Department, Greenfield Police Department, and Monterey County Planning & Building Inspection Department

Solid Waste Disposal

Impact Summary: Development of the proposed project will create solid waste during construction and after completion of new buildings and other facilities.

Mitigation:

29. The applicant shall submit final plans which indicate specific areas where recycling materials may be handled and stored. Recycling should be promoted at the airport and at all other facilities in the project area.

- **Responsibility:** Property owner
- **Timing:** Prior to issuance of required permits or occupancy of the facility as determined by the responsible agencies
- **Verification:** Monterey County Public Works Department and Monterey County Health Department

Human Health & Safety

Impact Summary: A source of potential groundwater contamination is the aviation fueling station facility. The storage of fuel (either above or below ground), transfer of fuel from tank trucks to storage tanks, from storage tanks into fuel trucks, and the transporting of fuel to various points on the airfield represent a potential for fuel spills through leaks, carelessness, or upset. Although the possibility of a major spill is deemed to be rather low, the amounts of fuel which could be spilled is relatively high.

Mitigation:

30. As a minimum, the proposed aviation fueling station will incorporate standard engineering and monitoring techniques and measures for fuel storage, spill containment, and cleanup as required by current federal, state, and local regulations.

- **Responsibility:** Property owner
- **Timing:** Prior to issuance of Building Permit
- **Verification:** Monterey County Health Department

Mitigation:

31. Construction of the fuel storage facility will require the use of state of the art safety and spill diversion and containment systems. Such a system is controlled and monitored by a microprocessor-based control system which would perform a variety of safety and maintenance/record keeping functions. It would also monitor fire alarms, notify appropriate fire suppression agencies in an emergency, monitor spill and leak detection systems, and activate emergency shutoff valves as required. The system would also activate external and built-in foam fire suppression devices, as well as air and water pollution control measures.

- **Responsibility:** Property owner
- **Timing:** Prior to issuance of Building Permit
- **Verification:** Monterey County Health Department and Monterey County Planning & Building Inspection Department

Mitigation:

32. Regular cleaning of fill stands and hard stands will be carried out to minimize potential discharge of pollutants into surface runoff.

- **Responsibility:** Property owner
- **Timing:** Prior to issuance of Occupancy Permit
- **Verification:** Monterey County Health Department and Monterey County Planning & Building Inspection Department

Mitigation:

33. A spill prevention control and countermeasure (SPCC) plan will be adopted to provide procedures for mitigating any fuel, lubricant, or hydraulic fluid spills which might occur as a result of operating the aviation fueling station. The SPCC plan will also include provisions for the training of fueling personnel in the recovery of spilled substances.

- **Responsibility:** Property owner
- **Timing:** Prior to issuance of Occupancy Permit
- **Verification:** Monterey County Health Department

Mitigation:

34. Underground fuel storage tanks would be subject to Monterey County permit requirements, and would be of double wall construction with leak detectors between the walls. Any underground tanks would also have external leak detection and monitoring systems installed.

- **Responsibility:** Property owner
- **Timing:** Prior to issuance of Building Permit
- **Verification:** Monterey County Health Department and Monterey County Planning & Building Inspection Department

Mitigation:

35. Any above ground tanks would be constructed in accordance with American Petroleum Institute (API) standards for Zone 4 earthquake potential (API 650). The tanks will employ set points for overflow protection that will be interlocked with associated filling mechanisms through the microprocessor-based control system.

- **Responsibility:** Property owner
- **Timing:** Prior to issuance of Building Permit
- **Verification:** Monterey County Health Department and Monterey County Planning & Building Inspection Department

Mitigation:

36. The principal means of controlling spillage or leakage from any above-ground tanks in the fuel storage area will be by means of an earthen berm with an impervious concrete liner with manual drain valves to direct any spillage to an oil/water separator. The drain valves would be maintained in a closed position to prevent any inadvertent or premature diversion of spillage or leakage to the oil/water separator. The containment berm would be designed to contain a complete failure of the largest tank.

- **Responsibility:** Property owner
- **Timing:** Prior to issuance of Building Permit
- **Verification:** Monterey County Health Department and Monterey County Planning & Building Inspection Department

Mitigation:

37. Spill containment for the truck fill stands and truck unloading areas will be accomplished by impervious diversion pads. These pads will be capable of accommodating a spill from the largest truck, tender or lighter (i.e., small trucks used to transport fuel to aircraft for fueling) using the facility.

- **Responsibility:** Property owner
- **Timing:** Prior to issuance of Building Permit
- **Verification:** Monterey County Health Department and Monterey County Planning & Building Inspection Department

Viewshed & Aesthetics

Impact Summary: Development of the project will result in a change in views to and from the project site, particularly from public vantage points on Highway 101 and the Thorne Road overpass. While the development will alter the rural character of the site, neither Highway 101 or Thorne Road is a scenic route; therefore, the site is not considered a sensitive visual resource. However, the intensity of development will differ from what exists in the immediate vicinity.

Mitigation:

38. The applicant shall submit a landscape plan to the Monterey County Planning and Building Inspection Department for review and approval. The plan shall provide for landscape screening, appropriate to the surrounding climate and terrain (drought resistant, native vegetation). Visual screening of the parking lots and buildings shall be provided to integrate the project with the visual setting.

- **Responsibility:** Property owner
- **Timing:** Prior to approval of Building Permit
- **Verification:** Monterey County Planning & Building Inspection Department

Mitigation:

39. The applicant shall submit design guidelines that provide on-site advertising signs, fences, walls, and entry gates consistent with applicable Monterey County Codes, except as otherwise approved. The design guidelines shall include: a sign plan drawn to scale, delineating the proposed site and the general location of all signs; drawings or sketches indicating the exterior surface details of all buildings on the site on which wall signs, directory signs, or projecting signs are proposed and, drawings indicating typical sign design, colors,

faces and methods of construction. At a minimum, the sign plan shall avoid clutter in the location and size of free standing signs.

- **Responsibility:** Property owner
- **Timing:** Prior to Approval of Use Permits
- **Verification:** Monterey County Planning & Building Inspection Department

Impact Summary: Development of the site would result in an increase in external lighting. Night lighting for advertising, security and street lighting could be perceived as intrusive to surrounding residences because the site has not had intrusive night lighting in the past.

Mitigation:

40. The applicant shall use non-reflective materials, subdued colors, and lighting that does not create off-site glare in all phases of project development, subject to the approval of the Monterey County Planning and Building Inspection Department.

- **Responsibility:** Property owner
- **Timing:** Prior to issuance of Building Permit
- **Verification:** Monterey County Planning & Building Inspection Department

Mitigation:

41. The applicant shall provide a public space lighting plan subject to the review and approval of the Monterey County Public Works Department, the Monterey County Planning and Building Inspection Department and Caltrans, as necessary. The type, height, and spacing of security lighting, parking lot lighting, and advertising lighting shall conform to County guidelines. In particular, street lights shall be directed downward and be of minimum intensity necessary for proper safety lighting.

- **Responsibility:** Property owner
- **Timing:** Prior to issuance of Building Permit
- **Verification:** Monterey County Public Works Department, the Monterey County Planning and Building Inspection Department and Caltrans

Cultural Resources

Impact Summary: Based on the background research and surface reconnaissance, the project area does not contain surface evidence of potentially significant cultural resources. Because of the possibility of unidentified (e.g., buried) cultural resources being found during construction, the following mitigation is recommended:

Mitigation:

42. If archaeological resources or human remains are accidentally discovered during construction, work shall be halted within 150 feet of the find until it can be evaluated by a qualified professional archaeologist. If the find is determined to be significant, appropriate mitigation measures shall be developed and implemented according to Appendix K of CEQA.

- **Responsibility:** Property owner/Construction Manager
- **Timing:** During grading and construction
- **Verification:** Monterey County Planning & Building Inspection Department

**REVISED DRAFT
ENVIRONMENTAL IMPACT REPORT
for the
YANKS AIR MUSEUM & VISITOR SERVING**

March 10, 1997

prepared for

**COUNTY OF MONTEREY PLANNING &
BUILDING INSPECTION DEPARTMENT**

prepared by

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TABLE OF CONTENTS

1.0 INTRODUCTION	1-1
1.1 Authorization and Purpose	1-1
1.2 Focus of the EIR	1-1
1.3 Uses of the EIR	1-2
1.4 Mitigation Monitoring Program	1-2
2.0 SUMMARY OF ENVIRONMENTAL IMPACTS	2-1
2.1 Introduction	2-1
2.2 Summary of Project Description	2-1
2.3 Areas of Concern	2-2
2.4 Alternatives Evaluated in this EIR	2-2
2.5 Environmentally Superior Alternative	2-2
2.6 Unavoidable Significant Impacts	2-3
2.7 Summary of Mitigatable Project Impacts	2-4
3.0 PROJECT DESCRIPTION	3-1
3.1 Overview	3-1
3.2 Project Location	3-1
3.3 Project Background	3-1
3.4 Project Objectives	3-4
3.5 Project Characteristics	3-4
3.5.1 Aircraft Flight Activity	3-7
3.5.2 Circulation	3-7
3.5.3 Off-Street Parking Facilities	3-7
3.5.4 Landscaping and Exterior Design	3-15
3.5.5 Water Feature	3-15
3.5.6 Farming and Open Space	3-16
3.5.7 Grading	3-16
3.5.8 Infrastructure	3-16
3.5.9 Project Phasing and Schedule	3-17
3.6 Required Permits and Approvals	3-18
4.0 ENVIRONMENTAL SETTING, IMPACTS & MITIGATION MEASURES	4-1
4.1 Organization	4-1
4.1.1 Determination of Significance	4-1
4.2 Land Use and Planning	4-2
4.2.1 Introduction	4-2
4.2.2 Setting	4-2
4.2.3 Impacts and Mitigation Measures	4-9

4.3 Airport Safety	4-12
4.3.1 Introduction	4-12
4.3.2 Airport Characteristics	4-12
4.3.3 Airport Safety	4-15
4.4 Geological and Geotechnical Hazards	4-22
4.4.1 Introduction	4-22
4.4.2 Setting	4-22
4.4.3 Impacts and Mitigation Measures	4-26
4.5 Water Quality and Supply	4-30
4.5.1 Introduction	4-30
4.5.2 Setting	4-30
4.5.3 Impacts and Mitigation Measures	4-35
4.6 Surface Hydrology and Drainage	4-46
4.6.1 Introduction	4-46
4.6.2 Setting	4-46
4.6.3 Impacts and Mitigation Measures	4-47
4.7 Wastewater Disposal	4-52
4.7.1 Introduction	4-52
4.7.2 Setting	4-52
4.7.3 Impacts and Mitigation Measures	4-56
4.8 Traffic and Circulation	4-65
4.8.1 Introduction	4-65
4.8.2 Setting	4-65
4.8.3 Impacts and Mitigation Measures	4-70
4.9 Air Quality	4-87
4.9.1 Introduction	4-87
4.9.2 Setting	4-87
4.9.3 Impacts and Mitigation Measures	4-91
4.10 Noise	4-101
4.10.1 Introduction	4-101
4.10.2 Setting	4-101
4.10.3 Impacts and Mitigation Measures	4-104
4.11 Public Services	4-108
4.11.1 Introduction	4-108
4.11.2 Fire Protection	4-108
4.11.3 Police Protection	4-109
4.11.4 Solid Waste Disposal	4-110
4.12 Human Health & Safety	4-111
4.12.1 Introduction	4-111
4.12.2 Setting	4-111
4.12.3 Impacts and Mitigation Measures	4-112
4.13 Viewshed & Aesthetics	4-114

4.13.1 Introduction	4-114
4.13.2 Setting	4-114
4.13.3 Impacts and Mitigation Measures	4-119
4.14 Cultural Resources	4-122
4.14.1 Introduction	4-123
4.14.2 Setting	4-123
4.14.3 Impacts and Mitigation Measures	4-123
4.15 Energy	4-123
4.15.1 Introduction	4-123
4.15.2 Setting	4-123
4.15.3 Impacts and Mitigation Measures	4-124
4.16 Biological Resources	4-124
4.16.1 Introduction	4-124
4.16.2 Setting	4-124
4.16.3 Impacts and Mitigation Measures	4-125
4.17 Employment	4-125
4.17.1 Introduction	4-125
4.17.2 Employment Characteristics	4-125
4.17.3 Potential Direct and Indirect Employment Impacts	4-127
5.0 CUMULATIVE IMPACTS	5-1
5.1 Introduction	5-1
5.2 Cumulative Impacts in Project Vicinity	5-1
6.0 GROWTH INDUCEMENT	6-1
6.1 Introduction	6-1
6.2 Growth Inducing Impacts	6-1
7.0 PROJECT ALTERNATIVES	7-1
7.1 Introduction	7-1
7.2 Alternative Analysis	7-1
7.2.1 No Project	7-2
7.2.2 Wastewater Disposal/Domestic Water Supply Alternative	7-3
7.2.3 Reduced Parcel Size	7-4
7.2.4 Alternate Location	7-5
7.2.5 Environmentally Superior Alternative	7-10
8.0 REFERENCES	8-1
8.1 Report Preparation	8-1
8.1.1 Denise Duffy & Associates	8-1
8.1.2 Technical Subconsultants	8-1
8.2 Persons Contacted	8-1
8.3 Bibliography	8-2

FIGURES

1.	Regional Location	3-2
2.	Vicinity Location	3-3
3.	Project Master Plan	3-8
4.	Museum Floor Plan	3-9
5.	Museum Concept Elevations	3-10
6.	Winery Floor Plan	3-11
7.	Winery Concept Elevations	3-12
8.	Restaurant Floor Plan	3-13
9.	Surrounding Land Uses	4-4
10.	City of Greenfield Sphere of Influence	4-5
11.	Properties Under Williamson Act Contract	4-8
12a.	Airport Impact Area	4-19
12b.	Runaway Protection Zone	4-20
12c.	Dimensions of RPZ & Approach Zones	4-21
12.	CNEL Noise Contours (dBA) - Year 2010+	4-23
13.	Hydrology and Drainage Map - Undeveloped Condition	4-48
14.	Sewer Connection to City's Treatment Plant	4-61
15.	Existing Peak Hour Traffic Volumes	4-67
16.	Pre-project Peak Hour Traffic Volumes	4-69
17.	Project Peak Hour Traffic Volumes - 1996	4-73
18.	Project peak Hour Traffic Volumes - 2000	4-74
19.	Post Project Peak Hour Traffic Volumes - 1996	4-76
20.	Post Project Peak Hour Traffic Volumes - 2000	4-77
21.	USA Buildout Peak Hour Traffic Volumes	4-82
22.	Cumulative Peak Hour Traffic Volumes	4-83
23.	Key Public Vantage Points	4-115
24.	Views to the East from Southbound Highway 101	4-116
25.	Views to the East from Northbound Highway 101	4-117
26.	Views to the East from the Highway 101 Overpass at Thorne Road	4-118
27.	Location of Cumulative Projects	5-3

TABLES

1.	Parking Requirements	3-14
2.	Percolation Rate Summary	4-27
3.	Summary of Fault Data	4-28
4.	Water Quality Data for Existing On-site Well & Greenfield Municipal Supply Well	4-34
5.	Wastewater Treatment & Quality Criteria for Reuse	4-54
6.	Comparative Ranking of Wastewater Alternatives	4-62

7.	Level of Service - Existing Conditions (1994)	4-68
8.	Level of Service - Existing Conditions (1994) + Pre-Project Conditions (1996)	4-70
9.	Trip Generation Rates and Estimated Trip Generation	4-72
10.	Level of Service -- Post Project Conditions 1996 and 1997	4-85
11.	Level of Service -- USA Buildout and Cumulative Traffic Conditions ..	4-86
12.	Federal and State Ambient Air Quality Standards	4-89
13.	Emission Factors for Heavy-Duty Diesel-Powered Construction Equipment (pounds per hour of operation)	4-95
14.	Emission Factors for Heavy-Duty Gasoline-Powered Equipment (pounds per hour of operation)	4-96
15.	Project Generated Mobile Source Emissions (pounds per day)	4-99
16.	CO Concentrations Over Background (PPM)	4-100
17.	Land Use Compatibility for Exterior Community Noise	4-103
18.	Existing Traffic Noise	4-104
19.	Job Creation - Yanks Air Museum & Visitor Serving Facility	4-128
20.	Cumulative Development City of Greenfield and Sphere of Influence	5-2

APPENDICES

- A. Initial Study
- B. Proposed Building Square Footages
- C. Erosion Control Best Management Practices
- D. Sanitary Sewer Flows
- E. Traffic Analysis Worksheets
- F. Air Quality Worksheets/AMBAG Consistency Determination
- G. Archaeological Records Search

1.0 INTRODUCTION

1.1 Authorization and Purpose

This document is an Environmental Impact Report (EIR) prepared in accordance with the California Environmental Quality Act (CEQA) of 1970, and CEQA Guidelines, as amended. The purpose of this EIR is to inform the public generally of the significant environmental effects of the proposed Yanks Aircraft Museum and Visitor Serving Facility (the project), identify possible ways to minimize the significant effects, and describe reasonable alternatives that support the objectives of the project. This EIR has been prepared by Denise Duffy and Associates (DD&A) for the Monterey County Planning & Building Inspection Department (County Planning Department) as the "Lead Agency", in consultation with the appropriate local, regional and state agencies.

1.2 Focus of the EIR

CEQA Guidelines require preparation of an EIR when a Lead Agency determines that there is evidence that a project may have a significant effect on the environment. The need to prepare an EIR was established by the County Planning Department as a result of a preliminary evaluation, or Initial Study, of the likely significant environmental effects of the planning, construction and operation of the project. The project Initial Study was prepared by LDM Associates for the applicant and is presented in Appendix A.

As defined by the CEQA Guidelines, Section 15382, "significant effect on the environment" means:

... a substantial, or potentially substantial adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance.

The EIR also identifies mitigation measures where necessary. CEQA Guidelines (Section 15370) defines varying degrees of mitigation as follows:

- avoiding the impact altogether by not taking certain actions or parts of an action;
- minimizing impacts by limiting the degree of magnitude of the action;
- rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
- reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and
- compensating for the impact by replacing or providing substitute resources or environments.

The Initial Study identified several areas of concern that should be discussed in the EIR including: water quality and hydrology; geology; soils and seismicity; traffic; air quality; noise; natural resources; viewshed; public health and safety; and growth inducement. In addition, a Notice of Preparation (NOP) was distributed to interested agencies and organizations stating that an EIR will be prepared. The NOP and responses to the NOP from responsible agencies are also contained in Appendix A.

1.3 Uses of the EIR

This Draft EIR will be circulated for agency and public review during a 45-day public review period. Comments received by the County Planning Department on the Draft EIR will be reviewed by the EIR consultant and the County Planning Department and responses to comments will be addressed in the Final EIR. The Monterey County Board of Supervisors must certify that it has reviewed and considered the information in the Final EIR and that the Final EIR has been completed in conformity with the requirements of CEQA.

It is not the purpose of an EIR to recommend either approval or denial of a project. CEQA requires the decision makers to balance the benefits of a proposed project against its unavoidable environmental risks. Although the EIR does not control the lead agency's ultimate decision on the project, the Monterey County Board of Supervisors must consider the information in the EIR and respond to each significant effect identified in the EIR. If significant adverse environmental effects are identified in the EIR, approval of the project must be accompanied by written findings, as follows:

- A. Changes or alterations have been required in, or incorporated into, such project that mitigate or avoid the significant environmental effects thereof as identified in the completed EIR.
- B. Such changes or alterations are within the responsibility and jurisdictions of another public agency and such changes have been adopted by such other agency, or can and should be adopted by such other agency.
- C. Specific economic, social or other considerations make infeasible the mitigation measures or project alternatives identified in the EIR.

1.4 Mitigation Monitoring Program

A mitigation monitoring program will be prepared in compliance with Public Resources Code (PRC) Section 21081.6 (AB 3180 of 1988). It describes the requirements and procedures to be followed by the County and the Applicant to ensure that all mitigation measures adopted by the Monterey County Board of Supervisors as part of this project will be implemented as described in this EIR. The purpose of the monitoring program is to ensure compliance with environmental mitigation during project planning, construction and operation. The mitigation monitoring program will be included in the Final EIR.

2.0 SUMMARY OF ENVIRONMENTAL IMPACTS

2.1 Introduction

This summary provides a brief description of the proposed project, known areas of concern, project alternatives, and all potentially significant impacts identified during the course of this environmental analysis. This summary groups impacts of similar ranking together. There are no anticipated unavoidable significant impacts. All identified potentially significant impacts can be mitigated. Responsibility for implementation of mitigation measures is with the applicant unless otherwise noted.

This summary is intended as an overview and should be used in conjunction with a thorough reading of the EIR. The text of this report, including figures, tables and appendices, serves as the basis for this summary.

2.2 Summary of Project Description

The proposed Yanks Aircraft Museum and Visitor Serving Facility (the Project) consists of a World War II and "Golden Era" aircraft museum, public and private air strip, and associated commercial and visitor-serving facilities. In addition to the aircraft museum and runway with supporting taxiway, the applicant intends to construct a winery with tasting room, two gasoline stations, a 150 room hotel/motel and restaurant, space for Recreational Vehicle (RV) parking, and a two-acre lake on the project site. A detailed description of project characteristics is provided in Chapter 3.0, *Project Description*.

The project site is located in unincorporated Monterey County adjacent to the easterly side of, and parallel with, U.S. Highway 101 and northerly of Thorne Road. The site is located in the Central Salinas Valley approximately one-half mile north of the City of Greenfield. The Assessor's Parcel Numbers for the property are 111-012-07-000 and 011-012-12-000.

The Project is proposed to be constructed on approximately 111 acres of a 430-acre property currently in agricultural production. The remaining 329 acres will remain in agricultural production. The site is generally level and is currently served by two active on-site water wells. Vehicle access is from Highway 101 and Thorne Road.

2.3 Areas of Concern

The Lead Agency has identified the following areas of concern based on the initial study and the responses to the Notice of Preparation (refer to Appendix A). These concerns and potential impacts are: geologic and soil hazards, drainage and control of runoff, an increase in existing noise levels related to aircraft activity, safety risk of aircraft flights, reduction in agricultural acreage, substantial alteration of an existing land use, an increase in traffic volumes, an increase in demand for public services, an increase in demand for potable water, and the provision of sanitary sewer treatment and disposal on the site.

This Draft EIR considers the full range of potential environmental impact issues. Each issue has been analyzed against established standards of significance; mitigation measures have been recommended to reduce the level of significance or an impact has been identified as significant and unavoidable. The responsibility for mitigation is also identified. Therefore, the environmental issues addressed in the EIR have been addressed in accordance with CEQA at a level of detail corresponding with the level of detail of the proposal.

2.4 Alternatives Evaluated in this EIR

CEQA Guidelines specifically state that an EIR must include a discussion of alternatives to the proposed project. The EIR must describe a range of reasonable alternatives which could feasibly attain the basic objectives of the project. The four alternatives to the proposed project that are analyzed in the EIR are summarized below:

- No Project
- Wastewater Disposal/Domestic Water Supply Alternative
- Reduced Parcel Size
- Alternate Location

2.5 Environmentally Superior Alternative

CEQA requires that an environmentally superior alternative to the proposed project be specified, if one is identified. In general, the environmentally superior alternative is supposed to minimize adverse impacts to the project site and surrounding environment while achieving the basic objectives of the project.

The proposed project, as amended by mitigation measures recommended in this EIR generally results in impacts which can be mitigated to a less-than-significant level. These mitigation measures include connection to the City's sewer and water systems by agreement with the Local Agency Formation Commission, rather than through annexation, increased landscaping, reduced signage, and circulation improvements to adjacent roadways and freeway ramps. However, the project will result in the conversion of prime farmlands to predominantly nonagricultural uses, resulting in an unavoidable adverse impact.

~~Therefore, the environmentally superior alternative which satisfies the objectives of the project. The No Project Alternative would avoid the impacts associated with traffic, air quality, land use, noise, and aircraft safety associated with the proposed project and the unavoidable adverse impact identified for the proposed project of loss of prime agricultural land. In this sense, the No Project Alternative is the environmentally superior alternative.~~

However, where the No Project Alternative is identified as the environmentally superior alternative, CEQA requires that the EIR also identify an environmentally superior alternative among the other alternatives. The only remaining alternative that significantly reduces impacts and avoids the impact of loss of prime farmland is locating the project at another site. Existing airports in Monterey County were reviewed. This would consolidate new airport operations at an existing public airport, and the air museum could be located nearer to population centers and existing visitor serving uses. Three Four alternative locations were considered: Marina Municipal Airport (formerly Fritzsche Army Airfield), Monterey Peninsula Airport, and Salinas Municipal Airport, and King City Airport. ~~As discussed in subsection 7.2.4, there are several potential benefits to~~ Locating the proposed air museum to at an existing airports in Monterey County: it would completely avoid the significant impact of the permanent loss of prime agricultural land, with the exception of King City - Mesa Del Rey Airport. The King City location could also result in the loss of some agricultural land. The amount would be dependent upon the design and location of the facilities and some development on agricultural land has already been planned and approved for this site. The Mesa Del Rey Airport, however, is not located along a major state highway and would not provide the number of pass-by trips to the facility as the proposed project location. Although locating the proposed project at an existing airport in Monterey County would not impact prime agricultural land, it should be noted that this alternative would not meet the applicant's project objective of locating development at the proposed site in South Monterey County.

2.6 Unavoidable Significant Impacts

Land Use and Planning

Impact: The project will result in the conversion of approximately 111 acres of agricultural land to commercial and airport uses. As indicated by the Stories index ratings and soil grades, soils on the site are classified as "prime" and are well suited for general intensive farming. *This is a significant unavoidable impact.*

2.7 Summary of Mitigatable Project Impacts

Airport Safety

Impact: The proposed project has the potential for complaints from occasional and periodic overflights. This is a potentially significant environmental impact that can be reduced to a less-than-significant level by implementation of the following mitigation measures:

Mitigation

- 1A. The airport landing strip shall only be used during daylight hours.
- 1B. Prior to approval of the Runway Use Permit, the project applicant shall work with the County of Monterey to develop specific operating procedures to reduce overflights of certain areas.

Geologic and Geotechnical Hazards

Impact: The project site will likely be subject to severe ground shaking in the event of a major earthquake. The degree of potential property damage would vary with the magnitude and duration of the seismic event. *This is a significant impact that can be mitigated to a less-than-significant level by implementation of existing Uniform Building Codes and the following mitigation.*

Mitigation

1. All engineering analysis and structural design shall incorporate the following design seismic parameters: 0.50g mean peak horizontal ground acceleration; 0.35g repeatable high ground acceleration; duration 31 seconds.
2. Incorporate recommendations concerning foundation design criteria included in the geotechnical feasibility study prepared for the project by Haro, Kasunich & Associates (Report # M4394).

Water Quality and Supply

Impact: The projected concentration of percolating recharge water will be below the drinking water limit of 10.0 mg/l of nitrogen, but slightly above the County's target concentration of 6.0 mg/l of nitrogen. *This is a significant impact which can be reduced to a less-than-significant level with implementation of the following mitigation measure.*

Mitigation

3. The applicant shall submit a landscaping plan subject to the review and approval of the Monterey County Planning Department which describes the methods to be employed to ensure that trees and plants that do not require high nitrogen-based fertilizer use are maximized on the site, and that plants such as turf grass which require high fertilizer use are minimized.

Impact: The water quality of the onsite wells is unacceptable for domestic uses. The mineral content (e.g., TDS and sulfate) are in excess of secondary drinking water standards, which are based on consumer acceptance criteria. More importantly, the nitrate concentration of 92 mg/l in the well water exceeds the primary drinking water standard of 45 mg/l. The well water cannot be used for domestic supply unless the nitrate is removed by treatment and the project includes no provision for water treatment. The applicant's plan to develop a new on-site water well with better quality has not, thus far, been proven feasible. *This is a significant impact that can be mitigated to a less-than-significant level by implementation of the following mitigation.*

Mitigation

4. To ensure a suitable source of potable water for the project, the applicant and the City with the aid of grants shall install necessary pipeline facilities and obtain water service from the City of Greenfield. ~~This will include the requirement for annexation to the City, which requires LAFCO approval.~~ Annexation to the City of Greenfield is not required. LAFCO could consider approval of contracts extending services to the site in accordance with Government Code Section 56133.

Alternatively, if the applicant elects not to obtain domestic water service from Greenfield in favor of on-site groundwater, then additional investigations, testing and engineering studies shall be completed to verify the ability to provide an on-site domestic water supply that meets all applicable drinking water requirements. If this option is pursued it shall constitute a "future study" that would be subject to additional environmental review in accordance with CEQA.

Impact: The total average annual water demand for the project (domestic supply, irrigation water, and lake evaporation) is estimated to amount to 185.5 acre-feet. This represents a reduction in ground water pumping of approximately 170 to 226 acre-feet/year as compared with the present estimated agricultural use of water on the 111-acre project site of 277 to 333 acre-feet/year. The preceding estimate of net reduction in local ground water pumping is applicable if the project obtains its entire water supply from on-site wells. *This represents a net positive effect on ground water in the immediate project area and the Salinas Valley as a whole.*

Mitigation

5. Should the County require the use of an on-site wastewater treatment plant, the applicant shall submit a wastewater treatment plant design subject to the review and approval of the Monterey County Health Department and Public Works Department, which provides for the safe and convenient use of reclaimed water on the adjacent farmlands owned by the applicant, and the proposed vineyard.
6. Design of the proposed project facilities shall include provisions to minimize impacts on the ground water basin by implementing water conservation practices. At a minimum, these design considerations include:
 - Use of low-flow fixtures, including shower heads with a maximum flow capacity of 2.5 gallons per minute and toilets using 1.5 gallons per flush.
 - Use of low water use or native plant material and low precipitation sprinkler heads, bubblers, drip irrigation system and timing devices.
7. Design of the proposed detention ponds shall include provisions to increase infiltration rates for runoff such that detention ponds function as percolation ponds.

Impact: Construction related water use could total almost 0.65 acre-feet. *While this is a temporary, less-than-significant impact affecting relatively small volumes of water, the use of non-potable water should be encouraged to ensure that domestic water supply impacts are reduced to the greatest extent possible.*

Mitigation

8. Water supplied for fill compaction and dust minimization shall be reclaimed or subpotable where feasible.

Surface Hydrology and Drainage

Impact: While the drainage plan is adequate as proposed, no provision for maintenance has been provided in the Master Plan. Since maintenance affects the long-term viability of the proposed drainage system, *this is a potentially significant impact which can be reduced to a less-than-significant level with implementation of the following mitigation measure.*

Mitigation

9. The applicant shall submit a comprehensive plan for drainage system maintenance, subject to the review and approval of the Monterey County Public Works Department. At a minimum, the plan should address the design features, personnel, equipment, scheduling, and procedure for cleaning and maintenance of the infiltration basins to prevent the development of nuisance conditions and to maintain the long-term infiltration capacity of the basin soils.

Impact: Storm water discharges associated with construction activities where clearing, grading, and/or excavation of land occurs would have the potential for polluting the waters of the United States. *This is a significant impact which can be reduced to a less-than-significant level through implementation of the following mitigation measure.*

Mitigation

10. The applicant shall submit evidence of a General Construction Activity Storm Water Permit obtained from the RWQCB to the Monterey County Planning and Building Inspection Department.

Wastewater Disposal

Impact: Operation of the proposed wastewater treatment system could result in health and safety impacts due to plant upset, failure or improper operation. *This is a significant impact that can be reduced to a less-than-significant level with implementation of the following mitigation measures.*

Mitigation

11. The applicant shall prepare and submit, for review by the Monterey County Health Department and Public Works Department, a comprehensive plan for operation and maintenance (O&M) of the proposed wastewater treatment and disposal facilities. This plan need not be detailed to the level of an O&M Manual, but it should provide sufficient description of the required/planned maintenance personnel, activities, equipment and procedures to assure that the proposed on-site treatment and disposal system will be adequately operated for the protection of public health. The plan shall identify the preferred operator of the plant, either a certified plant operator under private contract, or a County Sanitation District or County Service Area. Contingency plans must be provided for emergency situations such as power outages, equipment failure, plant upset conditions, etc. Having a pond available for diversion to during upset conditions may be prudent.

The treatment plant capacity should be expanded to approximately 72,000 gpd, in order to accommodate estimated peak winery wastewater flows during the "crush" period. Any operational changes during the "crush" period should be evaluated and identified in the O & M Manual.

As an alternative to completing the identified mitigation for an on-site treatment wastewater system, the applicant shall make necessary arrangements to extend the sanitary sewer service from the City of Greenfield to the project site. This will also entail annexation to the City, which requires LAFCO approval.

Annexation to the City of Greenfield is not required. LAFCO could consider approval of contracts extending services to the site in accordance with Government Code Section 56133.

- 11A. If an on-site sewerage disposal system is approved, the formation of a County Service Area or other governmental entity may be necessary and require LAFCO approval.
12. The applicant shall provide a revised wastewater facilities plan, for review and approval by the Monterey County Health Department and the Public Works Department, identifying and describing the means for complying with the County requirements for 3-day short-term storage and 120-day long-term wastewater storage.
13. The applicant shall supply supporting information, for review and approval by the Health Department and Public Works Department, describing the plans for sludge disposal, indicating the method of dewater and the available capacity at the receiving facility.

Traffic and Circulation

Impact: Traffic generated by the proposed project will cause the intersection of the overpass road of El Camino Real with the northbound ramps to the Highway 101 to drop from LOS A under existing conditions to LOS D in the p.m. peak hour. *This is a significant impact that can be reduced to a less-than-significant level by implementing the following mitigation measures.*

Impact: Traffic generated by the project will substantially increase the turning movements at the intersection of El Camino Real with the southbound on-ramp to U.S. 101 and the El Camino Real overpass road. *This is a significant impact that can be reduced to a less-than-significant level by implementing the following mitigation measures.*

14. The applicant shall submit detailed design plans to the Monterey County Public Works Department that identifies the bridge configuration required to accommodate project traffic. The design plans shall include the following items: widen the northbound off-ramp to accommodate two lanes, one through lane and one through/right lane, and relocate the intersection approximately 100 to 150 feet northerly in order to increase the length of the off-ramp and its storage capability. (Refer to Mitigation 19 below.)
15. The developer shall widen the south leg of the intersection to provide one through lane and an added separate right turn lane into the project site. (Refer to Mitigation 19 below.)

16. The developer shall establish the project entrance opposite the relocated intersection (northbound on/off ramp and Livingston Road) and provide two inbound lanes and two outbound lanes.
 17. The developer shall realign and extend ~~the County's access road~~ Livingston Road to the properties south of the project site along the east side of the freeway to connect into the project access road. The developer shall install a traffic signal or provide funds for future traffic signal installation.
 18. The applicant shall dedicate to the County of Monterey the Livingston Road County road extension and the project access road between ~~the County~~ Livingston Road and the freeway right of way.
 19. The developer shall widen the overpass road on the southerly side, westerly of the overpass structure without widening the structure itself, to provide a separate left turn lane to the southbound on-ramp with a single through lane to El Camino Real to accommodate both left and right turn movements at that intersection.
- 19A. The applicant shall prepare and submit to Caltrans and the Monterey County Public Works Department a Project Study Report (PSR) for all proposed future work within the Caltrans right-of-way for the widening of the overpass roadway at El Camino Real and modification to the southbound on-ramp to U.S. 101, and for the widening of the overpass road and modification of the northbound on and off-ramps for U.S. 101. Mitigations required in the PSR and the PSR itself shall be completed prior to issuance of any occupancy permit on any phase of the project. The following improvements shall be constructed and completed as applicable prior to occupancy of any structure, *unless* replaced or amended by mitigations required by the PSR.
- a. The applicant shall submit detailed design plans to Caltrans and Monterey County Public Works Department. The design plans shall include the following items: widen the northbound off-ramp to accommodate two lanes, one through lane and one through/right lane, and relocate the intersection approximately 100 to 150 feet northerly in order to increase the length of the off-ramp and its storage capability.
 - b. The developer shall widen the south leg of the newly relocated intersection to provide one through lane and an added separate right turn lane into the project site.
 - c. The developer shall widen the overpass road on the southerly side westerly of the overpass structure to provide a separate left turn lane to the southbound on-ramp with a single through lane to El Camino Real to accommodate both left and right turn movements at that intersection.

- d. The developer shall modify, as necessary, the entrance of the southbound on-ramp to accommodate the widening of the overpass road. The developer shall signalize this intersection or provide funds for future signalization.

20. The developer shall modify as necessary, the entrance of the southbound on-ramp to accommodate the widening of the overpass road.

Air Quality

Impact: Construction of the air museum, runway and commercial facilities will generate temporary emissions of fugitive dust from soil disturbance and combustion emissions from on-site construction equipment and from off-site trucks moving dirt, delivering construction materials, and from worker travel. *This is a significant impact which can be reduced to a less-than-significant level with implementation of the following mitigation measures.*

Mitigation

21. Limit the area under construction up to 10 acres at any one time where feasible.
22. During construction, grading efforts shall seek to minimize dust generation through the implementation of the following dust suppression techniques and applied as appropriate (the following mitigation measures, when implemented, can reduce fugitive PM₁₀ an average of 50 to 90%):
- Water all active construction areas at least twice daily. Frequency should be based on the type of operation, soil, and wind exposure;
 - Apply chemical soil stabilizers on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days);
 - Plant vegetative ground cover per the specifications of a landscape plan approved by the County of Monterey Planning & Building Inspection Department as soon as possible;
 - Prohibit all grading activities during periods of high wind (over 15 miles per hour);
 - Cover inactive storage piles;
 - Install wheel washers at the entrance to construction sites for all exiting trucks;
23. Post a publicly visible sign which specifies the telephone number and person to contact regarding dust complaints. This person shall respond to take corrective actions within 48 24 hours, or sooner as the situation warrants.

~~**Impact:** During construction, NO_x emissions are predicted to potentially exceed the APGD threshold of 150 pounds per day. This is a potentially significant impact that can be reduced to a less-than-significant level by implementing mitigation measure 21 and the following mitigation.~~

Mitigation

- ~~24. Perform low NO_x tuneups on all construction equipment operating on the site for more than sixty (60) days.~~

Public Services

Fire Protection

Impact: The development of the proposed buildings associated with the project will have an impact on the demand for fire protection. The proposed buildings will be constructed in compliance with the applicable uniform building and safety codes applicable fire codes appropriate fire flow capacity, and access to the site, buildings and facilities acceptable to the Greenfield Fire Protection District. ~~s, no additional mitigation measures are required.~~ *This is a less-than-significant impact.*

Mitigation

25. The applicant shall submit the project site plan and circulation plan to the Greenfield Fire Protection District for review and approval.

Impact: Uses associated with the development of the airport landing strip may require additional fire fighting equipment for the GFPD. General aviation airports that are not certified as a FAR Part 139 air carrier airport, do not maintain and operate Airport Rescue and Firefighting Facilities. The applicants insurance carrier will require applicable firefighting capabilities to be within reach of the airport. *This is a significant impact that can be reduced to a level of insignificance with implementation of the proposed mitigation measure.*

Uses associated with the proposed project include: aircraft landings and takeoffs, helicopter and ultra light aircraft rentals, flight instruction, glider operations, hot air balloon flights, sky diving, radio controlled model aircraft, and occasionally, scheduled events such as air shows, antique and experimental aircraft gatherings and fly byes.

Mitigation

26. The project applicant shall consult with the volunteer chief and his consultant prior to completion of the preliminary design for the Greenfield Fire Protection District to review project plans to determine the need for mitigation and ensure that adequate on site and off site facilities are available to support the proposed airstrip based on proposed levels of activity.

Police Protection

Impact: The development of the proposed project will have an impact on the demand for police protection. *This is a significant impact that can be reduced to a level of insignificance with implementation of the proposed mitigation measure.*

The airport boundary will provide a 6 foot high chain link fencing on all sides of the airport except where fencing is between adjacent buildings. Between buildings, all fencing will be 4 feet in height and consist of a mix of chain link, concrete block and wrought iron.

Security lighting will produce an average illumination of 10 candle power per square foot in the vicinity of the building and parking areas (automobile and aircraft) and will be light sensor activated. Lighting in the vicinity of aircraft movement areas must be shielded to not create a visual distraction for arriving and departing aircraft.

The project applicant will implement private security patrols and install security lighting and alarm systems into the project design.

Mitigation

27. Architectural concessions to decrease vulnerability to crime, such as improved lighting, locks, landscaping, alarm systems, and video surveillance cameras shall be implemented into the project. Architectural plans shall be reviewed by the Crime Prevention Unit, Community Services Division, the Sheriff's Depart. prior to issuance of the bldg permit.
28. Prior to issuance of occupancy permit, the project applicant shall consult with the Monterey County Sheriff's Department and the Greenfield Police Department to determine the need for the provision of onsite private security. A memorandum of understanding shall be developed between the Monterey County Sheriff's Department and Greenfield Police Department regarding a mutual aid agreement.

Solid Waste Disposal

Impact: Development of the proposed project will create solid waste during construction and after completion of new buildings and other facilities. *The proposed project and impacts are considered less-than-significant, although recycling will be required.*

Mitigation

29. The applicant shall submit final plans which indicate specific areas where recycling materials may be handled and stored. Recycling should be promoted at the airport and at all other facilities in the project area.

Human Health & Safety

Impact: A source of potential groundwater contamination is the aviation fueling station facility. The storage of fuel (either above or below ground), transfer of fuel from tank trucks to storage tanks, from storage tanks into fuel trucks, and the transporting of fuel to various points on the airfield represent a potential for fuel spills through leaks, carelessness, or upset. Although the possibility of a major spill is deemed to be rather low, the amounts of fuel which could be spilled is relatively high. *This is a significant impact that can be reduced to a level of insignificance with implementation of the proposed mitigation measures.*

Mitigation

30. As a minimum, the proposed aviation fueling station will incorporate standard engineering and monitoring techniques and measures for fuel storage, spill containment, and cleanup as required by current federal, state, and local regulations.
31. In addition, construction of the fuel storage facility will require the use of state of the art safety and spill diversion and containment systems. Such a system is controlled and monitored by a microprocessor-based control system which would perform a variety of safety and maintenance/record keeping functions. It would also monitor fire alarms, notify appropriate fire suppression agencies in an emergency, monitor spill and leak detection systems, and activate emergency shutoff valves as required. The system would also activate external and built-in foam fire suppression devices, as well as air and water pollution control measures.
32. Regular cleaning of fill stands and hard stands will be carried out to minimize potential discharge of pollutants into surface runoff.
33. A spill prevention control and countermeasure (SPCC) plan will be adopted to provide procedures for mitigating any fuel, lubricant, or hydraulic fluid spill which might occur as a result of operating the aviation fueling station. The SPCC plan will also include provisions for fueling personnel to be trained in the recovery of spilled substances.
34. Any underground fuel storage tanks would be subject to Monterey County permit requirements, and would be of double wall construction with leak detectors between the walls. Any underground tanks would also have external leak detection and monitoring systems installed.
35. Any above ground tanks would be constructed in accordance with American Petroleum Institute (API) standards for Zone 4 earthquake potential (API 650). The tanks will employ set points for overflow protection that will be interlocked with associated filling mechanisms through the microprocessor-based control system.
36. The principal means of controlling spillage or leakage from any above-ground tanks in the fuel storage area will be by means of an earthen berm with an impervious concrete liner with manual drain valves to direct any spillage to an oil/water separator. The drain valves would be maintained in a closed position to prevent any inadvertent or premature diversion of spillage or leakage to the oil/water separator. The containment berm would be designed to contain a complete failure of the largest tank.
37. Spill containment for the truck fill stands and truck unloading areas will be accomplished by impervious diversion pads. These pads will be capable of accommodating a spill from the largest truck, tender or lighter (i.e., small trucks used to transport fuel to aircraft for fueling) using the facility.

Viewshed & Aesthetics

Impact: Development of the project will result in a change in views to and from the project site, particularly from public vantage points on Highway 101 and the Thorne Road overpass. While the development will alter the rural character of the site, neither Highway 101 or Thorne Road is a scenic route; therefore, the site is not considered a sensitive visual resource. However, the intensity of development will differ from what exists in the immediate vicinity. *This is a potentially significant impact.*

Mitigation

38. The applicant shall submit a landscape plan to the Monterey County Planning and Building Inspection Department for review and approval. The plan shall provide for landscape screening, appropriate to the surrounding climate and terrain (drought resistant, native vegetation). Visual screening of the parking lots and buildings shall be provided to integrate the project with the visual setting.
39. The applicant shall submit design guidelines that provide on-site advertising signs, fences, walls, and entry gates consistent with applicable Monterey County Codes, except as otherwise approved. The design guidelines shall include: a sign plan drawn to scale, delineating the proposed site and the general location of all signs; drawings or sketches indicating the exterior surface details of all buildings on the site on which wall signs, directory signs, or projecting signs are proposed; drawings indicating typical sign design, colors, faces and methods of construction. At a minimum, the sign plan shall avoid clutter in the location and size of free standing signs.

Impact: Development of the site would result in an increase in external lighting. Night lighting for advertising, security and street lighting could be perceived as intrusive to surrounding residences because the site has not had intrusive night lighting in the past. *This is a significant impact. Because there is no clear criteria available to ascertain with precision the level of impact night lighting represents, it is difficult to determine if available mitigation measures can reduce the impact to a less-than-significant level.*

Mitigation

40. The applicant shall use non-reflective materials, subdued colors, and lighting that does not create off-site glare in all phases of project development subject to the approval of the Monterey County Planning and Building Inspection Department.
41. The applicant shall provide a public space lighting plan subject to the review and approval of the Monterey County Public Works Department, the Monterey County Planning and Building Inspection Department and Caltrans, as necessary. The type, height, and spacing of security lighting, parking lot lighting, and advertising lighting shall conform to County guidelines. In particular, street lights shall be directed downward and be of minimum intensity necessary for proper safety lighting.

Cultural Resources

Impact: Based on the background research and surface reconnaissance, the project area does not contain surface evidence of potentially significant cultural resources. *This is a less-than-significant environmental impact.*

Mitigation

Because of the possibility of unidentified (e.g., buried) cultural resources being found during construction, the following mitigation measures are recommended:

42. If archaeological resources or human remains are accidentally discovered during construction, work shall be halted within 150 feet of the find until it can be evaluated by a qualified professional archaeologist. If the find is determined to be significant, appropriate mitigation measures shall be developed and implemented according to Appendix K of CEQA.

3.0 PROJECT DESCRIPTION

3.1 Overview

The proposed Yanks Aircraft Museum and Visitor Serving Facility (the Project) consists of a World War II and "Golden Era" aircraft museum, air strip, and associated commercial and visitor-serving facilities. In addition to the aircraft museum and runway with supporting taxiway, the applicant intends to construct a winery with tasting room, two gasoline stations, a 150 room hotel/motel and restaurant, space for Recreational Vehicle (RV) parking, and a two-acre lake on the project site. A detailed description of project characteristics is provided below.

The Project is proposed to be constructed on 111.29 acres of a 440.54-acre property currently in agricultural production. The remaining 329 acres will remain in agricultural production. The site is generally level and is currently served by two active on-site water wells. Vehicle access is from Highway 101 and Thorne Road.

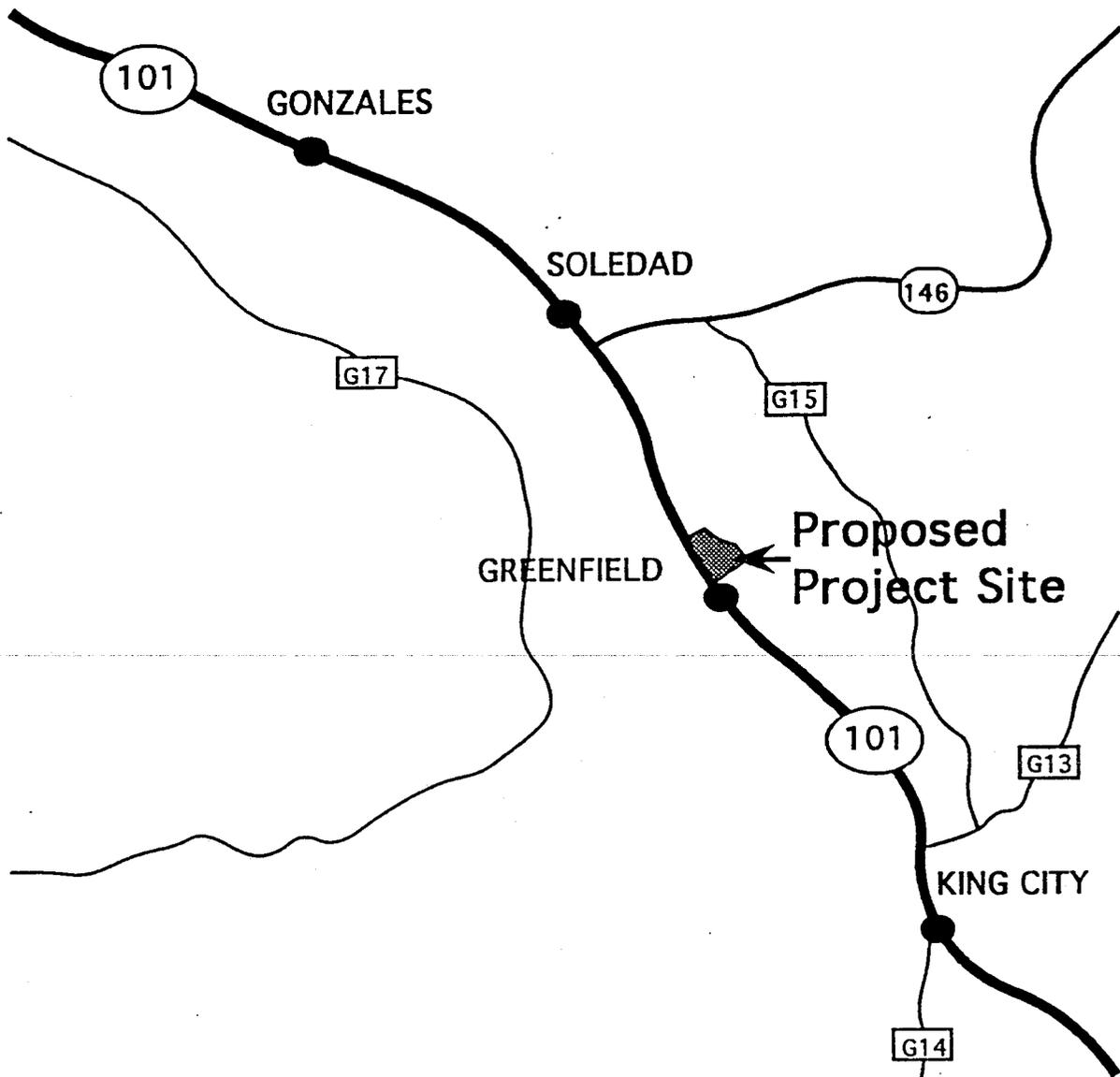
3.2 Project Location

The project site is located in unincorporated Monterey County adjacent to the easterly side of, and parallel with, U.S. Highway 101 and northerly of Thorne Road. The site is located in the Central Salinas Valley approximately one-half mile north of the City of Greenfield. The Assessor's Parcel Numbers for the property are 111-012-07-000 and 011-012-12-000. Refer to Figures 1 and 2 for the regional and vicinity location of the project site, respectively.

3.3 Project Background

The project site has historically been used for farming. In the early 1940's the ranch was used as an alternate landing site for military aircraft that were used for the training of new pilots¹. Prior to 1988 the ranch was owned by Paul Masson Wine Incorporated. Paul Masson used the site for vineyards until the late 1970's or early 1980's. The vineyards were subsequently removed and the ranch laid fallow until 1988 when the applicant purchased the site. Row crops have been grown on the property since 1988. Broccoli, cauliflower, mixed lettuces, and head lettuce are currently grown on the property. The two agricultural wells, barns and other outbuildings associated with farming operations on the property are located on the ±111-acre project site.

¹ *Yanks Air Museum Master Plan, LDM Associates*

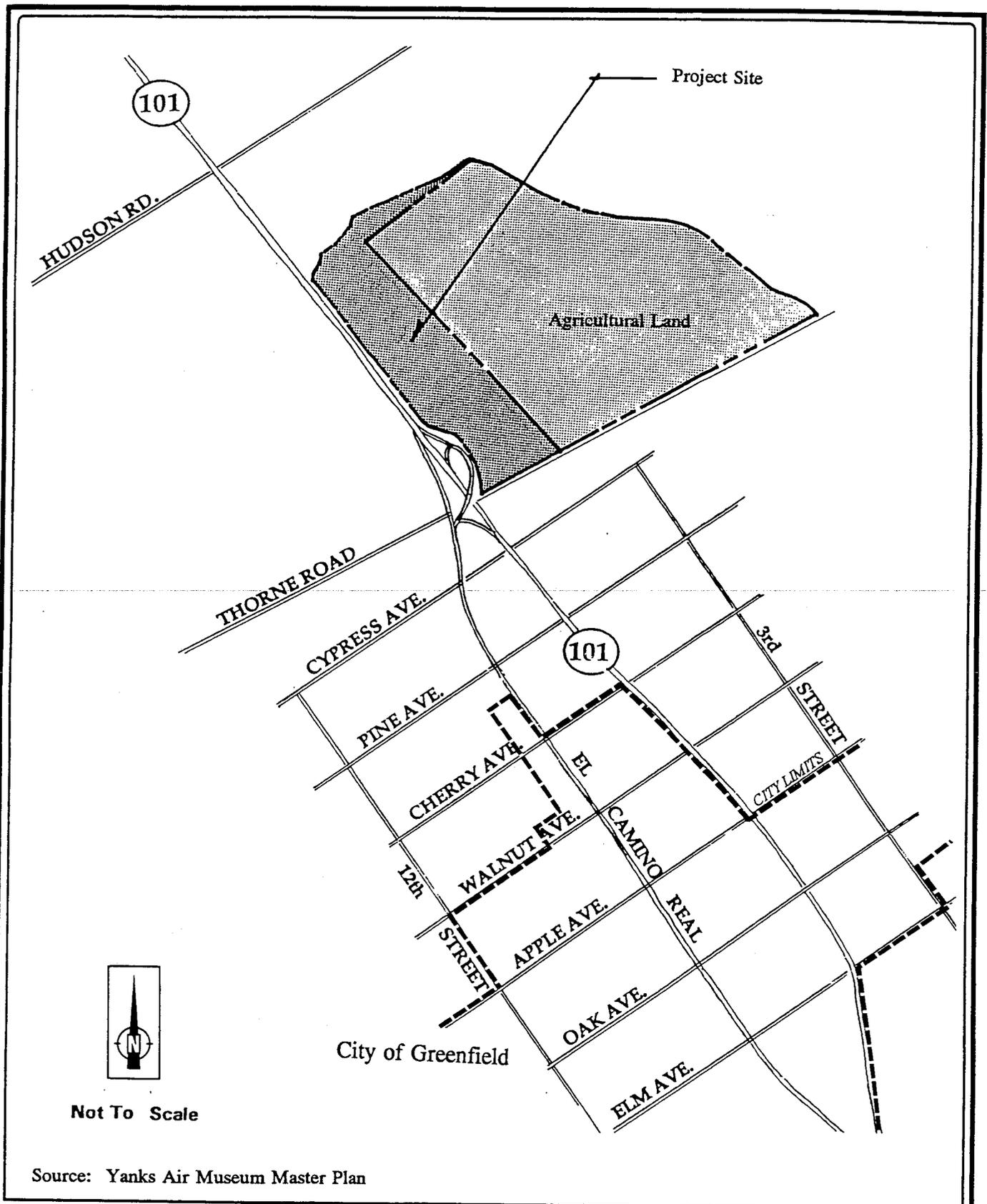


Not To Scale



Regional Location

Figure
1



	Vicinity Location	Figure 2
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3.4 Project Objectives

The existing site is designated in the Monterey County General Plan (Central Salinas Valley Planning Area) as Agricultural Farmlands (40 acre minimum).” The applicant is requesting that the General Plan be amended to designate approximately 111 acres of the project site as “Commercial” land use or any other land use designation that will provide for the proposed project. The remaining 329 acres will remain under the existing land use designation and remain in agricultural production.

The applicant is also requesting a lot line adjustment to create the 111-acre parcel for the air museum and commercial facilities. The remaining 329 acres will be established as a separate parcel of land.

In addition, two easements will be created. One easement will provide access from the frontage road to the easterly most parcel and the other easement will restrict land use adjacent to the air strip on the east.

3.5 Project Characteristics

Figure 3 depicts the Master Plan. Appendix B includes tables which summarize the proposed uses and square footages of each use. The Project, when completed, will contain the following elements:

- **Airstrip:** The applicant proposes a privately owned public airstrip consisting of a single runway 75 feet wide and 3,350 feet long 4,504 feet long and 35 feet wide. It will be used primarily for the use of the property owner and his private collection of vintage airplanes. A 3,350 4,500 foot taxiway is also proposed parallel to the runway.

The applicant estimates that the privately owned public airstrip will be used primarily for the restoration and operations of the air museum. The establishment of a Fixed Base Operator (FBO) is expected to coincide with the opening of the airport. Typically, an FBO will provide fixed wing aircraft and may also include helicopter and ultra light aircraft rentals. Additional service routinely includes flight instruction, delivery of aviation fuels (80 octane, 10011 and Jet A fuels) from a combination of underground storage tanks and refueller vehicles. Other activities may include glider operations, hot air balloon flights, sky diving, radio controlled model aircraft, and occasionally, scheduled events such as air shows, antique and experimental aircraft gatherings, and fly byes. ~~The characteristics of such special events are not known at this time. The applicant will be required by the County to gain special operating permits for special events which would result in large crowds, excessive noise or congested traffic conditions.~~ The applicant has proposed that special events such as air shows be held at the site on weekends several times per year. The applicant will be required by the County to gain special operating permits for special events which would result in large crowds, excessive noise or congested traffic conditions. At such time, the applicant will be required to satisfy the

requirements of the County concerning traffic congestion, parking, scheduling, etc. based on the specific characteristics of the event. During special events, the County may require remote parking lots, shuttle services, and other methods to reduce congestion of area roadways, as a condition of special event permits. Special events entailing noisy activities will require a permit from County staff. Acceptability of the time, location and magnitude of noise generating events will be evaluated by County staff as part of the activity permit.

Other services may be offered such as general engine repair and maintenance, airframe repairs, aircraft instrument and electronic repair/installation, and paint removal and application.

- **Aircraft Museum:** The museum building will house the aircraft display, repair and restoration facilities, parts storage, general offices, meeting rooms, a theater, a gift shop and a cafeteria. The building will be approximately 35 feet in height and will contain two stories. The total floor area of the building will be approximately 181,000 square feet. Figures 4 and 5 depict the Museum Floor Plan and Conceptual Elevations, respectively.
- **Winery:** The winery will be a two-story building containing approximately 30,000 square feet of floor area. The winery will contain a tasting room, storage area, production facilities, a gift shop and a delicatessen. Outside picnic areas will be provided for guests and patrons. The winery will be surrounded by vineyards and landscaped passive park areas. Figures 6 and 7 depict the Winery Floor Plan and Winery Concept Elevations, respectively.
- **Hotel:** The hotel/motel will be three-stories in height and will contain approximately 150 guest rooms. The facility will contain meeting rooms suitable for public and private gatherings. A full service restaurant and bar will be included for guests and patrons. Common supportive recreational facilities such as a swimming pool, jacuzzi, sauna, tennis courts and exercise facilities will be part of this development. It is anticipated that the building will contain approximately 135,000 square feet of floor area.
- **Retail:** The retail commercial building(s) will contain approximately 60,000 square feet of floor area. The building(s) will be single-story and will be designed for traditional tourist type retail establishments.
- **Gasoline Service Stations:** The gasoline service stations will be designed to share certain common facilities and they will accommodate both automobile and commercial truck traffic. Supportive retail commercial such as mini-marts will be included. No automobile repair facilities will be included. The building sizes will be between 1,500 and 2,000 square feet.

- **Aircraft Storage Hangers:** The aircraft hangers will be developed as a single building that would be single-story, approximately 20-feet in height, and be designed to provide temporary storage facilities for visiting small and medium sized aircraft, and maintenance areas. The buildings will be prefabricated metal structures designed for the intended use. The hangers will be installed on permanent concrete footings located adjacent to the aircraft taxiway for easy access.

The storage hangars will enclose approximately 75,000 square feet of building area and will include public restrooms available to people renting space in the RV parking area. Each restroom will include at least 4 water closets, four lavatory sinks, and three shower stalls. A total of 800 to 1,000 square feet of floor area will be devoted to the construction of the restroom facilities.

An aircraft fueling station equipped with a fuel spill retention area which would serve to contain fuel spills will be constructed adjacent to the hangers.

- **Free-Standing Restaurant:** The free-standing restaurant will be approximately 10,000 square feet in size and will be constructed to suit the needs of the future tenant. It is anticipated that the building will not exceed a height of 25 feet and will be a wood frame structure. The restaurant will be a full service eating establishment serving lunch and dinner. A full service cocktail facility will be included. Figure 8 depicts the Restaurant Floor Plan.
- **Fast Food Restaurants:** The site plan shows two fast food restaurants. Each of the buildings will contain approximately 3,000 square feet of floor area. The fast food restaurants will include seating and drive-through service.
- **RV Parking:** A 3.4-acre site is designated for RV parking. ~~The site is not proposed as an overnight RV Park.~~ The RV parking area is located at the northerly end of the project site adjacent to the hanger and museum storage area. Assuming that 15% of the parking area would be used for travel isles and driveways, the remainder of the parking area could accommodate 80 RVs. No RV sewage disposal is proposed. Electricity will be provided as a hookup option. ~~The onsite manager will monitor the length of stay.~~ Potable water would be provided onsite.

According to the applicant, projected occupancy of the RV parking facility is as follows:

- 10% occupancy 260 days per year, or an average of 8 vehicles per day.
- 40% occupancy 94 days per year, or 32 vehicles per day.
- 80% occupancy 11 days per year, or 64 vehicles per day.

3.5.1 Aircraft Flight Activity

Flight activity can be estimated at 25,000 to 30,000 annual operations. "Operations" are defined as either a take-off or landing. Highest activity levels will occur on weekends and holidays. Under these circumstances, daily operations could reach 100 to 150 operations daily with significantly increased weekend activity. Types of aircraft conducting operations will closely resemble aircraft densities experienced by similar airports in the local area. Typically, a general utility airport will experience a greater number of touch and go operations as compared to the combined totals of arrivals and departures. Single engine aircraft would account for the greatest percentage of operations. Multi-engine, turboprop and other types of aircraft would account for less than 5% of aircraft operations. The applicant has not established hours of operation of the airport.

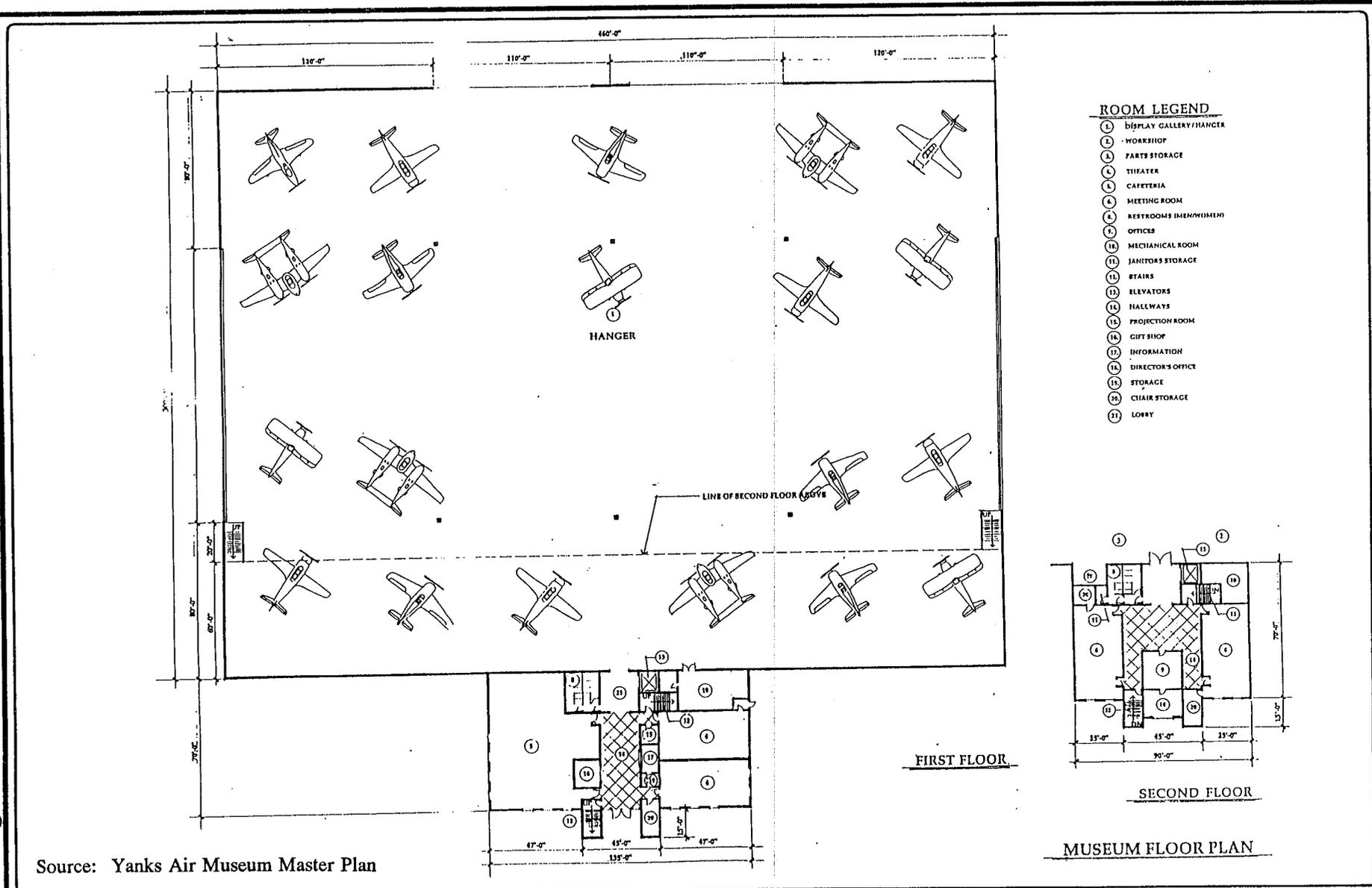
3.5.2 Circulation

The private roads will be designed and constructed according to the standards set forth by the County of Monterey. The circulation system will originate at Thorne Road at the intersection of U.S. Highway 101. Additional improvements are proposed at the interchange to accommodate the increased flow of traffic. The project proposes to install landscape parkways at the entrance and exit to the freeway.

Additional circulation elements will be constructed throughout the project to provide pedestrian/bicycle paths for the use of visitors to the museum, winery and hotel. This landscaped and paved path will be designed to provide a connection to each of the facilities and afford the opportunity to view the agriculture production.

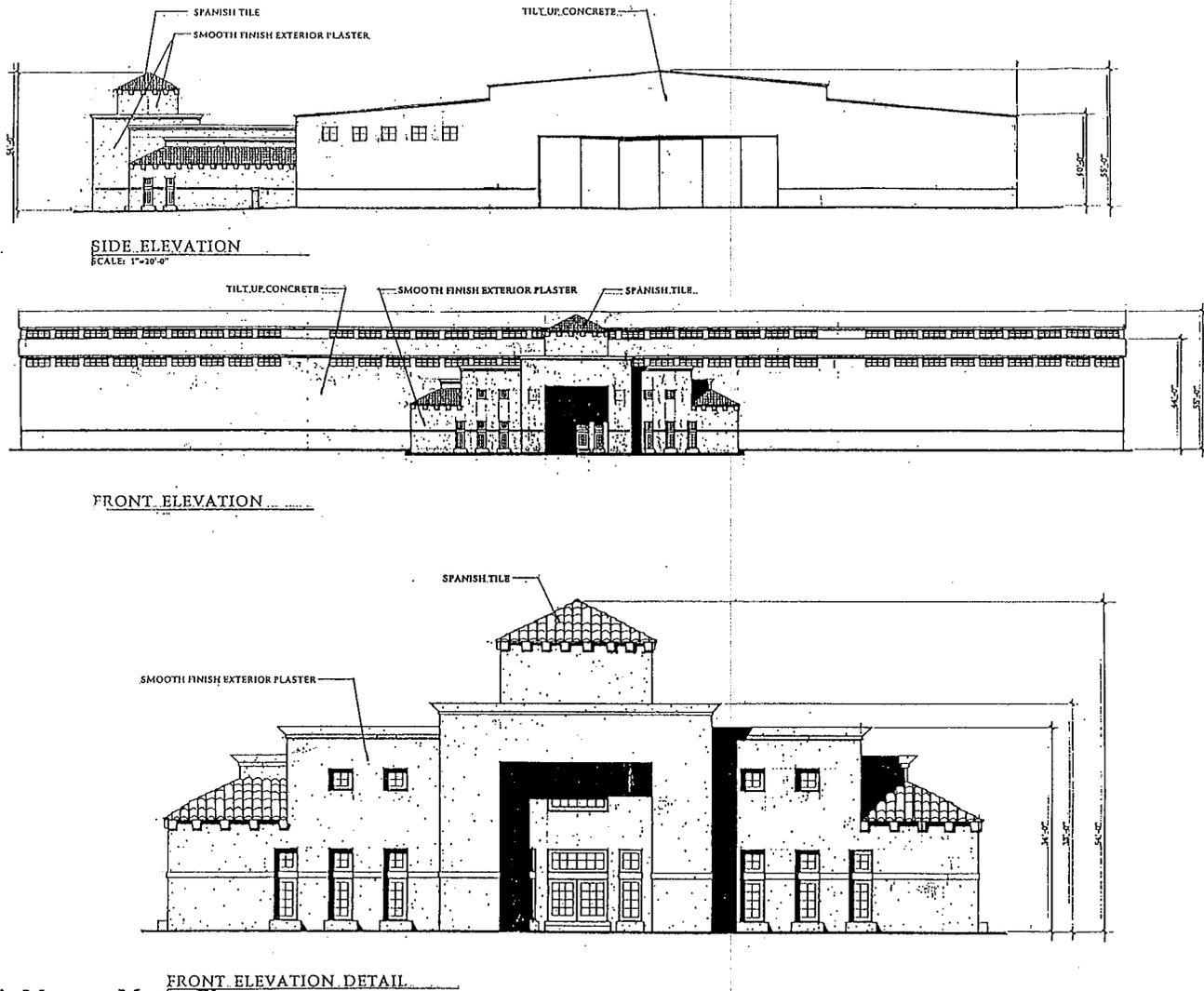
3.5.3 Off-Street Parking Facilities

The museum and the winery are proposed to share a common off-street parking area. Initially, approximately 2 acres of parking will be provided. This will be sufficient to accommodate approximately 250 vehicles. The parking area will be broken up with landscape planters which will be planted with shade trees. The parking area will be developed incrementally to serve demand generated by increased use of the facility and the addition of new structures. Special parking spaces will be created to meet the needs of handicapped persons. Spaces large enough to accommodate heavy recreational vehicles for recreational vehicles (RVs) will also be provided.



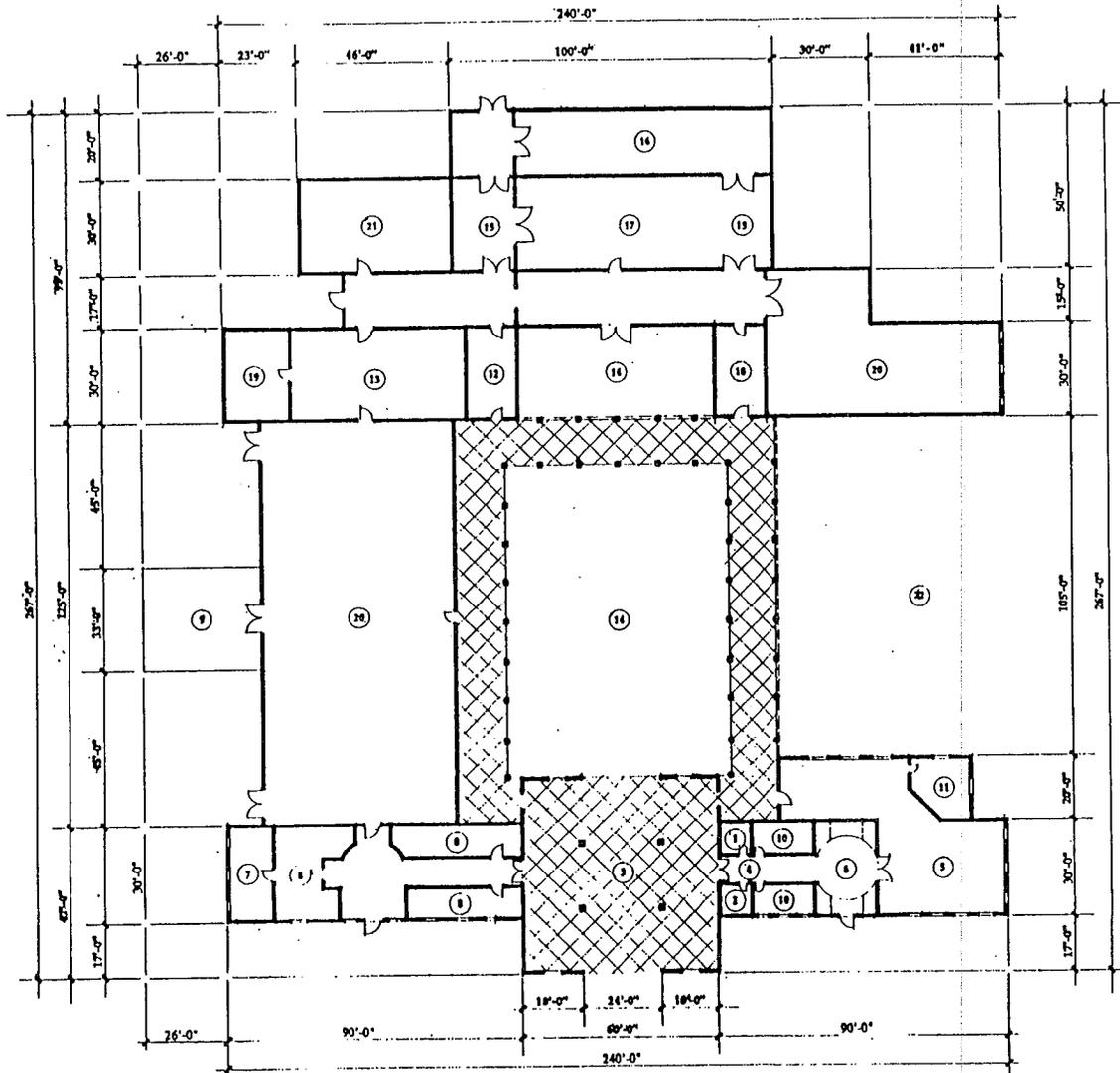
Museum Floor Plan

Figure
4



Source: Yanks Air Museum Master Plan

Museum Concept Elevations



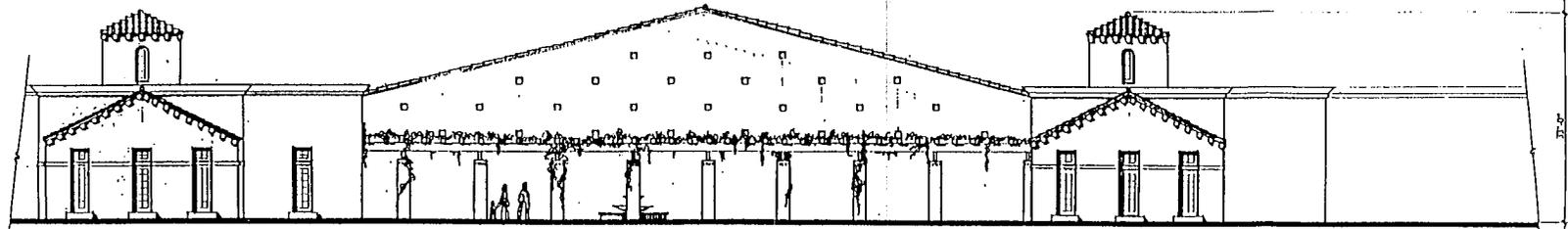
ROOM LEGEND

- ① MENS RESTROOM
- ② WOMENS RESTROOM
- ③ ENTRY PORTICO
- ④ ENTRY
- ⑤ DINING ROOM
- ⑥ WINE TASTING ROOM
- ⑦ OWNERS OFFICE
- ⑧ OFFICES
- ⑨ CRUSH PAD
- ⑩ GIFT SHOP
- ⑪ DELI
- ⑫ LABORATORY
- ⑬ BOTTLING
- ⑭ GARDEN
- ⑮ WINE STORAGE
- ⑯ BARREL WASHING
- ⑰ WOOD TANK ROOM
- ⑱ EMPLOYEE DINING
- ⑲ MECIANICAL ROOM
- ⑳ STORAGE
- ㉑ SERVICE COURT
- ㉒ OUTDOOR EATING AREA

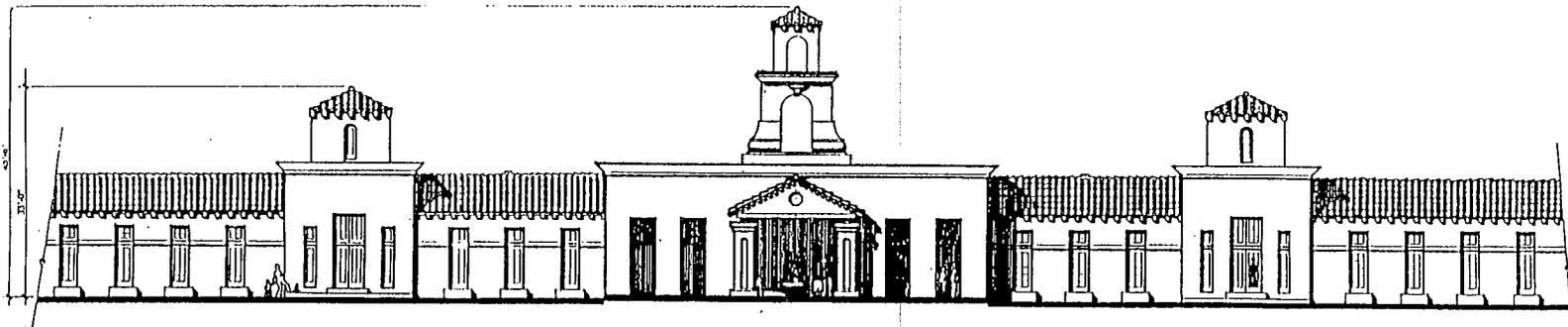
Source: Yanks Air Museum Master Plan

Winery Floor Plan

Figure 6



EAST ELEVATION



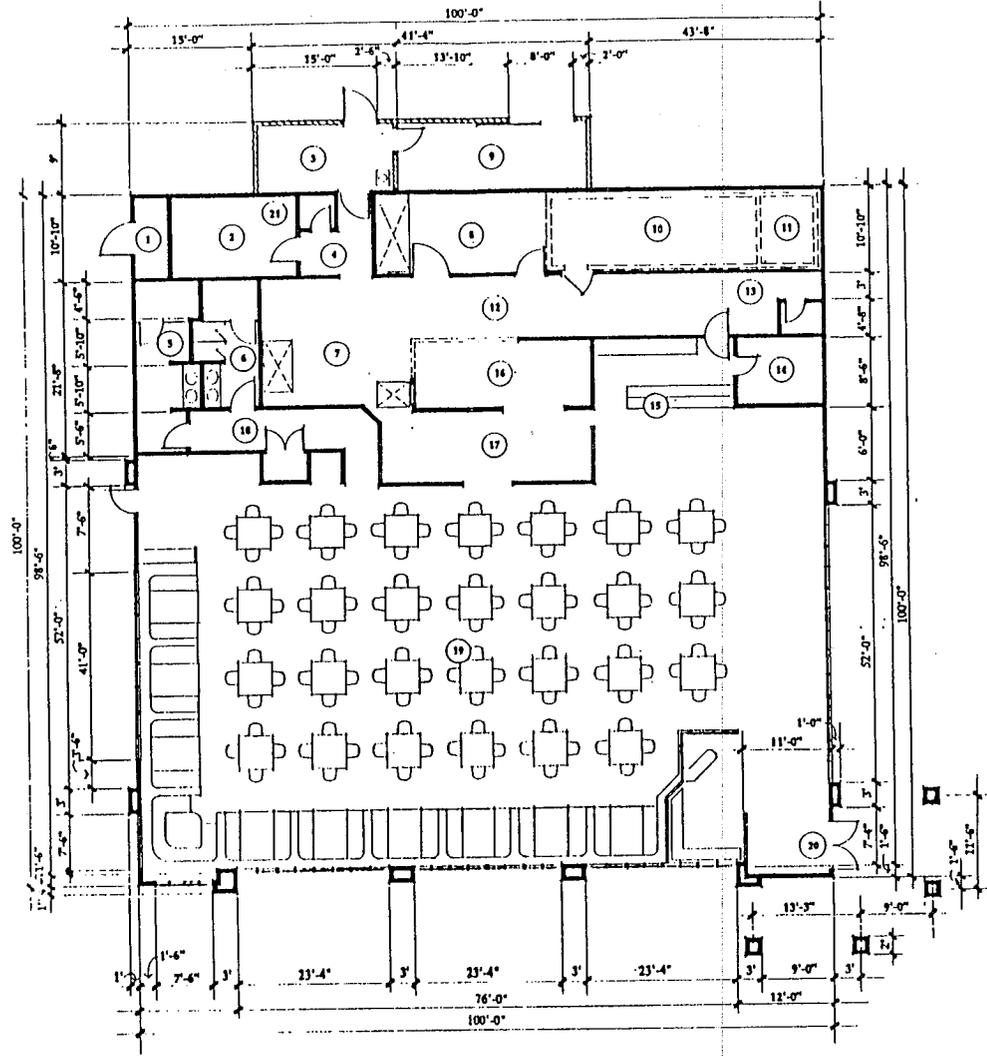
SOUTH ELEVATION

Source: Yanks Air Museum Master Plan

Winery Concept Elevations

Figure

7



ROOM LEGEND

- ① MECHANICAL ROOM
- ② DRY STORAGE
- ③ DELIVERY/ELECTRICAL
- ④ DELIVERY
- ⑤ MEN'S RESTROOM
- ⑥ WOMAN'S RESTROOM
- ⑦ SCULLERY
- ⑧ SALADE BAR PREPARATION
- ⑨ TRASH
- ⑩ COOLER
- ⑪ FREEZER
- ⑫ PREPARATION
- ⑬ DRESSING ROOM #1
- ⑭ OFFICE
- ⑮ BAR
- ⑯ HOT SIDE
- ⑰ SERVICE PICK-UP
- ⑱ CORRIDOR
- ⑲ DINING
- ⑳ VESTIRULE
- ㉑ DRESSING ROOM #2

Source: Yanks Air Museum Master Plan

Restaurant Floor Plan

Figure
8

Parking requirements for the proposed uses are summarized in Table 1. Table 1 summarizes the difference between what is proposed in the Master plan for Yanks Air Museum and specific requirements as identified in Title 21, the zoning code for the County of Monterey. The number of proposed spaces shown in the Master Plan is not in strict accordance with specific zoning requirements for individual uses, but overall there will be approximately 145 more parking spaces provided for the project than are required. In general, the Master plan is conceptual in character and does not identify the number of seats or employees each particular use will have. For the purposes of the EIR, the site does provide sufficient parking area to serve the proposed uses.

Table 1. Parking Requirements			
Proposed Use	Parking Requirements¹	Spaces Required	Spaces Proposed²
Aircraft Museum (181,000 sf)	1 space / 200 sf	905	969
Gasoline Service Stations (2)	1 space / 500 sf floor area	8	10
Hotel (150 rooms, restaurant, meeting rooms)	1 space / unit plus 2 spaces / 3 employees on largest shift plus other applicable requirements	250 Unknown*	250
Retail Commercial Area (60,000 sf)	1 space / 250 square feet	240	240
Fast Food Restaurant (2) (3,000 sf ea.)	1 space / 3 seats enclosed plus 3 drive through spaces plus 3 employee spaces	46	56
Free Standing Restaurant (150 seats)	1 space / 4 seats. Where seating is not fixed, 1 space / 50 sf of seating, waiting or cocktail lounge area	38	92
Winery/Wine Tasting/Delicatessen (30,000 sf)	1 space / 500 sf (agricultural processing); same as free standing restaurant for wine tasting, deli.	80	93
TOTAL		1,567.00 1,317.00	1,712.00
<p>Notes: *The necessary information for the hotel calculation is not available.</p> <p>¹ Monterey County Code, Chapter 21.58.040</p> <p>² Yanks Air Museum Master Plan, November 1994</p>			

A Trip Reduction Plan will be prepared for the development subject to the review of the governing jurisdiction. The trip reduction measures that will be considered in the development of the project include items such as participation in a bicycle plan and such other measures that will encourage the use of alternative modes of transportation. Bicycle parking facilities will be provided. Shower and locker facilities will be provided for employees that ride bicycles to work or walk to work. Certain preferential parking spaces will be designated for ride-share vehicles. Bus pads and turnouts will be provide to accommodate mass transit vehicles. An active program designed to identify and implement new trip reduction policies will be used within this facility.

3.5.4 Landscaping and Exterior Design

The landscaping that will be installed surrounding the proposed development and located in the off-street parking facilities will consist of drought tolerant plant material recommended by the State of California landscaping regulations. Local guidelines governing plant material and irrigation systems will be adhered to. Landscape features will consist of entryways, streetscapes and active and passive recreational areas.

Landscaping will be used to create a transitional effect between each use. Consideration for shade, texture and color will be emphasized. Rolling berms will be used for visual relief. The hardscape will reinforce the landscape theme by the use of enhanced paving materials at strategic locations. Street furniture will be located in certain areas to encourage gatherings at passive and active recreational areas, including picnic facilities, trails, walking paths, pools and tennis courts. Lighting will be provided for security and enhancement of the landscaping.

Freeway monumentation (e.g., signs) is proposed to provide project identification. Entry monumentation will provide definition for the site and will serve to direct the motoring public to the museum and support facilities. The entry monument for the site is proposed to be 10 feet high and 15 feet wide. Monuments are proposed to be located at the Highway 101/Thorne Road intersection.

Signs are proposed to be installed in accordance with all applicable regulations of the County of Monterey. The applicant proposes to submit a uniform sign program to the County for review and approval. The applicant has not submitted a sign program at this time.

3.5.5 Water Feature

Two acres of the site will be used to create an artificial lake located in the approximate center of the project site that will: 1) serve as a design focal point for the landscaping effort; 2) provide an island display element for the antique aircraft; 3) be used as a water reservoir for fire fighting equipment; and 4) be used as a integral element of the farmland and landscaping irrigation system. The lake will range from three to five feet in depth.

wastewater will be used to irrigate crops on adjacent farmlands owned by the applicant and the proposed vineyard. An option discussed in the EIR is for the project to connect to the City of Greenfield municipal wastewater treatment system.

3.5.9 Project Phasing and Schedule

The applicant expects to complete the project over a period of 5 years in six phases as follows:

Phase I: The winery and vineyards will be constructed as quickly as possible. Interest has been expressed in this location by several businesses. Off-street parking facilities, passive recreational facilities and landscaping will be installed. The aircraft runway will be constructed in this phase.

Phase II: The museum building will be the central focal element of the development. In conjunction with the construction of the museum, the aircraft runway and taxiway will be improved to accommodate increased demand. Minor grading will be required to level the site and create the building pad for the museum. Upon completion of the museum, the antique aircraft that are currently stored at the Chino Airport located in Chino, California, will be relocated to this facility.

The Thorne Road Off-Ramp at U.S. Highway 101 will be improved to meet Caltrans requirements to provide better access to the project site. A private on-site road system will be improved to provide access to the museum, winery and the runway. Off-street parking will be created for visitors to the museum facility.

Phase III: Gasoline suppliers will be encouraged to locate at the Thorne Road off-ramps. Supportive systems such as access roads, off-street parking and landscaping elements will be constructed.

Phase IV: The hotel/motel will be constructed to meet the demand created by tourist trade and the needs of private industry to use this retreat setting for training sessions. The site will be marketed to established hotel firms. The exact design of the facility and supportive amenities will be directed by the end user. The supportive commercial facilities will be marketed in conjunction with this phase of the development.

Phase V: The free-standing restaurant will be constructed as a "Build To Suit" facility to meet the demands of the future tenant. This portion will be designed to complement the other elements of the project.

Phase VI: The metal hangers and RV parking will be constructed in this final phase.

3.6 Required Permits and Approvals

As indicated in the "Introduction", the EIR is an informational document for decision makers. CEQA requires decision makers to review and consider the EIR in their consideration of this project. This EIR provides the environmental documentation required under CEQA and shall apply to the following discretionary approvals by public agencies.

The proposed project will require a general plan amendment and commercial rezoning to accommodate the Aircraft Museum and airport facilities. The hotel/motel, retail commercial and gasoline service stations will also require commercial zoning. The winery and associated vineyards would require discretionary permits under the new land use and zoning designations. ~~s appear to be a permitted use in the existing agriculture zoning.~~ The aircraft runway and associated facilities will require the issuance of a Conditional Use Permit.

The applicant must file an application with the Federal Aviation Administration regarding the construction and operation of the airport (Construction Form 7460-1).

The airport will be operated as a public use airport and in accordance with the provisions of the California Public Utilities Codes. Prior to the start of construction, Yanks Air Museum must apply for a Caltrans Airport Permit and provide airport operating procedures and regulations.

The following permits will also be required:

- A National Pollutant Discharge Elimination (NPDES) permit from the RWQCB;
- Approval of service agreements by the Monterey County Local Agency Formation Commission (LAFCO).

~~If the on-site sewerage disposal and water system is approved, the following permits would be required:~~

- ~~Waste Discharge Requirements for the treatment facilities, reclamation facility, bio-solids disposal, and storm water discharge must be obtained.~~
- A wastewater discharge permit for the Division of Environmental Health;
- A use permit for a sewage treatment plant from the Monterey County Planning Department
- Possible service agreement from the City of Greenfield; and
- Approval of service agreements by the Monterey County Local Agency Formation Commission (LAFCO).
- ~~The formation of a County Service Area or other governmental entity for the onsite sewerage disposal system may be necessary and require LAFCO approval.~~

4.0 ENVIRONMENTAL SETTING, IMPACTS & MITIGATION MEASURES

4.1 Organization

This chapter describes each of the environmental categories potentially affected by the proposed project. Each category consists of three parts: *Introduction*, *Setting*, and *Impacts and Mitigation Measures*.

The *Introduction* identifies any technical studies which form the basis for analysis.

The *Setting* describes the environment in the vicinity of the project, as it exists before the commencement of the proposed project, from both a local and regional perspective.

The *Impacts and Mitigation Measures* section describes the significant environmental effects of the proposed project compared with existing conditions. Both project specific and cumulative impacts will be described. Impacts will be described as less-than-significant, significant, or significant and unavoidable. The specific criteria for determining the significance of a particular impact are identified prior to the impact discussion in each issue section, and are consistent with significance criteria set forth in CEQA Guidelines and/or local standards. Mitigation measures will be recommended for each significant environmental effect identified in the EIR. Although not required by CEQA, mitigation measures may be identified for less-than-significant impacts to further reduce potential environmental effects.

A separate Mitigation Monitoring Program (as required by Public Resources Code §21081.6) will be developed in conjunction with the Final EIR, that outlines the mitigation measures and the monitoring and reporting methods that would be employed. The Mitigation Monitoring Program will be considered for adoption by the Monterey County Board of Supervisors when certification of the Final EIR is considered.

4.1.1 Determination of Significance

Under CEQA, a significant impact is defined as a substantial, or potentially substantial, adverse change in the environment (Public Resources Code §21068). The guidelines implementing CEQA direct that this determination be based on scientific and factual data. The criteria for determining the significance of a particular impact are identified prior to the impact discussion in each Category, and are consistent with significance criteria set forth in the guidelines implementing CEQA.

4.2 Land Use and Planning

4.2.1 Introduction

The Project will result in a major visitor serving retail/commercial development on land outside the existing or planned urban area of the City of Greenfield on productive farmland designated for agricultural use. This section will review policies related to the timing, sequence and pattern of growth in this planning area, and City, County and Local Agency Formation Commission (LAFCo) standards and guidelines for development projects.

Issues associated with compatibility of the proposed airport with existing and future surrounding land uses generally relate to safety and noise. These concerns are addressed separately in Section 4.3, *Airport Safety*.

4.2.2 Setting

4.2.2.1 Regional Setting

The project site is located in the central Salinas Valley immediately north of the City of Greenfield. ~~The project site is located in unincorporated Monterey County.~~ The property lies on the floor of the Salinas Valley which is bounded by the Gabilan Range to the east and the Sierra de Salinas Mountains to the west. The slopes and canyons of these ranges drain surface runoff to tributaries of the Salinas River which flows year-round, although primarily below the surface during the summer months. The Salinas River is located approximately 1.3 miles to the east of the project site.

The natural vegetation of the region is influenced by climate and location of topographic features. The valley floor is generally used for agricultural production, primarily row crops and grapes. Grass is the prevailing natural ground cover in the low lands and chaparral is found in the hills.

The central Salinas Valley enjoys a "Mediterranean" climate with moderate temperatures throughout the year. Summers are warm and dry and winters are generally mild with annual precipitation ranging from 10 inches in King City to 20 inches at Pinyon Peak in the Santa Lucia Range west of the site.

King City is located 11 miles from the project site and serves as the economic center for much of southern Monterey County. The Cities of Soledad and Gonzales are located approximately 6 and 15 miles, respectively, to the north. The local economy is primarily based on agriculture. Highway 101 is the primary north-south arterial within the County and passes immediately to the west of the site. Southern Pacific Railroad operates a railway line which runs in a north-south direction to the east of Greenfield. The King City Municipal Airport is a general purpose airport serving the central and south County region. Several private airfields are located in the vicinity of King City.

4.2.2.2 Existing and Surrounding Land Uses

The property is currently farmed in row crop production. Unpaved roads cross the site as needed to provide access to the crops. Improvements also include two barns located approximately 1,500 feet north of Thorne Road and approximately 300 feet easterly of Highway 101. Just west of the barns are two water wells that supply the irrigation system for the farming operations.

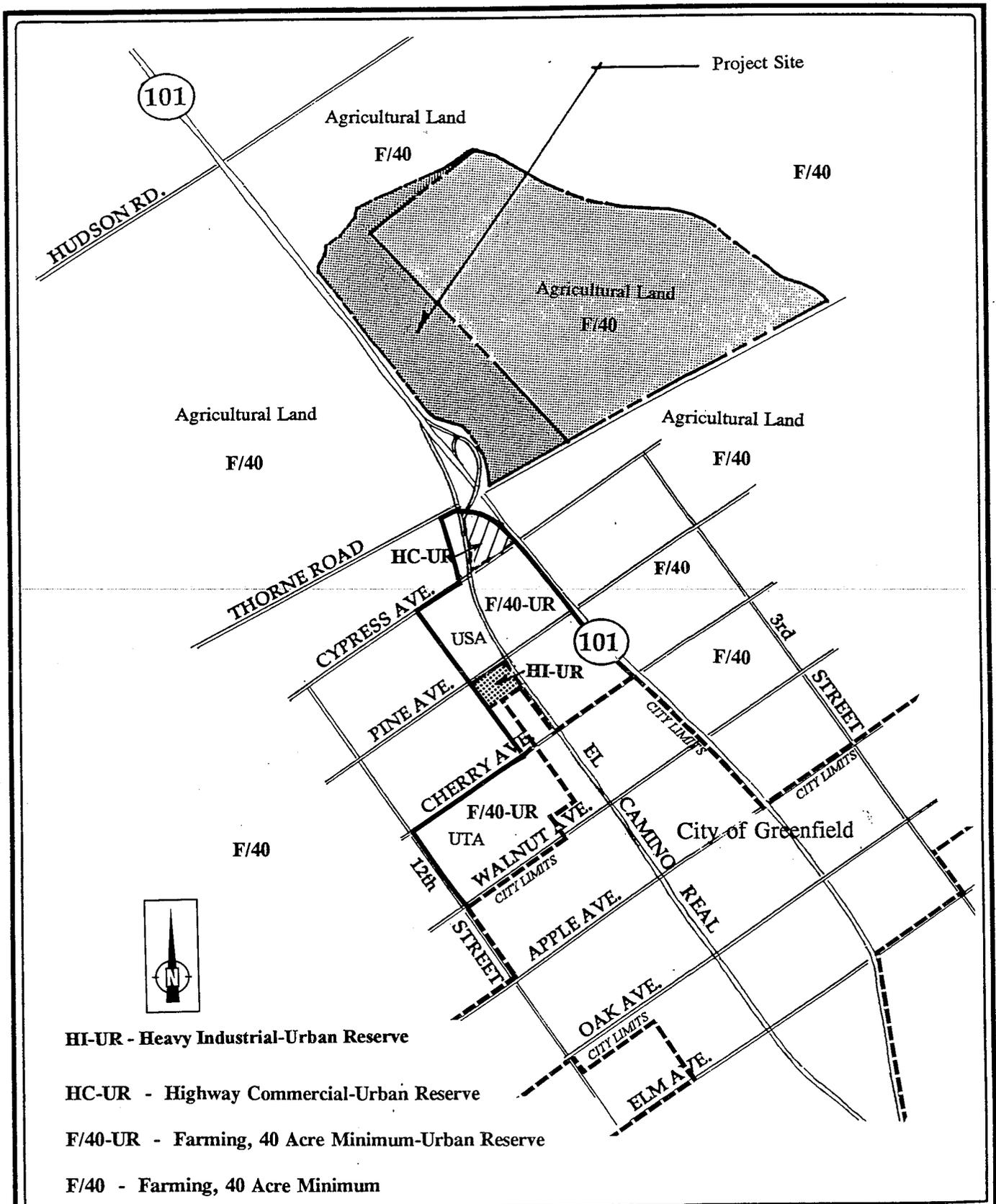
The project site is surrounded to the north, west and south by lands also in agricultural production. Agricultural lands surrounding the project site are in unincorporated Monterey County and are designated "Agricultural (Farmlands-40 ac. min.)". The predominant crops grown on lands surrounding the subject parcel are row crops.

The northern and eastern boundaries of the subject parcel coincide with the top of the terrace slope which drops off about 30 feet at a 2:1 slope to the next terrace below. The Salinas River lies approximately 1.3 miles to the east of the project site. Highway 101 is immediately to the west of the project site. Figure 9 depicts surrounding land uses.

The project site is located approximately one mile north of the City of Greenfield. Greenfield was incorporated in 1947. The current population is 9,150 ~~9,324~~². Highway 101 divides the city with the commercial core and most of the residential development located west of the highway. ~~The project site is located outside of the adopted Sphere of Influence (SOI) of the City. The SOI consists of an Urban Service Area which defines areas which are projected to be ready for annexation to the City within the next five years, and an Urban Transition Area which defines areas which are projected to be ready for annexation within the next five to 20 years.~~ The City of Greenfield City Council recently approved an amendment to Greenfield's Sphere of Influence. The proposed project site is now located in the boundaries of the Urban Service Area of the Sphere of Influence. This amendment will require final approval by LAFCO. Figure 10 depicts the current City of Greenfield SOI and City limits.

Lands between the City limit and the project site within the Greenfield SOI west of El Camino Real are designated "Residential Reserve" in the Greenfield General Plan. Lands between the City limit and the project site within the Greenfield SOI east of El Camino Real are designated "Light Industrial".

² State Department of Finance, January 4995 ~~1996~~



Surrounding Land Uses

Figure
9

4.2.2.3 Area Plans

Land use on the project site is guided by the Central Salinas Valley Area Plan, one of eight sub-components of the Monterey County General Plan. The Central Salinas Valley Area Plan (CSVAP) describes and designates various land uses within the planning area and identifies appropriate policies and standards which address local land use issues related to transportation and circulation, water supply, wastewater services, resource management, public services, and housing.

One of the fundamental goals of the CSVAP is to preserve viable agricultural lands and protect the existing agricultural productivity of the Salinas Valley. Specific policies of the Plan are designed to implement these general goals. Policies which implement the CSVAP goals as they apply to land use compatibility issues are identified in this section of the EIR.

According to the General Plan Land Use Map, the subject parcel is designated "Agricultural (Farmlands-40 ac. min.)". The "Farmlands" sub-category includes those farmlands designated by the USDA Soil Conservation Service Important-Farmlands Inventory system as prime, of statewide importance, unique or of local importance. The minimum parcel size is 40 acres.

4.2.2.4 Existing Zoning District

The County of Monterey prepared and adopted a revised zoning ordinance in August, 1991 that is applicable to the unincorporated areas outside of the coastal zone. The new zoning ordinance, Title 21, reflects the land use designations identified in the General and Area Plans throughout the County. The project site is within the F/40 zoning district, consistent with the existing General Plan designation.

4.2.2.5 Agricultural Resources

Agriculture is a major industry in Monterey County. The gross value of agricultural products in the county was \$1,934,702,390 in 1994, a 4.4% increase over the previous year. The three leading commodities in 1994 in terms of gross value were lettuce, broccoli and strawberries².

The entire 430-acre property has been historically used for farming. Prior to 1988 the property was owned by Paul Masson Wine Incorporated. Paul Masson used the site for vineyards until the late 1970's or early 1980's. The vineyards were subsequently removed and the ranch laid fallow until 1988 when the applicant purchased the site. Broccoli, cauliflower, mixed lettuces, and head lettuce are currently grown on the property. The two agricultural wells, barns and other outbuildings associated with farming operations on the property are located on the ±111-acre project site.

² "Monterey County Crop Report", Monterey County Agricultural Commissioner, 1994.

Williamson Act Preserves

Several parcels in the vicinity of the project site are within agricultural preserves created under the Williamson Act, including the 329-acre parcel under the same ownership as the project site (Contact #71-41). The proposed project site was previously part of a Williamson Act contract encompassing a 430-acre parcel. No portion of the project site is currently under such contract. Under Williamson Act contracts, the property owner agrees to limit the use of the land to agriculture and associated uses for a period of at least ten years and the County agrees to tax the land at a rate based on the agricultural produce of the land rather than its real estate market value. Figure 11 depicts parcels in the project vicinity currently under Williamson Act contract.

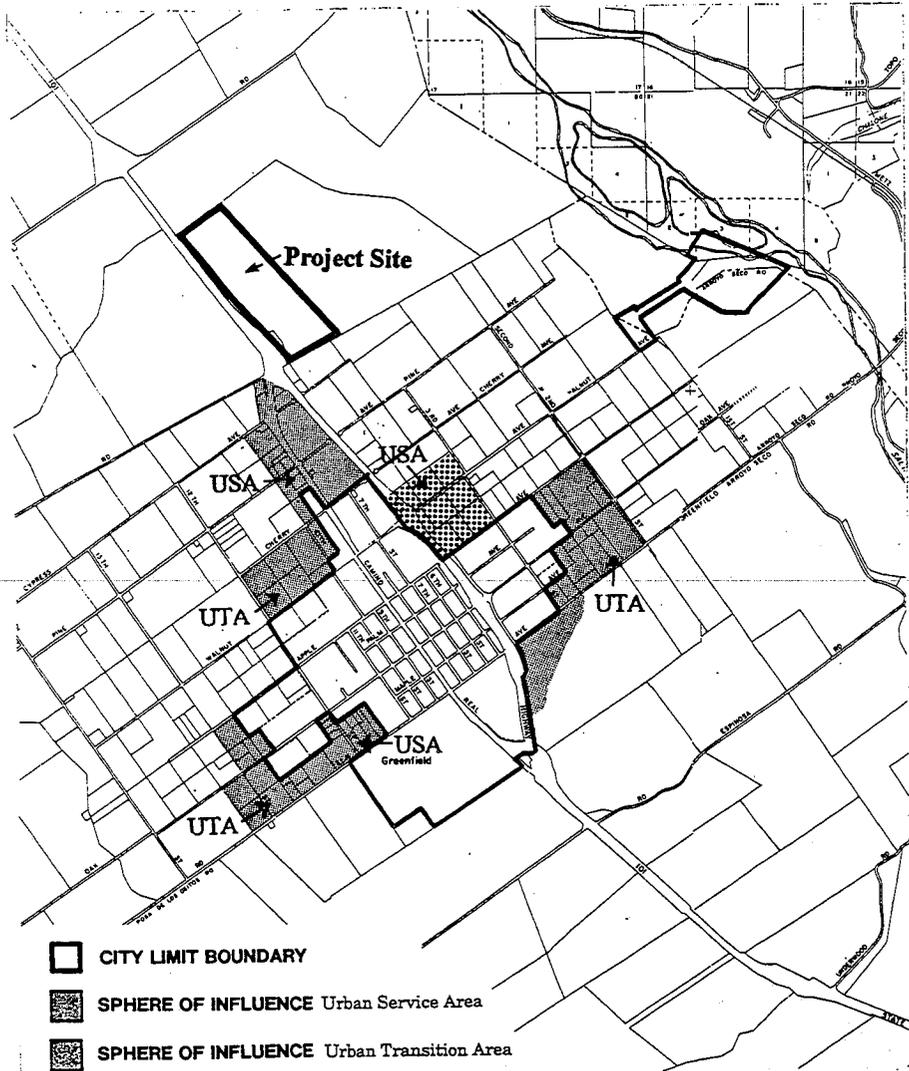
Agricultural Suitability

The suitability of land for agricultural production is generally a function of topography, climate, water availability, and soil conditions. Soils on the project site can be grouped according to their suitability for general intensive farming. Capability grouping and the Storie index are used by the Soil Conservation Service (SCS) to categorize soils taking into consideration soil limitations including drainage and availability of water, land-forms, and climate. In general, lands with high capability and index ratings are considered "prime agricultural land". These are lands which the County places the highest priority on conserving and protecting. According to the Monterey County Important Farmland Map (July, 1986) the project site is categorized "Prime", defined as "land with the best combination of physical and chemical features for the production of agricultural crops".

Soils at the site have been classified by the SCS as Arroyo Seco series. The Arroyo Seco series (AsA) consists of well drained soils that formed in alluvium that was derived mostly from granitic and sedimentary rocks on old alluvial fans. These soils are considered important for agricultural purposes and comprise approximately 3% of soils in Monterey County.

The Soil Capability Classification categorizes soils primarily by their suitability for cultivation. Class I through IV soils are generally considered suitable for cultivation and Class V through VIII soils are generally not considered suitable for cultivation. AsA soils are categorized Class II soils which, while considered suitable for cultivation, have severe limitations that reduce the choice of plants or require special conservation practices or both.

The Storie Index expresses numerically the relative degree of suitability of a soil for general intensive farming at the time of evaluation. The rating is based on soil characteristics only. Factors such as availability of water, climate, and distance of the site from markets are not considered. A rating of 100 percent represents the most desirable conditions for crop production, and lower ratings are given for soil conditions that are less favorable. The Storie Index rating for AsA soils is 63 percent which equates to a grade 2 soil (60 to 80 percent). Grade 2 soils are good and well suited to farming, but are less desirable than grade 1 soils (80 to 100 percent).

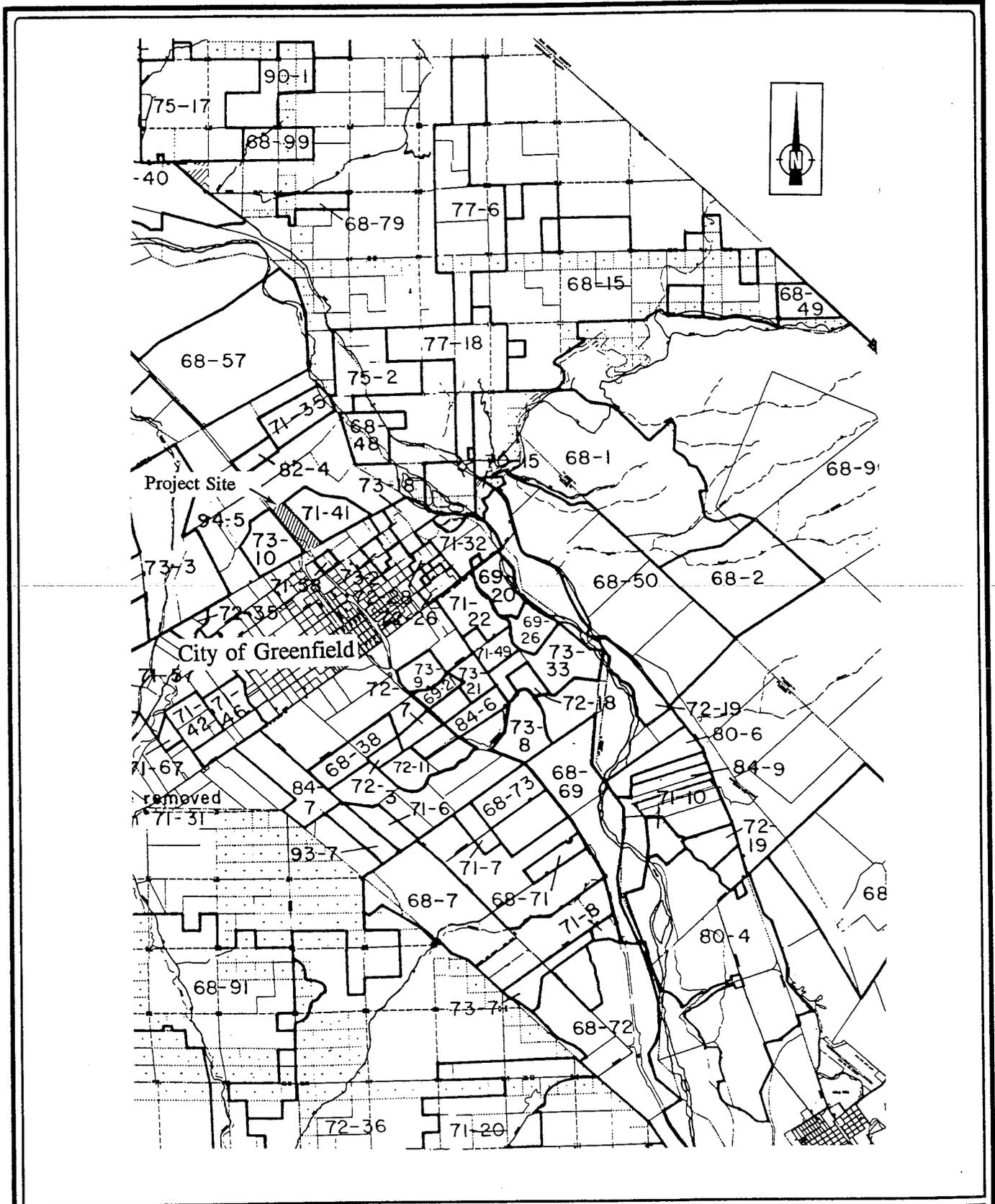


-  CITY LIMIT BOUNDARY
-  SPHERE OF INFLUENCE Urban Service Area
-  SPHERE OF INFLUENCE Urban Transition Area



City of Greenfield Sphere of Influence

Figure 10



Properties Under Williamson Act Contracts

Figure
11

4.2.3 Impacts and Mitigation Measures

4.2.3.1 Standards of Significance

In accordance with CEQA Guidelines and County policies, a project impact would normally be considered significant if it would conflict with adopted general plan designations or policies; create a land use incompatibility with existing land uses; convert prime agricultural land to non-agricultural use; or impair the agricultural productivity of prime agricultural land.

4.2.3.2 Proposed Changes in Land Use

The applicant is requesting a general plan amendment and rezone to designate 111 acres of the subject parcel as a commercial land use for the proposed air museum and commercial uses. The remaining 329 acres will remain under the existing "Agricultural" land use designation and is currently under Williamson Act contract.

In addition, the applicant is requesting a lot line adjustment to create a separate and distinct parcel of land for the proposed air museum and commercial uses. Currently, Parcel No. 1 contains 427.70 acres and parcel No. 2 contains 12.84 acres. The total land owned by the applicant is 440.54 acres. The proposed lot line adjustment will create parcel No. 1 containing 111.29 acres and parcel No. 2 containing 329.25 acres.

Two easements will be created. One easement will provide access from the public frontage road to the easterly most parcel (Parcel No. 2) and the other easement will restrict land use on Parcel No. 2 adjacent to the aircraft runway which is proposed to be located in Parcel No.1.

4.2.3.3 Land Use Compatibility

The project site is surrounded on the north, east and south by productive agricultural lands considered "prime" and currently farmed in row crops. The western boundary is formed by Highway 101. Development of the project site is not likely to create land use conflicts between agricultural operations and the proposed airport and commercial activities because the site plan allows for open space buffers and non-sensitive uses on each side. On the north, the winery is separated from farming operations by approximately 1,200 feet of landscaping, parking lots, and the hanger and museum storage facility.

On the east, the applicant proposes to create a +329-acre parcel which will remain in agricultural production. The commercial facilities are separated from such farming operations by the taxiway and runway, a distance of over 350 feet. On the south, the nearest commercial facility to the farming operations is almost 400 feet away and is separated by a parking lot and landscaped buffers.

However, urban encroachment can make agricultural production more costly and difficult due to trespassing, potential vandalism, and restrictions on hours of operation and pesticide/fertilizer applications. Typical farming operations generate potential nuisances such as dust, pesticides, odor, and noise. The County of Monterey has adopted a right-to-farm ordinance whose purpose is "to express the intent of the County to preserve and protect agricultural activities and to insulate lawful agricultural activities from nuisance complaints from suburban or urban uses on adjoining properties. As stated above, development of the proposed project is not likely to create land use conflicts between agricultural operations and the proposed airport and commercial activities because the site plan allows for open space buffers and non-sensitive uses on two sides of the development. Chapter 21.66030 (F) (a) (b) (c) of the Zoning Ordinance requires that "new development adjacent to agricultural uses shall be required to establish a well defined buffer zone within the area to be developed. An easement shall be sufficient to protect agriculture from impacts of new residential or other incompatible development and to mitigate against the effects of agricultural operations on the proposed uses. ~~intended to promote understanding between farmers and urban uses. This is not a significant impact. No additional mitigation is recommended or necessary.~~

4.2.3.4 Loss of Agricultural Land

The proposed project will result in the permanent conversion of approximately 111 acres of prime agricultural land to urban type development outside of the existing and proposed SOI for the City of Greenfield. The remaining 329 acres owned by the applicant is proposed to remain in agricultural production and is currently under Williamson Act contract.

Impact: The project will result in the conversion of approximately 111 acres of agricultural land to commercial and airport uses. As indicated by the Stories index ratings and soil grades, soils on the site are classified as "prime" and are well suited for general intensive farming. *This is a significant unavoidable impact.*

4.2.3.5 Consistency With Central Salinas Valley Area Plan Land Use Policies

A key component and discretionary action of the proposed project is the general plan amendment and rezoning for the airport and commercial development. The proposed uses are not currently consistent with Monterey County General Plan land use designations which specify agricultural uses on the site. However, adoption of the proposed general plan amendment will, by definition, result in land use consistency with the General Plan.

Therefore, the following analysis focuses on project conformance and consistency with Central Salinas Valley Area Plan policies relating to the proposed commercial designation and land use, and not the existing agricultural designation or use.

28.1.1.2 (CSV) Recreation and visitor-serving commercial uses shall only be allowed if it can be proven that:

1. Areas identified by the Flood Control and Water Conservation District as prime-groundwater recharge areas can be preserved and protected from sources of pollution as determined by the Director of Environmental Health and the County Water Resources Agency [formerly known as the Flood Control and Water Conservation District];
2. Proposed development can be phased to ensure that existing groundwater supplies are not committed beyond their safe-long term yields where such yields can be determined by both the Director of Environmental Health and the County Water Resources Agency [formerly known as the Flood Control and Water Conservation District];
3. The main channels of either the Arroyo Seco River or the Salinas River will not be encroached on by development because of the necessity to protect and maintain these areas for groundwater recharge, preservation of riparian habitats, and flood flow capacity as determined by the County Water Resources Agency [formerly known as the Flood Control and Water Conservation District];
4. The proposed development meets both water quality and quantity standards expressed in Title 22 of the California Administrative Code and Title 15.0.4 of the Monterey County Code as determined by the Director of Environmental Health;
5. The proposed development meets the minimum standards of the Regional Water Quality Control Basin Plan when septic systems are proposed and also will not adversely affect groundwater quality, as determined by the Director of Environmental Health; and
6. The proposed development will not generate levels of runoff which will either cause erosion or adversely affect surface water resources as determined by the County Water Resources Agency [formerly known as the Flood Control and Water Conservation District].

Consistency Analysis: *The project satisfies each of the above referenced policy statements with the exception of a provision of a suitable potable water supply. Refer to section 4.4.5, Water Quality and Supply, for a discussion of deficiencies in the water supply for the proposed project. As an alternative, the project may connect to the City of Greenfield Municipal supply, provided that the connection to this service can comply with LAFCO requirements for the extension of urban services to non-incorporated areas or areas outside urban service lines.*

28.1.1.3 (CSV) Various discretionary permits would be required after the adoption of the general plan amendments and rezoning. All recreation and visitor-serving commercial land uses shall require a use various discretionary permits on sites of 10 acres or less. On sites greater than 10 acres, visitor serving recreation and commercial uses may be permitted in accordance with both a use permit and a required comprehensive development plan. The comprehensive development plan shall address hydrology, water quantity and quality, sewage disposal, fire safety, access, drainage, soils, and geology.

Consistency Analysis: *The EIR evaluates the consistency of the proposed air museum with this policy. The applicant has prepared and submitted to the County a comprehensive Master Plan which addresses the required subjects and is subject to CEQA documentation. The applicant is also required per County regulation to obtain a Use Permit subsequent to adoption of the general plan amendment and rezoning. The project, as revised by mitigation measures in this EIR could comply substantially with this policy.*

30.0.3.1 (CSV) Divisions of farmland shall be permitted only when such division does not adversely affect the land's long-term agricultural financial viability and shall be conditioned to ensure continued long-term agricultural use.

Consistency Analysis: *As noted above, the proposed project will permanently reduce the amount of prime farmland in the County. This is considered an unavoidable impact resulting from development. However, it is recommended that the applicant dedicate a agricultural conservation easement in perpetuity on the ±329-acre parcel to remain in agricultural production. The 329-acre parcel is currently under a Williamson Act contract. Therefore, long-term agricultural use will be ensured on that portion of the site. In addition, the developed portion of the subject property does include a winery, also considered an agricultural use. Therefore, the project with mitigation generally conforms with this policy.*

4.3 Airport Safety

4.3.1 Introduction

This section will review airport safety considerations for publicly owned airports under the guidelines established by the Federal Aviation Administration (FAA) and the State of California, Department of Transportation (Caltrans), Division of Aeronautics. The airport safety section of the Draft EIR is organized differently from the other sections of the EIR due to the structure of the information that needs to be provided in this section.

4.3.2 Airport Characteristics

The public use airport portion of the project site will consist of a runway, taxiway, aircraft storage and fuel storage. The following provides a description of these facilities:

Runway: The proposed airport is comprised of a runway 4,235 3,350 feet long by 75 feet wide running in a roughly north-south direction. The runway magnetic alignment is 140 degrees and 320 degrees and is proposed to be constructed of asphalt, with a design strength of 60,000 pounds. Runway lighting will be medium intensity and without runway end identifier or approach lighting. Runway Protection Zones (RPZs) will be established to accommodate a general utility runway. ~~However, future airport plans may change and could accommodate an appropriate instrument procedure.~~ Refer to Figure 3 for the layout of the project site.

Taxiway: A single primary taxiway will be oriented parallel to the runway with entry and exit taxiways at each end of the runway and at mid-field. The taxiway will have an aircraft warm up area sufficient in size to accommodate aircraft with a wing span of 40 feet to pass without conflict. The taxiways will have the same pavement design strengths as the runway.

Aircraft Storage: Approximately fifty (50) outside aircraft storage units (tiedowns) will be located on the north corner of the airport, adjacent to the approach end of Runway 14. This tiedown area will accommodate both transient and based aircraft. In addition to this, approximately 40 square hangars and 60 T-hangars will be provided in the northern portion of the site adjacent to the taxiway.

Fuel Storage: An aviation fueling station will be located on the northern portion of the site adjacent to the hangars and taxiway. The fuel provided will be 100 LL and Jet A. Both types of fuel will be stored in below-ground double wall containment tanks with leak detection sump and aural warnings.

4.3.2.1 Airport Uses

The public use airport project has the potential to involve a number of uses including the following:

- The restoration and display operations of Yanks Air Museum;
- The establishment of a Fixed Base Operator (FBO) which will coincide with the opening of the airport;
- Fixed wing, helicopter, and ultra light aircraft rentals;
- Flight instruction;
- Glider operations;
- Hot air balloon flights;
- Skydiving;
- Radio controlled model aircraft;

- Delivery of aviation fuels (80 OCT, 10011 and Jet A) from a combination of underground storage tanks and refueller vehicles; and
- Occasional scheduled events such as air shows, antique and experimental aircraft gatherings and fly-byes.

4.3.2.2 Airport Operations

Initially, aircraft growth at the Yanks Airport will be directly attributed to Yanks Air Museum aircraft. At the onset of airport operations, the following estimates of based aircraft are provided:

	<u>Piston Aircraft</u>		<u>Jet Aircraft</u>		
	Single	Multi	Turboprop	Turbojet	Helo
Yanks Airport	28	2	0	0	1

The applicant anticipates that the airport will experience a significant growth within the first twelve months of operations and steady growth consistent with area averages thereafter. The following provides the anticipated growth of Yanks Airport for the first five years:

	<u>Piston Aircraft</u>		<u>Jet Aircraft</u>		
	Single	Multi	Turboprop	Turbojet	Helo
12 Months	35	4	1	0	1
24 Months	36	5	1	0	1
60 Months	40	5	2	1	1

The applicant anticipates that the density of aircraft will stabilize at the five year mark. The forecast densities (with the exception of museum aircraft) reflects a reallocation of existing aircraft.

Flight activity is estimated at 25,000-30,000 annual operations. Highest activity levels will occur on weekends and holidays. Under these circumstances, daily operations could reach 100-150 operations daily with significantly increased weekend activity. A general utility airport will experience a greater number of touch and go operations as compared to the combined total of arrivals and departures. It can be assumed that touch and go operations will comprise 55-60% of total operations.

~~The project applicant will consider using a Global Positioning Systems (GPS) instrument approach procedure at the Yanks Airport. If this procedure is determined to be appropriate, the procedure review and publication will be requested from the FAA. To accommodate this alternative, the initial ALP shall include Runway Protection Zones (RPZ) and instrument approach transition areas so as to accommodate planned precision and/or non-precision approach procedures.~~

4.3.3 Airport Safety

Both the FAA and Caltrans have developed various standards to address airport safety issues. Airport safety can be divided into three categories. These are:

- Safety - From the perspective of minimizing the risks of aircraft accidents beyond the runway environment;
- Airspace Protection - Accomplished by limits on the height of structures and other objects in the airport vicinity, and restrictions on other uses which potentially pose a hazard to flight; and
- Overflight - The loosely defined impacts to routine flight activities over surrounding communities.

4.3.3.1 Safety

The principal method of protecting surrounding land from noise and safety impacts created by the airport is through preparation of a Comprehensive Airport Land Use Plan (CLUP), as required by Section 21675 of the California Public Utilities Code. It is the responsibility of the Monterey County Airport Land Use Commission (ALUC) to prepare and adopt the CLUP.

Safety issues are considered to be the most difficult to address with respect to airport land use compatibility. Safety concerns are based on uncertain events which can and may occur, rather than on what will occur. In other words, the operation of an airport and aircraft flight operations, if carried out under certain prescribed rules and regulations, are not unsafe, but accidents do happen regardless. Because aircraft accidents happen infrequently and the time, place and consequence of their occurrence cannot be predicted Caltrans has adopted a "risk" concept for assessing safety issues.

In determining land use compatibility, Caltrans suggests two variables be used to determine the degree of risk posed by potential aircraft accidents:

- Accident Frequency - Where and when do aircraft accidents occur in the vicinity of an airport?
- Accident Severity - What land use characteristics contribute to the consequences of an accident if one occurs?

These are two objectives of airport safety criteria:

- Safety on the Ground - To provide for the safety of people and property in the event of an aircraft accident near an airport.
- Safety for Aircraft Occupants - To enhance the chances for survival of the occupants of an aircraft involved in an accident in the immediate vicinity of an airport.

Caltrans suggests that the primary safety strategy should be to limit the intensity of land uses in locations most susceptible to off-airport aircraft accidents. This can be accomplished by establishing criteria limiting the maximum number of dwelling units or people in areas close to an airport (density limitations), and by requiring open spaces to enhance the safety of occupants of aircraft forced to make an emergency landing away from a runway. Caltrans also suggests restrictions on particular types of land uses which should be restricted off the ends of runways, "particularly school, hospitals, and other uses in which the mobility of occupants is effectively limited..."

The establishment of safety criteria comes down to what degree of risk is acceptable to the local community. To some, it may seem ideal or even necessary to reduce risks to zero by prohibiting urban land use and development from areas near airports. Others would propose that local aircraft accident risks could be eliminated entirely by closing the airport. It is generally considered that safety criteria are established on a progressive scale with the most severe land use restrictions established for those locations with the greatest potential for aircraft accidents.

FAA safety guidelines contained in Advisory Circular 150/5300-14, "Airport Design", define a series of areas that focus on the area immediately in the vicinity of the runway surface and associated restrictions as to allowable uses. These areas will be developed by the project applicant, Caltrans Division of Aeronautics and the FAA when an airport permit is obtained from Caltrans as well as notice of proposed construction or alteration form 7460-1 is obtained from the FAA. The Airport Layout Plan will include the following:

- Runway Object Free Zone
- Object Free Area
- Runway Safety Area

The Object Free Zone (OFZ) located at each end of the runway is totally contained on the proposed project. Runway Protection Zones (RPZs) are trapezoid areas located off each end of the runway. The RPZ for the proposed airport begins 150 feet beyond the runway end and extends a distance of 1,000 feet. For the assumed critical aircraft, the required RPZ has an inner width of 500 feet and an outer width of 700 feet. Currently, there are no structures located within the RPZ areas.

~~In the case of the proposed Yanks Airport, these areas are most likely to occur on adjacent properties not owned by the project applicant, but currently zoned for agricultural land uses.~~

Runway Protection Zones (RPZs) are designed to enhance protection of people and property on the ground from aircraft either landing short of the runway or overrunning the runway on take-off. ~~The RPZs will be defined during the airport permitting process. No significant impacts are anticipated.~~

The surrounding area within a one-mile radius of the airport runway is designated as agricultural (40 acre minimum). The majority of the surrounding property is subject to Williamson Act contracts which have a 20-year term. The County's General Plan and Zoning restrict the surrounding area to a very low density residential use of land (i.e. one dwelling unit per 40 acres).

Requests for development within the proposed runway protection zones will be subject to environmental review, height limitations, and development that would not allow for the accumulation of population. The maximum height limitation of any future structures that may be located at the southerly property line of the project will be approximately 12 feet. In order to develop in the vicinity of public airports, building sponsors must file with FAA, FAA Form 7460-1, Notice of Proposed Construction or Alteration. As part of the FAA review of these notices, location with respect to the runway protection zones is considered. FAA will typically not approve development within the RPZ.

4.3.3.2 Airspace Protection

The protection of an airport's airspace (the area above ground level used for maneuvering of aircraft in flight) is critical to reducing the potential for aircraft accidents. As a result of the stringent height limitation and obstruction clearance criteria, relatively few aircraft accidents are caused by land use conditions which are considered hazards to flight. The potential still exists, and airspace protection is an essential component of airport land use compatibility.

Land uses which can increase the risk of accident by posing hazards to flight should be avoided. Of particular concern are:

- Obstructions to airspace; and
- Land uses which attract birds, or create visual or electronic interference with air navigation.

Airspace protection requirements are distinct to each airport, including:

- The layout and dimensions of the runway system;
- The type of operating procedures established for the airport; and
- The performance characteristics of aircraft operated at the airport.

The acceptable height of an object near an airport is determined by the application of standards set forth in Part 77 of the Federal Aviation Regulations (FAR Part 77), "Objects Affecting Navigable Airspace." This regulation establishes three-dimensional imaginary surfaces around an airport. The size and shape of these surfaces is determined by the type of airport, its runway layout, and the nature of its approaches (i.e., visual, non-precision instrument, precision instrument). Any object penetrating these surfaces is considered an obstruction and may affect the use of the airspace.

Strategies for the protection of airport airspace are related directly to the type of hazard:

- Airspace Obstructions. Buildings and other structures, trees, and antennae should be limited in height so as not to penetrate any of the airport obstruction clearance surfaces.
- Other Hazards to Flight. Land uses generating smoke, glare, electro-magnetic interference or other hazards to flight, including bird attractants should be avoided or modified.

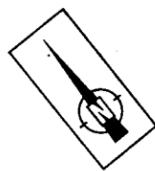
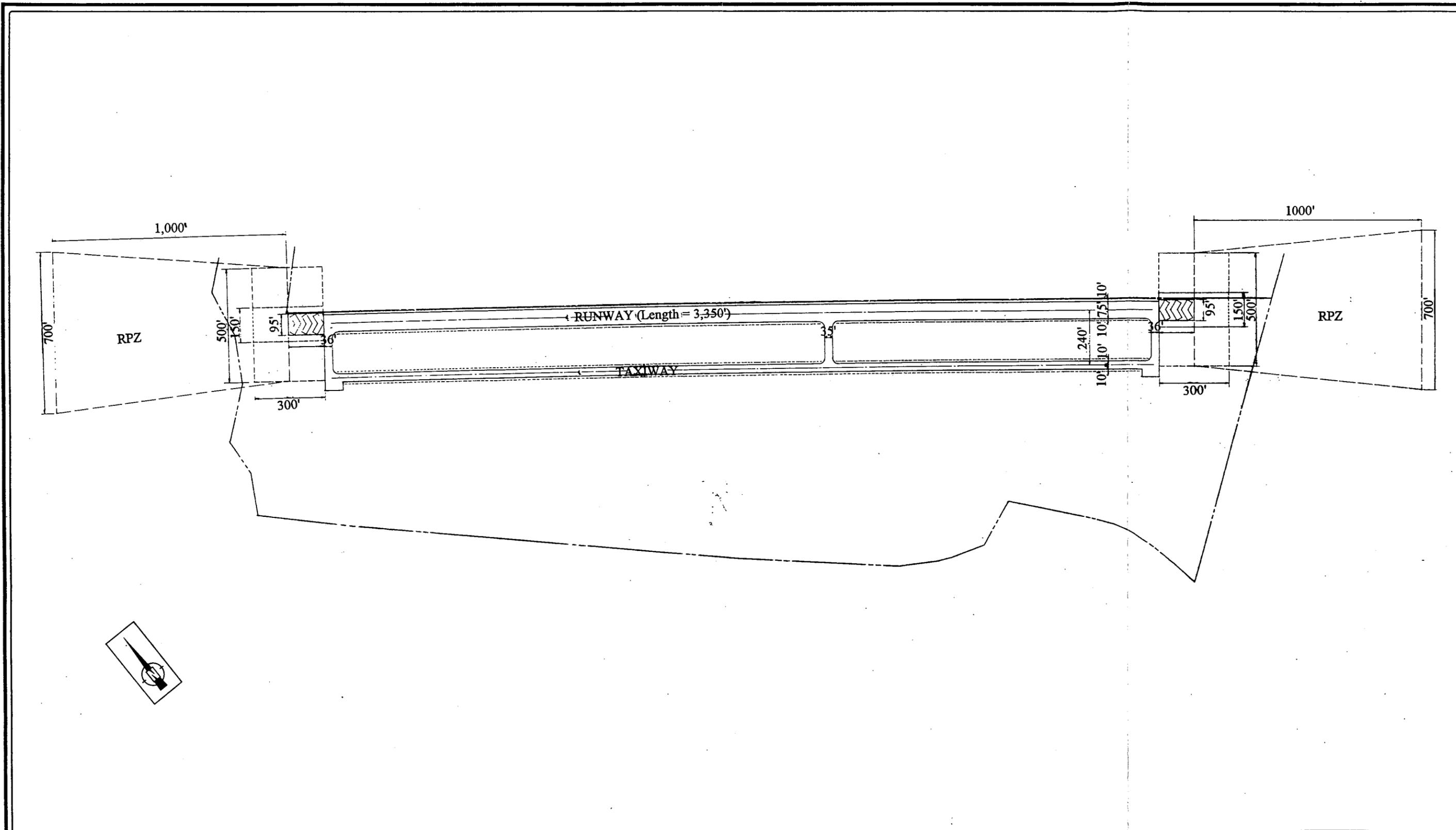
The criteria for determining airspace obstructions and other hazards to flight have been established in the FARs and other regulations and guidelines since the mid-1970's. The State of California utilizes the same obstruction clearance criteria as set forth in FAR Part 77. With regard to the requirements of FAR Part 77, "Objects Affecting Navigable Airspace", there are no known existing close-in obstructions penetrating the defined surfaces. *No significant impacts are anticipated.*

4.3.3.3 Overflight

Aircraft overflight is based on the fact that many people are sensitive to the frequent presence of aircraft overhead even at noise levels lower than typically considered significant (i.e., less than 65dB CNEL). This sensitivity is often expressed in terms of fear or annoyance by people residing in communities around an airport. The State of California's recommended approach to address this issue is to avoid development of residential land uses in affected areas. The proposed airport project is surrounded by agricultural land uses to the north, south, east and west. Future development within the runway protection zones will be restricted.

Figure 12A depicts the overall airport impact area, RPZ and approach surface. Figure 12B depicts the runway protection zone and approach surface over an aerial photograph. Figure 12C depicts the dimensions of the RPZ and approach zones. The overflights will occur at an elevation of 800 to 1,000 feet. The flight pattern will be primarily from south to north with a right hand turn to the down wind leg of the approach to the runway. The runway will be operated primarily in a single direction (i.e., south to north). The airport impact boundary is approximately one mile or less from the runway. The normal flight pattern will be from south to north with a left hand turn to the west for out bound aircraft.

There are three residential dwelling units located north of Hudson Road approximately 1,800 feet from the northerly project boundary. The noise modeling of aircraft operations reflects this runway use pattern and the CNEL contours are shown on Figure 12. The dwelling units are located outside the 60 CNEL. FAR Part 150 states that all land uses are considered compatible with noise levels of less than 65 Ldn.



Dimensions of RPZ & Approach Zones

Figure 12C

The applicant has provided noise contours prepared by Giroux & Associates, based upon the highest level of flight operations anticipated at the airport - 25,000-30,000 annual operations. The noise contours were calculated based on an FAA Handbook (FAA-AS-75-1) with predominantly northwest traffic because of prevailing winds. The calculations were made for an annual average noise contour as required by Title 21, Subchapter 6, Article 1 of the California Code of Regulations (Section 5001). Please note that peak daily noise levels during a special event may be greater than the annual average.

The projected noise contour plot is shown in Figure 12. Contours are shown for 60, 65, and 70 dB(A) CNEL. The 60 dB CNEL contour represents the noise "footprint" within which an analysis is required for any proposed noise-sensitive development. The 65 dB CNEL contour is the noise "exclusion area" for residential or similarly noise-sensitive land uses. As seen from the figure, the 65 dB CNEL contour is confined to very close proximity to the runway and should create minimal development constraint beyond the immediate project boundary. ~~No significant impacts are anticipated.~~

Impact: The proposed project has the potential for complaints from occasional and periodic overflights. This is a potentially significant environmental impact that can be reduced to a less than significant level by implementation of the following mitigation measures.

Mitigation Measure

1A: The airport landing strip shall only be used during daylight hours.

1B: Prior to approval of the Runway Use Permit, the project applicant shall work with the County to develop specific operating procedures to reduce overflights of certain areas.

4.4 Geologic and Geotechnical Hazards

4.4.1 Introduction

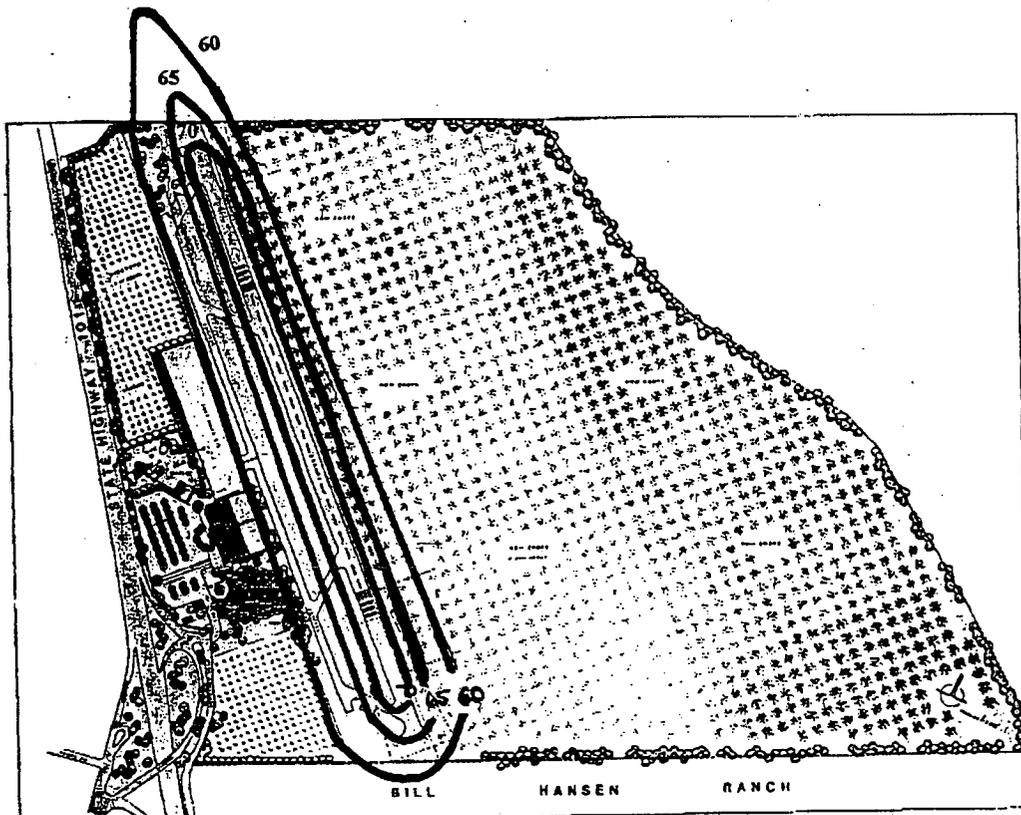
This analysis is based on the analysis and conclusions contained in a preliminary geologic investigation prepared for the proposed project by Rogers Johnson & Associates in association with Haro, Kasunich & Associates (a copy of this report is on file with the County Planning Department). The purpose of this study was to evaluate the general geologic conditions on the subject property.

4.4.2 Setting

4.4.2.1 Regional Geology

The project site is located at the approximate center of the Salinas Valley, the largest inter-mountain valley in the Coast Range. The valley extends approximately 80 miles inland in a southeasterly direction from Monterey Bay. The Sierra de Salinas Mountain range forms the southwest boundary of the valley and the Gabilan Mountain range forms the northeast boundary. These ranges rise to elevations of approximately 5,000 and 3,500 feet respectively.

Thick accumulations of alluvium that has been eroded from the surrounding mountains have been deposited between these mountain ranges to form the relatively flat Salinas Valley.



CNEL Noise Contours (DbA) - Year 2010+

**Figure
12**

4.4.2.2 Regional Faulting

California's broad system of strike-slip faulting has had a long and complex history. Some of these faults present a seismic hazard to the subject property. The most important of these are the San Andreas fault, the San Gregorio fault and related faults (Palo Colorado and Sur-Nacimiento), and the Rinconada fault. These faults are either active or considered potentially active. Other faults in the area are of lesser importance, but may also affect the project site. Each pertinent fault is discussed below.

The project site is not located within a state designated Alquist-Priolo Special Studies Zone. The property lies in Geologic Hazard Zone II according to the Monterey County Geologic Hazard map. Zone II is generally associated with areas of low to moderate geologic hazard.

San Andreas Fault

The San Andreas fault is active and represents a major seismic hazard in northern California. The main trace of the San Andreas fault trends northwest-southeast and extends over 700 miles from the Gulf of California through the Coast Ranges to Point Arena where it trends offshore. At its closest point, the main trace of this fault lies about 14 miles northeast of the project site.

The segment of the San Andreas fault closest to the property is called the central creeping segment. Because the rate of movement or creep along this segment appears to be identical to the long term rate of strain along the San Andreas fault, there is probably no accumulations of elastic stress along this segment of the fault. Consequently, the potential for damaging earthquakes generated by the central creeping segment of the San Andreas fault, the segment closest to the project site, is very low.

Historic earthquakes along the San Andreas fault have caused significant seismic shaking in the Monterey County area. The two largest historical earthquakes to affect the area were the magnitude 8.3 (estimated) San Francisco earthquake of 1906, and the magnitude 7.1 Loma Prieta earthquake of October, 1989. The San Francisco earthquake caused severe seismic shaking and structural damage to many buildings over a broad area of central California. The Loma Prieta earthquake, which was centered on a southwest-dipping fault that may not have ruptured in 1906, appears to have caused more intense seismic shaking than the 1906 event in localized areas even though its regional effects were not as extensive.

A common method of describing the shaking associated with an earthquake is the Modified Mercalli Intensity Scale, a subjective measure of the affect of ground shaking on man, man-made structures, and the earth's surface. The scale ranges between I, no damage, and XII, near total destruction. Intensity generally decreases with distance from the epicenter, but can also vary greatly with local geologic setting and other factors. The Greenfield area experienced a Modified Mercalli Intensity of IV for the 1989 Loma Prieta earthquake.

San Gregorio Fault

The San Gregorio fault trends northwest-southeast for over 100 miles. At its northern end it joins the San Andreas fault near Bolinas in Marin County. Southward, it skirts the coast of San Mateo and Santa Cruz Counties, crosses the mouth of Monterey Bay and intersects land again north of Point Sur, joining either the Palo Colorado or Sur faults. At its closest approach, this fault lies about 18 miles southwest of the project site.

The San Gregorio fault should be considered active. This fault could cause intense seismic shaking at the site if it generated a great earthquake. The next episode of strong seismic shaking on this fault could occur within days or, conversely, hundreds of years from now.

Rinconada Fault

The Rinconada fault occupies the eastern foothills of the Santa Lucia Mountains and parallels the western edge of the Salinas Valley. The Rinconada fault is a high angle, right lateral strike-slip fault which shows about 40 miles cumulative offset since the Miocene age. Although it is considered potentially active in the Monterey County Seismic Element, no historic earthquakes have been reported on this fault. The Rinconada fault is not zoned as a special studies zone by the California Division of Mines and Geology, indicating the state does not consider it active enough to warrant mandatory investigation. This fault is located about 3.5 miles southwest of the project site.

4.4.2.3 Site Soils

Soils at the site have been classified by the USDA Soil Conservation Service as Arroyo Seco Series. The Arroyo Seco Series consists of well-drained would that formed in alluvium that was derived mainly from granitic and sedimentary rocks on old alluvial fans.

The Arroyo Seco gravelly loam (AsA) consists of gently rolling hill soils formed on alluvial fans, terraces and flood plains. Textures include sand, loamy sand, silt loam and fine sandy loam that is gravelly and cobbly in places. Runoff is slow and erosion hazard is slight.

Analysis of the borings conducted for the field investigation indicate soils that were formed with stratified alluvium and deposited by the slope wash from the Santa Lucia range. The surfaces of the sample borings, to a depth of 30 inches, are in strong contrast to the lower deposits. The upper 30 to 42 inches is highly disturbed from farming operations. Textures of the surfaces consist of loamy sand, fine silty and clayey loam. Below the surface, the alluvium is mostly fine and medium sand with clay binder.

4.4.2.4 Subsurface Materials

In order to explore and profile the subsurface conditions within the property, 17 exploratory borings using mechanical equipment were drilled for the applicant by Haro, Kasunich. In addition, 17 bore holes were drilled in the proposed leach field. Two of the exploratory borings were drilled to 51.5 feet below existing grade.

The subsurface soil conditions consist generally of 3 to 4 feet of very loose topsoil gradually becoming denser at about 5 feet. Basically, by 10 feet the soils are moderately dense. Below 10 feet, the consistency of the soils remained about the same to 20 to 30 feet then grading to very stiff silty clay. The silty clay was not penetrated at 51.5 feet.

4.4.2.5 Percolation

Haro, Kasunich performed a percolation study to determine percolation rates in the area of the proposed leach fields. Percolation tests were performed in 6 locations across the proposed leachfield. The percolation test results indicate the soils within the top 15 feet have moderate to high permeability. The lowest percolation rates are confined to the upper 5 feet of sandy loam. Table 2 summarizes percolation rates found on the site.

4.4.2.6 Ground Water Conditions

The property occupies a very gently northeasterly sloping (about 1% grade) alluvial fan associated with the Arroyo Seco drainage. However, the project site is elevated well above the potential 100 year flood zone of the Salinas River and Arroyo Seco River flood plains.

Groundwater was not encountered in any borings performed on the site. The depth to groundwater was measured in a Well Log prepared by Rauch Drilling Company, Inc. for an onsite well at approximately 70 to 80 feet below existing ground elevation.

4.4.3 Impacts and Mitigation Measures

4.4.3.1 Standards of Significance

In accordance with CEQA Guidelines, a project would normally have a significant effect on the environment if it were to cause substantial erosion or siltation; if there is evidence of geologic hazards, such as landsliding or excessively steep slopes that could result in exposure to hazards or slope failure due to improper grading or design; if it would expose people or structures to major geologic hazards; or if the subsurface soils conditions are subject to liquefaction or other secondary seismic hazards in the event of ground shaking.

4.4.3.2 Geologic Hazards

Seismic Shaking

Given their relative rates of activity and seismic potential, the San Andreas and San Gregorio faults represent the most probable seismic hazards to the project site, but because of its proximity to the site, the Rinconada fault is the chief potential source of seismic shaking. Table 3 summarizes the distance from the site, estimated recurrence intervals, and the expected or Maximum Credible Earthquake for each of these four fault systems. The Maximum Credible Earthquake (MCE) is the largest earthquake that can reasonably be expected to occur on the fault, and may be significantly larger than the one that will actually occur within the lifetime of the project.

Table 2. Percolation Rate Summary		
Boring No.	Depth (ft)	Percolation Rate (Inches/Hour)
P-1	5	22
P-2	10	36
P-3	15	200
P-4	15	180
P-5	10	108
P-6	5	72
P-7	5	36
P-8	15	360
P-9	10	180
P-10	15	22
P-11	5	22
P-12	10	54
P-13	10	25
P-14	15	360
P-15	5	36
P-16	5	540
P-17	10	216

Source: *Feasibility Study for Yanks Air Museum Project*, Haro, Kasunich & Associates, September 1994

Table 3. Summary of Fault Data				
	MCE	Recurrence Interval (Yrs)	Distance from Site (Miles)	Peak Horizontal Ground Acceleration at Site
San Andreas Fault				
South Santa Cruz Mountain Segment	7.0	?	40	0.20 g
San Gregorio Fault	7.7	500-600	18	0.30
Rinconada Fault	7.6	1900	3.5	0.50
Source: Rogers E. Johnson & Associates, September 5, 1994				

Based on the results summarized in Table 3, the maximum earthquake ground motion expected at the site is about 0.50 g from the maximum credible event on the Rinconada fault. This is adopted here as the "design" earthquake. The duration of strong shaking is dependent on magnitude. The duration of strong shaking associated with a magnitude 7.7 earthquake is estimated to be about 31 seconds.

Impact: The project site will likely be subject to severe ground shaking in the event of a major earthquake. The degree of potential property damage would vary with the magnitude and duration of the seismic event. *This is a significant impact that can be mitigated to a less-than-significant level by implementation of existing Uniform Building Codes and the following mitigation.*

Mitigation

1. All engineering analysis and structural design shall incorporate the following design seismic parameters: 0.50g mean peak horizontal ground acceleration; 0.35g repeatable high ground acceleration; duration 31 seconds.
2. Incorporate recommendations concerning foundation design criteria included in the geotechnical feasibility study prepared for the project by Haro, Kasunich & Associates (Report # M4394).

Ground Surface Rupture

No major mapped faults lie closer than 3.5 miles from the property. Therefore, the hazard from fault generated ground rupture on the site is low. *This is a less-than-significant impact. No mitigation is recommended or necessary.*

Slope Stability

The property and surrounding terrain is essentially flat, consequently slope stability is not a significant issue. *This is a less-than-significant impact. No mitigation is recommended or necessary.*

4.4.3.3 Soil Hazards

Liquefaction

In addition to ground shaking, seismic disturbance could include liquefaction, soil densification and lateral spreading. Soil liquefaction is a phenomenon in which loose, saturated sandy soil deposit undergoes a loss of internal strength as a result of increased pore water pressure. These soils transform from a solid to a liquefied state as a result of reduced effective stresses within the soils mass. This behavior is commonly induced by strong ground shaking associated with earthquakes. Documented conditions for soils that have liquefied indicate that from a general standpoint, soils susceptible to liquefaction are sands of low to medium relative density, relatively free of silt and clay, and saturated. Variables required to induce liquefaction include duration of earthquake loading, earthquake acceleration, depth to groundwater, and the potential influence of man-made structures.

An analysis was performed using the preliminary assessment of the probable peak ground acceleration and current static ground water table elevation. Considering the depth to ground water, it does not appear likely the upper cohesionless material will be saturated throughout as ground water was not encountered in the deep borings. Consequently, the potential for liquefaction of the upper stratum in the project site is low. Densifications of the unsaturated cohesionless soils is possible, but should be somewhat uniform across the site. *This is a less-than-significant impact. No mitigation is recommended or necessary.*

4.3.3.4 Consistency with Applicable Central Salinas Valley Area Plan Policies

15.1.1.1 (CSV) The Central Salinas Valley Seismic Hazards Map shall be used to delineate high seismic hazards areas addressed by the county wide General Plan. Areas shown as moderately high, high, and very high hazard shall be considered as "high hazard" areas for the purpose of applying General Plan policies.

Consistency Analysis: *The project site is located within a "low hazard" area according to the Seismic Hazards Map included in the Central Salinas Valley Area Plan.*

4.5 Water Quality and Supply

4.5.1 Introduction

This section of the EIR analyzes key issues related to ground water quality from: a) the subsurface disposal of treated wastewater, and 2) the drainage of storm water runoff into retention/infiltration basins. Both of these processes have the potential to introduce new pollutants into the local groundwater basin that could degrade the water quality for existing and potential water uses. This is of particular concern since the project itself proposes to utilize local ground water for a new domestic water supply system.

The following discussion is based on the "Water Issues" and "Sewage Disposal" sections of the Yanks Master Plan prepared for the project by P&A Consultants including the revisions and supplementary information dated May 15, 1996 (copies of these reports are on file with the County of Monterey). The conclusions and recommendations of that report were independently reviewed by Questa Engineering for inclusion in this EIR.

4.5.2 Setting

4.5.2.1 Regional Hydrogeology

The proposed project is located in the Salinas Valley ground water basin. The Salinas Valley is 120 mile long, broad, flat bottomed drainage that flows northwest towards Monterey Bay in central coastal California. The valley is filled with river alluvium up to several hundred feet thick in the vicinity of the project.

This basin is commonly divided into four subareas for purposes of analysis: Pressure, East Side, Forebay, and Upper Valley. The project site is located within the Forebay subarea which extends from Gonzales to Greenfield. The alluvial deposits underlying the riverbed are deepest in the Forebay subarea and relatively shallow along the coast and at the southern end of the valley. The Upper Valley and Forebay subareas are unconfined and in direct hydraulic connection with the Salinas River.

The Pressure subarea is composed primarily of confined and semi-confined aquifers separated by clay layers (aquitards) that limit the amount of vertical recharge. These deposits include at least three separate fresh water aquifers labeled the "180-foot", "400-foot", and Deep Zone. Extensive groundwater pumping for agricultural, municipal, and industrial uses has affected the groundwater supplies of the basin in terms of both quantity and quality. Annual pumping in excess of recharge has caused a gradual lowering of water tables and pressure heads. This "overdraft" condition is the primary cause of salt water intrusion into the Pressure subarea. Both the 180-foot and 400-foot aquifers are in contact with the salt water of Monterey Bay which has intruded inland causing agricultural and

domestic water supply wells along the coast in the Pressure subarea to be abandoned³. The exact nature of the connection between the Deep Zone and the ocean is unknown, but it is assumed that some connection exists⁴.

The State Water Resources Control Board (SWRCB) is concerned about seawater intrusion and nitrate contamination in the Salinas Valley groundwater basin and has requested the County develop and implement an adequate plan to stop the seawater intrusion problem. The SWRCB has started the process for adjudication, in preparation for state takeover of local decision making over water resources management in the Salinas Valley⁵. The County is currently preparing a Draft Basin Management Plan and EIR which will recommend programs to address these issues. That document(s) is scheduled to be available in the beginning of 1997. At that time, the SWRCB will make a determination regarding pursuing the adjudication process.

A number of solutions to the seawater intrusion problem have been identified by the County at this time. The Monterey County Water Resources Agency (WRA) is currently working on water reclamation and irrigation projects to re-establish higher ground water levels by relieving pumping stresses in the aquifers in the Pressure and East Side subareas.

The Castroville Seawater Intrusion Project has been established to use reclaimed water from the Regional Water Pollution Control Agency (MPWPCA) wastewater treatment plant near Marina for crop irrigation in the Castroville area thereby reducing the need to pump ground water. Additional efforts to relieve overdraft in the East Side subarea are required to halt seawater intrusion.

The WRA has proposed the conjunctive use of surface water and ground water storage. Runoff is stored in San Antonio and Nacimiento Reservoirs and within the storage basin. ~~As proposed by the WRA, ground water extracted from wells in the Forebay and East Side subareas would be conveyed to the Pressure and East Side subareas. Monterey County is currently considering this project. The Monterey County WRA is in the process of developing the Salinas River Basin Management Plan (BMP). The BMP will address the sea water intrusion problem through conjunctive use - several alternatives, which are comprised of structural and non-structural components, are under consideration for the BMP. The Draft EIR and Draft Plan Document for the BMP should be out in early 1997.~~

³ *Physical Features and Natural Resources of Monterey County*, December 1980.

⁴ *Hydrogeology and Water Supply of Salinas Valley*, Monterey County Water Resources Agency, June 1995.

⁵ "Water Resources Quarterly", William F. Hurst, September, 1993.

4.5.2.2 Regional Ground Water Quality

Total ground water storage in the basin is estimated in the millions of acre-feet. The usable storage of ground water is generally only a portion of total volume in storage because all of the ground water is not available for extraction without causing undesirable effects such as land subsidence, seawater intrusion, lower ground water levels, and depletion of supplies. Usable storage can be greatly influenced by the distribution of water extraction and recharge facilities, water management practices, and storage and distribution facilities.

The Salinas Valley basin is only slightly out of balance with total inflow to the aquifer system less than total outflow. Fresh water inflow consists of recharge from precipitation, streamflow, and recirculated irrigation water. Outflow consists of ground water extraction, which currently total 20,000 acre-feet per year (AFY) more than total fresh water inflow. Note that seawater inflow total 17,000 AFY. Therefore, the average fresh water deficit is 37,000 AFY in the basin.

Other factors affecting water quality in the Salinas Valley include nitrate increases in the Forebay and Upper Valley subareas. Nitrate contamination of ground water is considered a significant threat to the beneficial use of ground water for drinking water and for some agricultural uses. The principal source of nitrates in ground water is excess fertilizer that is leached by rainfall and applied irrigation water. Nitrates also originate from animal and human waste. The contribution of nitrate from various sources has been estimated at 90% from agricultural and 10% from urban sources such as wastewater treatment plants and individual septic systems. Nitrate contamination can be controlled in agricultural operations by integrated fertilizer and water management practices and from urban sources by conscientious well drilling, maintenance and operating practices.

In August 1995, the WRA published a monitoring report entitled "Nitrates in Ground Water, 1987-1993 Salinas Valley, California". The report provides a general overview of groundwater nitrate concentrations, geographical distribution, and trends over time. The Greenfield area, in which the project site is located, is indicated in the MCWRA report to have numerous water wells with nitrate concentrations exceeding the drinking water limit of 45 mg/l. But, the report offers no clear distinction of specific groundwater depths or localized areas where groundwater quality is better.

4.5.2.3 On-Site Ground Water Quality

The project site is currently used for irrigated agriculture, primarily row crops. As such, a variety of agricultural chemical are applied to the land at various times during the year. These chemicals are most likely to include nitrogen-based fertilizers and a number of different fertilizers. There are no reported water quality problems associated with the current or historical agricultural operations on the site.

One of the on-site wells at the project site was sampled in December 1994 and analyzed for a broad range of water quality parameters. The depth to the water table is reported to be about 80 feet. The results are presented in Table 4, along with data for one of the Greenfield municipal supply wells and a list of the corresponding drinking water standards. As apparent from the table, the on-site well water quality is very poor as a source of domestic or municipal supply. Several water quality parameters, notably nitrate sulfate and total dissolved solids, are well in excess of established drinking water limits, making this well water unfit for potable use.

In contrast with the project site well water, the existing water quality for the Greenfield municipal supply wells is substantially better in terms of mineral content (TDS of 320 mg/l) and nitrates (19 mg/l). The Greenfield water supply system is in conformance with all drinking water quality standards.

4.5.2.4 On-Site Ground Water Production

The project site is currently undeveloped and is used to grow row crops. Two existing agricultural well located approximately 300 feet apart on the site provide water for the existing agricultural operations. These wells combined produce 4,500 gallons per minute (gpm) at the well head with approximately 62 pounds per square inch (psi) of water pressure. ~~According to the applicant, existing water use on the 111-acre project site is 1,969 acre-feet per year (AFY). The present estimated agricultural use of water on the 111-acre site is 277 to 333 acre feet/year.~~

According to data compiled by the UC Agricultural Cooperative, average water use for irrigated crops in the central Salinas Valley is 2.5 acre feet per acre per year.

4.5.2.5 Monterey County Regulations

The WRA has jurisdiction over matters pertaining to water within Monterey County, including both incorporated and unincorporated areas. The WRA is authorized to manage the ground water in the Salinas Valley Groundwater basin, and to conserve water, prevent waste, and prevent ground water extractions which are considered harmful to the present and future uses of the ground water basin.

Table 4. Water Quality Data for Existing On-site Well & Greenfield Municipal Supply Well			
Parameter (mg/l)	On-Site Water Well (December 1994)	Greenfield Well #1 (1993)	Maximum Contaminant Level
Primary Standards			
Clarity			
Turbidity (NTU)	1.2	20.0	0.5
Inorganic Chemicals			
Aluminum	< 50	ND	1.0
Arsenic	< 2.0	ND	0.05
Barium	< 100	ND	1.0
Cadmium	< 1	ND	0.010
Chromium	< 10	ND	0.05
Fluoride	0.67	0.3	1.4 - 2.4
Lead	< 5.0	ND	0.05
Mercury	< 1.0	ND	0.002
Nitrate (as NO ₃)	92	19.0	45.0
Selenium	-	ND	0.01
Silver	10	ND	0.05
Secondary Standards			
Color (units)	5	20.0	15
Odor-Threshold (units)	ND	< 1.0	3
Chloride	220	17.0	500
Copper	< 50	ND	1.0
Foaming Agents (MBAS)	1.5	< 0.05	0.5
Iron	< 100	ND	0.3
Manganese	< 30	ND	0.05
Sulfate	760	90.0	500
Zinc	< 50	ND	5.0
Total Dissolved Solids	1,737	320	1,000
Additional Constituents Analyzed			
pH (in units)	7.35	7.8	No Standard
Hardness (as CaCO ₃)	1,300	230	No Standard
Sodium	108	23.0	No Standard
Calcium	357	63.0	No Standard
Potassium	-	3.0	No Standard
Magnesium	100	17.0	No Standard
Total Alkalinity (as CaCO ₃)	315	160	No Standard
Hydroxide	< 1	< 1.0	No Standard
Carbonate	< 2	< 1.0	No Standard
Bicarbonate	315	200	No Standard
Specific Conductance	2,470	ND	No Standard

In response to continued overdraft conditions in the Salinas Valley basin contributing to the intrusion of seawater into the basin along the coast, the County Board of Supervisors adopted a water conservation and allocation ordinance in March, 1994. Under County Ordinance 3744, each water district within the County must develop and implement an urban water conservation and allocation plan to reduce consumption to 85% of their 1987 water consumption. As of January 1996, the County has not yet developed such a plan for the unincorporated county jurisdiction.

Nitrate in drinking water can have serious health effects and is addressed through primary drinking water standards. The limit is 45 mg/l as NO₃ and 10 mg/l as N⁶. Since the Salinas Valley ground water basin serves as a major source of water supply, nitrate effects from sewage disposal, agricultural operations and other land use activities are of concern in the project area. In 1991, the County adopted an ordinance (Code Chapter 15.23) which specifically limits the nitrate-nitrogen discharge from wastewater reclamation/land disposal facilities to a maximum concentration of 6.0 mg/l. This criterion is established to assure that the percolating wastewater is within the drinking water limit of 10.0 mg/l, including a reasonable factor of safety.

4.5.3 Impacts and Mitigation Measures

4.5.3.1 Standards of Significance

In accordance with CEQA Guidelines, a project will normally have a significant effect on the environment if it will substantially degrade or deplete ground water resources; interfere substantially with ground water recharge; or use water in a wasteful manner.

4.5.3.2 Ground Water Quality

The applicant has submitted a report (by P & A Consultants) which describes a proposed plan for obtaining the domestic water supply for the project, as well as the supply for fire protection. Under the plan, two options are identified. Under option #1, a new on-site water well would be drilled and developed to supply domestic uses, fire flow requirements, and landscape irrigation needs. The existing agricultural wells, in conjunction with tertiary treated wastewater, would continue to supply irrigation water for portions of the 440-acre property that will remain in agricultural use. Under option #2, the domestic uses fire flow and landscape irrigation water supply would be provided by connection to the City of Greenfield water system. The P&A Consultants report includes considerable detail relative to the location and capacity of fire hydrants and the overall construction and phasing of the water distribution system. Under option #1, a 500,000 gallon water tank would be constructed on-site to meet fire flow requirements. Under option #2, fire flow needs would be met by a future 1,000,000-gallon tank to be constructed in the immediate area by the City.

⁶ 1.0 mg/l as N is equal to 4.43 mg/l as NO₃.

Nitrate Loading Analysis

To assess the nitrate loading effects of the project, two analyses have been made: first, the annual mass loading of nitrogen (in pounds) was estimated and compared with the existing agricultural use of the property. Secondly, a water-chemical mass balance analysis was constructed to provide an estimate of the projected concentration of nitrate in percolating recharge waters (i.e., percolate) beneath the site.

Existing Conditions: Under existing conditions, the annual mass loading of nitrogen is a function of the amount of nitrogen-based fertilizer applied for cultivation of row crops. The annual amount of nitrogen-fertilizer applied to row crops is estimated to be in the order of 150 pounds per acre (lbs/acre). Since the on-site well water apparently has high nitrate concentrations, this can satisfy some of the nutrient requirements of the crops, thus reducing the amount of fertilizers that is actually applied. For the purposes of this analysis it is assumed that this is properly accounted for by the farmer(s), such that the combined total amount of applied nitrogen (from fertilizer and the irrigation supply) meets the fertilizer needs. Ideally, the nitrogen is applied just to match the crop requirements. However, losses to percolation and runoff are unavoidable. A nitrogen fertilizer efficiency of 75 percent (i.e., 25% losses) is a reasonable estimate for irrigated agriculture. Therefore, the nitrogen losses to the ground water for row crops is estimated to be about $(0.25) \times (150 \text{ lbs/acre}) = 37.5 \text{ lbs/acre}$ per year. For the 111-acre site, the total current annual nitrogen loading to ground water is roughly estimated to be about 4,160 lbs.

Project Conditions: Under the proposed project, the current fertilizer use for row crops will be replaced with up to 20 acres of vineyard and landscaping (up to 25 acres). Also the project proposes to treat and dispose of domestic sewage via spray irrigation of agricultural crops (i.e., reclamation). The estimated annual mass loading of nitrogen from these sources is as follows:

- **Vineyards.** Nitrogen fertilizer requirements for wine grapes are roughly one-third of that for traditional row crops, or about 50 lbs/acre per year. As above, the fertilizer value of the nitrate in the irrigation water is assumed to be taken into account. Assuming a similar 75% fertilizer intake, the remaining 25%, 12.5 lbs/acre, is projected to be lost to percolation in the vineyard or in the onsite storm water infiltration basins. For 20 acres of vineyard, this amounts to an annual nitrogen-ground water loading of about 250 lbs.
- **Landscaping.** Nitrogen fertilizer requirements for landscaping can be equal to or greater than crops. Using the highest demand, that for turf grass, the annual nitrogen application rate would be about 200 lbs/acre. Again, assuming 25% losses to runoff and deep percolation, the annual loading from 25 acres of fertilized landscaping would be about 1,250 lbs. This would be the highest or worst-case scenario.
- **Wastewater Reclamation.** The treated wastewater will be required, by County ordinance, to meet a maximum nitrate-nitrogen concentration of 6.0 mg/l. The applicant estimated the annual volume of wastewater generated for reclamation to be approximately 70,000 gallons per day, or 25.55 million gallons per year. It is estimated that approximately 75% of the nitrate in the wastewater will be utilized by the crops, and that the remaining 25%

will pass through the root zone and percolate downward to the ground water. The mass loading of nitrogen from the wastewater is calculated from these assumptions to be:

$$\text{Mass Loading} = (8.34)(22.55 \text{ million gallons})(6.0 \text{ mg/l})(0.25) = 282 \text{ lbs/year}$$

The total mass loading of nitrogen to ground water from the project would be estimated as the sum of the above three sources or:

Vineyard:	250 lbs/year
Landscaping:	1,259 lbs/yr
Wastewater Reclamation	<u>282 lbs/year</u>

Total 1,791 lbs/year

As compared with the estimated annual nitrogen loading of 4,160 lbs/year from the existing agricultural uses, the proposed project will result in a reduction of about 2,369 lbs of nitrogen per year, a reduction of 57%.

Water Chemical Mass Balance

The average long-term concentration of percolating recharge water, including wastewater and site drainage waters, can be estimated from the previously calculated mass nitrogen loading and the estimated annual volume of recharge water. The nitrogen mass loading was estimated above to be approximately 1,791 lbs/year. The annual recharge volume includes approximately 22.55 million gallons or 78.4 acre-feet of wastewater, plus recharge of rainfall runoff via the on-site infiltration basins. The applicant's engineer has estimated the annual recharge of captured runoff to be 15.69 acre feet. Additionally, there will be a small amount of direct rainfall percolation-recharge over the approximately 65 acres of the site that will be used for landscaping and vineyards and other permeable surfaces. The combined recharge from these three sources is approximately 100 acre-feet per year, or roughly 32.6 million gallons per year. The combined nitrate-nitrogen concentration is then estimated to be:

$$N_c = (1,791 \text{ lbs/year}) \div [(8.34)(32.6 \text{ million gallons})]$$
$$N_c = 6.6 \text{ mg/l}$$

From this calculation, it appears that the reduction in mass nitrate loading due to the project will result in a projected concentration of percolating recharge water that is well within the drinking water limit of 10.0 mg/l. This is a worst-case analysis since it includes an estimate of maximum landscaping with turf grass requiring high fertilizer use. The nitrogen percolate concentration can be reduced even further below the County's target of 6.0 mg/l if turf grass landscaping is minimized in favor of native and drought tolerant vegetation which require minimum fertilizer application.

Impact: The projected concentration of percolating recharge water will be below the drinking water limit of 10.0 mg/l of nitrogen, but slightly above the County's target concentration of 6.0 mg/l of nitrogen. This is a significant impact which can be reduced to a less-than-significant level with implementation of the following mitigation measure.

Mitigation

3. The applicant shall submit a landscaping plan subject to the review and approval of the Monterey County Planning Department which describes the methods to be employed to ensure that trees and plants that do not require high nitrogen-based fertilizer use are maximized on the site, and that plants such as turf grass which require high fertilizer use are minimized.

On-site Well Water Quality

Although the quantity of water from existing on-site wells is adequate for the needs of the project, the water quality is unacceptable for domestic uses. The mineral content (e.g., TDS and sulfate) are in excess of secondary drinking water standards, which are based on consumer acceptance criteria. More importantly, the nitrate concentration of 92 mg/l in the well water exceeds the primary drinking water standard of 45 mg/l. The nitrate limit is based on public health criteria. The well water cannot be used for domestic supply unless the nitrate is removed by treatment and the project includes no provision for water treatment. Even then, it is the policy of Monterey County to not approve water supplies for new development that require treatment to meet primary drinking water standards, e.g., for nitrates. To be feasible the project requires the development of an alternate source of domestic water supply. The applicant's engineer has indicated that a new on-site well will be drilled and developed, but there is no concurrence that a new well will have adequate quality without testing.

By correspondence of November 1994 and September 1995, the City of Greenfield has indicated the ability to and interest in extending domestic water service to the project site. The City has sufficient source capacity and adequate water quality from their municipal wells. According to the City Public Works Director, water service to the property would be accomplished with the extension of a 12-inch diameter water main approximately 1¼ miles long, at an estimated cost of about \$310,000. The water main would connect to the existing City distribution system in the vicinity of ~~Walnut Street Pine Avenue~~ and El Camino Real on the north side of the City.

Impact: The water quality of the onsite wells is unacceptable for domestic uses. The mineral content (e.g., TDS and sulfate) are in excess of secondary drinking water standards, which are based on consumer acceptance criteria. More importantly, the nitrate concentration of 92 mg/l in the well water exceeds the primary drinking water standard of 45 mg/l. The well water cannot be used for domestic supply unless the nitrate is removed by treatment and the project includes no provision for water treatment. The applicant's plan to develop a new on-site water well with better quality has not, thus far, been proven feasible. *This is a significant impact that can be mitigated to a less-than-significant level by implementation of the following mitigation.*

Mitigation

4. To ensure a suitable source of potable water for the project, the applicant shall install necessary pipeline facilities and obtain water service from the City of Greenfield. ~~This will include the requirement for annexation to the City, which requires LAFCO approval. Annexation to the City of Greenfield is not required - LAFCO could consider extending services in accordance with Government Code 56133.~~

Alternatively, if the applicant elects not to obtain domestic water service from Greenfield in favor of on-site groundwater, then additional investigations, testing and engineering studies shall be completed to verify the ability to provide an on-site domestic water supply that meets all applicable drinking water requirements. If this option is pursued it shall constitute a "future study" that would be subject to additional environmental review in accordance with CEQA.

4.5.3.3 Ground Water Supply

Water supply for the proposed project is proposed to be provided either by a new on-site well or connection to the City of Greenfield water system to satisfy the fire protection, domestic and landscaping needs of the project. The existing on-site wells would continue to provide the irrigation water supply for the adjacent 329 acres of row crop farming. By reclaiming treated wastewater for irrigation crops, including the adjacent farm land and the proposed vineyard, the project will reduce the amount of water required to be pumped from on-site wells.

Operation and Maintenance. An on site well water supply that meets all drinking water standards would be the simplest alternative from an operation and maintenance (O&M) standpoint. Extension of water service from Greenfield would require somewhat greater O&M for the distribution system. An on site water treatment plant would require substantially more O & M than either of the other alternatives.

Regulatory Compliance. The Greenfield water system meets all drinking water standards. There is uncertainty as to whether or not an on-site well can be developed that meets drinking water standards. An on-site well requiring treatment would have even greater uncertainty and difficulties associated with regulatory compliance.

Public Health Risk. The rating of the water supply alternatives in terms of public health risk is based on regulatory compliance. The Greenfield system is an established, proven supply that meets public health criteria. The on site well options presently pose uncertainty as to the ability to meet minimum public health requirements.

Water Conservation. An on site treatment plant (e.g., for reduction of minerals or nitrate concentration) could involve the production of a brine waste stream, requiring greater pumping of groundwater.

Energy Use. Construction and operation of an on-site water treatment plant would have the greatest energy requirements. Piping of water from Greenfield to the project site would have slightly greater energy requirements than an on-site well. However, this could change, depending upon how deep an on-site well would have to be drilled to obtain suitable water quality.

As indicated in the summary shown in Table 4A, connection to the City of Greenfield and the development of an on-site well not requiring treatment would be roughly equal with regards to environmental impacts.

Domestic Peak Flows

Peak flows for domestic use for the Project will be approximately 200 gpm for a three hour period during midday with two lesser peaks in the early morning and early evening.

Fire Flow

Fire flow requirements for the project are intended to be supplied from a water storage tank. If an on-site water well is proven to be feasible (from a water quality standpoint), then the project will include a 500,000 gallon on-site water tank. If the project is committed to the Greenfield water system, the fire flow would be obtained from the City's mains and a new ~~400,000~~ 1,000,000 gallon storage tank to be located near the project.

Table 4A Comparative Ranking of Water Supply Alternatives*			
Impact Issue	On-Site Well		Connection to Greenfield Water System
	No Treatment Required	With Treatment Plant	
Operation and Maintenance	1	3	2
Regulatory Compliance	2	3	1
Public Health Risk	2	3	1
Water Conservation	1	2	1
Energy Use	1	3	2
Total	7	14	7
Source: Questa Engineering Corporation, Nov. 1996. * Low score = best ranking			

The quantity of water necessary for fire protection varies with the type of development, occupancy, and the degree of fire hazard. The adequacy of fire flow for a given area is based on required fire flow, response distance from the existing fire station, and the Fire Marshal's judgement of needs in the area. Required fire flow is directly related to land use. According to the fire district, improvements to the proposed water system will be required pursuant to the Monterey County General Plan recommendations to provide sufficient fire flow rates and durations.

Fire protection planned for this project will provide for fire hydrant spacing of approximately 350 feet. The flow for each hydrant will be a minimum of 750 gpm with a 20 psi residual water pressure.

The applicant proposes that the winery, museum, hanger, hotel and the northerly commercial buildings will have the ability to have 4 fire hydrants flowing simultaneously providing 3,000 gpm. ~~The applicant is not proposing fire sprinklers.~~

Potable Water Demand

The project will rely upon the Salinas Valley Groundwater Basin for water supply and has the potential to affect long-term groundwater levels and yield from the Basin. The applicant's engineer has estimated the average domestic water demand for the project to be as follows:

Winery	=	5,800 gpd
Museum	=	7,375 gpd
Hanger	=	875 gpd
Service Stations	=	3,750 gpd
Fast Food Restaurants	=	8,750 gpd
Retail Commercial	=	1,500 gpd
Hotel	=	28,780 gpd
Restaurant	=	<u>8,450 gpd</u>
Total Domestic Demand	=	78,280 gpd <u>65,280 gpd</u>

These estimates were established as 125% of the estimated sewer flow from the various features of the project (see section 4.7.3.2) These estimates are reasonable for the proposed visitor-serving project. For example, the estimate of 28,780 gpd for the 150-room hotel is equivalent to about 190 gpd/hotel room which is consistent with literature values. Assuming full occupancy/usage of the facilities year-round, this domestic water demand equates to an average annual water use of approximately 88 acre-feet.

The irrigation water requirement for landscaping (up to 25 acres) and vineyards (up to 20 acres) have been estimated by the applicant's engineer to have annual water demands of 5.65 acre-feet and 9.04 acre-feet, respectively. These estimates are unrealistically low. Using an estimated crop water requirement of 36 inches/year (3 feet) for turf grass and 9 inches (0.75 feet) for wine grapes gives the following projected annual irrigation water demand.

- Landscaping - 25 acres @ 3'/acre = 75 acre-feet
- Vineyards - 20 acres @ 0.75'/acre = 15 acre-feet

Total Project Irrigation = 90 acre-feet

This estimated irrigation requirement is the maximum expected for the project. It would be reduced with less irrigated area and the extensive use of drought tolerant landscaping and drip irrigation systems incorporated in the project design.

The project also includes an artificial lake, covering approximately 2 acres and holding up to about 8 acre-feet of water. The water supply to maintain the lake will come from direct precipitation and ground water from on-site wells. The applicant's engineer has estimated the net annual evaporative loss of water from the lake to be 2.58 acre-feet, or 15.5 inches. The documentation for this estimate is not provided, and it appears to be low. Based on average annual rainfall of about 10.5 inches for the project area, and an approximate lake

evaporation rate of 55 inches per year, the net evaporation loss is more likely to be on the order of about 45 inches per year. For the proposed 2-acre lake, the annual make-up requirement to compensate for evaporation would be approximately 7.5 acre-feet, rather than the 2.58 acre-feet estimated by the applicant's engineer.

On the other side of the equation, by reclaiming treated wastewater for irrigation of crops, the project will reduce the amount of water required to be pumped from on-site wells. This amounts to an annual savings of about 78.4 acre-feet.

Impact: The total average annual water demand for the project (domestic supply, irrigation water, and lake evaporation) is estimated to amount to 185.5 acre-feet. This represents a reduction in ground water pumping of approximately 170 to 226 acre-feet/year as compared with the present estimated agricultural use of water on the 111-acre project site of 277 to 333 acre-feet/year. The preceding estimate of net reduction in local ground water pumping is applicable if the project obtains its entire water supply from on-site wells. *This represents a net positive effect on ground water in the immediate project area and the Salinas Valley as a whole.*

As discussed earlier in regard to ground water quality, the project may need to elect to obtain a portion of its water supply from the City of Greenfield. If so, this would most likely be limited to meet the domestic water supply needs and landscape irrigation, which amount to an estimated 178 acre-feet per year. The 7.5 acre-feet of lake make-up water could be supplied from the on-site wells. Under this scenario, the benefit to the local ground water would be even greater because of the off-site (Greenfield) domestic supply plus the reuse of treated wastewater for irrigation (78.4 acre-feet per year), amounting to an annual reduction of nearly 250 acre-feet of local pumping.

However, the City of Greenfield's water supply also is from wells and there would be a substantial increase in pumping needed at the City's wells to supply domestic water to the project. In regard to the Salinas Valley ground water basin as a whole, the net beneficial effect would not change regardless of whether the water comes from on-site wells or the City of Greenfield. Also the preceding estimates of water use and ground water pumping impacts are based on the fully developed project. During the construction phases the benefits to the ground water basin will be even greater. This is because the existing agricultural use of the site (and its accompanying irrigation demands) will have to cease when the initial site development begins, and the full water needs for the project will take years to be realized as the development is built and occupied. *While this is a beneficial impact of the project, the following water conservation measures should be implemented to prevent waste and reduce pumping from the ground water basin.*

Mitigation

5. Should the County require the use of an on-site wastewater treatment plant, the applicant shall submit a wastewater treatment plant design subject to the review and approval of the Monterey County Health Department and Public Works Department, which provides for the safe and convenient use of reclaimed water on the adjacent farmlands owned by the applicant, and the proposed vineyard.
6. Design of the proposed project facilities shall include provisions to minimize impacts on the ground water basin by implementing water conservation practices. At a minimum, these design considerations include:
 - Use of low-flow fixtures, including shower heads with a maximum flow capacity of 2.5 gallons per minute and toilets using 1.5 gallons per flush.
 - Use of low water use or native plant material and low precipitation sprinkler heads, bubblers, drip irrigation system and timing devices.
7. Design of the proposed detention ponds shall include provisions to increase infiltration rates for runoff such that detention ponds function as percolation ponds.

Construction Impacts

Construction water demands fall into two primary categories, water required for fill placement, and water required for temporary purposes such as dust control.

Water use for temporary purposes is heavily dependent on the construction schedule. Assuming a construction schedule which includes 4 weeks of intensive grading and 8 weeks of intermittent grading, and assuming water use at 6,000 gallons/day, 5 days per week for weeks of intensive grading and 3 days per week for 8 weeks of intermittent grading, it is estimated that approximately 215,000 gallons of water would be required for temporary purposes.

Impact: Construction related water use could total almost 0.65 acre-feet. *While this is a temporary, less-than-significant impact affecting relatively small volumes of water, the use of non-potable water should be encouraged to ensure that domestic water supply impacts are reduced to the greatest extent possible.*

Mitigation

8. Water supplied for fill compaction and dust minimization shall be reclaimed or subpotable where feasible.

4.5.3.4 Consistency with Applicable Central Salinas Valley Area Plan Policies

5.1.2.0 (CSV) Areas identified by the County as prime ground water recharge areas shall be preserved and protected from sources of pollution. Development in prime ground water recharge areas shall be restricted to land uses which will not cause ground water contamination as determined by the Director of Environmental Health.

Consistency: *The project, with implementation of recommended mitigation measures, will reduce nitrate-nitrogen loading compared with existing levels. The project is consistent with this policy.*

6.1.3 (CSV) New development shall be phased to ensure that existing ground water supplies are not committed beyond their safe-long term yields in areas where such yields can be determined by both the Director of Environmental Health and the Flood Control and Water Conservation District (renamed the Water Resources Agency). Development levels which generate a water demand exceeding the safe-long term yields of local aquifers shall only be allowed when additional-satisfactory water supplies are secured.

Consistency: *The total net average annual water demand for the project (domestic and irrigation water) is estimated to amount to 107 acre-feet. This represents a reduction in groundwater pumping of approximately 170 to 226 acre-feet/year as compared with the present estimated agricultural use of water on the 111-acre project site of 277 to 333 acre-feet/year. This represents a net positive effect on groundwater in the immediate project area and the Salinas Valley as a whole. The project is consistent with this policy.*

6.3.2 (CSV) New development which will have a high water use potential should be approved in accordance with an integrated, basin wide, long-range-water-resource plan which will be developed by the County.

Consistency: *The project does not conflict with this policy.*

21.1.2.1 (CSV) Groundwater recharge areas must be protected from all sources of pollution. Groundwater recharge systems shall be designed to protect groundwater from contamination and shall be approved by both the Director of Environmental Health and the Flood Control and Water Conservation District (renamed the Water Resources Agency).

Consistency: *The project, with implementation of recommended mitigation measures, will reduce nitrate-nitrogen loading compared with existing levels. The project is consistent with this policy.*

21.3.1.4 (CSV) Development shall meet both water quality and quantity standards expressed in Title 22 of the California Administrative Code and Title 15.04 of the Monterey County Code subject to review of the Director of Environmental Health.

Consistency: *The existing onsite wells are proposed to be used for potable water and do not currently meet state or county water quality standards. Treatment for nitrate contamination is costly and has not been proposed. It is recommended that the project connect to the Greenfield Municipal water supply which does meet water quality standards. The project, with implementation of mitigation measures recommended in this EIR, is consistent with this policy.*

4.6 Surface Hydrology and Drainage

4.6.1 Introduction

This section of the EIR analyses the existing hydrology in the vicinity of the site and changes expected due to development of the project in terms of runoff and recharge. This analysis summarizes technical data prepared for the project by P&A Consultants (a copy of this report is on file with the County of Monterey Planning Department) and reviewed by Questa Engineering for this EIR.

4.6.2 Setting

4.6.2.1 Watershed Summary

The Salinas Valley has a climate typical of Central Coastal California inland valleys, receiving the majority of its rainfall in the winter season, from October to April. Average annual rainfall in the project region ranges from a high of about 14 inches per year along the margins of the basin to about 11 inches per year towards the center of the basin. Average annual rainfall in the city of King City, roughly in the center of the basin, for the period of 1950 to 1993 was 11.17 inches per year.

The principal drainage in the project area, the Salinas River, drains an area of about 5,000 square miles. Prior to development of the San Antonio and Nacimiento reservoirs, the river flowed primarily during and shortly after the rainy season. River flow is now maintained through summer months by release from these reservoirs.

4.6.2.2 Existing On-site Drainage

The project site is located on a flat to gently sloping alluvial terrace in the center of the Salinas Valley. The land slopes generally in a north to northeasterly direction towards the Salinas River.

There are no streams or defined drainage channels on or near the project site. Because of the flat topography, lack of any buildings or impervious surfaces and permeable alluvial soils, a large percentage of the rainfall percolates readily into the soil and there is very little runoff from the site. When rainfall is heavy enough to cause runoff, the runoff generally consists of sheetflow in several broad drainage swales that traverse the property in a southwest-to-northeast direction.

Drainage onto the site from upstream areas historically included a narrow tributary area of 100-plus acres extended approximately a mile to the southwest of the site. However, construction of Highway 101, immediately west of the site, cut off the drainage from this upstream area. Presently, off-site drainage onto the site is limited to the runoff from the east side of the Highway 101 freeway right-of-way and the adjoining frontage road. The offsite tributary drainage area amounts to about 25 acres, about 36% of which is paved. Under current conditions some of this offsite runoff ponds alongside the frontage road, some percolated into the soil, and some flows onto the project site. The project site is not in a

flood prone area and has no existing drainage problems. Figure 13 depicts the existing drainages on the site.

4.6.3 Impacts and Mitigation Measures

4.6.3.1 Standards of Significance

In accordance with CEQA Guidelines, a project would normally be considered to have a significant impact if increased runoff may exceed capacity of storm drain facilities or cause downstream or offsite drainage problems; if increased runoff would result in potential water quality degradation or lead to significant increases in erosion and sedimentation; or if the project would be constructed within a flood hazard zone.

4.6.3.2 Proposed Drainage Plan

The project will convert existing farmland to a visitor-serving facility with large paved areas, roads, buildings, and other developed landscaped areas. This will result in a substantial increase in the amount of impervious surfaces and will generate significant runoff and drainage needs, which currently do not exist. The applicant's drainage plan is detailed in a report prepared by P&A Consultants. The plan calls for the installation of various drainage "V" ditches and underground piping to collect all onsite and offsite runoff (i.e., the Highway 101 right-of-way drainage) and to convey the runoff to a series of onsite retention-infiltration basins on the north and northeast side of the site. Four infiltration basins are proposed, with acreages and contributing drainage areas.

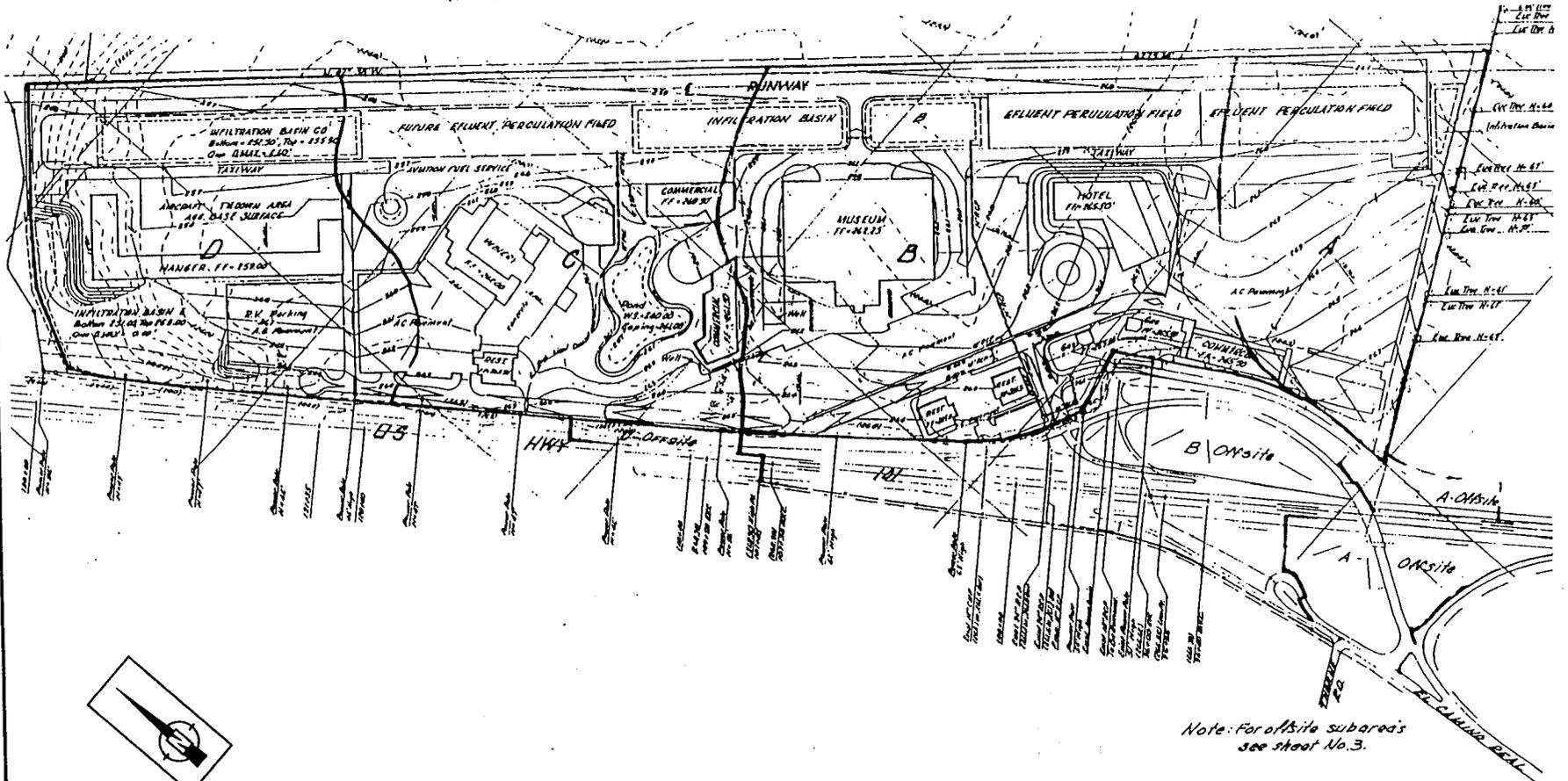
The retention-infiltration basins are planned to be shallow, with a maximum depth of three feet. Sizing of the basins was determined by P&A Consulting based on the projected runoff from a 24-hour, 100 year storm flow, and accounting for a uniform infiltration rate of 2-inches per hour. A small lake, proposed as a visual amenity, is also planned to be included in the project. The lake would be supplied by rainfall and pumping of ground water.

D
 A = 23.55 Ac.
 C = 0.20
 L₂₅ = 19.17 Min.
 Q₂₅ = 4.33 CFS
 L₁₀₀ = 19.17 Min.
 Q₁₀₀ = 5.56 CFS

C
 A = 26.50 Ac. (Onsite)
 A = 27.28 Ac. Gross
 C = 0.21
 L₂₅ = 33.53 Min.
 Q₂₅ = 3.91 CFS
 L₁₀₀ = 33.53 Min.
 Q₁₀₀ = 4.86 CFS

B
 A = 37.84 Ac. (onsite)
 A = 56.31 Ac. Gross
 C = 0.28
 L₂₅ = 45.98 Min.
 Q₂₅ = 9.31 CFS
 L₁₀₀ = 44.80 Min.
 Q₁₀₀ = 12.18 CFS

A
 A = 16.48 Ac. (onsite)
 A = 22.43 Ac. Gross
 C = 0.27
 L₂₅ = 41.08 Min.
 Q₂₅ = 3.86 CFS
 L₁₀₀ = 40.83 Min.
 Q₁₀₀ = 4.90 CFS



DENISE DUFFY & ASSOCIATES

Hydrology and Drainage Map - Undeveloped Condition

Figure
13

4.6.3.2 Drainage System Capacity

The P&A Consultants drainage report provides detailed calculations of the projected peak runoff conditions for the developed project, based on the rational Method and utilizing standard rainfall intensities for the County drainage reference charts. A runoff coefficient ("C" value) of 0.2 and 0.9 was used, respectively, for undeveloped and developed areas.

The assumptions and calculations for site runoff and infiltration were reviewed for this EIR and were found to be reasonable and accurate for planning purposes. The critical aspect of the drainage system is the performance of the infiltration basins, i.e., the drainage or infiltration capacity. The design rate of 2 inches per year hour is very reasonable for the coarse textured alluvial soils which are reported to underlay the project site. Percolation testing at depths of 5, 10, and 15 feet have shown rates of 22 to over 500 inches per hour. These tests confirm the very permeable nature of the soils at the site, and show that there is no apparent clay layer or other subsurface condition that would restrict downward percolation from the storm water infiltration basins. As long as the surface of the basins is maintained free of debris, silt, and oil buildup and "matting" by decaying vegetation, the drainage capacity of the proposed infiltration basins should adequately serve the long-term needs of the project.

Impact: While the drainage plan is adequate as proposed, no provision for maintenance has been provided in the Master Plan. Since maintenance affects the long-term viability of the proposed drainage system, *this is a potentially significant impact which can be reduced to a less-than-significant level with implementation of the following mitigation measure.*

Mitigation

9. The applicant shall submit a comprehensive plan for drainage system maintenance, subject to the review and approval of the Monterey County Public Works Department. At a minimum, the plan should address the design features, personnel, equipment, scheduling, and procedure for cleaning and maintenance of the infiltration basins to prevent the development of nuisance conditions and to maintain the long-term infiltration capacity of the basin soils.

4.6.3.3 Drainage Water Quality

The U.S. Environmental Protection Agency has regulations for NPDES (National Pollutant Discharge Elimination System) permitting of storm water discharge. These regulations are implemented in California by the State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Board (RWQCB). In order to reduce or prevent pollutants resulting from construction activities from entering storm water discharge as required by the SWRCB and any other applicable regulations, the applicant must obtain a General Construction Activity Storm Water Permit from the SWRCB. Generally, this permit requires that the applicant submit a Notice of Intent (NOI), develop and implement a Storm Water Pollution Prevention Plan (SWPPP), and establish a monitoring and certification program. The SWPPP shall, at a minimum, include the following general measures (refer to Appendix C for a detailed description of applicable Best Management Practices):

- Minimize exposure of disturbed areas.
- Stabilize disturbed areas except where active construction is taking place.
- Protect slopes and channels.
- Control site perimeter.
- Control internal erosion.

Impact: Storm water discharges associated with construction activities where clearing, grading, and/or excavation of land occurs would have the potential for polluting the waters of the United States. *This is a significant impact which can be reduced to a less-than-significant level through implementation of the following mitigation measure.*

Mitigation

10. The applicant shall submit evidence of a General Construction Activity Storm Water Permit obtained from the RWQCB to the Monterey County Planning and Building Inspection Department.

4.6.3.3 Groundwater Recharge

With the exception of direct rainfall on the lake that later evaporates, the proposed drainage plan provides for complete capture and onsite recharge of rainfall into the ground. Under present conditions, substantially all existing rainfall percolates readily onsite with very little runoff leaving the property as surface flow. Despite the conversion of a large percentage of the 111-acre site to impervious surfaces, the proposed drainage plan will provide for maintenance of the existing rate of ground water recharge, and it will likely increase the recharge to a small degree. *The effect of the project on ground water recharge will be beneficial and a less-than-significant impact.*

4.6.3.4 Consistency with Applicable Central Salinas Valley Area Plan Policies

5.1.2.1 (CSV) Development shall be designed to maintain ground water recharge capabilities on the property.

Consistency: Despite the conversion of a large percentage of the 111-acre site to impervious surfaces, the proposed drainage plan will provide for maintenance of the existing rate of ground water recharge, and it will likely increase the recharge to a small degree. The project is consistent with this policy.

5.1.2.2 (CSV) The County should identify and protect areas in the Central Salinas Valley which are valuable for the purposes of either natural-ground water recharge or the development of artificial-ground water recharge projects. Development shall not diminish the ground water recharge capabilities of such areas, especially those which are highly susceptible to water quality degradation because of either high water tables or rapid percolation rates. Existing agricultural land uses in such areas should be maintained to preserve ground water quality.

Consistency: Despite the conversion of a large percentage of the 111-acre site to

impervious surfaces, the proposed drainage plan will provide for maintenance of the existing rate of ground water recharge, and it will likely increase the recharge to a small degree. The project is consistent with this policy.

16.2.1.1 (CSV) Site plans for new development shall indicate all flood plains, flood hazards, perennial or intermittent streams, creeks, and other natural drainages. Development shall not be allowed to occur within these drainage courses nor shall development be allowed to disturb the natural banks and vegetation along these drainage courses, unless such disturbances are approved by the Flood Control and Water Conservation District. Development shall adhere to all regulations and ordinances related to development in flood plains.

Consistency: The project site is not in a flood-prone area and has no existing drainage problems. The project is consistent with this policy.

16.2.1.2 (CSV) Increased storm water runoff from urban development shall be controlled to mitigate impacts on agricultural lands located downstream.

Consistency: The overall feasibility and capacity of the proposed drainage system is adequate for the project. The project is consistent with this policy.

4.7 Wastewater Disposal

4.7.1 Introduction

This section of the EIR analyzes key issues related to sanitary sewer collection, treatment and disposal. Disposal of treated wastewater has the potential to introduce new pollutants into the local groundwater basin that could degrade the water quality for existing and potential water uses. This is of particular concern since the project itself proposes to utilize local ground water for a new domestic water supply system.

The following discussion is based on the "Sewage Disposal" section of the Yanks Master Plan prepared for the project by P&A Consultants, including revisions and supplementary information dated May 15, 1996. Copies of these reports are on file with the County of Monterey. The conclusions and recommendations of that report were independently reviewed by Questa Engineering, in consultation with County and City of Greenfield staff, for inclusion in this EIR.

4.7.2 Setting

The project site is located in an incorporated area of Monterey County about one mile northwest of the City of Greenfield. There are no existing wastewater treatment and disposal facilities on the site; and the property is beyond the current service area of the Greenfield sanitary sewer system.

4.7.2.1 Greenfield Sewer System

The City of Greenfield owns and operates its own municipal sanitary sewer system. The main elements of the system include: (a) conventional gravity sewers throughout the City; (b) a 24-inch diameter gravity sewer line from the City to the treatment plant; (c) a primary treatment plant located approximately one mile northeast of the city at the edge of the Salinas River floodplain; and (d) percolation ponds for final effluent disposal at the treatment plant site.

The treatment plant was upgraded in 1992 to its present capacity of 1.0 million gallons per day (mgd). Present flows at the treatment plant are approximately 700,000 gallons per day for the present population of 10,000 people in Greenfield. The existing facilities have capacity for additional connections, and there is also considerable land area available to the City at the treatment plant for future expansion, should it be required.

The treatment and disposal system operates in accordance with Waste Discharge Requirements adopted by the Central Coast Regional Water Quality Control Board, which were last revised in 1992 to reflect the expansion of the capacity to 1.0 mg. As part of the treatment-disposal system operation, the City is required to monitor groundwater in the vicinity of the percolation ponds to determine wastewater impacts, particularly in regard to nitrate concentrations. Monitoring, to date, has shown no violation of nitrate standards established in the Waste Discharge Requirements.

Table 5. Wastewater Treatment & Quality Criteria for Reuse		
Treatment Level	Coliform Limits	Type of Use
<u>Secondary</u> Oxidation & disinfection	N/A	<ul style="list-style-type: none"> • Surface irrigation of orchards & vineyards • Fodder, fiber & seed crops
	≤ 23/100 ml	<ul style="list-style-type: none"> • Pasture for milking animals • Landscape impoundments • Landscape irrigation (restricted access, golf courses, cemeteries, etc.)
	≤ 2.2/100 ml	<ul style="list-style-type: none"> • Surface irrigation of food crops (no contact between water & edible portion of crop)
<u>Tertiary</u> Oxidation, coagulation ¹ , clarification, filtration ² & disinfection	≤ 2.2/100 ml, maximum = 23/100 ml	<ul style="list-style-type: none"> • Spray irrigation of food crops • Landscape irrigation at parks, playgrounds, school yards, & private properties • Non-restricted recreational impoundments
¹ Coagulation optional provided turbidity of filtered effluent is <5 NTU. ² The turbidity of filtered effluent cannot exceed a) an average of 2 NTU during any 24-hour period, b) 5 NTU more than 5% of the time, and c) 10 NTU at any time.		
Source: Questa Engineers, February 1996.		

The County of Monterey, via Code Chapter 15.23, also regulates wastewater facilities in the County that involve disposal of wastewater to land for percolation or reuse (i.e., reclamation). Chapter 15.23, adopted in 1991, requires an initial application and annual renewal of an operating permit for all reclamation facilities. The key technical provision of Chapter 15.23 requires that the final effluent quality (for water that percolates into the ground) not contain nitrate-nitrogen at concentrations greater than 6.0 mg/l. This standard was implemented to deal specifically with the increasing incidence of groundwater nitrate contamination in various areas of Monterey County.

Disposal

Requirements for wastewater disposal are primarily set by the RWQCB, with input from the Health Department. Disposal facilities that rely upon spray disposal facilities are permitted based upon evidence of adequate terrain, soils and groundwater conditions that assure adequate absorption and treatment of the applied effluent by the soil and plants. Unlike percolation pond systems or septic tank-leachfields, there are no specific soil depth or percolation standards that apply to spray disposal. This is because the spray disposal operations are confined to the irrigation season when essentially all of the wastewater would be absorbed and utilized by the vegetation. Lands used for irrigated agriculture are normally very well suited for application of reclaimed wastewater. The pending changes to Title 22 Wastewater Reclamation Criteria specify a minimum 50-foot setback between water supply wells and areas irrigated with tertiary treated effluent. Additionally, the spray fields must be on property controlled by the owners/operators of the wastewater facility (i.e., the discharger). This may be satisfied with long-term contract agreements.

Monterey County Code Chapter 15.23 contains specific requirements pertaining to spray disposal (i.e., reclamation) facilities. The code mandates a maximum nitrate-nitrogen concentration of 6 mg/l in wastewater effluent disposed into soils at reclamation facilities. This code also requires a discharge monitoring program to be approved by the Director of Environmental Health.

Facility Operation and Maintenance

Community-type wastewater systems are required to be operated and maintained by a licensed wastewater treatment plant operator (or operators), with specific monitoring and reporting responsibilities specified by the Regional Water Board and the County Health Department. If all properties served by the facility are under common ownership, the wastewater system may be maintained as a private wastewater treatment system. If multiple ownerships are served, then the wastewater system must be owned and operated by a public agency, such as a city, community services district (CSD), county service area (CSA), or other special district. The public agency would be named as the "discharger" in the Waste Discharge Requirements issued by the Regional Water Board. Actual day-to-day operations could be performed by employees of the public agency or by contractors.

4.7.2.3 On-Site Percolation Testing

On-site percolation testing was conducted in August 1994 by the applicant to determine the feasibility and general design requirements for a leachfield-percolation system on the project site. This was done because the initial plan for wastewater disposal involved the use of an on-site leachfield system. Seventeen percolation tests were completed in accordance with Monterey County procedures. The tests were done at depths of 5, 10 and 15 feet, using 6-inch diameter percolation holes. The test results are summarized in Table 2 (section 4.4, *Geology and Soils*).

The data indicate consistently rapid percolation rates of 22 to 540 inches per hour, which equate to 2.7 to 0.1 minutes per inch (MPI), respectively. The average rate was 145 inches per hour, or 0.4 MPI. For standard septic tank-leachfield systems, the percolation rate is required by Regional Water Board policies to be in the range of 5 to 60 MPI. Percolation rates of 1 to 4 MPI require that the depth to groundwater beneath the leachfield/percolation bed be at least 20 feet; for percolation rates faster than 1 MPI, the depth to groundwater requirement increases to 50 feet. The reported depth to groundwater at the project is in the order of about 80 feet.

4.7.3 Impacts and Mitigation Measures

4.7.3.1 Standards of Significance

A project impact would be considered significant if sewage treatment and disposal does not conform to the standards and guidelines established by local, regional and state regulatory agencies; substantially degrade water quality; substantially degrade or deplete groundwater resources; and/or create a potential public health hazard.

4.7.3.2 Proposed Wastewater System

The applicant has submitted information (by P&A Consultants) describing plans to construct and operate a private on-site wastewater treatment and disposal system for the project. The proposed wastewater system consists of: a) a conventional gravity sewer collection system (with two lift stations); b) a "package" type Sequencing Batch Reactor (SBR) treatment plant, including a coagulation/filtration process and disinfection, located in the southeast corner of the site; and, c) final disposal of reclaimed wastewater via irrigation of agricultural crops on the remaining farmland not used for the project. The applicant has not indicated whether a private operator or a County Service Area or Sanitation District will operate and maintain the wastewater treatment system.

An aerobic digester (10,000-gallon tank) will be provided for stabilization of bio-solids (i.e., sludge). The sludge is proposed to be disposed of by pumping and hauling to an approved receiving facility.

Wastewater storage facilities included in the proposed design include the following: a) 14,000 gallon inlet/surge tank at the treatment plant, and 2) 20-day wet weather storage reservoir for treated wastewater, occupying the interior area of the on-site man-made lake. The reservoir is planned to have a surface area of about 18,500 square feet, a depth of 15 feet, and a total storage volume of about 3.8 acre-feet (1.24 million gallons). The reservoir will be lined and will also have a secure physical barrier separating the wastewater storage area from the man-made lake, which will encircle it. Treated wastewater will be pumped into the reservoir from the SBR plant, and be pumped from the reservoir into the farm irrigation system. The applicant's engineer has also prepared cost estimates for the construction of a long-term wastewater storage reservoir with capacity for 120 days of wastewater flow, but no specific plan has been presented or described to clarify how or when such a reservoir would be included in the project.

The wastewater facilities are planned to be constructed with a capacity of about 70,000 gpd. The estimated total wastewater flow for the completed project is 62,000 gpd; the basis for this flow estimate is included in Appendix D. The package treatment plant will occupy an area of about 14,000 square feet.

The winery floor plan (Figure 6) shows that wine making operations will occur on the site by including a crush pad, bottling facilities, and tank room. The sanitary sewer flows summarized in Appendix D do not account for wastewater from wine making. Typical wine making operations occur during peak periods followed by longer periods of relatively little activity. The wastewater is likely to be higher in BOD, but with proper engineering, the proposed on-site treatment plant could effectively accept and treat liquid wastes from the winery.

Collection System

Because of the flat terrain, the sewer system will include at least two lift stations to pump raw sewage to the treatment plant site. The pump station is a critical item in the collection system; it may be subject to mechanical failure of pumps or power outages, either of which could cause a back-up in the sewer system or discharge of raw sewage to the ground surface. Proper design and maintenance normally reduces these potential problems to levels of insignificance. For instance, a duplex or triplex pump system can be constructed to have reserve pumping units on-line in the event of a mechanical failure. Alarm systems with auto-dialers, standby generator for emergency power, and emergency storage capacity at the pump station are also common in modern sewer pump station designs.

One other pump station impact has to do with the venting of sewage odors, which will be present in the immediate area of the pump station. Normal odor control is achieved by venting through sub-surface soil "scrubber" trenches, or above-ground activated carbon canister-type filters. If properly maintained, these measures can be expected to reduce pump station odors to a level of insignificance.

Treatment Plant

The on-site treatment plant is a source of potential nuisance odors and is also subject to breakdown of mechanical or electrical systems. The treatment plant is proposed to be located about 300 feet southeast of the hotel complex (the nearest building), which should provide an adequate buffer for dissipation of sewage odors. The applicant's engineer has indicated that an emergency generator will be provided for stand-by power in the event of power outages. Spare equipment and redundancies are normally included in modern treatment plant designs to assure continuous operations. The treatment plant site will be securely fenced to prevent public access, and minimize public safety risks, but the plant will be clearly visible from the hotel and the adjacent parking area. Screening with vegetation would minimize any objectional visual effects of the treatment plant.

Treatment Plant Operation

The proposed treatment plant will require skilled operators for routine maintenance and monitoring and to assure consistent compliance with treatment requirements, including the County's nitrogen effluent limitation. The operator will also be responsible for management of the collection, treatment and percolation systems to avoid nuisance or public health impacts to the visiting public. The applicant's sewage disposal report provides no discussion of the intended plans for operation and maintenance of the wastewater facilities.

Wastewater Storage

The proposed wastewater system includes a 14,000-gallon surge tank for incoming sewage (i.e., short-term emergency) and a 20-day (3.8 acre-feet) storage reservoir for long-term storage of treated wastewater. These storage capacities are not sufficient to meet the requirements that the County of Monterey will impose on the wastewater system. According to State Wastewater Reclamation Criteria (Title 22), the minimum requirements for a wastewater reclamation facility of this type are one-day of short-term emergency storage (62,000 gallons) and 20 days of long-term storage (3.8 acre-feet). The policy of the County of Monterey is to increase these requirements to three days short-term storage (86,000 gallons) and 120-days long-term storage (22.8 acre-feet). The applicant has not described a plan to meet these requirements.

Spray Disposal

The use of reclaimed wastewater for crop irrigation would expose humans to possible physical contact with treated wastewater and with residue transferred via food crops. State wastewater Reclamation Criteria recognize crop irrigation as a suitable use for treated wastewater, and contain standards to protect against unacceptable risks to public health. For the proposed project, the treatment of wastewater would be to a tertiary level, which meets reclaimed wastewater standards for unrestricted irrigation uses, as defined in Title 22, California Administrative Code. The type of treatment system under consideration for the project has a good track record in producing reclaimed wastewater, and, with diligent compliance with waste discharge requirements, the risks to public health should be minimal.

Effects on Groundwater

The proposed package treatment plant utilizes an SBR process which is a proven technology for producing effluent with a low nitrate-nitrogen content. The County's nitrate requirement of 6.0 mg/l is very stringent for most package treatment plants, but there is supporting evidence that the SBR system can meet this requirement consistently. Also, if the treated wastewater is routed through the storage reservoir prior to irrigation, additional nitrate removal will occur (in the ponded water); and the final quality of water discharged through the farm irrigation system would likely be below 5 mg/l nitrate nitrogen.

The proposed package treatment plant includes an aerobic digester for stabilization of the sludge (bio-solids). However, the plans for dewatering and final disposal of the sludge are not fully described; the plans only indicate that the sludge will be disposed of by a local septic tank contractor. The sludge disposal options are either to: a) dewater the sludge on-

site and periodically haul the consolidated sludge to an approved disposal site (e.g., landfill); or, b) haul the liquid sludge to an approved sit for further treatment, dewatering and disposal. This aspect of the proposed wastewater plan requires further details. The method of sludge handling and disposal could affect local nuisance problems as well as the overall maintenance and costs associates with facility operation.

Wastewater Alternatives Comparison

The proposed on-site wastewater system is technically feasible, pending more detailed information on nitrogen removal effectiveness of the particular treatment plant that is planned. However, the decision to pursue an on-site treatment/disposal system was based, at least partly, on a determination by the applicant's engineer (P&A Consultants) that connection to the existing Greenfield sanitary sewer system is infeasible. This analysis is contradicted by the City of Greenfield who have indicated, by correspondence of November 1994 and September 1995, both a willingness and ability to extend sanitary sewer service to the project.

According to the City's Public Works Director adequate capacity exists in the sewage collection system and at the treatment plant to accommodate the estimated sewage flows of 62,000 gpd from the proposed project. The treatment plant presently has surplus capacity of 300,000 gpd. The City has indicated that sewer service to the project would be provided most effectively by extending a new 12-inch sewer main to the site, beginning in the vicinity of 3rd and Walnut Street on the north side of the City. Figure 14 depicts the City of Greenfield's required connection route between the project site and the City's sewer treatment plant. A 12-inch sewer would have more capacity than needed for the project wastewater flows, and would be intended to serve other future development between Greenfield and the project site. The overall length of pipeline required would be about 10,560 feet, and one lift station would be required. The estimated cost of the sewer extension is about \$730,000, but the cost to the project would ultimately be reduced as other new development on the north side of the City utilized the sewer line.

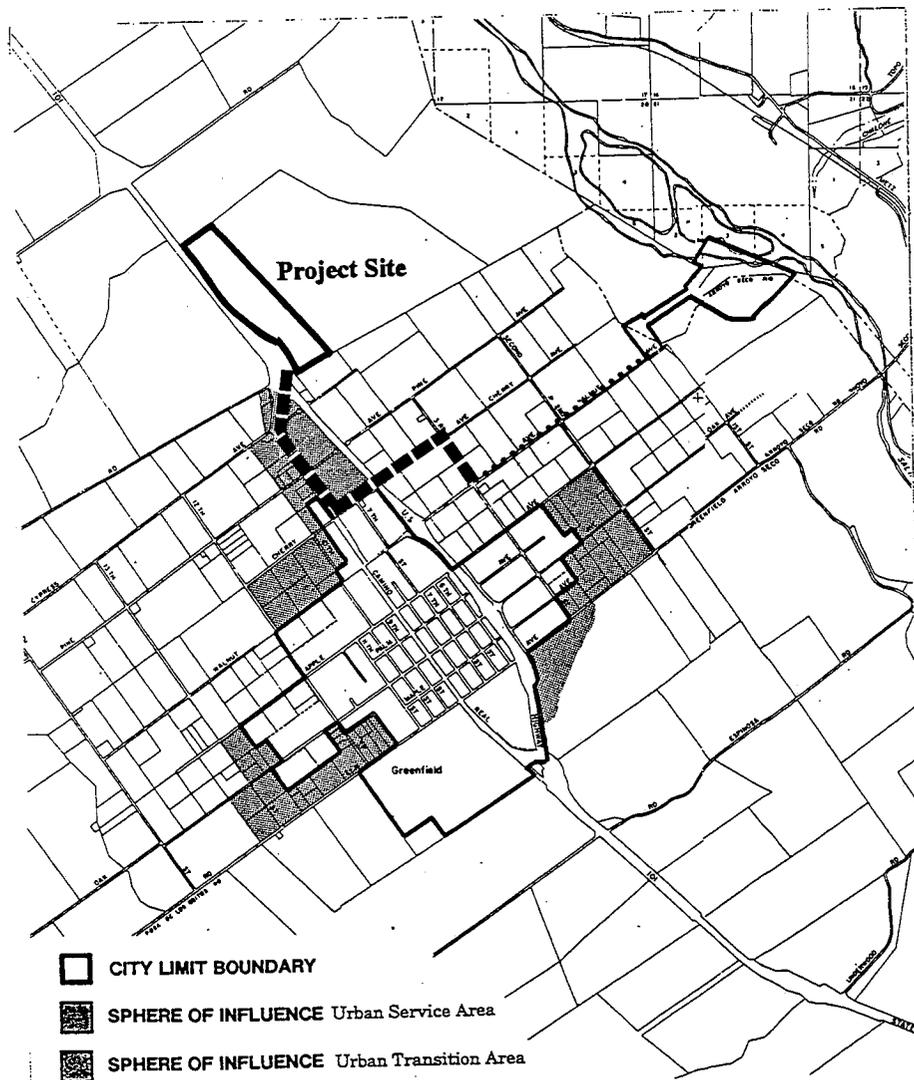
The City of Greenfield may provide services by contract or agreement only if it first requests and then receives approval from LAFCO as required by Government Code Section 56133. LAFCO policy requires consideration of several factors before making its decision. The Commission would consider the sphere of influence, the impact on agricultural land, consistency with County and City plans, efficient development patterns and other factors.

Connection of the project to the Greenfield sewer system would eliminate all of the identified impacts associated with an on-site treatment plant. Additionally, it would minimize or eliminate the duplication of wastewater management and regulatory activity in the area.

The following is a comparative review of the two wastewater treatment options:

- **Operation and Maintenance.** The existing Greenfield sewer system is a primary treatment plant with percolation ponds, which is simpler to operate and maintain than the on-site reclamation plant proposed by the applicant.

- **Regulatory Compliance.** Neither system would be permitted to operate is not in compliance with regulatory requirements of the Regional Water Board. However, as presently proposed, the on-site reclamation system does not meet the County requirements for short and long-term storage, and the Greenfield system does not meet the County's requirements for 6 mg/l nitrate-nitrogen in their final effluent. No preference is given between the two alternatives on this impact issue.
- **Public Health Risk.** The Greenfield treatment plant and percolation ponds are isolated well away from the public. An on-site reclamation plant has increased public health risks due to the proximity to the public and the reuse of the treated water for irrigation of food crops.
- **Nitrate Loading to Ground Water.** The on-site reclamation plant would meet the County's strict 6 mg/l (NO₃-N) discharge limit; the Greenfield system does not meet it.
- **Water Conservation.** The on-site reclamation plant would put treated wastewater to direct beneficial use. The Greenfield system recharges the ground water system (via percolation ponds), which provides only indirect water conservation benefit.



Sewer Connection to City's Treatment Plant

Figure
14

- **Nuisance Odors and Aesthetics.** The Greenfield system is an existing wastewater treatment plant in a relatively isolated agricultural setting; connection to this system would not create any new nuisance problems. The potential for public exposure to nuisance odors and aesthetic impacts is greater for the on-site reclamation system.
- **Land Area Requirement.** The on-site reclamation system will require substantial land area for the treatment plant and storage reservoirs. Very little additional land would be required to accommodate the project sewage flows at the Greenfield plant.
- **Energy Use.** Treatment to tertiary level quality for reclamation requires significantly more energy than required to convey the sewage flows to the Greenfield plant for primary treatment and percolation.

As indicated in the summary shown in Table 6, connection to the Greenfield sewer system is the environmentally superior wastewater alternative for the project.

Table 6. Comparative Ranking of Wastewater Alternatives		
Impact Issue	Alternative	
	On-Site Package Plant & Reclamation	Greenfield Sewer Connection
Operation & Maintenance	2	1
Regulatory Compliance	2	2
Public Health Risk	2	1
Nitrate Loading to Ground Water	1	2
Water Conservation	1	2
Nuisance Odors & Aesthetics	2	1
Land Area Requirement	2	1
Energy Use	2	1
TOTAL	14	11
* Low score = best ranking		
Source: Questa Engineers, June 1996.		

Impact: Operation of the proposed wastewater treatment system could result in health and safety impacts due to plant upset, failure or improper operation. *This is a significant impact that can be reduced to a less-than-significant level with implementation of the following mitigation measures.*

Mitigation

11. The applicant shall prepare and submit, for review by the Monterey County Health Department and Public Works Department, a comprehensive plan for operation and maintenance (O&M) of the proposed wastewater treatment and disposal facilities. This plan need not be detailed to the level of an O&M Manual, but it should provide sufficient description of the required/planned maintenance personnel, activities, equipment and procedures to assure that the proposed on-site treatment and disposal system will be adequately operated for the protection of public health. The plan shall identify the preferred operator of the plant, either a certified plant operator under private contract, or a County Sanitation District or County Service Area. Contingency plans must be provided for emergency situations such as power outages, equipment failure, plant upset conditions, etc. Having a pond available for diversion to during upset conditions may be prudent.

The treatment plant capacity should be expanded to approximately 72,000 gpd. in order to accommodate estimated peak winery wastewater flows during the "crush" period. Any operational changes during the "crush" period should be evaluated and identified in the O & M Manual.

As an alternative to completing the identified mitigation for an on-site treatment wastewater system, the applicant shall make necessary arrangements to extend sanitary sewer service from Greenfield to the project site. ~~This will also entail annexation to the City, which requires LAFCO approval.~~ Annexation to the City of Greenfield is not required. LAFCO could consider approval of contracts extending services to the site in accordance with Government Code 56133.

- 11A. If an on-site sewerage disposal system is approved, the formation of a County Service Area or other governmental entity may be necessary and require LAFCO approval.
12. The applicant shall provide a revised wastewater facilities plan, for review and approval be the Monterey County Health Department and the Public Works Department, identifying and describing the means for complying with the County requirements for 3-day short-term storage and 120-day long-term wastewater storage.
13. The applicant shall supply supporting information, for review and approval by the Health Department and Public Works Department, describing the plans for sludge disposal, indicating the method of dewater and the available capacity at the receiving facility.

4.7.3.4 Consistency with Applicable Central Salinas Valley Area Plan Policies

21.3.1.5 (CSV) New development shall meet the minimum standards of the Regional Water Quality Control Basin Plan when septic systems are proposed. The minimum lot size shall be one acre. New development shall provide evidence to the Director of Environmental Health that any proposed septic systems will not adversely affect groundwater quality.

Consistency: No septic systems are proposed to serve the project. All wastewater will be collected and treated onsite by an SBR treatment system and either stored in holding ponds or used on adjacent agricultural crops, or treated through the Greenfield treatment system.

4.8.2.2. Study Intersections

Based on discussions with Caltrans staff and a review of recent traffic study reports, Greer & Company identified the following intersections as study intersections:

- El Camino Real/Thorne Road/U.S. 101 southbound off-ramp
- El Camino Real/U.S. 101 southbound on-ramp/overpass road to northbound ramps
- Overpass road/U.S. 101 northbound on- and off-ramps

4.8.2.3 Existing Traffic Conditions

Existing Traffic Volumes

Automatic 24-hour traffic counts on the northbound and southbound ramps were conducted on Friday, June 10, 1994. Peak hour traffic volumes were extracted from the traffic data and are illustrated on Figure 15.

Existing Conditions Intersection Analyses

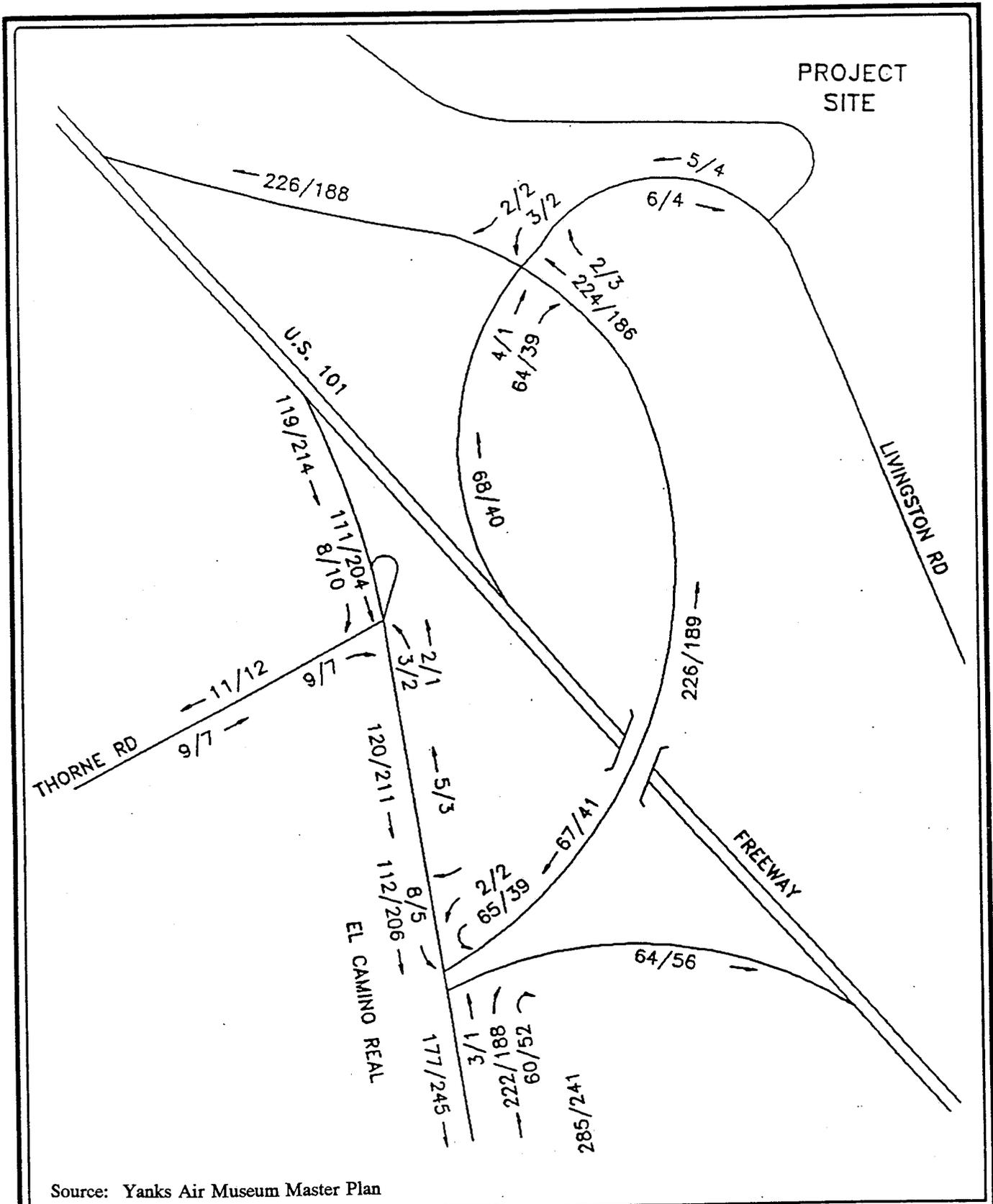
An analysis of existing conditions was conducted by Greer & Company for the three study intersections using the CMA analysis methodology for the study intersections. The analyses are based on the existing intersection geometrics and current a.m. and p.m. peak hour traffic volumes. Table 7 presents the Volume-to-Capacity ratios (V/C) and the Levels of Service (LOS) for each study intersection under current conditions. The LOS is an index of the quality of traffic flow through an intersection as defined by the Highway Capacity Manual⁷. The LOS definitions qualitatively describe operating characteristics under various conditions. The LOS definitions and corresponding V/C ratios are presented in the Appendix of this report.

As can be noted on Table 7, the LOS at each of the intersections indicates a high level of service with all intersections currently operating at LOS "A" during both a.m. and p.m. peak hours.

4.8.2.4 Pre-Project Traffic Conditions

A review of recently approved development projects within the City of Greenfield did not indicate any increase in traffic at the study intersections. The planning staff for the County of Monterey indicated that there were no development projects in the unincorporated area in the vicinity of the project.

⁷ Highway Capacity Manual, Transportation Research Board, National Academy of Sciences, Washington, D.C., 1985.



Existing Peak Hour Traffic Volumes

Figure 15

Table 7. Level of Service - Existing Conditions (1994)				
	Existing Conditions			
	A.M. Peak Hour		P.M. Peak Hour	
	V/C¹	LOS²	V/C	LOS
Intersection				
Thorne Rd/U.S. 101 SB Off-ramp	0.09	A	0.15	A
El Camino Real/U.S. 101 SB On-ramp	0.31	A	0.33	A
El Camino Real/U.S. 101 NB Ramps	0.20	A	0.16	A
¹ V/C = Volume to Capacity Ratio ² LOS = Level of Service				
Source: Greer & Co., Engineers and Planners				

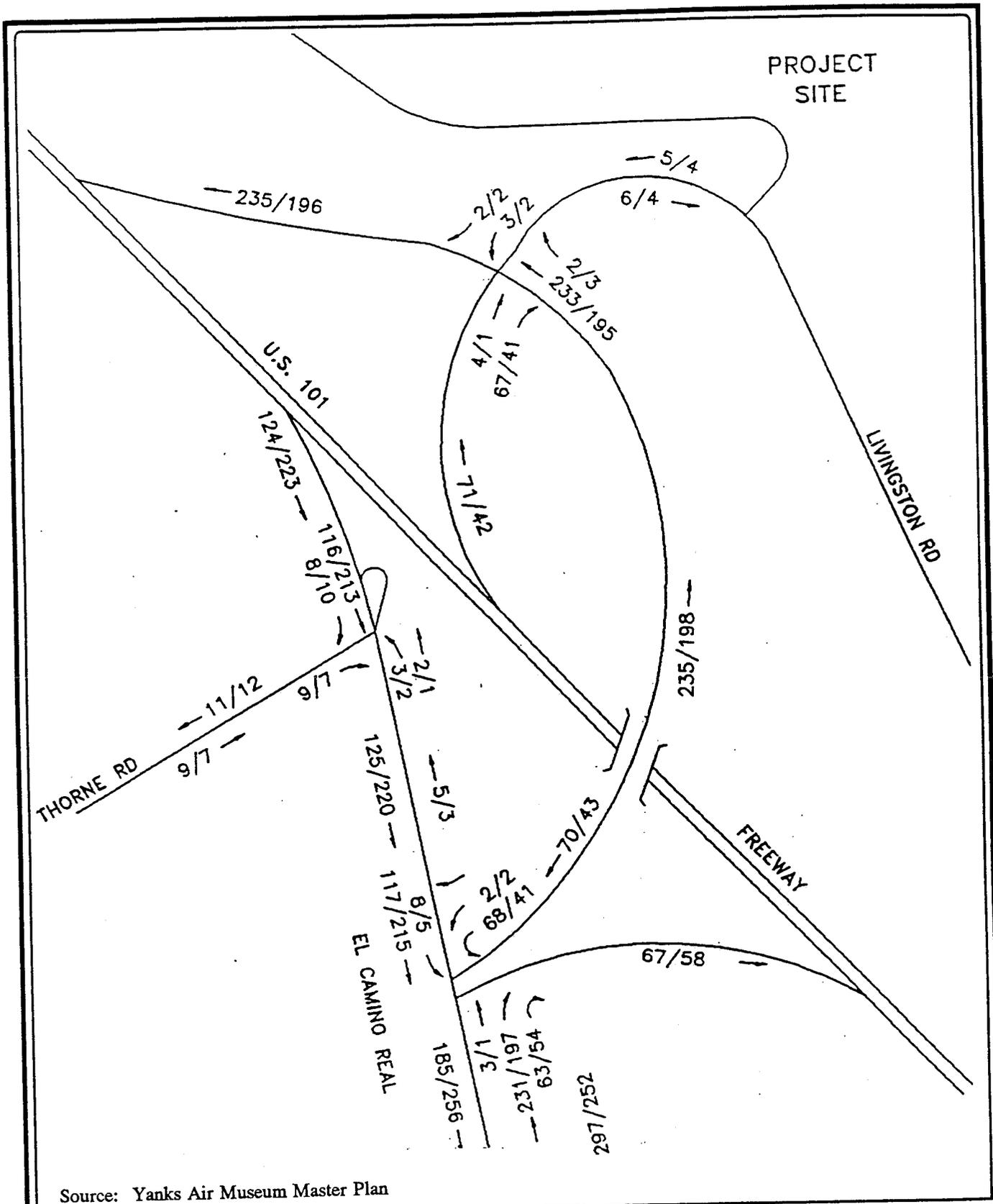
Pre-Project Traffic Conditions Analysis

The study intersections were analyzed to identify the expected operational conditions based upon the pre-project traffic volume estimates and the existing intersection geometrics. The analyses use the CMA methodology as was used for the existing conditions analysis. Table 7 presents the analysis results showing the V/C ratios and the subsequent levels of service for each peak hour at each of the study intersections. The analysis worksheets are contained in the Appendix E of this report. Figure 16 illustrates pre-project peak hour traffic volumes.

As illustrated in Table 8, all three study intersections will continue to operate at LOS "A" during both a.m. and p.m. peak hours.

4.8.2.5 Transit Service

The Monterey-Salinas Transit District provides general transit services to the greater Salinas and Monterey areas. However, no routes are provided to serve the Greenfield area. Transit services in Greenfield are provided by Greenfield Autolift, a demand responsive system for intracity trips, as well as Rural Rides and Greyhound Lines for intercity travel.



Source: Yanks Air Museum Master Plan

Pre-Project Peak Hours Traffic Volumes - 1996

Figure 16

Table 8. Level of Service - Existing Conditions (1994) + Pre-Project Conditions (1996)				
Intersection	Existing Conditions			
	A.M. Peak Hour		P.M. Peak Hour	
	V/C ¹	LOS ²	V/C	LOS
Thorne Rd/U.S. 101 SB Off-ramp	0.09	A	0.16	A
El Camino Real/U.S. 101 SB On-ramp	0.33	A	0.34	A
El Camino Real/U.S. 101 NB Ramps	0.21	A	0.16	A
¹ V/C = Volume to Capacity Ratio ² LOS = Level of Service				
Source: Greer & Co., Engineers and Planners				

All of these TDM applications could assist in the reduction of auto trips generated by the proposed project. While the project as proposed has limited significant traffic impacts, the TDM program could further reduce the project's traffic impacts on the surrounding roadway network.

4.8.3 Impacts and Mitigation Measures

4.8.3.1 Standards of Significance

In accordance with the CEQA Guidelines, a project would normally result in a significant impact if it would cause existing acceptable roadway LOS designations to drop to unacceptable levels; create unsafe conditions or require a new signal or major revisions to a signal; or contribute to substantial cumulative traffic impacts. The Monterey County 1994 Regional Transportation Plan Policy 1.2.1 established the following applicable LOS standards:

- No degradation below LOS D for those urban roads now operating at LOS D or better.
- No degradation below LOS C for those rural roads now operating at LOS C or better.
- No degradation below existing LOS for all other roads.

4.8.3.2 Project Generated Traffic

The traffic generated by a proposed land use is a function of the land use type, size, and location. Institute of Transportation Engineers' (ITE) trip rates⁸ have been used by Greer & Company to estimate the project generated trips for those land uses for which trip data is available.

ITE does not have available trip data for museums and winery land uses. Trip generation estimates for these uses were calculated based on visitor estimates and the expected number of employees. The museum is expected to generate 60,000 to 100,000 visitors per year, or approximately an average of 175 to 300 visitors per day. Using an average auto occupancy rate of 2.5 persons per vehicle results in 70 to 120 vehicles, 140 to 240 trips per day. The higher value was used for conservative results in the traffic analysis. Peak hour estimates were calculated assuming that the number of p.m. peak hour trips would be approximately 10 percent of the number of daily trips, and assuming that the opening of the museum would be after 9:00 a.m., the resulting number of a.m. peak hour trips would be zero. In addition to the visitor trips, trips would also be generated by the estimated 40 to 60 employees of the museum. Assuming a vehicle occupancy of 1.1 persons per vehicle would result in 36 to 55 vehicles, or 72 to 110 vehicle trips per day. Estimating that the two peak hours would constitute 85 percent of the employee vehicle trips, there would be 130 total daily trips with 44 trips (40 trips in and 4 trips out) during the a.m. peak hour, and 50 trips (5 trips in and 45 trips out) during the p.m. peak hour. The employee trips were combined with the visitor trips to estimate the total trip generation for the museum.

A similar estimate of employee trips was calculated for the winery. With 20 to 30 employees and a vehicle occupancy of 1.1 persons per vehicle would result in 64 daily employee trips with 22 trips (20 trips in and 2 trips out) during the a.m. peak hour and 25 trips (3 trips in and 22 trips out) during the p.m. peak hour. Visitor trips were calculated based on the tasting room, delicatessen and dining area totally approximately 3,000 square feet generating trips similar to a high-turnover restaurant. Again, assuming that the winery would not open until after 9:00 a.m., the trip generation during the a.m. peak hour would be zero.

Calculated trip estimates for the museum and winery are presented in Table 9, along with trip generation for other proposed project uses based on the ITE trip generation rates.

In order to assign the project generated traffic to the area roadway system, the directional distribution of the project traffic was determined. The directional distribution estimates by Greer & Co. were based upon the existing traffic volumes, area roadway system, and general area demographics. The project generated trips for the early phases of the project through 1996 are illustrated in Figure 17 for both peak hours of an average day. Figure 18 presents the project generated trips for latter phases of the project through 2000.

⁸ Trip Generation, Fifth Edition, Institute of Transportation Engineers, Washington, D.C., 1991

Table 9.
Trip Generation Rates and Estimated Trip Generation

Land Use	Units	Daily	In	A.M. Peak Hour		P.M. Peak Hour		Total
				Out	Total	In	Out	
1996 -- PHASE 1								
Museum	180,000 gsf							
	visitors	240	—	—	—	6	18	24
	employees	<u>130</u>	<u>40</u>	<u>4</u>	<u>44</u>	<u>5</u>	<u>45</u>	<u>50</u>
Subtotal		370	40	4	44	11	63	74
Winery	30,000 gsf							
	employees	64	20	2	22	29	44	73
3,000 gsf of food service								
	rates	(205.36)	(0.0)	(0.0)	(0.0)	(8.78)	(7.48)	(16.26)
	trips	<u>616</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>26</u>	<u>22</u>	<u>48</u>
Subtotal		680	20	2	22	55	66	121
Hangers/Tiedowns	75,000 gsf							
General Aviation with est. 50-60 tiedowns								
	rates	(6.61)	(0.38)	(0.29)	(0.67)	(0.48)	(0.52)	(1.00)
	trips	<u>397</u>	<u>23</u>	<u>17</u>	<u>40</u>	<u>29</u>	<u>31</u>	<u>60</u>
Gas Stations	2 @ 2,000 gsf each							
	rates	(819.5)	(32.80)	(32.80)	(65.60)	(40.98)	(40.98)	(81.95)
	trips	<u>3,278</u>	<u>131</u>	<u>131</u>	<u>262</u>	<u>164</u>	<u>164</u>	<u>328</u>
TOTAL 1996 Project Trips		4,725	214	154	368	259	324	583
Mixed Use	Gas Stations	-120	—	—	—	-3	-9	-12
NET 1996 PROJECT TRIPS		4,605	214	154	368	256	315	571
1997 -- PHASE 2								
Hotel	150 rooms							
	rates	(8.70)	(0.40)	(0.27)	(0.67)	(0.41)	(0.35)	(0.76)
	trips	<u>1,305</u>	<u>60</u>	<u>41</u>	<u>101</u>	<u>62</u>	<u>53</u>	<u>115</u>
Freeway Commercial	60,000 gsf							
	rates	(40.67)	(0.60)	(0.36)	(0.96)	(2.81)	(2.12)	(4.93)
	trips	<u>2,440</u>	<u>36</u>	<u>22</u>	<u>58</u>	<u>169</u>	<u>127</u>	<u>296</u>
Restaurant	7,000 gsf							
	rates	(96.51)	(0.86)	(0.06)	(0.92)	(5.36)	(2.30)	(7.66)
	trips	<u>676</u>	<u>6</u>	<u>—</u>	<u>6</u>	<u>38</u>	<u>16</u>	<u>54</u>
Fast Food	2 @ 2,200 gsf each							
	rates	(632.12)	(28.34)	(27.22)	(55.56)	(19.00)	(17.53)	(36.53)
	trips	<u>2,781</u>	<u>125</u>	<u>120</u>	<u>245</u>	<u>84</u>	<u>77</u>	<u>161</u>
TOTAL 1997 Project Trips		7,202	227	183	410	353	273	626
Mixed Use	Hotel 15%	-196	-9	-6	-15	-9	-8	-17
	Commercial 15%	-366	-5	-4	-9	-25	-19	-44
	Gas Stations 25%	-819	-33	-33	-66	-41	-41	-82
	Fast Food 25%	-695	-31	-30	-61	-21	-19	-40
	Total	-2,076	-78	-73	-151	-96	-87	-183
NET 1997 PROJECT TRIPS		5,126	149	110	259	257	186	443
TOTAL GROSS PROJECT TRIPS		11,927	441	337	778	612	597	1,209
TOTAL NET PROJECT TRIPS		9,731	363	264	627	513	501	1,014

Source: Trip Generation, Fifth Edition, Institute of Transportation Engineers, Washington, D.C., 1991; Greer & Co., Engineers and Planners.

4.8.3.3 Transportation Demand Management (TDM) Program

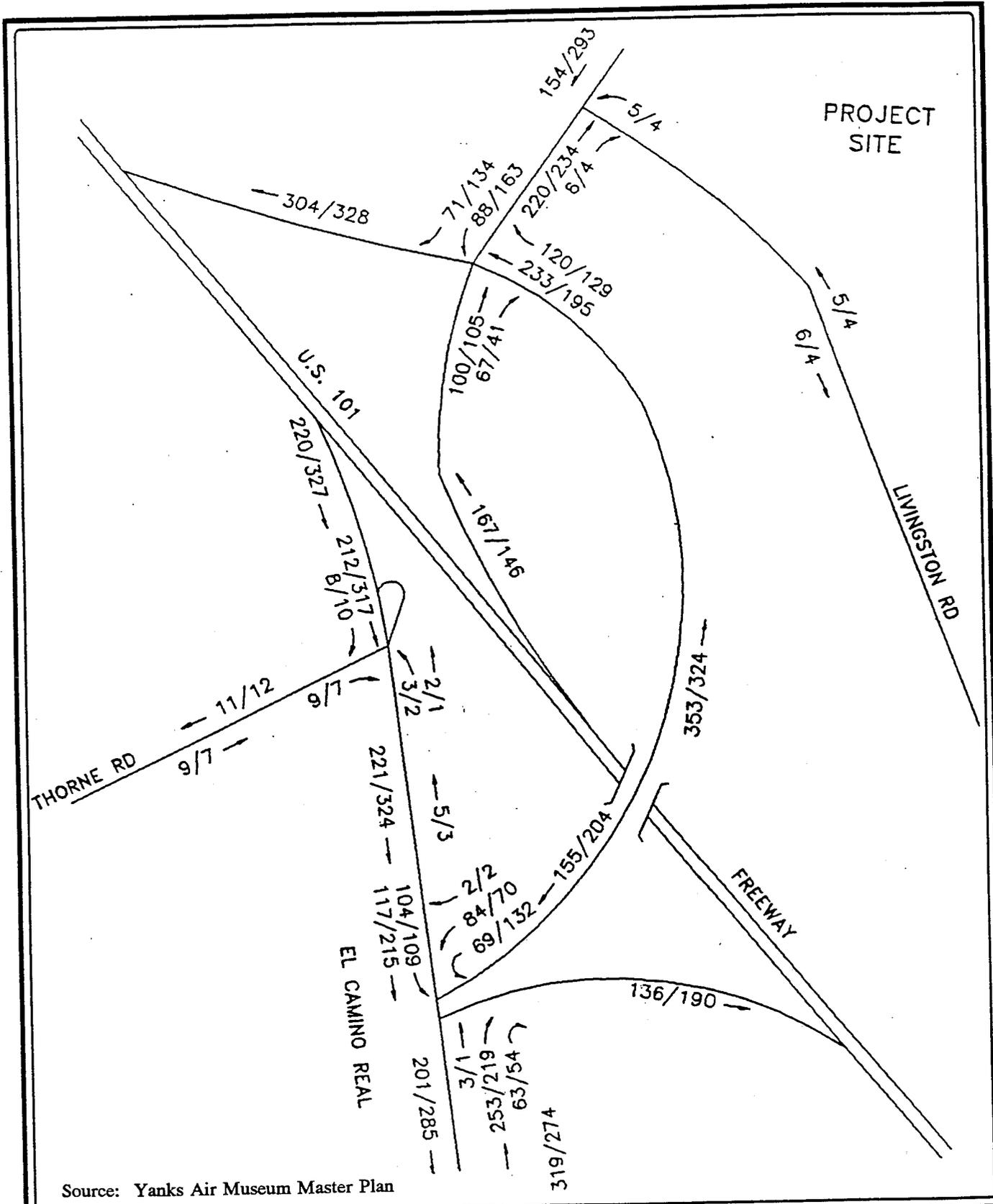
The project proposes to implement a basic transportation demand management program by encouraging carpooling through parking incentives and by providing ridesharing parking close to building entrances. Bicycling will be encouraged through the provision of secure bicycle parking facilities. Since the only local transit provider is the Greenfield Autolift, a demand responsive transit provider within the City of Greenfield, a drop-off, pick-up site will be provided within the site close to the museum and hotel area to encourage local residents and/or local employees to use the transit service. Contact will be made with Greyhound Lines to determine if a Greyhound stop can be achieved on-site to provide public transportation services directly on-site for intercity travel.

4.8.3.4 Post-Project Traffic Conditions Analysis

Post project traffic volumes combine the pre-project traffic volumes with the project traffic volumes. Post project traffic volumes for the early phases of the project through 1996 are presented in Figure 19. Post project traffic volumes for the complete project combine the pre-project traffic volumes with project traffic volumes for all phases through 2000. Post project traffic volumes through 2000 are presented in 20.

The same CMA intersection analysis methodology was applied at each of the study intersections using the post project traffic volumes for both the early phases through 1997 and existing geometrics at all of the study intersections. The resulting LOS and V/C ratios for both scenarios are presented in Table 10, The analysis worksheets are contained in Appendix E.

In order for project generated traffic to reach the project site from southbound freeway access, a heavy left turn movement results from southbound El Camino Real to the overpass road. Although the intersection capacity is not significantly impacted, the result will be a long queue of traffic in a single southbound lane. Southbound through traffic will be obstructed by vehicles waiting to make the southbound left turn to the overpass road. It is recommended that the roadway be widened to accommodate a single southbound through lane and a separate left turn lane.



Post Project Peak Hours Traffic Volume - 1996

Figure 19

Similarly, project traffic exiting the project site to access the southbound on-ramp to the U.S. 101 freeway will result in long traffic queues on the overpass road waiting to make the left turn. The left turn to the southbound on-ramp should also be separated from the westbound approach to El Camino Real from the overpass road. The overpass road should be widened westerly of the overpass structure to provide a separate left turn lane to the southbound on-ramp with a single through lane to El Camino Real to accommodate both left and right turn movements at that intersection. In order to avoid any sight distance problems for westbound vehicles coming over the crest of the overpass, the widening should be done on the south side of the overpass road and, as a result, may require some modification to the entrance of the on-ramp as well. None of these improvements envision the need to widen the overpass structure itself.

Impact: Traffic generated by the proposed project will cause the intersection of the overpass road of El Camino Real with the northbound ramps to the Highway 101 to drop from LOS A under existing conditions to LOS D in the p.m. peak hour. *This is a significant impact that can be reduced to a less-than-significant level by implementing the following mitigation measures.*

Impact: Traffic generated by the project will substantially increase the turning movements at the intersection of El Camino Real with the southbound on-ramp to U.S. 101 and the El Camino Real overpass road. *This is a significant impact that can be reduced to a less-than-significant level by implementing the following mitigation measures.*

Mitigation

Even though the traffic mitigation requirements pertain to Phase 2 of the project, it will be necessary to implement the mitigation for the intersection of the El Camino Real overpass road and the Highway 101 northbound ramps with Phase 1, since it will establish the entrance location to the site. The mitigation requirements at the intersection of El Camino Real and the southbound on-ramp will be required with the implementation of phases through year 2000.

Phases of the Project Through 1996

In order to mitigate project traffic impacts at the overpass road of El Camino Real with the northbound ramps of the U.S. 101 freeway, the following traffic mitigation improvements are recommended:

14. The applicant shall submit detailed design plans to the Monterey County Public Works Department that identifies the bridge configuration required to accommodate project traffic. The design plans shall include the following items: widen the northbound off-ramp to accommodate two lanes, one through lane and one through/right lane, and relocate the intersection approximately 100 to 150 feet northerly in order to increase the length of the off-ramp and its storage capability. (Refer to Mitigation 19 below.)
15. The developer shall widen the south leg of the intersection to provide one through lane and an added separate right turn lane into the project site. (Refer to Mitigation 19 below.)
16. The developer shall establish the project entrance opposite the relocated intersection (northbound on/off ramp and Livingston Road) and provide two inbound lanes and two outbound lanes.
17. The developer shall realign and extend the County's access road Livingston Road to the properties south of the project site along the east side of the freeway to connect into the project access road. The developer shall install a traffic signal or provide funds for future traffic signal installation.
18. The applicant shall dedicate to the County of Monterey the Livingston Road County road extension and the project access road between the County Livingston Road and the freeway right of way.

Phases of the Project Through 2000

19. The developer shall widen the overpass road on the southerly side, westerly of the overpass structure without widening the structure itself, to provide a separate left turn lane to the southbound on-ramp with a single through lane to El Camino Real to accommodate both left and right turn movements at that intersection.
- 19A. The applicant shall prepare and submit to Caltrans and the Monterey County Public Works Department a Project Study Report (PSR) for all proposed future work within the Caltrans right-of-way for the widening of the overpass roadway at El Camino Real and modification to the southbound on-ramp to U.S. 101, and for the widening of the overpass road and modification of the northbound on and off-ramps for U.S. 101. Mitigations required in the PSR and the PSR itself shall be completed prior to issuance of any occupancy permit on any phase of the project. The following improvements shall be constructed and completed as applicable prior to occupancy of any structure, unless replaced or amended by mitigations required by the PSR.
 - a. The applicant shall submit detailed design plans to Caltrans and Monterey County Public Works Department. The design plans shall include the following items: widen the northbound off-ramp to accommodate two lanes, one through lane and one through/right lane, and relocate the intersection approximately 100 to 150 feet northerly in order to increase the length of the off-ramp and its storage capability.

- b. The developer shall widen the south leg of the newly relocated intersection to provide one through lane and an added separate right turn lane into the project site.
- c. The developer shall widen the overpass road on the southerly side westerly of the overpass structure to provide a separate left turn lane to the southbound on-ramp with a single through lane to El Camino Real to accommodate both left and right turn movements at that intersection.
- d. The developer shall modify, as necessary, the entrance of the southbound on-ramp to accommodate the widening of the overpass road. The developer shall signalize this intersection or provide funds for future signalization.

20. The developer shall modify as necessary, the entrance of the southbound on-ramp to accommodate the widening of the overpass road.

Implementation of the mitigation measures will reduce this impact to a less-than-significant level.

4.8.3.4 Consistency with Applicable Regional Transportation Plan Policies

1.1.1 (RTP) Land use planning shall be coordinated with transportation planning to fully mitigate the traffic impacts of new development.

Consistency: *The project as proposed and as modified by mitigation measures recommended in this EIR does not result in significant traffic impacts.*

1.1.3 (RTP) Bicycle and pedestrian access, and transit access shall be incorporated into the design of new residential and commercial developments by amending development standards, zoning ordinances, and applicable subdivision ordinances.

Consistency: *The project proposes to include transit access directly to the museum and hotel for the use of guests and employees. The project also proposes bicycle parking facilities. However, the site plan does not include bicycle facilities as part of improvements to the Highway 101 overpass at Thome Road. This may result in unsafe conditions for bicyclists or discourage bicyclists traveling to and from the site.*

1.1.4 (RTP) New recreational and visitor-oriented development should be designed to encourage visitor use of alternative modes of transportation.

Consistency: *The project proposes a draft trip reduction program which is described in this EIR (refer to Section 4.8.3.3). The applicant is required to submit a Trip Reduction Checklist to the County as part of the permit review process per the County Trip Reduction Ordinance. In addition to those programs offered by the applicant, the County may require the developer to provide bicycle amenities, bus pull-outs, and pedestrian facilities as part of the plan. In addition, during special events, the County may require remote parking lots, shuttle services, and other methods to reduce congestion of area roadways as a condition of special event permits.*

1.2.2 (RTP) To ensure long-range cost effectiveness for new or expanded transportation facilities, a design standard of LOS C should be striven for. This does not preclude consideration of other improvements for alternative transportation modes.

Consistency: *The project as proposed and as modified by mitigation measures recommended in this EIR does not degrade existing LOS A on existing roads.*

1.3 (RTP) Minimize environmental impacts and conflicts with existing land use patterns that could result from construction of new transportation facilities.

Consistency: *The project as proposed and as modified by mitigation measures recommended in this EIR does not result in significant traffic impacts or conflict with existing land use patterns.*

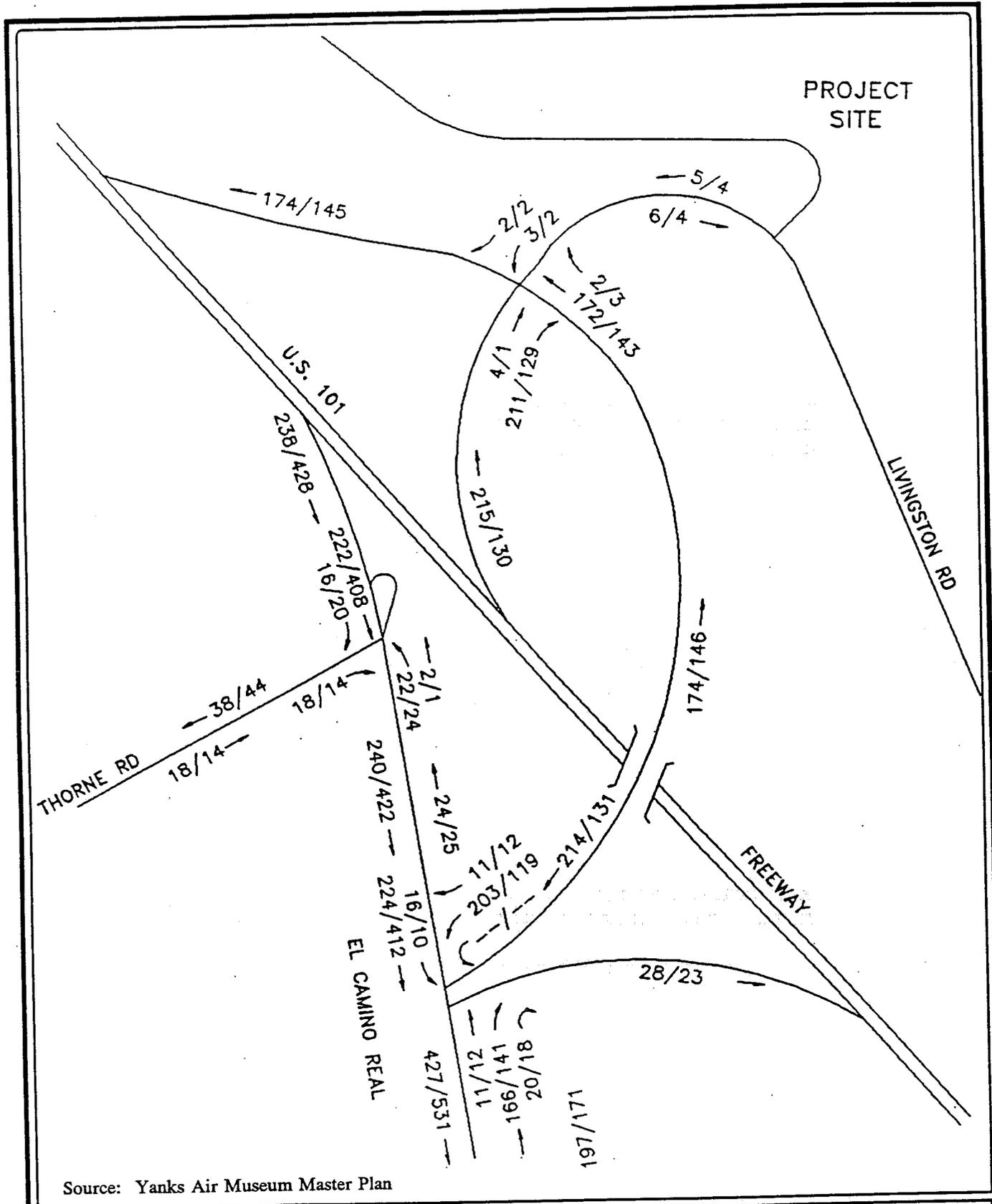
4.8.3.5 Cumulative Traffic Conditions Analysis

This section provides traffic projections under cumulative conditions. The cumulative traffic volumes were derived by Greer & Co. from the City of Greenfield Transportation Master Plan Update⁹ prepared for the ultimate buildout of the Urban Service Area (USA). Project traffic at full buildout was added to the buildout traffic volumes for the urban service area to identify future cumulative traffic conditions.

The Master Plan Update documented existing daily traffic volumes on roadway segments throughout the City of Greenfield, and specifically on the streets and freeway ramps in vicinity of the proposed project. The Master Plan Update also projected future buildout daily traffic volumes. The prorata increase (or decrease, due to implementation of the Walnut Avenue freeway ramps) in daily traffic volumes was applied to the respective existing peak hour traffic volumes to obtain future USA buildout peak hour traffic volumes. These future peak hour volumes were analyzed for the three study intersections to identify future traffic operations. Project traffic volumes for the complete buildout of the proposed project were added to the future USA buildout traffic volumes to obtain cumulative traffic volumes and again analyzed for the three study intersections.

The future USA buildout traffic volumes and the cumulative traffic volumes including the proposed project are presented in Figures 21 and 22 for a.m. and p.m. peak hours. The results of the intersection capacity analyses for the USA buildout and cumulative traffic conditions are presented in Table 11. With the existing improvements, the levels of service at all of the study intersections with the U.S.A. buildout will improve with all intersections projected to operate at LOS "A" during both a.m. and p.m. peak hours. This occurs primarily as a result of the construction of the proposed ramps at Walnut Avenue. With these new ramps in place existing and projected new traffic from developments within the City of Greenfield are diverted away from the ramp interchange at El Camino Real north.

⁹ City of Greenfield Transportation Master Plan Update, Greenfield, CA., January, 1990.



Source: Yanks Air Museum Master Plan

	<p>USA Buildout Peak Hour Traffic Volumes</p>	<p>Figure 21</p>
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With the addition of projected project traffic, the cumulative traffic conditions are projected to deteriorate for the intersections of El Camino Real and the southbound freeway on-ramp and for El Camino Real and the northbound freeway ramps. Levels of service will deteriorate to LOS "B" at both intersections during the a.m. peak hour, which still results in an acceptable level of service. During the p.m. peak hour, the level of service will deteriorate to LOS "D", which is an unacceptable level of service for the County of Monterey.

Table 11 also presents the results of the intersection capacity analyses for cumulative conditions with the recommended project mitigation improvements in place. With the mitigation improvements, the two impacted intersections will be improved to LOS "A" for both peak hours. The recommended improvements will clearly mitigate project traffic impacts as well as restore the study intersections to a high level of service for future conditions.

Table 10.
Level of Service -- Post Project Conditions 1996 and 1997

<u>Intersection</u>	<u>Pre-Project Volumes</u>				<u>Post Project - 1996</u>				<u>Post Project - 1997</u>			
	<u>A.M. Pk Hr</u> <u>LOS¹</u>	<u>V/C²</u>	<u>P.M. Pk Hr</u> <u>LOS</u>	<u>V/C</u>	<u>A.M. Pk Hr</u> <u>LOS</u>	<u>V/C</u>	<u>P.M. Pk Hr</u> <u>LOS</u>	<u>V/C</u>	<u>A.M. Pk Hr</u> <u>LOS</u>	<u>V/C</u>	<u>P.M. Pk Hr.</u> <u>LOS</u>	<u>V/C</u>
Thorne Rd/101 SB Off-ramp	A	0.09	A	0.16	A	0.16	A	0.22	A	0.20	A	0.31
El Camino Real/101 SB On-ramp	A	0.33	A	0.34	A	0.46	A	0.53	A	0.57	C	0.71
El Camino Real/101 NB Ramps	A	0.21	A	0.16	A	0.45	A	0.51	B	0.63	D	0.82 *

¹LOS - Level of Service

²V/C - Volume to Capacity Ratio

* Significant Impact

Source: Greer & Co., Engineers and Planners

Table 11.
Level of Service -- USA Buildout and Cumulative Traffic Conditions

Intersection	Post Project Volumes				USA Buildout Volumes				Cumulative Volumes			
	A.M. LOS ¹	Pk. Hr. V/C ²	P.M. LOS	Pk. Hr. V/C	A.M. LOS	Pk. Hr. V/C	P.M. LOS	Pk. Hr. V/C	A.M. LOS	Pk. Hr. V/C	P.M. LOS	Pk. Hr. V/C
Thorne Rd/U.S. 101 SB Off-ramp	A	0.20	A	0.31	A	0.19	A	0.31	A	0.30	A	0.46
El Camino Real/U.S. 101 SB On-ramp	A	0.57	C	0.71	A	0.43	A	0.48	B	0.66	D	0.85
El Camino Real/U.S. 101 NB Ramps	B	0.63	D	0.82	A	0.26	A	0.19	B	0.68	D	0.84
With Mitigation												
El Camino Real/U.S. 101 SB On-ramp	A	0.49	A	0.57	A	0.43	A	0.36	A	0.59	A	0.43
El Camino Real/U.S. 101 NB Ramps	A	0.33	A	0.45	A	0.26	A	0.18	A	0.37	A	0.48

¹LOS - Level of Service
²V/C - Volume to Capacity Ratio

Source: Greer & Co., Engineers and Planners

4.9 Air Quality

4.9.1 Introduction

This analysis is based on the analysis and conclusions contained in the Air Quality Analysis prepared for the proposed project by Giroux & Associates (a copy of this report is on file with the County of Monterey Planning Department). The purpose of this study was to evaluate general meteorological conditions and assess project effects on local and regional air quality. Indirect emission forecasts are generated based on conclusions and assumptions about trip characteristics identified in section 4.8, *Traffic and Circulation*.

4.9.2 Setting

4.9.2.1 Climate and Meteorology

The climate in the project vicinity, as with all Central California coastal areas, is dominated by the massive thermal capacity of the ocean, by cool coastal ocean currents, and by the strength and position of the high pressure ridge near Hawaii. The resulting climate is cool and damp with only small daily and seasonal oscillations. Summers are cool, winters are mild, rainfall is usually light and infrequent, there is a persistent onshore breeze up the Salinas River Valley from northwest to the southeast, and there is a high frequency of nocturnal fog and low coastal clouds, especially in the summer. The onshore breezes are typically unpolluted, but the weather conditions that create the marine climate also combine to limit the dispersive capacity of the atmosphere over the region. Fortunately, emission levels throughout the valley are sufficiently low such that ambient air quality is generally healthful.

The annual average temperature of the Greenfield area is 59° F ranging from the upper 30's on winter mornings to the mid 80's on the warmest days. The thick clouds over Monterey Bay in July and August burn off much sooner in Greenfield than along the coast. Diminishing strength of the onshore, upriver flow in late summer reduces marine influence. The warmest days in the project area are often in early September. Extremes of temperature are very unusual because of the moderating effects of the sea breeze with only a few days ever reaching 90° in late summer and with correspondingly only a few days reaching freezing in an average year.

In contrast to the very homogeneous distribution of temperature throughout the year, rainfall is highly variable, and falls almost exclusively from late October to early May. Rainfall varies markedly with location and elevation around the valley, but averages around 12 inches per year. Rainfall generally decreases in moving up the valley from around 15 inches per year in Salinas to around 10 inches per year south of King City.

Winds are dominated by thermal contrasts between ocean and land. The local flow from the cool ocean to the warm Central Valley produces a prevailing onshore flow from the northwest up the river valley. At night, especially in winter when colder air drains to the valley floor and then flows seaward, winds blow down the valley from the southeast into Monterey Bay. Cross-valley winds generally only occur during very light wind disorganized flow. Except for brief transition periods in the morning and evening, winds are usually strong enough to preclude any local stagnation, and the area is therefore well ventilated almost year-round.

The strong onshore flow of cool marine air undercuts a large dome of warm, sinking air within the eastern edge of the Pacific high pressure ridge. The boundary between the marine air below and the dry air above is the base of a marine/subsidence temperature inversion that acts like a large lid over the region. While coastal areas are well ventilated, the marine air moves inland, decelerates, and air pollutants are added from below without any dilution from above. As these pollutants react and undergo photochemical transformations, they may cause clean air standards for ozone (the primary constituent of smog) to be exceeded in downwind valleys.

A second inversion type forms on clear nights when the air near the ground cools by contact while the air aloft remains warm. These radiation inversions, in conjunction with nearly calm winds, may lead to accumulations of automotive exhaust near freeways or other traffic concentrations. While a potential exists for such air pollution "hot spots" in the Salinas Valley, traffic densities are typically too low for any significant concentrations of such pollutants to occur.

In summary, there are meteorological conditions during both the summer and winter that have the potential for causing unhealthy air quality. Fortunately, the level of emissions from both stationary and mobile sources is sufficiently low such that this potential for degraded air quality is almost never realized in the project vicinity.

4.9.2.2 Ambient Air Quality Standards (AAQS)

In order to assess the air quality impact of any proposed development such as the Yanks Air Museum, that impact, together with baseline air quality levels, must be compared to the applicable ambient air quality standards. These standards are the levels of air quality considered safe, with an adequate margin of safety, to protect the public health and welfare. They are designed to protect "sensitive receptors" defined as that segment of the public most susceptible to respiratory distress or infection such as asthmatics, the very young, the elderly, people weak from other illness or disease, or persons in heavy work or exercise. Healthy adults can tolerate periodic exposure to air pollution levels somewhat above these standards before adverse health effects are observed.

The Clean Air Act Amendments of 1990 established national AAQS with states retaining the option to adopt more stringent standards or to include other pollution species. Because California already had standards in existence before federal AAQS were established, and because of unique meteorological problems in the state, there is considerable diversity between state and federal standards currently in effect in California as shown in 12. The state standards are in most cases more stringent than the federal standards.

Table 12. Federal and State Ambient Air Quality Standards			
Pollutant	Averaging Time	Federal Primary Standard	State Standard
Ozone	1-Hour	0.12 PPM	0.09 PPM
Carbon Monoxide	8-Hour 1-Hour	9.0 PPM 35.0 PPM	9.0 PPM 20.0 PPM
Nitrogen Dioxide	Annual 1-Hour	0.053 PPM NA	NA 0.25 PPM
Sulphur Dioxide	Annual 24-Hour 1-Hour	0.03 PPM 0.14 PPM NA	NA 0.04 PPM 0.25 PPM
PM-10	Annual Average 24-Hour	50 ug/m ³ 150 ug/m ³	30 ug/m ³ 50 ug/m ³
PPM = parts per million; NA = not applicable; ug/m ³ = micrograms per cubic meter			
Source: CEQA Air Quality Guidelines, MBUAPCD, October 1995.			

Further amendments to the Act promulgated in 1977 specified that all areas of the country must attain all national AAQS by 1982 with a possible extension to 1987 for some pollution constituents if reasonable further progress had been demonstrated by the 1982 interim deadline. For those areas of the country where attainment was not anticipated for given pollution constituents within the specified timetable, the Clean Air Act required that a comprehensive plan be prepared that outlined the tactics and growth assumptions through which increased emissions associated with growth was to be offset by even greater emissions reductions such that attainment with federal standards was to be realized by the 1987 deadline.

With the passing of the 1987 attainment deadline with many areas of California still far from compliance, and with uncertainty about reauthorization of the federal Clean Air Act, California adopted its own California Clean Air Act (CCAA; AB-2595). AB-2595 requires air quality attainment planning to achieve the more stringent state AAQS. An Air Quality Management Plan (AQMP) was prepared in 1989 by the Monterey Bay Unified Air Pollution Control District (APCD) in response to CCAA requirements and updated in 1991. The

AQMP identifies measures to reduce basinwide emissions as a basis for future attainment of standards. These measures include both stronger controls on industrial sources as well as emissions reductions from vehicular sources beyond any year to year improvement from retirement of older, polluting cars. The APCD produced the 1994 Air Quality Management Plan (AQMP) which updated the 1991 AQMP and addresses state requirements, and the Federal Maintenance Plan and Rate of Progress Plan both of which address federal requirements.

4.9.2.3 Baseline Air Quality

Violations of ambient air quality standards are determined through data collected at air quality monitoring stations located throughout the air basin. Ambient air quality measurements are conducted by the APCD at its Salinas air quality monitoring station. This station measures both regional pollution levels such as dust and smog, as well as primary vehicular pollution levels such as carbon monoxide and nitrogen dioxide. A monitoring station was also operated in King City for several years as part of a special research program. Ozone monitoring is also conducted at the Pinnacles station which is operated by the National Park Service. Monitoring data from this station, which is the closest station to the project site, violated the federal ozone standard once in 1991 and the state ozone standard numerous times in the past five years.

Ambient air quality monitored by the APCD within Monterey County violated the state ozone standards 2 days in 1993 and no days in 1994. The state PM₁₀ 24-hour standard was violated 2 days in 1993 and no days in 1994. The federal standards for ozone has not been exceeded at APCD monitoring stations since 1989 in the air basin. Regulatory efforts to reduce ozone primarily focus on reductions in NO_x and ROG produced daily in the County.

PM₁₀ is particulate matter of 10 microns or less and has a wide variety of sources including paved road dust, dust from construction and demolition, agricultural operations, and particulate matter released during fuel combustion. Violations of the 24-hour state standard occur infrequently throughout the County; only seven nine days since 1986. Federal standards for PM₁₀ are not exceeded in the NCCAB. Regulatory efforts to reduce PM₁₀ focus on controls on fugitive dust.

4.9.2.4 Air Quality Planning

An attainment plan to achieve the federal ozone standard is attained when the maximum hourly average concentrations above the standard is equal to or less than one. If the request for redesignation is approved, the federal attainment plan converts to a maintenance plan to insure that the standard will continue to be met.

Planning for attainment of state standards is embodied in the 1994 AQMP. The 1994 update demonstrates that the 20 percent reduction target in ozone precursor emissions from the 1987 baseline has been met and that no new control measures (contingency measures) are needed beyond those already in the plan.

~~A visitor-oriented development such as the proposed project does not directly relate to the AQMP which addresses specific stationary source controls while treating mobile source emissions through more general transportation control measures (TCMs). The AQMP addresses all sources of emission growth including mobile source emissions in the emissions forecasts, and consistency with these forecasts is used to address the cumulative air quality impacts on regional pollution (ozone). The Transportation Agency of Monterey County (TAMC) has developed a model trip reduction ordinance (TRO) which has been adopted by the City of Greenfield. Emissions controls from storage or dispensing of fuels is the only project component that has a detailed relationship to the rules of the APCD, and hence the AQMP. Indirect source control is clearly important because the primary source of impact from the proposed project is from vehicles. Such controls, however, are "softer" compared to the "hard-and-fast" rules and regulations governing specific source controls.~~

4.9.3 Impacts and Mitigation Measures

4.9.3.1 Standards of Significance

In accordance with CEQA Guidelines and APCD Thresholds and Guidelines, a significant adverse air quality impact would normally result if a project releases emissions that exceed specified thresholds; would result in a violation of ambient air quality standards; contribute substantially to an existing or project violation; is inconsistent with adopted air quality plans and projections; exposes sensitive receptors to substantial pollutant concentrations; exposes people to unhealthful levels of toxic or hazardous pollutants; or causes odors or other nuisances impacting a considerable number of people.

4.9.3.2 Overview

A visitor commercial oriented use such as the proposed Yanks Air Museum will impact air quality primarily through increased automotive emissions. These emissions will be widely dispersed in space and time by the mobile nature of the mobile source itself. While individual projects do not generally, in themselves, result in exceedances of the ozone standards, they can result in exceedances of ambient standards for localized pollutants (i.e., PM10 and CO). Secondary emissions during construction from increased fossil-fueled energy utilization and from increased aviation activities will be generated, but these are usually much smaller in both duration and volume than the mobile source emissions generated by project operations.

The proposed project will be characterized by a large number of days with "routine" site operations, mainly pass-by trips associated with the service stations, fast-food restaurants, and overnight stays, "new" trips associated with the museum, RV park, hangars and employee commute trips. In addition, the applicant has proposed that special events such as air shows be held at the site on weekends several times per year. Special events are likely to generate substantial traffic volumes in the vicinity in addition to normal traffic volumes in the area. As stated in the project description, the applicant will be required to gain approvals and permits for special events at the site. At such time and based on the specific characteristics nature of such special events not available at this time, the applicant will be required to satisfy the requirements of the County concerning traffic congestion, parking, scheduling, etc. Therefore, this analysis does not address the air quality impacts associated with special events at the site.

Project buildout will remove 100 acres of agricultural uses. Removal from agriculture will reduce dust and other emissions associated with tilling practices. Heavy construction, however, increases airborne dust temporarily, and increased trips to and from the site is also a source of fugitive dust over the long-term.

4.9.3.3 Construction Impacts

Particulates and Fugitive Dust

Short-term construction operations generate fugitive dust, approximately 64% of which is PM₁₀. The primary sources of construction-related dust includes grading, excavation, building of roads and travel on unpaved surfaces. During construction, fugitive dust is generated when wheels or blades pulverize and break down surfaces. The resulting dust is subsequently entrained by wind or vehicle tires, potentially causing a nuisance and health hazard to those working nearby. Other sources (e.g., exhaust from heavy-duty diesel-powered equipment) can also contribute to PM₁₀ levels at and around the construction site.

For purposes of analysis of any short-term impacts, it has been assumed that as much as 20 acres of the 100 acre project site will be under simultaneous development during the five year construction phasing. Dust emissions from soils in the Salinas Valley are generally substantial during soil disturbance because the soil contains a high proportion of fine material. The average uncontrolled dust emission rate during construction is about 71 pounds per day per acre of disturbance¹⁰ for a total of 1,429 pounds per day per 20 acres. This dust loading represents particles up to 30 microns in diameter called total suspended particles (TSP).

The respirable fraction (10-micron diameter or less particulate matter -- PM₁₀) of TSP typically comprises 64% of TSP. This ratio suggests that the project-related construction PM₁₀ dust burden will be approximately 230 769 pounds per day (38 lbs/day/acre x 20 acres

¹⁰ Assumes 1.2 tons on fugitive dust per acre of construction per month of activity (EPA AP-42, Vol. I, 1985), 22 working days per month. Assumptions apply to construction operations with: 1) medium activity level, 2) soils with moderate silt content (30%), & 3) semi-arid climate.

= 760 lbs/day) plus combustion PM₁₀ emissions of 9 lbs/day). This level is substantially above the significance threshold used by the APCD of 82 pounds per day for evaluating project impact significance.

While the estimate of project construction related PM₁₀ emissions exceeds APCD thresholds based on the assumptions described above, the only sensitive receptors (two residences) in the vicinity are located more than 2,000 feet to the north and south of the site. In addition, the site has historically been farmed and is surrounded by actively farmed lands. Farming operations also generate substantial PM₁₀ emissions. The project will result in 110-acres taken out of agricultural production. Agricultural production generates substantial PM₁₀ emissions approximately three to four times per year when fields are disked and worked. During these times, the fields lay without vegetation for several weeks and PM₁₀ levels are approximately 4,180 lbs/day (38 lbs/day/acre x 110 acres = 4,180 lbs/day). The proposed project will result in a reduction of 3,420 lbs/day in PM₁₀ creating a positive impact. Additionally, the proposed project will only be graded one time where as the existing agricultural fields continue to create PM₁₀ impacts several times each year.

In addition to smaller particles that will remain suspended in the air semi-indefinitely, construction dust is comprised of large diameter inert silicates that are chemically non-reactive and are further readily-filtered out by human breathing passages. They settle out again soon after they are released into the air. These fugitive dust particles are, therefore, more of a potential soiling nuisance as they settle out on parked cars, landscape foliage or outdoor furniture rather than any adverse health hazard.

Impact: Construction of the air museum, runway and commercial facilities will generate temporary emissions of fugitive dust from soil disturbance and combustion emissions from on-site construction equipment and from off-site trucks moving dirt, delivering construction materials, and from worker travel. *This is a less-than-significant impact, which can be reduced to a less-than-significant level with implementation of the following mitigation measures will reduce impacts even further.*

Mitigation

21. Limit the area under construction up to 10 acres at any one time ~~where feasible.~~
22. During construction, grading efforts shall ~~seek to~~ minimize dust generation through the implementation of the following dust suppression techniques and applied ~~as appropriate~~ (the following mitigation measures, when implemented, can reduce fugitive PM₁₀ an average of 50 to 90%):
 - Water all active construction areas at least twice daily. Frequency should be based on the type of operation, soil, and wind exposure;
 - Apply chemical soil stabilizers on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days);

- Plant vegetative ground cover per the specifications of a landscape plan approved by the County of Monterey Planning & Building Inspection Department as soon as possible;
 - Prohibit all grading activities during periods of high wind (over 15 miles per hour);
 - Cover inactive storage piles;
 - Install wheel washers at the entrance to construction sites for all exiting trucks;
23. Post a publicly visible sign which specifies the telephone number and person to contact regarding dust complaints. This person shall respond to take corrective actions within 48 24 hours, or sooner as the situation warrants.

Construction Equipment Combustion Emissions

The MBUAPCD's CEQA Guidelines do not require quantification of Reactive Organic Gasses (ROG) and Nitrogen Oxides (NOx) emissions from construction activities because these temporary emissions of these ozone precursors have been accommodated in State and Federally required air plans. Tables 13 and 14 present exhaust emission factors for various types of equipment used during construction operations. Exhaust emissions vary substantially from day to day, depending on the level of construction activity, and cannot be quantified without appropriate information on the numbers and types of equipment needed. Based on experience with similar types of projects, construction exhaust emissions will not measurably increase existing ambient air pollutant levels.

This analysis is based on development of previously ungraded raw land. For the already flattened project site, grading requirements, and hence heavy equipment emissions, will likely be less than the maximum calculated above. While APCD standards will probably not be exceeded in practice, any reasonable measures to reduce NO_x equipment emissions should be pursued.

On-site and off-site construction equipment (primarily diesel powered) requires an average of 200,000 Brake Horsepower Hours (BHP-HR) of operations to build out one acre of land into roads and building pads. For the project site under an assumed 20-acre simultaneous construction schedule, with heaviest construction occurring during a 6-month period, this translates into the following daily construction equipment combustion emissions:

Reactive Organics (ROG)	-	18 pounds/day
Carbon Monoxide (CO)	-	57 pounds/day
Nitrogen Oxides (NOx)	-	258 pounds/day
Combustion PM ₁₀	-	9 pounds/day
Sulfur Dioxide	-	18 pounds/day

~~Although the daily NO_x emissions during construction may be substantial, the mobile nature of the construction equipment will prevent any localized violation of the NO_x standard.~~

Emissions will also be spread out over a wide area and over an extended buildout schedule. There may be localized instances when the characteristic diesel exhaust odor might be noticeable from passing trucks or nearby heavy equipment, but such transitory exposure is a brief nuisance and will not threaten air quality standards.

Impact: During construction, NO_x emissions are predicted to potentially exceed the APCD threshold of 150 pounds per day. This is a potentially significant impact that can be reduced to a less than significant level by implementing mitigation measure 21 and the following mitigation:

Table 13. Emission Factors for Heavy-Duty Diesel-Powered Construction Equipment (pounds per hour of operation)		
Equipment Type	Reactive Organic Gases	Oxides of Nitrogen
Tractor	0.12	1.26
Wheeled Tractor	0.19	1.27
Wheeled Dozer	0.19	4.16
Scraper	0.28	3.83
Motor Grader	0.04	0.05
Wheeled Loader	0.25	1.89
Track-type Loader	0.10	0.83
Off-highway Truck	0.19	4.16
Roller	0.07	0.87
Miscellaneous	0.15	1.69

Source: U.S. E.P.A. AP-42, Volume II, September 1985

Table 14. Emission Factors for Heavy-Duty Gasoline-Powered Equipment (pounds per hour of operation)		
Equipment Type	Reactive Organic Gases	Oxides of Nitrogen
Wheeled Tractor	0.50	0.43
Motor Grader	0.56	0.32
Wheeled Loader	0.70	0.52
Roller	0.79	0.36
Miscellaneous	0.73	0.41

Source: EPA AP-42, Volume II, September 1985

Mitigation

24. ~~Perform low-NO_x tuneups on all construction equipment operating on the site for more than sixty (60) days.~~

4.9.3.4 Mobile Source Impacts

The primary source of long-term emissions associated with the proposed project is motor vehicle trips to and from project site. Generally, vehicle trips associated with the project are employee trips, museum visitors, winery visitors, hotel and restaurant visitors, and gas and food customers. The characteristics of the trips associated with proposed land uses on the site have been identified in section 4.8, *Traffic and Circulation*. The following assumptions about the various types of vehicle trips have been made by DD&A for this air quality analysis:

- Employees will come predominantly from the Greenfield area, including King City, Soledad, and Gonzales. The applicant estimates that the project could support as many as 383 employees upon buildout. With an average of 1.2 employees per vehicle, total number of employee average daily trips is 319 trips. Average trip length used for employee trips is the county wide average for all trips of 8.4 miles¹¹.

¹¹ CEQA Air Quality Guidelines, MBUAPCD, October 1995.

- The museum will attract both visitors from the region as a destination and pass-by trips already traveling Highway 101 adjacent to the site. Pass by trips are defined as those vehicles that stop on their way between their origin and their true destination. The percentage of pass by trips is difficult to predict. Current average daily traffic volume on Highway 101 is 21,500 trips north of El Camino Real in the vicinity of the project site. Estimated museum average trip generation is 240 trips per day. Pass by trips are likely to account for 40% of that average, leaving 144 destination trips. Average trip length for museum destination trips is assumed to be 40 miles.
- The winery, hotel, restaurants and gas stations are also likely to generate a significant number of pass by trips, as well as trips in conjunction with museum visits. The traffic report forecasts a total of 11,096 trips per day for the those uses. A conservative estimate of pass by trips is 60%, leaving 4,438 destination trips. Average trip length for highway services destination trips is assumed to be 15 miles.
- Trips associated with the RV park are also likely to be a combination of pass by trips and destination trips. However, many of the "destination" trips are more likely primarily associated with the air museum or winery. The number of "new" trips generated by this use is likely to be nominal, up to 20% of the 32 average daily trips.

The California Air Resources Board (ARB) has developed a land use and air pollution emissions computer model that allows one to readily calculate the daily emissions increase associated with the proposed project. This model, called the ~~URBEMIS3~~ **URBEMIS5** model, was run by ~~Giroux & Associates~~ and verified by Denise Duffy & Associates for the year 2000 based on the assumptions described above with the understanding that buildout would occur somewhere within that time frame. Pass by trips are not factored into the model run. Although they may be new driveway trips in terms of local roadway impacts, regional vehicular emissions will not be increased by this component of project-related trip generation. Output of the model run is attached as Appendix F. The vehicular emissions burden associated with the project is summarized in Table 15.

Levels of CO would slightly exceed the APCD threshold at project completion. However, according to the traffic analysis performed for this EIR, ~~no intersections within the study area would operate below LOS D under cumulative traffic projections which include the project. the project does not result in degradation of intersection or road segments from LOS D to below, therefore CO modeling is not required, and the project does not have a significant impact on CO levels.~~ All other pollutant emissions are within the thresholds established by the APCD.

~~Because of the substantial CO emissions associated with project traffic, microscale air quality considerations must be analyzed near the project site. In order to determine whether any possible traffic congestion may contribute to localized air pollution standard violations, a screening procedure based on the California roadway dispersion model CALINE4 was run at three intersections near the project area. CO was used as an indicator pollutant to determine "hot spot" potential. Peak hour traffic was combined with minimum dispersion~~

~~conditions in order to create a theoretical worst-case impact estimate. The results of these AM and PM peak-hour calculations are shown in Table 16 for the three intersections analyzed. With a background concentration of perhaps 4 ppm, a CO concentration of 16 ppm would be needed to create a violation of the 1-hour standard. With peak-hour microscale impacts of less than 2 ppm, maintaining the CO standard is not a significant concern in the project area.~~

~~**Impact:** The project will result in an increase in vehicle pollutant emissions below the threshold values identified by the APCD. CO concentrations are estimated to be slightly higher than APCD thresholds. However, the project as proposed, with implementation of mitigation measures 14 through 20 from section 4.8, *Traffic and Circulation*, will not contribute to significant congestion. *This is a less-than-significant impact and no further mitigation is necessary.*~~

4.9.3.5 AQMP Consistency Analysis

The proposed project is intended to attract visitors to the area. Proposed uses will include services that are geared towards tourists from outside the region. Therefore, the proposed project is considered a commercial use not associated with population growth. In order to be considered consistent with the 1994 AQMP, it must be determined that ozone precursors from such uses have been accommodated for in the AQMP.

A consistency determination analysis was provided by the APCD on October 3, 1995. The APCD found that the proposed hotel is within the growth in hotel and motel facilities that is accommodated by the AQMP between 1987 and 2000. Therefore, the hotel land use is consistent with the 1994 AQMP. The remaining commercial uses related to the hotel are also determined to be consistent. Appendix F contains the consistency determination prepared by the APCD.

4.9.3.6 Secondary Impacts

Growth introduces a number of secondary emissions sources that are individually and cumulatively small, but are nevertheless a significant portion of the county pollution burden when summed over all basinwide activities. These sources typically include energy consumption (off-site electrical generation and on-site fuel combustion), evaporative emissions from paints and solvents used in construction and maintenance, evaporative losses from fuel dispensing at gas stations and for aircraft, dust emissions from manufacture of aggregates, emissions from utility equipment such as mowers, or cooking emissions from fast food broilers. Even for the entire project, these emissions are much less than the mobile source component. *This is a less-than-significant impact. No additional mitigation is recommended or necessary.*

4.9.3.7 Odors

Potential components of the project which could generate pollutants associated with objectionable odors are the on-site waste collection and treatment system and airplane refueling and maintenance facilities. The treatment system proposed is an extended aeration/denitrification process. This plant will not produce obnoxious odor during normal operation. Unpleasant odor is produced when the sludge is disturbed in the aerobic digester. This condition generally only occurs when the sludge is pumped from the aerobic digester which is expected to occur about four times per year for about 2 hours each occurrence. This odor is dissipated within a very short time period and is not expected to reach downwind sensitive receptors. *This is a less-than-significant impact.*

Table 15. Project Generated Mobile Source Emissions (pounds per day)					
Type of Use	Trip Length (miles)	Net ADT	ROG ^a	CO	NOx
Museum	40	274 370	3-8 3-9	46-8 30-89	7-4 5-3
Winery	15	310 680	3-8 7-2	42-6 56-98	8-3 9-8
Fast Food Restaurants	15	1112 2086	13-2 223	141-2 177-91	29-5 30-3
Sit Down Rest.	15	270 676	3-3 7-2	35 57-05	7-2 9-8
Motel	40	522 1109	6-5 11-7	71-7 93-59	13-9 16-0
Gas Stations	15	1311 2339	15-5 24-8	164-4 195-28	34-7 33-8
Aircraft Hangars	15	397	4-7 4-2	50-8 33-03	10-5 5-7
RV Park	40	6	0-1	0-8	0-2
<i>Total</i>		4-202-00 7-657-0	50-90 102-83	553-30 819-74	111-70 140-81
MBUAPCD Threshold			150	-- ^b	150
Notes:					
a. Reactive Organic Gases (ROG) total 91% of Total organic Gases.					
b. LOS at intersection/road segment degrades from D or better to E or F or V/C ratio at intersection/road segment at LOS E or F increases by 0.05 or more or delay at intersection at LOS F increases by 10 seconds or more or reserve capacity at unsignalized intersection at LOS E or F decreases by 50 ore more. Modeling should be undertaken to determine if the project would cause or substantially contribute (550 lb/day) to exceedance of CO AAQS.					
Source: URBEMIS3 URBEMIS5 Model Run, DD&A, January 1996; October 1996.					

Table 16. CO Concentrations Over Background (PPM)						
Location	1994	Pre-I	Phase I	Phase II	Ultimate	W/Project
Thorne/SB Ramp	0.5	0.5	0.6	0.7	0.2	0.4
El Cam/SB Ramp	0.7	0.6	0.6	1.1	0.2	0.6
El Cam/NB Ramp	0.5	0.4	0.6	1.3	0.1	0.4

Note: Background CO level is 4 ppm, 1-Hour Standard is 20 ppm.

Source: Giroux & Associates, *Air Quality Analysis for Yanks Air Museum*, November 10, 1994

4.10 Noise

4.10.1 Introduction

This analysis is based on the analysis and conclusions contained in the Noise Analysis prepared for the proposed project by Giroux & Associates (a copy of this report is on file with the County of Monterey Planning Department). The purpose of this study was to evaluate general noise conditions and assess project effects on local ambient noise levels

4.10.2 Setting

Sound is mechanical energy transmitted by pressure waves in a compressible medium such as air. Noise is defined as unwanted sound. Acoustic energy is characterized by various parameters that describe the rate of oscillation of sound waves, the distance between successive troughs or crests, the speed of propagation, and the pressure level or energy content of a given sound.

In particular, the sound pressure level has become the most common descriptor used to characterize the loudness of an ambient sound level. The unit of sound pressure ratioed to an assumed zero sound level is called a decibel (dB). Because sound or noise can vary in intensity by over one million times within the range of human hearing, a logarithmic loudness scale is used to keep sound pressure level values at a convenient and manageable level. Since the human ear is not equally sensitive to all sound frequencies within the entire spectrum, noise levels at maximum human sensitivity (middle A and its higher harmonics) are factored more heavily into sound descriptions in a process called "A-weighting" written as dBA.

Time variations in noise exposure are typically expressed in terms of a steady-state energy level equal to the energy content of the time varying period (called Leq), or alternately, as a statistical description of the sound level that is exceeded over some fraction of a given observation period.

Finally, because community receptors are more sensitive to unwanted noise intrusion during the evening and at night, state law requires that, for planning purposes, an artificial dB increment be added to quiet time noise levels in a 24-hour noise descriptor called the Community Noise Equivalent Level (CNEL). An interior CNEL of 45 dBA is mandated for multiple family dwellings, and is considered a desirable noise exposure for single family dwelling units as well. Since typical noise attenuation within residential structures with closed windows is about 20 dB, an exterior noise exposure of 65 dB CNEL is generally the noise/land use compatibility guideline for residential dwellings in California. Commercial or industrial uses have exterior noise exposure standards that are somewhat less stringent because such uses generally are less noise sensitive.

Table 17 shows the community noise and land use compatibility guidelines set forth in the Noise Element in the Monterey County General Plan. The guidelines are based primarily

on noise/land use recommendations from the State Department of Health Office of Noise Control. Noise levels of less than 55 dB CNEL for low density residential uses and 60 dB CNEL for multi-family residences, hotels, schools, churches, etc. are considered "normally acceptable". Each of these uses is considered "conditionally acceptable" up to 70 dB CNEL because interior levels can still be maintained at comfortable levels even if the exterior is noisy. Noise sensitive uses are "normally unacceptable" above 70 dB CNEL.

Because noise intrudes into the ability to carry on a normal conversation at 65 dB, an exterior level of 65 dB CNEL on patios, porches or other exterior recreational space is typically a maximum desirable level even if 70 dB CNEL is considered the upper end of the "conditionally acceptable" range.

Existing noise levels within the project area derive almost exclusively from transportation sources, especially vehicular sources on U.S. 101. Existing noise levels were estimated using the Federal Highway Traffic Noise Prediction Model (FHWA-RD-77-108) initialized with traffic data supplied by the project traffic consultant. Current traffic noise levels relative to the various acceptability categories specified in the Monterey County Noise Element are shown in Table 18 for various Greenfield area roadways.

The optimum level of 55 dB CNEL for very sensitive land uses is not achieved within 1000 feet of Highway 101 in areas where there is a direct line of sight from the roadway to the receiver. Local roadway noise contributions are considerably less. Using 65 dB CNEL as a more realistic exterior noise exposure goal, the 65 dB contour extends less than 300 feet from the freeway and is generally within the roadway right of way at any non-freeway locations. Project implementation would exacerbate an existing moderately degraded noise environment. Conversely, the presence of an already elevated baseline will mask any project contribution such that the individual project impact would be less than perceptible by Greenfield area residents.

Table 17. Land Use Compatibility for Exterior Community Noise				
Land Use Category	Noise Ranges (Ldn or CNEL) dB			
	I	II	III	IV
Passively Used Open Space	50	50-55	55-70	70+
Auditoriums, concert halls, amphitheaters	45-50	50-65	65-70	70+
Residential - low density single- family, duplex, mobile homes	50-60	55-70	70-75	75+
Residential multi-family	50-60	60-70	70-75	75+
Transient lodging - motels, hotels	50-60	60-70	70-80	80+
Schools, libraries, churches, hospitals, nursing homes	50-60	60-70	70-80	80+
Actively used open spaces - playgrounds, neighborhood parks	50-67	---	67-73	73+
Golf courses, riding stables, water recreation, cemeteries	50-70	---	70-80	80+
Office buildings, business commercial & professional	50-67	67-75	75+	---
Industrial, manufacturing, utilities, agriculture	50-70	70-75	75+	---
<p>Noise Range I: Normally Acceptable. Specific land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.</p> <p>Noise Range II: Conditionally Acceptable. New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.</p> <p>Noise Range III: Normally Unacceptable. New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.</p> <p>Noise Range IV: Clearly Unacceptable. New construction or development should generally not be undertaken.</p>				
<p>Source: Office of Noise Control, California Department of Health, 1976</p>				

4.10.3 Impacts and Mitigation Measures

4.10.3.1 Standards of Significance

In accordance with CEQA Guidelines, a project would normally result in a significant adverse impact if it caused a substantial increase in the ambient noise level in the vicinity of sensitive receptors adjacent to the project site. Sensitive receptors are land uses where the members of the population spend a substantial amount of time, e.g., residences, schools, hospitals and convalescent homes. For purposes of analysis, the Monterey County standard is 65 dB CNEL for residential exterior recreational uses and transient loading. Business commercial uses such as gas stations and fast food outlets near the freeway are considered acceptable with noise levels up to 75 dB CNEL.

Table 18. Existing Traffic Noise					
Location	CNEL (dBA) @ 100' to C/L	Distance from C/L to:			
		55 CNEL	60 CNEL	65 CNEL	70 CNEL
US 101					
N of El Camino	71.8	>1000'	614'	285'	132'
S of El Camino	71.2	>1000'	560'	260'	121'
El Camino Real					
N of Thome	57.5	148'	69'	<50'	<50'
Thome - Walnut	58.7	177'	82'	<50'	<50'
Thome Road					
W of El Camino	52.1	64'	<50'	<50'	<50'
Source: Giroux & Associates, October 10, 1994					

4.10.3.2 Sources of Impact

Noise impacts from a visitor commercial development derive almost exclusively from the traffic generated by site activities. Limited on-site noise impacts may occur from flight activities at the air museum, but the flight activity during most days will be minimal. Temporary construction noise will also result during site preparation and building assembly. Such sources are short-term and will thus not affect the long-term noise exposure in the project vicinity.

4.10.3.3 Sensitive Receptors

The basic strategy for achieving noise compatibility in an airport vicinity is to limit the development of land uses which are particularly sensitive to noise. Sensitive receptors are land uses where the members of the population spend a substantial amount of time, e.g., residences, schools, hospitals and convalescent homes. Because of the rural character of the vicinity, there are no sensitive receptors located immediately adjacent to the project site. Two residences are located more than 2,000 feet of the site, one to the north and one to the south. The nearest residential development is located in the City of Greenfield, approximately 1 mile to the south. The Greenfield Elementary School is also located approximately 1 mile to the south on the corner of Walnut and El Camino Real. The existing middle school, and proposed high school and elementary school sites are located on the south end of Greenfield. No hospitals, convalescent homes or libraries are currently located within a one mile radius of the proposed airport.

4.10.3.4 Construction Noise Impacts

Temporary construction noise impacts vary markedly because the noise strength of construction equipment ranges widely as a function of the equipment used and its activity level. Short-term construction noise impacts tend to occur in discrete phases dominated initially by large, earth-moving sources, then by foundation and parking lot construction, and later for finish construction. The loudest semi-continuous equipment operation noise typically ranges around 90 dBA at 50 feet from the source. Because of the mobility and variable duty cycle of construction equipment, equipment noise emissions tend more to be peaks instead of steady state averages.

Point sources of noise emissions are attenuated by a factor of 6 dB per doubling of distance by spherical spreading of sound waves. The loudest general construction noises may thus require around 1,000 feet of distance between the source and a nearby receiver to reduce the 90 dBA source strength to a generally acceptable 65 dB exterior exposure level. Highway traffic noise will provide a masking effect such that the perception of any temporary noise intrusion during construction will be much less than its theoretical maximum.

In later phases of finish construction, equipment such as generators, compressors, saws, etc. are somewhat less noisy, and the physical barrier created by partially completed on-site facilities further breaks up line of sight propagation. As also indicated by on-site noise calculations, Highway 101 traffic noise intrudes somewhat into the project site and will partially mask the noise from construction activity. The temporary noise impact, especially after the completion of the initial heavy-equipment intensive operations, will be, therefore, confined to the site itself.

In terms of any adjacent residential community noise exposure, construction noise sources are not strictly relatable to a 24-hour noise standard because they occur only during selected times and the source strength varies sharply with time. Construction activities are, therefore, treated separately in the county noise ordinance because they do not represent

a chronic, permanent noise source. To abate the potential nuisance from construction noise, especially in very close proximity to any noise-sensitive development, the county code prohibits construction activities between the hours of 7 pm to 7 am. Code compliance will limit construction noise impacts to periods of reduced noise sensitivity and thus reduce sleep disturbance and other noise nuisance potential.

Construction noise impacts will be reduced by limiting hours of operation as required by the Monterey County Code, and can be further reduced by controls on the location of activities and/or noise levels of equipment used in construction. Specific measures to implement these objectives include:

- Construction activities shall be prohibited during the hours from 7 p.m. to 7 a.m.
- Construction equipment should be equipped with properly operating mufflers.
- Construction staging areas should be located on the northern portion of the site far away from the nearest noise-sensitive receiver locations as possible.

4.10.3.4 Mobile Source Noise Impacts

Conversion of the project site into visitor commercial uses will generate new daily trips on the roadway system surrounding the project. Localized noise impacts in the project vicinity were calculated based on the ratio of future to existing traffic volumes. Phase 2 buildout in 1997 was selected as a worst-case analysis year because future cumulative traffic growth will progressively mask the project increment. Along already heavily traveled roadways in the project vicinity, noise exposure will be little affected by the additional project traffic increment. The primary noise concern is therefore along roadways without an existing elevated baseline.

Noise level increases attributable to the combined project traffic increment are as follows:

U.S. 101 N of El Camino Real	-	0.5 dB
U.S. 101 S of El Camino Real	-	0.5 dB
El Camino at Thorne	-	1.5 dB
El Camino - Thorne - Walnut	-	0.4 dB
Thorne W of El Camino	-	negligible

Noise level increases of less than 1 dB are not detectable by humans even in a laboratory setting, and it requires a change of 3 dB for people to begin to complain that they perceive a substantial degradation in the noise environment. A marginal noise increase will thus occur on El Camino near the southbound off-ramp with all other changes in noise levels at less than significant levels.

Mitigating a finding of even marginal significance is that most traffic to the gas stations, fast food outlets or the hotel would be on the freeway regardless of the proposed project. The increased ramp traffic noise is off-set by the fact that the same vehicles are not on the freeway at much higher rates of speed. Any freeway impact increment is overstated because only a limited fraction of the assumed project-related traffic is actually "new" traffic. Traffic sources during normal site operations thus have an insignificant noise impact within a wide margin of safety.

Special event traffic noise impacts would indeed be new traffic that would temporarily affect the local noise environment. However, routing plans for such traffic, including satellite parking with shuttle services, have not yet been developed. Given the expected festive nature of such events, and the probability that traffic speeds during major events will be reduced, noise impacts are not likely to be substantial or to be perceived as intrusive. *This is a less-than-significant impact.*

4.10.3.5 Aircraft Noise Impacts

Airports have traditionally been identified as a source of noise/land use conflict. Land use compatibility relative to aircraft noise is evaluated relative to average conditions. For the proposed facility, average conditions will represent only a few flights per day. Even for aircraft with "souped up" engines such as vintage fighter aircraft, the zone of noise incompatibility from only a few flights per day will remain within the airport boundary itself. Except for special show events which are treated differently from chronic daily exposure, no adverse noise impacts on local Greenfield residents are anticipated from the aircraft museum component of the proposed project. *This is a less-than-significant impact.*

On-site noise generation for any mechanical equipment such as winery refrigeration compressors or air conditioning will require compliance with county codes for mechanical equipment noise. *Code compliance is presumed to create a less than significant impact.*

Special events entailing noisy activities will require a permit from County staff. Acceptability of the time, location and magnitude of noise generating events will be evaluated by County staff as part of the activity permit.

4.10.3.6 Sewage Treatment Collection and Treatment Noise

The treatment system proposed is an extended aeration/denitrification process. Noise emissions from this system may normally be generated by the lift station pump motors and the blower compressors and motors. The lift station motors will be located in an underground vault and submerged in water. A medium frequency noise can be heard to about 50 feet from this source, well away from sensitive noise receptors. The blower compressors and motors will be located within an area which will be screened on three sides by a 6' high concrete wall and covered with a roof. These units are also equipped with a sound proof cover. Noise should not be noticeable at a range of 300 feet which is also well away from sensitive noise receptors. *This is a less-than-significant impact.*

4.11 Public Services

4.11.1 Introduction

This section contains an analysis of potential impacts to public services and infrastructure that would be extended to the project site. This analysis is based on consultation with the City of Greenfield Public Works Department and Police Department, the Greenfield Fire Protection District, the Monterey County Sheriff's Department, and other affected agencies, a review of technical documents and reports, and the *City of Greenfield 1990 Sphere of Influence and General Plan Recommendations*.

The categories of continuous public services analyzed in this section are: fire protection, police protection, solid waste disposal, and private utilities. Water supply and wastewater collection and treatment are ~~considered separately because the applicant proposes to provide water service and wastewater treatment privately onsite.~~ discussed in Chapter 4.5 Water Quality and Supply and Chapter 4.7 Wastewater Disposal.

4.11.2 Fire Protection

Fire protection service for the project site is currently provided by the Greenfield Fire Protection District (GFPD). The GFPD includes the City of Greenfield and the surrounding unincorporated area. A volunteer chief and 22 volunteer firefighters man the fire station located at Oak Avenue near El Camino Real in downtown Greenfield. The GFPD has two pumper-type fire engines and a patrol vehicle. Response time for the GFPD to calls in town is approximately five minutes from the time a call is made to arrival at the scene. This response time is considered adequate by the fire chief, given the size and nature of the Greenfield community.

4.11.2.1 Impacts and Mitigation Measures

Impact: The development of the proposed buildings associated with the project will have an impact on the demand for fire protection. The proposed buildings will be constructed in compliance with the applicable uniform building and safety codes ~~applicable fire codes appropriate fire flow capacity, and access to the site, buildings and facilities acceptable to the Greenfield Fire Protection District.~~ ~~s, no additional mitigation measures are required.~~ *This is a less-than-significant impact.*

Mitigation

25. The applicant shall submit the project ~~site plan and~~ circulation plan to the Greenfield Fire Protection District for review and approval.

Impact: Uses associated with the development of the airport landing strip may require additional fire fighting equipment for the GFPD. General aviation airports that are not certified as a FAR Part 139 air carrier airport, do not maintain and operate Airport Rescue and Firefighting Facilities. The applicants insurance carrier will require applicable firefighting capabilities to be within reach of the airport. *This is a significant impact that can be reduced to a level of insignificance with implementation of the proposed mitigation measure.*

Uses associated with the proposed project include: aircraft landings and takeoffs, helicopter and ultra light aircraft rentals, flight instruction, glider operations, hot air balloon flights, sky diving, radio controlled model aircraft, and occasionally, scheduled events such as air shows, antique and experimental aircraft gatherings and fly byes.

Mitigation

26. The project applicant shall consult with the volunteer chief and his consultant prior to completion of the preliminary design for the Greenfield Fire Protection District to review project plans to determine the need for mitigation and ensure that adequate on site and off site facilities are available to support the proposed airstrip based on proposed levels of activity.

4.11.3 Police Protection

The project site is located within the jurisdiction of the Monterey County Sheriff's Department. The site is located within Patrol Beat 10, served by the Department's King City Office. The authorized strength of the King City office is eighteen deputy sheriffs. Beat 10 includes the Greenfield/Soledad area. During the last two years, the deputies assigned to Beat 10 have also been responsible for portions of Beat 5 from Soledad to Gonzales that has increased the workload. The Sheriff's Department attempts to maintain at least one patrol unit available in the Beat 10 area from 6:00 a.m. to 2:00 a.m. From 2:00 a.m. to 6:00 a.m. a two man unit covers the entire district. Average response time to a call varies greatly given the season, activity and man power available. Response time can vary between 1 to 5 minutes to 45 minutes.

The last five years have seen a significant increase in the number of people living in the area of responsibility of the King City Sheriff's office (Grebmeier, 11/21/95, letter).

4.11.3.1 Impacts and Mitigation Measures

Impact: The development of the proposed project will have an impact on the demand for police protection. *This is a significant impact that can be reduced to a level of insignificance with implementation of the proposed mitigation measure.*

The airport boundary will provide a 6 foot high chain link fencing on all sides of the airport except where fencing is between adjacent buildings. Between buildings, all fencing will be 4 feet in height and consist of a mix of chain link, concrete block and wrought iron.

Security lighting will produce an average illumination of 10 candle power per square foot in the vicinity of the building and parking areas (automobile and aircraft) and will be light sensor activated. Lighting in the vicinity of aircraft movement areas must be shielded to not create a visual distraction for arriving and departing aircraft.

The project applicant will implement private security patrols and install security lighting and alarm systems into the project design.

Mitigation

27. Architectural concessions to decrease vulnerability to crime, such as improved lighting, locks, landscaping, alarm systems, and video surveillance cameras shall be implemented into the project. Architectural plans shall be reviewed by the Crime Prevention Unit, Community Services Division, of the Sheriff's Department prior to issuance of the building permit.
28. Prior to issuance of occupancy permit, the project applicant shall consult with the Monterey County Sheriff's Department and the Greenfield Police Department to determine the need for the provision of onsite private security. A memorandum of understanding shall be developed between the Monterey County Sheriff's Department and Greenfield Police Department regarding a mutual aid agreement.

4.11.4 Solid Waste Disposal

Solid waste collection and disposal in the project area is performed under contract to the County of Monterey by Rural Dispos-All of Salinas. Solid waste is collected and hauled to the Johnson Canyon Road Disposal Site in Gonzales. The Johnson Canyon Road Disposal Site is owned by Monterey County and operated by Rural Dispos-All under a county permit. The expected service life of this landfill is over 50 years (Rural Dispos-All, letter dated 10/23/95).

California law requires a reduction in waste going to landfills by 50% in the year 2000 (AB 939). The Johnson Canyon Road Disposal Site offers a centralized recycling center where residents of Greenfield and the surrounding rural areas can dispose of newspaper, glass, and cans. This material is trucked to either Salinas or Castroville for processing. Curbside recycling is not offered to commercial businesses in this area at this time.

Rural Dispos-All has indicated that they have adequate facilities to service the site and impacts are considered less-than-significant.

4.11.4.1 Impacts and Mitigation Measures

Impact: Development of the proposed project will create solid waste during construction and after completion of new buildings and other facilities. *The proposed project and impacts are considered less-than-significant, although recycling will be required.*

Mitigation

29. The applicant shall submit final plans which indicate specific areas where recycling materials may be handled and stored. Recycling should be promoted at the airport and at all other facilities in the project area.

4.12 Human Health & Safety

4.12.1 Introduction

This section of the EIR reviews the potential impacts to human health and safety due to buildout of the project site. The proposed project may expose people to natural and man-made hazardous conditions.

4.12.2 Setting

A material is defined as hazardous if it appears on a list of hazardous materials prepared by a federal, state, or local regulatory agency or if it has characteristics defined as hazardous by such an agency. The federal Environmental Protection Agency (EPA) classifies a material as hazardous if it has one or more of the following properties: ignitability (including compressed gases and flammable liquids), corrosivity, reactivity, or toxicity. The California Department of Health Services (DHS) defines a hazardous material as one which "because of its quantity, concentration, or physical, chemical, or infectious characteristics, may either: 1) cause or significantly contribute to an increase in mortality or an increase in serious, irreversible, or incapacitating irreversible illness; or 2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed or otherwise managed."

The following hazardous conditions/materials may be associated with the proposed project.

Aviation Activities: Safety issues associated with aircraft take-offs and landings are discussed in the Airport Safety section of this EIR.

Earthquake Hazards: The proposed project will expose more people and property to potentially hazardous conditions associated with earthquake hazards resulting from active and potentially active faults in this area. Please refer to the Geology section of this EIR.

Aircraft Fuel Storage: The proposed project will store aircraft fuel in below ground double wall containment tanks with leak detection sumps and aural warnings. All piping will also be constructed with a double wall systems and vapor recovery delivery nozzles.

Chlorine: The proposed project will need to store, transport and utilize chlorine to disinfect the treated wastewater.

Hazardous Waste and Surface Water Controls: Paint stripping for all runway and taxiway marking will utilize water base paints, thus eliminating VOC and VOX concerns. The project applicant will prepare the Storm Water Pollution Prevention Program (SWPPP) prior to development of the site. The SWPPP will most likely require the installation of oil/water separators for runoff from the aircraft and automobile parking and aircraft maintenance areas. Other required best management practices (BMP) required by the Regional Water Quality Control Board (RWQCB) will be included in the SWPPP. ~~The project site may store pesticides on the project site and will dispose pesticide containers. Refer to the water quality section of this document.~~ The project site may occasionally store a small amount of pesticides on the project site for landscaping purposes. The small amount of pesticides to be stored will be insignificant.

4.12.3 Impacts and Mitigation Measures

4.12.3.1 Standards of Significance

A project would normally be considered to have a significant effect on public safety if it were to pose an unacceptable threat to human lives or private property as a result of unsafe design, construction or operation. The project would be considered to have a significant adverse impact if the quality of water delivered to consumers posed an unacceptable risk to public health by violating any applicable water quality standards. In addition, implementation of a project that would create the potential for accidental release of hazardous materials or wastes would be considered a significant impact.

Impact: A source of potential groundwater contamination is the aviation fueling station facility. The storage of fuel (either above or below ground), transfer of fuel from tank trucks to storage tanks, from storage tanks into fuel trucks, and the transporting of fuel to various points on the airfield represent a potential for fuel spills through leaks, carelessness, or upset. Although the possibility of a major spill is deemed to be rather low, the amounts of fuel which could be spilled is relatively high. *This is a significant impact that can be reduced to a level of insignificance with implementation of the proposed mitigation measure.*

Aviation fuel, particularly Jet-A fuel, contains petroleum-based mid-distillate hydrocarbons, primarily kerosene. Benzene is the other component of Jet-A fuel. Benzene amounts to less than 0.05 percent by volume. It is the more soluble constituent of jet fuel and is highly toxic. For example, the recommended maximum concentration of benzene in drinking water is less than 1 part per billion. Therefore, the relatively small amount of benzene in jet fuel has the potential to contaminate large volumes of ground or surface water unless adequate precautions are taken to prevent spills or upset. Gasoline has similar concentrations of these volatile organic compounds, and the storage of this material as part of the fuel farm would also represent a potentially significant impact on the quality of water resources if mismanaged.

Mitigation

The following mitigation measures are set forth as means by which to reduce the potentially significant adverse effects of the proposed aviation fueling station to a level of insignificance:

30. As a minimum, the proposed aviation fueling station will incorporate standard engineering and monitoring techniques and measures for fuel storage, spill containment, and cleanup as required by current federal, state, and local regulations.
31. In addition, construction of the fuel storage facility will require the use of state of the art safety and spill diversion and containment systems. Such a system is controlled and monitored by a microprocessor-based control system which would perform a variety of safety and maintenance/record keeping functions. It would also monitor fire alarms, notify appropriate fire suppression agencies in an emergency, monitor spill and leak detection systems, and activate emergency shutoff valves as required. The system would also activate external and built-in foam fire suppression devices, as well as air and water pollution control measures.
32. Regular cleaning of fill stands and hard stands will be carried out to minimize potential discharge of pollutants into surface runoff.
33. A spill prevention control and countermeasure (SPCC) plan will be adopted to provide procedures for mitigating any fuel, lubricant, or hydraulic fluid spill which might occur as a result of operating the aviation fueling station. The SPCC plan will also include provisions for fueling personnel to be trained in the recovery of spilled substances.
34. Any underground fuel storage tanks would be subject to Monterey County permit requirements, and would be of double wall construction with leak detectors between the walls. Any underground tanks would also have external leak detection and monitoring systems installed.
35. Any above ground tanks would be constructed in accordance with American Petroleum Institute (API) standards for Zone 4 earthquake potential (API 650). The tanks will employ set points for overflow protection that will be interlocked with associated filling mechanisms through the microprocessor-based control system.
36. The principal means of controlling spillage or leakage from any above-ground tanks in the fuel storage area will be by means of an earthen berm with an impervious concrete liner with manual drain valves to direct any spillage to an oil/water separator. The drain valves would be maintained in a closed position to prevent any inadvertent or premature diversion of spillage or leakage to the oil/water separator. The containment berm would be designed to contain a complete failure of the largest tank.

37. Spill containment for the truck fill stands and truck unloading areas will be accomplished by impervious diversion pads. These pads will be capable of accommodating a spill from the largest truck, tender or lighter (i.e., small trucks used to transport fuel to aircraft for fueling) using the facility.

4.13 Viewshed & Aesthetics

4.13.1 Introduction

This section contains an assessment of the existing visual quality of the project area and any potential changes to the visual environment that would result from construction and operation of the proposed project.

4.13.2 Setting

4.13.2.1. Project Viewshed

The project site is located in a rural setting and is not lighted at night. The project site is located on the relatively flat floor of the central Salinas Valley which is approximately nine miles wide at Greenfield. In the project vicinity, relatively flat farmlands dominate the foreground views, the slopes of the surrounding mountain range dominate the middle ground views, with the distant steeply sloping ridgelines and canyons of the Gabilan Range framing the background view. The urban boundary of the City of Greenfield is located approximately 1.5 miles to the south. The Salinas River is located approximately 1 mile to the east and Highway 101 is located immediately adjacent to the site to the west.

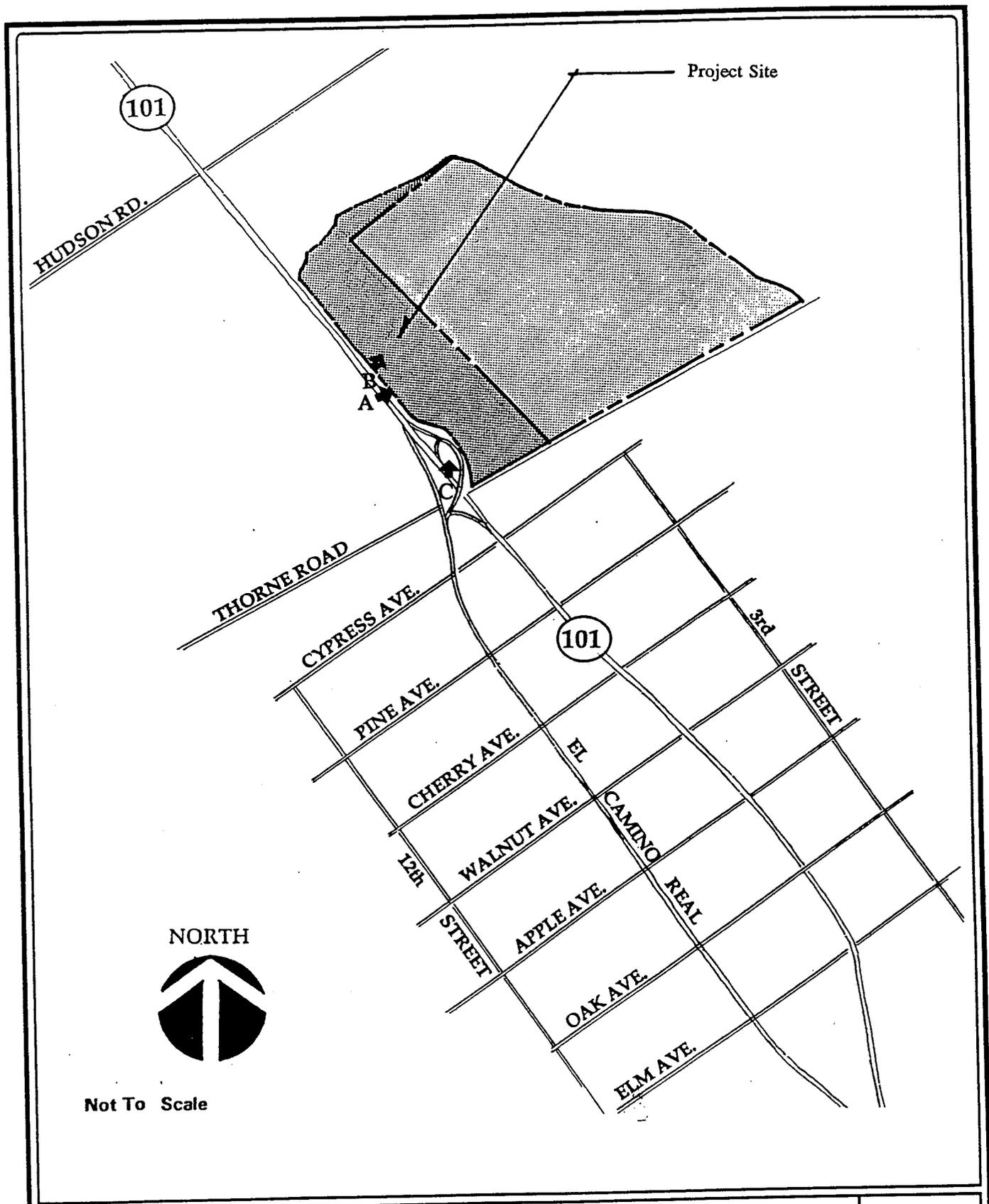
The lands immediately surrounding the project site are characterized by agricultural open space and rural uses. The mostly flat agricultural fields surrounding the site are interrupted by occasional farm structures and stands of trees, many of which serve as windbreaks for farming operations. A service station/"mini-mart" is located on the west side of Highway 101 along the southbound Greenfield offramp.

Lighting on the site is limited to the farm related agricultural buildings. Consequently, the site and surrounding farms offers a rural setting, especially at night.

4.13.2.2. Site Visibility

The project site is relatively level with a slope of less than 2%. There is a row of Eucalyptus trees along the southern property line on the adjacent parcel. Buildings associated with the farming operations are located in the central portion of the site. Several large trees are located in this area.

The project site is visible to varying degrees from several key public vantage points (Figure 23 depicts these vantage points and Figures 24 through 26 depict the corresponding views):



Key Public Vantage Points

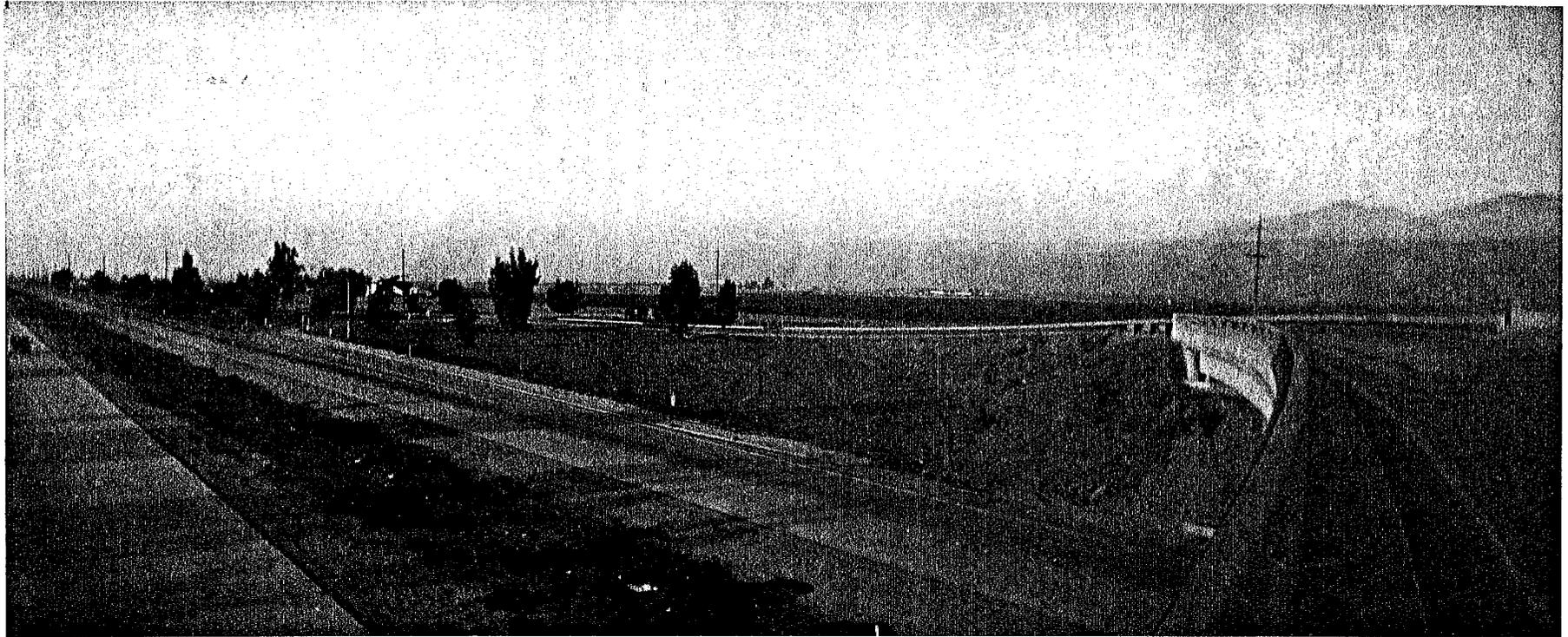
Figure 23



Source: Denise Duffy & Associates

Views to the East from Northbound Highway 101

Figure
25



Source: Denise Duffy & Associates

Views to the East from Highway 101 Overpass at Thorne Road

Figure
26

- A. views to the east from southbound Highway 101,
- B. views to the east from northbound Highway 101,
- C. views to the east from the Highway 101 overpass at Thorne Road.

The most prominent public views of the site are from both travel lanes of Highway 101 and from the Thorne Road overpass. View of the site are also available from private properties surrounding the site and on the west side of Highway 101.

As seen on the photographic reproductions, agricultural fields and the agricultural buildings on the site dominate the foreground views east from Highway 101, while the Gabilan Range forms the background. Agricultural fields and the Salinas River riparian channel establish the middle ground views.

According to the Central Salinas Valley Area Plan, relevant "visually sensitive" areas include the foothills of the Gabilan and Sierra de Salinas Mountains, and the floor of the Salinas Valley. "Visually sensitive" areas are those scenic resources visible from existing, proposed or potential scenic routes. Neither Highway 101 or Thorne Road is a designated scenic route. The project site is not a designated sensitive area¹².

4.13.3 Impacts and Mitigation Measures

4.13.3.1 Standards of Significance

In accordance with CEQA Guidelines, aesthetic impacts are defined as "having a substantial, demonstrable negative aesthetic effect." Potential visual impacts are considered significant if the existing visual quality of the area would be substantially degraded. Furthermore, significant impacts would occur if the project were to conflict with aesthetic principles or policies of the area's governing jurisdictions.

4.13.3.2 Public Viewshed Impacts

In assessing the visual quality of a site, it is important to consider that visual quality is not determined solely by the physical attributes of a proposed project, but also by the relationship between the project and the site to the total visual environment and to the human sense of the aesthetic. Visitors drawn to a scenic area known for its physical character would be highly sensitive to its dramatic visual elements. Residents of the area, going about their daily routine activities, would be expected to respond to more subtle aspects of the area's visual quality.

For most people, the perception of visual quality is created by the impressions formed when viewing a place from several vantage points. With this in mind, a field survey of the site was conducted to assess the existing visual character of the site and adjacent areas, and the quality of views into the proposed site area from other public vantage points and circulation

¹² Monterey County, *Central Salinas Valley Area Plan*, Figure 5, November 1987.

routes. The field reconnaissance was used to identify the important visual features of the site.

Development of the project site would result in the development of commercial and visitor serving structures and parking lots visible from each of the public vantage points depicted in Figure 23. Figures 5 and 7 show preliminary elevations for the air museum and winery, respectively. The applicant has not submitted elevations for other proposed uses on the site for use in this EIR. The site would not be substantially graded and would remain relatively flat. The site plan shows a landscaped strip between the highway right-of-way and the edge of the paved parking surfaces.

Because the project is a commercial enterprise, the applicant proposes to incorporate signs identifying entrances to the project and on-site advertising of the highway-related businesses according to County and Caltrans standards. The applicant proposes to prepare a sign plan for review by the County. In general, the sign plan will establish the locations, materials and size of signs. The applicant proposes that the maximum allowable height for free-standing signs will be 25 feet, and 60 feet for free-standing freeway signs. The freestanding sign identifying the air museum is proposed to be 300 square feet in area.

Impact: Development of the project will result in a change in views to and from the project site, particularly from public vantage points on Highway 101 and the Thorne Road overpass. While the development will alter the rural character of the site, neither Highway 101 or Thorne Road is a scenic route; therefore, the site is not considered a sensitive visual resource. However, the intensity of development will differ from what exists in the immediate vicinity. *This is a potentially significant impact.*

Mitigation

38. The applicant shall submit a landscape plan to the Monterey County Planning and Building Inspection Department for review and approval. The plan shall provide for landscape screening, appropriate to the surrounding climate and terrain (drought resistant, native vegetation). Visual screening of the parking lots and buildings shall be provided to integrate the project with the visual setting.
39. The applicant shall submit design guidelines that provide on-site advertising signs, fences, walls, and entry gates consistent with applicable Monterey County Codes, except as otherwise approved. The design guidelines shall include: a sign plan drawn to scale, delineating the proposed site and the general location of all signs; drawings or sketches indicating the exterior surface details of all buildings on the site on which wall signs, directory signs, or projecting signs are proposed; drawings indicating typical sign design, colors, faces and methods of construction. At a minimum, the sign plan shall avoid clutter in the location and size of free standing signs.

4.13.3.3 Lighting and Glare

The project will introduce increased glare and night lighting to the project site and surrounding farmlands. Businesses on the site will require security and advertising lighting. The signs identifying highway-related services are proposed to be lighted.

Impact: Development of the site would result in an increase in external lighting. Night lighting for advertising, security and street lighting could be perceived as intrusive to surrounding residences because the site has not had intrusive night lighting in the past. *This is a significant impact. Because there is no clear criteria available to ascertain with precision the level of impact night lighting represents, it is difficult to determine if available mitigation measures can reduce the impact to a less-than-significant level.*

Mitigation

40. The applicant shall use non-reflective materials, subdued colors, and lighting that does not create off-site glare in all phases of project development subject to the approval of the Monterey County Planning and Building Inspection Department.
41. The applicant shall provide a public space lighting plan subject to the review and approval of the Monterey County Public Works Department, the Monterey County Planning and Building Inspection Department and Caltrans, as necessary. The type, height, and spacing of security lighting, parking lot lighting, and advertising lighting shall conform to County guidelines. In particular, street lights shall be directed downward and be of minimum intensity necessary for proper safety lighting.

4.14 Cultural Resources

4.14.1 Introduction

This section evaluates the potential impacts of the proposed project on cultural, historic, and paleontological resources and is based on a records search of the Historical Resources Information System through the Northwest Information Center, Sonoma State University. The results of that records search are in Appendix G.

4.14.2 Setting

The project area lies within the currently recognized ethnographic territory of the Salinan linguistic group, though the area was close to borders of both the Esselen and Costanoan groups. The Salinan group followed a general hunting and gathering subsistence pattern with partial dependence on the natural acorn crop.

Habitation is considered to have been semi-sedentary and occupation sites can be expected most often at the confluence of streams, other areas of similar topography along streams, or in the vicinity of springs. These original sources of water may no longer be present or adequate. Also, resource gathering and processing areas, and associated temporary campsites are frequently found on the coast and in other locations containing resources utilized by the group.

Factors which influence the location of these sites include the presence of suitable exposures of rock for bedrock mortars or other milling activities, ecotones, the presence of specific resources (oak groves, marshes, game trails, trade routes, etc.), proximity to water, and the availability of shelter. Temporary camps or other activity areas can also be found along ridges or other travel corridors.

4.14.3 Impacts and Mitigation Measures

4.14.3.1 Standards of Significance

In accordance with CEQA Guidelines, significant impacts on archaeological resources are those actions that would result in disruption of, or have an adverse effect on, a prehistoric or historic archaeological site, a property of historical or cultural significance to a community, ethnic or social group, or a local landmark of cultural importance.

Impact: Based on the background research and surface reconnaissance, the project area does not contain surface evidence of potentially significant cultural resources. *This is a less-than-significant environmental impact.*

Mitigation

Because of the possibility of unidentified (e.g., buried) cultural resources being found during construction, the following mitigation measures are recommended:

42. If archaeological resources or human remains are accidentally discovered during construction, work shall be halted within 150 feet of the find until it can be evaluated by a qualified professional archaeologist. If the find is determined to be significant, appropriate mitigation measures shall be developed and implemented according to Appendix K of CEQA.

4.15 Energy

4.15.1 Introduction

This section describes and evaluates the project's use of nonrenewable energy resources (oil and natural gas). The overall energy efficiency of the project will be discussed and evaluated. Finally, the capacity of Pacific Gas and Electric Company (PG&E) to supply the energy needs of the project will be reviewed.

4.15.2 Setting

The proposed project is expected to use both electricity and natural gas to fuel household and subdivision operations. PG&E is the primary provider of electricity and natural gas in the region. Electricity is provided to the existing farm buildings, natural gas is not.

4.15.2.1 Local and State Energy Requirements

Title 24 of the California Administrative Code establishes energy conservation standards for new development. Compliance with these standards is required by State law and restricts unnecessary residential and non-residential energy consumption. These requirements regulate insulation, window space and type and other building features to maximize structural energy efficiency. The long sides of a structure can be oriented to face as near to south or southeast as possible in order to gain maximum solar exposure to the winter sun. For efficient use of solar energy, rooms that require warmer temperatures (i.e., living rooms, dining rooms, studies) could be located on the southern side of buildings, and rooms that can remain cooler (bedrooms, kitchen, etc.) could be located together in another section of the building. South-facing windows capture the greatest amount of solar exposure and are thus the most desirable from an energy conservation standpoint. Provision of eaves and overhangs and native deciduous trees on the south sides of structures would help to avoid excessive solar heating of interior space during the warm season, but allow penetration of winter sunlight.

Buildout of the project will be required to comply with Title 24 Energy Conservation standards. Minimum requirements set by Title 24 include wall and ceiling insulation, infiltration control, properly sized space conditioning and hot water equipment, setback thermostats, requirements governing shower heads and faucets, and switching devices to control lighting.

4.15.3 Impacts and Mitigation Measures

4.15.3.1 Standards of Significance

In accordance with CEQA Guidelines, a project would normally be considered significant if it would result in the use of large amounts of fuel or energy; if it would use fuel or energy in a wasteful manner; or if the energy supplier cannot meet the project's energy needs with existing and planned energy capacity.

4.15.3.2 Energy Supply and Consumption

Long-term energy impacts would result from general gas and electrical needs which will depend upon final orientation of buildings, design, building materials, type of energy source (i.e., gas, electric, solar) and size of the structures. *This is a less-than-significant impact.*

4.16 Biological Resources

4.16.1 Introduction

This section has been prepared using background information prepared for the site by the applicant, the Central Salinas Valley Area Plan, and . Because of the history of farming on the site and its disturbed condition, the presence of sensitive plant or animal species is unlikely.

4.16.2 Setting

Row crops have been grown on the property since 1988 when the applicant purchased the site. Prior to 1988, the ranch was owned by the Paul Masson Winery Incorporated. Paul Masson used the site for vineyards until the late 1970's or early 1980's. The vineyards were subsequently removed and the ranch laid fallow until the current owner purchased the property in 1988.

Several trees are located among the existing farming buildings in the central portion of the site. A row of mature Eucalyptus trees lies along the southern boundary of the property on adjacent property. The trees are approximately 25 feet tall and will not be removed in order to accommodate the proposed air strip.

4.16.3 Impacts and Mitigation Measures

4.16.3.1 Standards of Significance

In accordance with CEQA Guidelines, project impacts on vegetation and wildlife would normally be considered significant if development substantially effects a rare or endangered species of plant or animal or the habitat of the species; interferes substantially with the movement of any resident or migratory fish or wildlife species; or substantially diminish habitat for fish, wildlife or plants.

4.16.3.2 Impacts to Biological Resources

Intensive farming of the site and the surrounding lands has altered natural communities, eliminating original native vegetation and limiting the area's natural habitat value. Tilling of the soil surface as part of field maintenance after each seasonal harvest eliminates all vegetative soil cover and may even effect perimeter ditches and uncultivated lands bordering fields which can support riparian and ruderal (weedy) vegetation. Such intensively managed land provides only poor wildlife habitat due to the lack of protective cover and frequent disturbance by management practices. Agricultural fields and ruderal cover provide little food, nesting substrate or other resources and tend to support highly adaptive species able to colonize new development rapidly.

Development of the site as proposed and modified by mitigation measures recommended in this EIR which require the installation of native drought resistant landscaping will not result in significant adverse impacts to biological resources.

4.17 Employment

4.17.1 Introduction

This section presents an assessment of the impacts that the project will have on employment in the Central Salinas Valley area, including the City of Greenfield. The format of this section differs from previous sections of this EIR because employment or economic effects are not considered by CEQA to be environmental effects. Therefore, no setting or environmental evaluation are provided.

The employment estimates for this project have been provided by the applicant. Data on employment characteristics of Monterey County and the Central Salinas Valley area have been obtained from the Association of Monterey Bay Area Governments (AMBAG) and the County.

4.17.2 Employment Characteristics

4.17.2.1 Employment Overview

The largest employment sector in Monterey County is agriculture which accounted for approximately 22% of all employment in the County. Other large employment sectors include services, retail trade, and local government and education. Construction, manufacturing and financial/real estate sectors combined average approximately 15% of the jobs in the County. Generally, the County, with a recent average employment growth rate of 1.2% annually, does significantly better than the state which experienced an average annual decrease in employment.

In general, most employment sectors experienced increases in the County. The largest increases occurred in services (approximately +3%), agriculture (approximately +2.5%), and local government and education (approximately +2%). Manufacturing, retail trade, and federal government experienced an average decrease in employment over the past five years.

Unemployment rates in the County have been consistently higher than those in the rest of the state. The seasonal nature of key industries in the County accounts for high unemployment rates in the winter when agriculture, food processing, construction and tourism experience reduced activity. In general, annual average unemployment rates in the County are between 3 and 3.5%. However, the monthly unemployment rate may rise as high as 9%. Rates in the agriculture employment-dependent Central Salinas Valley cities can be as high as 26% in the winter. For example, the City of Greenfield experienced unemployment of 13% in January 1994.

4.17.2.2 Employment Forecast

Employment growth is expected to be modest through the end of the decade. The slow growth will be principally due to the transfer of federally controlled lands at Fort Ord to public and private ownership. Labor force numbers and activity will be strongly influenced by this re-use process. Non-agricultural employment in the County is expected to average 115,200 jobs in 1998, which will be 5,800 jobs above the 1992 annual average. This modest gain reflects the effects of the closure of Fort Ord as a significant military base.

Employment in the retail trade is forecasted to grow by 2,000 jobs by 1998 according to the County Employment Development Department. The largest employment growth in this sector is forecast in eating and drinking establishments. Most employment growth is created during the summer which is the peak tourism period. While tourism is a key industry on the Monterey Peninsula which contributes substantial jobs and revenues through employment and taxes, tourism is a relatively underutilized industry in the Central Salinas Valley. For example, combined Transient Occupancy Tax (TOT) revenues for the County were \$22,719,008 in 1993, with the Cities of Gonzales, Greenfield and King City contributing only

\$208,752. The majority of TOT revenues in the County is produced on the Monterey Peninsula.

Employment trends within the construction sector in Monterey County are forecast to change considerably within the next decade. According to AMBAG, employment within the construction sector has increased steadily since 1980 in Monterey County, from 5,500 jobs in 1980 to 8,000 jobs in 1990. However, it is forecasted that construction employment will decrease by approximately 800 jobs through 1996. This is primarily due to the closure of Ft. Ord and the resulting loss of population and jobs. Although it is noted construction employment in Monterey County will benefit by re-use strategies, including the development of California State University at Monterey Bay, when implemented, construction employment is expected to only grow at a rate of 0.2% per year until 2015.

4.17.3 Potential Direct and Indirect Employment Impacts

The economy of Monterey County and the South Monterey County area is largely dependent on agriculture. However, agriculture is not a constant source of employment due to its cyclical nature, with most jobs occurring during harvesting and planting seasons. Non-agricultural jobs within the County are mostly provided by retail trade, services, and government. Other industry sectors such as construction, manufacturing, wholesale trade, etc. provide between 4 to 9 percent of total non-agricultural employment within the County. Employment projections conducted by AMBAG indicate that current employment trends will continue even after the closing of Fort Ord in 1994.

4.17.3.1 Short-Term Construction Employment

Construction activity is somewhat strong in the Salinas area and south county. A significant number of new homes are being constructed in Salinas, Soledad, Greenfield and King City. Commercial construction has slowed in the County; however, several new projects are in the planning stages throughout the Salinas Valley, including the proposed project, new commercial/retail development in Salinas, and industrial development in Chualar.

In the short term, approximately 60 local construction jobs are projected to be created as a result of this proposed project. Construction activity is expected to continue in phases over 5 years. As stated in the Chapter 2.0, *Project Description*, the winery, air museum and air strip will be constructed first with the hotel and other visitor serving facilities constructed as market conditions warrant.

4.18.3.2 Long-Term Job Market

Upon completion of the project, it is projected that a total of between 306 and 383 jobs will be created as shown in Table 19. These jobs will range from entry level to skilled and professional positions. Some entry level and skilled jobs in the winery, restaurant and hotel/motel will be part-time, many will be full time. It is unknown at this time the proportion of jobs which will be full-time.

The proposed project is projected to have a beneficial direct impact on the long-term job market within the Central Salinas Valley as well as a beneficial indirect impact on the job market. *No mitigation measures are required with regards to impacts to the job market.*

Table 19. Job Creation - Yanks Air Museum & Visitor Serving Facility	
Air Museum	40 -60
Winery	20-30
Hotel/Motel	150-160
Service Stations	16-20
Retail Commercial	30-40
Fast Food Restaurants	20-25
Aircraft Storage Hangars	5-8
<u>Free-Standing Restaurant</u>	<u>25-40</u>
TOTAL	306-383
Source: <i>Yanks Air Museum Master Plan</i> , November 1994	

5.0 CUMULATIVE IMPACTS

5.1 Introduction

CEQA requires the discussion of cumulative impacts when they are significant. The purpose of this cumulative impact analysis is to identify and summarize the major environmental impacts that are expected as a result of the proposed project in conjunction with past, present and pending projects, or projections of development contained in an adopted general plan or related planning document. Cumulative impacts occur when the combined impacts of existing and proposed development projects compound environmental problems or create entirely new ones. The cumulative analysis in this EIR focuses on those impacts projected to occur as a result of project development and operations together with other development that is planned both within the City and its Sphere of Influence (SOI)¹³. Table 20 lists the cumulative project scenario for the vicinity. Figure 27 shows their locations, where applicable.

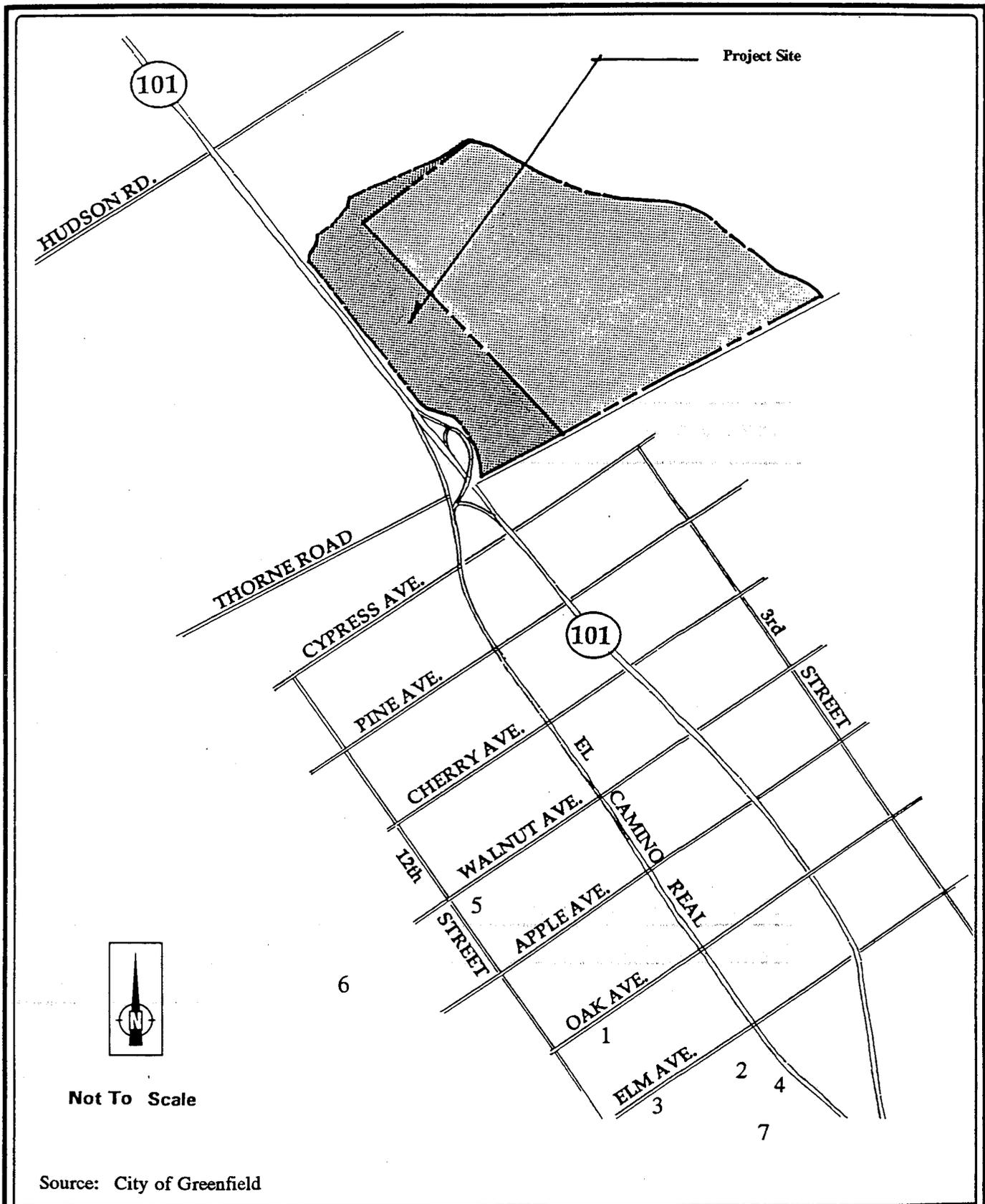
5.2 Cumulative Impacts in Project Vicinity

Development under this cumulative scenario includes the projects and maximum development potential listed in Table 20 and shown on Figure 27. The buildout, occupancy and operation of the proposed Yanks Air Museum is also included in this scenario. Under this cumulative scenario, additional development includes approximately 1,492 residential units, additional population of 6,967, and 886,200 square feet of commercial development, including the 423,000 square feet of commercial and visitor serving development proposed for the project site.

The following evaluation provides a qualitative description of significant impacts in the areas of land use, geology, hydrology and drainage, water supply, traffic, air quality and public services, that could occur as a result of the development of the project in conjunction with the development scenario identified in Table 20 (identified hereafter as the study area). This section draws upon impact analysis provided in the Central Salinas Valley Area Plan, the City of Greenfield 1990 Sphere of Influence and General Plan Recommendations, various EIRs prepared in the Greenfield area and site specific reports prepared for the project by the applicant.

¹³ 1990 Sphere of Influence and General Plan Recommendations, City of Greenfield, December 1990.

Table 20. Cumulative Development City of Greenfield and Sphere of Influence					
Project Name	Acres	Description	Res. Units	Other	Status
1. Greenleaf Estates	14.5	Single-family residential	75	--	Approved, not yet built.
2. Vista Paraiso	23.8	Single-family residential	105	--	Under construction.
3. Tyler Park Townhomes	6.6	R-2 Duplexes	88	--	Under construction.
4. Vista Paraiso Commercial	0.6	Highway Commercial	--	13,200 sf	Approved, not yet built.
5. Camino al Paraiso	19	Single-family residential	92	--	Approved, not yet built.
6. Greenfield Victorian Village	9.5	Single-family residential	47	--	Approved, not yet built.
7. Greenfield High School	44	Public	--	1,600 students	Under construction.
City Buildout ¹	--	Maximum density	127	100,000 sf	No applications submitted.
Sphere of Influence Buildout ²	--	Maximum density	958	350,000 sf	No applications submitted.
Total Residential Units			1,492.00		
Total Population (4.67 persons per unit)			6,967.64		
Total Commercial Square Footage				463,200 sf	
¹ Based on vacant lands within city which are not currently proposed for development. ² Indicates potential maximum density based on buildout of the existing SOI, excluding projects already proposed.					
Source: City of Greenfield, November 1995.					



Location of Cumulative Projects

Figure
27

5.2.1 Land Use and Planning

Buildout of the proposed project in conjunction with potential development within the City and its SOI would change the nature and appearance of the study area in several respects. Development under the cumulative scenario would displace agricultural production and permanently convert prime agricultural farmland to urban uses. With the exception of the project site, potential development described above will occur either within the city limits or within the city's SOI. A sphere of influence is defined as a plan for the probable ultimate physical boundaries and service area of the local government agency within a 20-year time frame. The City of Greenfield recently approved a proposed amendment to the urban service area. If this amendment is approved by LAFCO, the project site would then be located within the urban service area of the SOI.

Those county lands within the city's SOI are designated "Urban Reserve". Development of the SOI allows the city and county to plan for the logical and orderly development of lands within the SOI. While the County's policies are intended to accommodate expansion of city boundaries onto less viable farmlands adjoining Salinas Valley cities, it is acknowledged by the County that some prime farmlands will be lost. However, the project site is located outside of the City's SOI on lands considered prime. This impact has been identified as a significant unavoidable adverse impact in this EIR (refer to Section 4.2, Land Use and Planning).

5.2.2 Geologic and Geotechnical Hazards

Development under the cumulative scenario could result in exposure of greater numbers of people to seismic hazards associated with earthquakes. As noted in this EIR, the San Andreas fault, among others, is active and represents a major seismic hazard in northern California. Design of buildings in accordance with the Uniform Building Code is required. Therefore, this cumulative impact would be reduced to a less-than-significant level.

5.2.3 Water Quality and Supply

Long-term potable water supply within the City of Greenfield and the project area is a regional issue of concern because extensive groundwater pumping for agricultural, municipal, and industrial uses has affected the groundwater supplies of the basin in terms of both quantity and quality. Annual pumping in excess of recharge has caused a gradual lowering of water tables and pressure heads in the lower valley. This "overdraft" condition is the primary cause of salt water intrusion into the Pressure subarea. Both the 180-foot and 400-foot aquifers are in contact with the salt water of Monterey Bay which has intruded inland causing agricultural and domestic water supply wells along the coast in the Pressure subarea to be abandoned.

The State Water Resources Control Board (SWRCB) is concerned about seawater intrusion into the Salinas Valley groundwater basin and has requested the County develop and implement an adequate plan to stop the seawater intrusion problem. ~~The SWRCB has~~

~~suggested that the County Water Resources Agency take short-term measures such as implementation of a basin-wide groundwater management program and policy, banning new development until groundwater supply and demands are in balance, and setting up a program to reward conservation or reclamation of water. Should the SWRCB determine that the County and the SWRCB cannot reach an agreement on short and long term programs and an implementation schedules, the SWRCB will proceed with ~~may start~~ the process for adjudication, in preparation for State takeover of local decision making over water resources management in the Salinas Valley.~~

Buildout of the proposed project under the cumulative scenario could increase daily potable water demand by an average of 620,625 gallons per day (gpd) and annual demand by approximately 695 acre-feet¹⁴. However, because most of the development under the cumulative scenario would result in the conversion of farm lands under agricultural production which require greater amounts of ground water than urban uses, the net water production will likely be less than under existing conditions within the study area. Therefore, it is likely that buildout will not adversely affect ground water overdraft in the Salinas Valley, and could improve conditions, ~~resulting in less-than significant impacts upon water quality and supplies.~~

5.2.4 Surface Hydrology and Drainage

Buildout within the study area could result in an increase in impervious surfaces and peak storm water runoff. Potential storm water degradation to receiving waters such as the Salinas River could result from urban contaminants (i.e. oil, grease, fertilizers) entering storm runoff. Appropriate grading, erosion control, and drainage measures would be incorporated into project plans to prevent sediment and urban contaminants from entering offsite drainages and to prevent erosion at points of discharge. City regulations require that proposed development limit the 25-year storm runoff to site predevelopment levels by containment in a percolation pond or other facility. The proposed project includes onsite storm water collection and distribution that must meet County standards. Therefore, this impact would be reduced to a less-than-significant level.

5.2.5 Wastewater Disposal

The City of Greenfield owns and operates its own municipal wastewater collection, treatment, and disposal system. The sewage treatment plant currently has a capacity of 1.0 million gallons per day (mgd). The plant is currently operated at 70% of permitted capacity. The City has adopted a wastewater facility development fee applicable to all proposed residential development to be used to provide upgrades to the existing wastewater infrastructure. The proposed project would not add to cumulative impacts to the municipal wastewater infrastructure because the project proposes to develop an onsite wastewater collection, treatment and disposal system, independent of the City's municipal system.

¹⁴ Based on per capita average daily water production of 125 gpd for the City of Greenfield.

5.2.6 Traffic and Circulation

This section summarizes the cumulative traffic impact analysis prepared for the project by Greer & Company. The cumulative traffic volumes were derived by Greer & Co. from the *City of Greenfield Transportation Master Plan Update* prepared for the ultimate buildout of the Urban Service Area (USA). Project traffic at full buildout was added to the buildout traffic volumes for the urban service area to identify future cumulative traffic conditions and recommend mitigation measures. These are identified in Section 4.8, *Traffic and Circulation*.

The Master Plan Update documented existing daily traffic volumes on roadway segments throughout the City of Greenfield, and specifically on the streets and freeway ramps in vicinity of the proposed project. The Master Plan Update also projected future buildout daily traffic volumes. The prorata increase (or decrease, due to implementation of the Walnut Avenue freeway ramps) in daily traffic volumes was applied to the respective existing peak hour traffic volumes to obtain future USA buildout peak hour traffic volumes. These future peak hour volumes were analyzed to identify future traffic operations in the vicinity of the project site. Project traffic volumes for the complete buildout of the proposed project were added to the future USA buildout traffic volumes to obtain cumulative traffic volumes and again analyzed for the immediate project vicinity.

With the existing improvements, the levels of service at all of the study intersections with the USA buildout will improve with all intersections projected to operate at LOS "A" during both am and pm peak hours. This occurs primarily as a result of the construction of the proposed ramps at Walnut Avenue. With these new ramps in place existing and projected new traffic from developments within the City of Greenfield are diverted away from the ramp interchange at El Camino Real north.

With the addition of projected project traffic, the cumulative traffic conditions are projected to deteriorate for the intersections of El Camino Real and the southbound freeway on-ramp and for El Camino Real and the northbound freeway ramps. Levels of service will deteriorate to LOS "B" at both intersections during the am peak hour, which still results in an acceptable level of service. During the p.m. peak hour, the level of service will deteriorate to LOS "D", which is an unacceptable level of service for the County of Monterey.

With the recommended project-specific mitigation improvements identified in Section 4.8, the two impacted intersections will be improved to LOS "A" for both peak hours. The recommended improvements will clearly mitigate project and cumulative traffic impacts, as well as restore the study intersections to a high level of service for future conditions.

5.2.7 Air Quality

A contribution to air emissions in the North Central Coast Air Basin is projected due to cumulative development in the study area. Traffic generated by the cumulative projects would be the most significant source of air pollutants.

Planning for attainment of state standards is embodied in the 1994 Air Quality Management Plan (AQMP). The 1994 AQMP demonstrates that the 20 percent reduction target in ozone precursor emissions from the 1987 baseline has been met and that no new control measures (contingency measures) are needed beyond those already in the plan. The AQMP stipulates that if existing control measures are implemented and if land use projections remain consistent with the adopted plan, the federal ozone standard should be maintained and violations of the state ozone standard should be less frequent throughout the air basin. Buildout of the study area is assumed to be in compliance with the AQMP if the projected additional population plus existing city population would not exceed population projections in the AQMP for various designated years. As long as development within the study area is phased such that those projections are maintained, cumulative impacts to regional air quality would be less-than-significant. As noted in Section 4.9, *Air Quality*, the proposed project is consistent with the 1994 AQMP.

5.2.8 Police and Fire Protection

Those projects within the city limits are served by the Greenfield Police Department. The City council has established a Police Service Impact Fee which is set annually and applies to residential and commercial construction within the city. This impact fee paid by new development is to be used for equipment acquisition and police station construction.

The Monterey County Sheriff's Department currently provides police service to the lands outside of the city limits, including the project site. The sheriff's department is responsible for a large geographic area and the response times to calls in southern Monterey County can be slow depending on the time of day and type of call. The nearest sheriff's substation is located in King City, approximately 10 miles to the south. The proposed project will likely not require service from the city's police department. Therefore, while contributing to a cumulative increase in overall demand for public safety services, the proposed project does not contribute to significant cumulative impacts to the City of Greenfield police services.

Fire protection services in the cumulative study area is currently provided by the Greenfield Fire Protection District. Development under the buildout scenario, including the proposed project, will require additional staff and fire fighting equipment. At this time, the district is all-volunteer. Mitigation identified in the EIR for project impacts upon police and fire services will reduce the impact to a less-than-significant level.

5.3 Cumulative Impacts in the Region

The following analysis considers the regional impacts associated with the proposed project, buildout of the County's General Plan to the year 2015, and four proposed General Plan amendments in the Salinas Valley region. These four General Plan amendments are summarized below.

- **Rancho Chualar II Subdivision** proposes a total of 907 residential units, in addition to approximately eight acres of commercial uses, a school site, and a park site. The 164-acre project site is located near the town of Chualar, on the east side of Highway 101 between Gonzales and Salinas.
- **Salinas Valley Industrial Park** is located on the west side of Highway 101, across from the proposed Rancho Chualar II project. The Salinas Valley Industrial Park proposes approximately two million square feet of industrial and some visitor serving uses.
- **Tavernetti Subdivision** consists of the development of 409 residential units on a 740-acre site located west of King City and north of Pine Canyon Road in central Monterey County.
- **Rancho San Juan** is a Specific Plan proposal for extensive residential and commercial/industrial development north of Salinas, near San Juan Road east of Highway 101. This plan consists of about 2,700 residential units, a hotel, a school site, a golf course, approximately 600,000 square feet of commercial/office uses, and 2.3 million square feet of industrial uses.

The cumulative projects in the Salinas Valley area, combined with the proposed project, would result in a total of approximately 4,000 residential units, over one million square feet of commercial area, over four million square feet of industrial space, two motels, a golf course, and an aircraft museum with associated visitor-serving facilities.

The proposed project would result in an *incremental* increase in the potential cumulative impacts described below. Due to the speculative nature of this analysis, the following discussion of regional cumulative impacts is qualitative.

5.3.1 Land Use and Planning

The cumulative long-term land use impacts focus mostly on the conversion of undeveloped land to urban-related uses. Development under the regional cumulative scenario would displace agricultural production and permanently convert agricultural farmland to urban uses. The proposed project would result in a significant unavoidable adverse impact on prime agricultural land, as identified in this EIR (refer to Section 4.2, Land Use and Planning). The cumulative impacts upon farmland are also considered significant and unavoidable.

Development will result in the loss of open space, visual changes to the landscape, and increases in light and glare. These impacts would likely be significant, but would be reduced to a less-than-significant level with architectural, design, and landscaping measures required by adopted County policies to reduce adverse visual effects.

5.3.2 Geologic and Geotechnical Hazards

Development under the cumulative scenario could result in exposure of greater numbers of people to seismic hazards associated with earthquakes, soil, and other geologic conditions that could compromise proposed structures. Design of buildings for the proposed developments in accordance with the Uniform Building Code and the requirements of design-level geotechnical reports would mitigate potential geotechnical impacts to a less-than-significant level.

5.3.3 Water Quality and Supply

As described in Section 5.2.3, long-term potable water supply within the project area is a regional concern, in terms of both quantity and quality. Buildout of the cumulative projects in the Salinas Valley would alter the ground water characteristics of the regional basins by either 1) increasing pumping, for industrial or other water-intensive uses, 2) decreasing pumping, by replacing water-intensive agricultural uses with less water-intensive urban uses, and/or 3) altering water quality by increasing or decreasing water supplies or proposing uses that could cause potential contamination. Urban uses in the Salinas Valley would generally decrease water usage and improve water quality by eliminating or reducing agricultural uses on the properties, as described in Section 5.2.3. The incorporation of reclamation systems as part of onsite wastewater treatment systems would further improve water quality supplies. The implementation of requirements set forth by the RWQCB and Health Department would reduce potential cumulative impacts upon water to a less-than-significant level.

5.3.4 Surface Hydrology and Drainage

Development of the region would result in an increase in impervious surfaces and peak storm water runoff. Potential storm water degradation to receiving waters could result from urban contaminants (i.e., oil, grease, fertilizers) entering storm runoff. Increases in drainage runoff and urban pollutants contained in the runoff resulting from additional development would be reduced to a less-than-significant level with the implementation of standard engineering methods that meet regulatory requirements for grading, erosion control, appropriate drainage facilities, and storm water runoff discharge.

5.3.5 Wastewater Disposal

Development of the cumulative projects in the Salinas Valley would require the construction of appropriate onsite wastewater treatment systems. These systems must be designed and constructed in accordance with all RWQCB and Health Department standards, resulting in a less-than-significant wastewater disposal impact on a regional basis.

5.3.6 Traffic and Circulation

A cumulative traffic analysis was performed for the project, as described in Section 5.2.6.

An analysis of the regional cumulative traffic impacts upon Highway 101 was conducted for the Rancho Chualar/Salinas Valley Industrial Park projects (Higgins & Associates, November 1997). This analysis included traffic generated by the General Plan amendments and General Plan buildout to 2015. The analysis for Highway 101 considered the segment between Airport Boulevard south of Salinas, and Alta Street in the City of Gonzales. Under this cumulative scenario, Highway 101 would carry roughly 63,000 to 79,000 daily vehicles, resulting in LOS F (for a 4-lane expressway). As through-traffic on Highway 101 continues to increase and approach its carrying capacity, the at-grade intersections would no longer be able to provide safe and convenient access for vehicles to and from the side streets. To enhance capacity and maintain acceptable traffic flow by 2015, Highway 101 would need to be upgraded to a four to six-lane freeway. This would require constructing full interchanges at seven existing at-grade intersections along the studied segment of Highway 101.

The cumulative projects would also increase traffic volumes on ramps providing access from the City of Salinas to and from the south on Highway 101. Much of this increase would be spread over the various interchanges serving the City of Salinas. This increase in traffic to and from the south of the City of Salinas is beyond what has previously been anticipated. This could require additional modifications to interchanges within the City of Salinas.

Funding for the above traffic improvements has not been identified at this time. The County, working with Caltrans, would be required to develop a transportation improvement plan with funding and implementation mechanisms for future transportation facilities needed for regional growth. Under this program, the cumulative projects would be responsible for providing a prorata share toward required improvements. Implementation of a County-wide transportation plan or regional plan with appropriate funding mechanisms for the traffic improvements would reduce the regional cumulative traffic impacts to a less-than-significant impact. In the absence of this plan, the regional traffic impacts could result in a significant unavoidable impact.

5.3.7 Air Quality

The cumulative projects would result in incremental increases in air pollution emissions in the North Central Coast Air Basin. However, these cumulative increases would not be significant based upon criteria established by the Monterey Bay Unified Air Pollution Control District. Cumulative development is assumed to be in compliance with the AQMP if the projected additional population plus existing population would not exceed future population projections forecasted by AMBAG. As long as development within the study area is phased such that those projections are maintained, cumulative impacts to regional air quality are considered less-than-significant. Please refer to Section 5.2.7 for additional discussion of regional air quality.

5.3.8 Noise

Development of the cumulative projects would result in incremental increases in noise levels in the area, primarily from traffic and from the introduction of urban activities onto presently undeveloped sites. These impacts would be reduced to a less-than-significant level with implementation of all applicable State and County noise standards.

6.0 GROWTH INDUCEMENT

6.1 Introduction

CEQA requires that any growth inducing aspect of a project be discussed in an EIR. This discussion should include consideration of ways in which the project could indirectly foster economic or population growth in a surrounding area. Projects that could remove obstacles to population growth (such as a major public service expansion) must also be considered in this discussion.

6.2 Growth Inducing Impacts

The project site is currently undeveloped with limited services extending within its boundaries. The City of Greenfield city limits and sphere of influence boundary are located approximately 1.5 miles to the south. The lands surrounding the site are currently used for farming and designated "Agricultural, Farmlands - 40 acre minimum" in the Central Salinas Valley Area Plan. In general, the lands surrounding the project site are used for agricultural production in accordance with adopted land use designations.

Proposed infrastructure improvements include development of improvements to the overpass connecting Greenfield and Highway 101 to the project site, construction of a public airstrip, construction of an onsite wastewater disposal and treatment system, development of a potable water system from a new deep well, construction of a storm drain system to collect and percolate storm water runoff, and the expansion of public utilities onto the site, including electricity, gas, telephone, and cable television. An option to connect sewer and water service to the City's sewer and water systems has also been considered in this EIR. Questa Engineers has determined that connection to the municipal wastewater system is environmentally superior to the proposed on-site treatment plant. The project would be required to connect to the municipal water system if proof of potable water through a deep well cannot be provided.

In general, proposed infrastructure improvements are limited to increasing or providing infrastructure capacity to accommodate the proposed project only. However, the provision of a new public airstrip and highway commercial businesses, improvements to the road system and the proposed change in land use from agricultural to commercial and visitor serving uses can be considered growth inducing because the City of Greenfield and adjacent property owners may be encouraged to annex agricultural lands between the existing city limits and up to and including the project site. These lands are currently outside of adjacent to the City's adopted Sphere of Influence and Urban Service Area.

However, in order for the project to connect to the City's sewer and water systems, the project site would either need to be annexed into the City or the City may provide services by contract. Either action would require approval from LAFCO. If the project site were

annexed into the City, the City would need to annex intervening territory so that the project site were contiguous to City limits. Therefore, annexation can be considered growth inducing because the intervening lands would become part of the City and subject to the development policies of Greenfield. Currently, these lands are part of the County and are designated for agricultural production. The City could then plan to expand infrastructure not only to serve the project site, but development on the intervening lands. The sewer and water connection to City services through the City's recommended route would have definitive growth-inducement impacts on the area within the SOI.

If the City and property owner entered into an agreement or contract to provide services, the intervening territory would not be affected because no new services would cross their boundaries. New sewer and water lines would follow El Camino Real and connect to existing mains within City limits. In this case, the City would likely expand infrastructure only to serve the project and not future development on intervening territory.

Development of the proposed project will also create from 306 to 383 new jobs¹⁵. It is likely that most new employees will come from the cities of Greenfield, King City, Soledad and Gonzales. Some employees may also commute from as far away as Salinas and the Monterey Peninsula. Because the unemployment rate in the county averages 9%, one of the highest rates in the state, and the unemployment rates of the nearby cities is similar, it is unlikely that the employment created by the project will result in the relocation of substantial numbers of new families to central Salinas Valley cities. Therefore, it is unlikely that local cities or the county will experience a substantial increase in associated demand for public services as a result of employment at the project.

¹⁵ Yanks Air Museum Master Plan, LDM Associates, November 1994.

7.0 PROJECT ALTERNATIVES

7.1 Introduction

This section evaluates alternatives to the proposed project as required by the California Environmental Quality Act (CEQA). CEQA Guidelines (Section 15126) require that an EIR describe and evaluate the comparative merits of a reasonable range of alternatives to the project, or to the location of the project, that would feasibly attain most of the basic project objectives, but would avoid or substantially lessen any of the identified significant effects of the project. The alternatives analysis should also identify any significant effects that may result from a given alternative. The Guidelines further require that the discussion focus on alternatives capable of eliminating significant adverse impacts of the project, or reducing them to a level of insignificance, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly. Finally, according to the Guidelines, the range of alternatives required in an EIR is governed by "rule of reason" that stipulates that the EIR set forth only those alternatives necessary to permit reasoned choice.

This EIR identified a number of significant or potentially significant adverse environmental impacts associated with project construction or operations. These include: All of the impacts identified can be reduced to a less-than-significant level by implementing mitigation measures recommended in the EIR with the exception of permanently converting prime agricultural lands to urban uses. This has been identified as a significant unavoidable impact. Consequently, the following analysis focuses on a selection of alternatives which will not result in any new significant impacts, avoid the loss of prime farmlands, and meet the objectives of the applicant.

The following alternatives are evaluated in this section:

- No Project
- Wastewater Disposal/Domestic Water Supply Alternative
- Reduced Parcel Size
- Alternate Location

7.2 Alternative Analysis

The following discussion describes each of the alternatives, indicates whether significant project impacts would be eliminated or reduced, and identifies significant impacts arising from the alternative. The environmentally superior alternative is identified based on a comparative analysis of the alternatives and the proposed project, including mitigation measures identified in this EIR.

7.2.1 No Project

Under the No Project alternative, the project site would remain in the existing land use designation, "Agricultural (Farmlands-40 ac. min.)". The uses of the property would remain those accommodated by the agricultural designation, including the existing row crop production, vineyards, and/or crop processing facilities.

Under this alternative, virtually each of the significant impacts identified with the proposed project would be reduced or avoided altogether with the exception of impacts to ground water quality and quantity. The significant unavoidable impact associated with loss of prime farmlands would be avoided. Impacts associated with increased traffic and the related improvements to the Thome Road overpass and the Highway 101 on- and off ramps would also be avoided. Visual impacts associated with the change in rural character and light and glare would also not occur. Aircraft safety would not be an issue on the project site or to surrounding properties. Noise from additional traffic or aircraft would be avoided. However, noise associated with crop production, including heavy equipment operations and aerial spraying, could continue.

Impacts related to geologic and geotechnical hazards would be reduced because fewer habitable structures could be developed on the site. Impacts to existing storm drain systems in the vicinity would be reduced because less area of impervious surfaces would be allowed. Demands for public services such as police and fire protection services would also be reduced under the No Project alternative.

Because farming in general, and under existing farming practices on the site in particular, is water intensive compared to the proposed project, impacts to regional water supplies could be more significant under this alternative. The proposed project results in a reduction in annual demand for water compared to existing uses of the site. However, the proposed project requires a safe annual yield of potable water for the economic life of the project. Farmland does not require potable water and can lay fallow should water shortages warrant reductions in ground water pumping in the future.

While the No Project alternative can be considered environmentally superior in a number of categories of environmental impact, it does not meet the stated objectives of the proposed project to develop a public service airstrip, museum and highway serving commercial uses.

7.2.2 Wastewater Disposal/Domestic Water Supply Alternative

7.2.2.1 Wastewater Alternative

The on-site wastewater system proposed by the applicant is technically feasible, pending more detailed information on nitrogen removal effectiveness of the particular treatment plant that is planned. However, the decision to pursue an on-site treatment/disposal system was based, at least partly, on a determination by the Applicant's engineer (P & A Consultants) that connection to the existing Greenfield sanitary sewer system is infeasible. This analysis is contradicted by the City of Greenfield who have indicated, by correspondence of November 1994 and September 1995, both a willingness and ability to extend sanitary sewer service to the project.

According to the City's Public Works Director adequate capacity exists in the sewage collection system and at the treatment plant to accommodate the estimated sewage flows of 62,000 gpd from the proposed project. The treatment plant presently has surplus capacity of 300,000 gpd. The City has indicated that sewer service to the project would be provided most effectively by extending a new 12-inch sewer main to the site, beginning in the vicinity of 3rd and Walnut Street on the north side of the City. The overall length of pipeline required would be about 10,560 feet, and one lift station would be required. The estimated cost of the sewer extension is about \$730,000; but the cost to the project would ultimately be reduced as other new development on the north side of the City utilized the sewer line.

Connection of the project to the Greenfield sewer system would eliminate all of the identified impacts associated with an on-site treatment plant. Additionally, it would minimize or eliminate the duplication of wastewater management and regulatory activity in the area.

7.2.2.2 Domestic Water Supply Alternative

Although the quantity of water from existing on-site wells is adequate for the needs of the project, the water quality is unacceptable for domestic uses. The mineral content (e.g., TDS and sulfate) are in excess of secondary drinking water standards, which are based on consumer acceptance criteria. More importantly, the nitrate concentration of 92 mg/l in the well water exceeds the primary drinking water standard of 45 mg/l. The nitrate limit is based on public health criteria; the well water cannot be used for domestic supply unless the nitrate is removed by treatment; and the project includes no provision for water treatment. This is a significant impact. To be feasible the project requires the development of an alternate source of domestic water supply.

By correspondence of November 1994 and September 1995, the City of Greenfield has indicated the ability to and interest in extending domestic water service to the project site. The City has sufficient source capacity and adequate water quality from their municipal wells. According to the City Public Works Director, water service to the property would be accomplished with the extension of a 12-inch diameter water main approximately 1¼ miles

long, at an estimated cost of about \$310,000. The water main would connect to the existing City distribution system in the vicinity of Walnut Street and El Camino Real on the north side of the City.

Operation and Maintenance. An on site well water supply that meets all drinking water standards would be the simplest alternative from an operation and maintenance (O+M) standpoint. Extension of water service from Greenfield would require somewhat greater O&M for the distribution system. An on site water treatment plant would require substantially more O & M than either of the other alternatives.

Regulatory Compliance. The Greenfield water system meets all drinking water standards. There is uncertainty as to whether or not an on-site well can be developed that meets drinking water standards. An on-site well requiring treatment would have even greater uncertainty and difficulties associated with regulatory compliance.

Public Health Risk. The rating of the water supply alternatives in terms of public health risk is based on regulatory compliance. The Greenfield system is an established, proven supply that meets public health criteria. The on site well options presently pose uncertainty as to the ability to meet minimum public health requirements.

Water Conservation. An on site treatment plant (e.g., for reduction of minerals or nitrate concentration) could involve the production of a brine waste stream, requiring greater pumping of groundwater.

Energy Use. Construction and operation of an on-site water treatment plant would have the greatest energy requirements. Piping of water from Greenfield to the project site would have slightly greater energy requirements than an on site well. However, this could change, depending upon how deep an on-site well would have to be drilled to obtain suitable water quality.

As indicated in the summary shown in Table 4A, connection to the City of Greenfield and the development of an on site well not requiring treatment would be roughly equal with regards to environmental impacts.

7.2.3 Reduced Parcel Size

Under this alternative, a smaller parcel would be created which could support most, if not all, of the proposed museum, winery and highway commercial uses in order to reduce the acreage of prime farmland that is lost. The project site could still support the proposed airstrip with fewer hangars. The greatest potential for reducing the amount of land needed for the project is to reduce the area needed for parking. This could be accomplished by waiving the parking standards relating to the number of parking spaces required. However, it is likely that providing adequate parking is necessary to the success of the proposed project.

Another method to reduce the surface area needed for parking is to develop a multi-level parking structure either on the surface or underground. Under this alternative, the area proposed for development west of the airstrip would be located on the southernmost portion of the site, leaving the northernmost area west of the airstrip, approximately 20 acres, in agricultural production. This would result in a total of ±349 acres of the 430-acre property in agricultural production compared with 329 acres under the proposed project.

While this alternative would appear to preserve a greater area of prime farmland compared with the proposed project, the increase is negligible in terms of the project site in particular and productive farmland in the valley in general. In addition, the configuration of the airstrip on the site would result in an obstacle to efficient farming of the additional farmland. The proposed project with the airstrip results in an effective buffer between the proposed commercial uses to the west of the airstrip and the remaining farmland to the east.

This alternative would result in similar impacts as the proposed project in terms of traffic, air quality, viewshed, water supply and quality, and public services. It would not result in a substantial reduction in loss of prime farmland. Therefore, this alternative is not considered to be a viable alternative to the proposed project.

7.2.4 Alternate Location

CEQA Guidelines [§15126(A)(d)] stipulate that an EIR include analysis of an alternative location(s) when any of the significant effects of the proposed project would be avoided or substantially lessened by putting the project in another location. Several factors can be taken into account in determining a feasible alternate location: site suitability, economic viability, availability of infrastructure, and general plan consistency, and whether the project applicant can reasonably acquire, control or otherwise have access to the alternate site.

Under this alternative, the proposed air museum would be located at an existing public airport facility within Monterey County. There are several potential benefits to locating the proposed air museum to an existing airport: it would avoid the permanent loss of prime agricultural land, it would consolidate new airport operations at an existing public airport, and the air museum could be located nearer to population centers and existing visitor serving uses. Three Four alternative locations were considered: Marina Municipal Airport (formerly Fritzsche Army Airfield), Mesa Del Rey Airport in King City, Monterey Peninsula Airport, and Salinas Municipal Airport. The following discussion analyzes the relative merits of each airport to meet the objectives of the proposed project and avoid or substantially reduce significant impacts.

There may also be a number of sites within the County outside of airports which are not designated as farmlands suitable for the proposed air museum. Such sites should meet the following criteria:

- Located on non-prime farmland.
- Near urban centers.
- Compatible with surrounding land uses.

Because of the noise, land use compatibility, and safety impacts associated with airports, non-airport sites were not considered in this analysis. There is little land with topography suitable for a new airport and located in proximity to an urban center that is not productive farmland. This analysis focusses on existing airports because they have established plans for addressing potential impacts, are generally near urban centers, and have land use plans which are generally compatible with surrounding uses.

7.2.4.1 Marina Municipal Airport

The Marina Municipal Airport is located within the City of Marina and the boundaries of the former Fort Ord Military Reservation. Access to the site is via State Route 1 and State Highways 101 and 68 to Reservation Road. The former army airfield occupied an estimated 1,395 acres at the east end of the City of Marina. Marina has received a public benefit conveyance of approximately 845.5 acres of the airfield for public airport use.

The airfield has one runway which is 3,000 feet in length by 75 feet wide. The facility includes approximately 100,000 square feet of hangar space, 70,000 square feet of hangar related office/shop space, and 50,000 sf of other shop/office and storage area. Other flight related facilities include: air traffic control tower, non-directional beacon, and a ground control approach (GCA) radar system. The regional Airport Surveillance Radar (ASR) which serves the major airports in the region is located at this airport¹⁶.

As part of the plan to convert Fritzsche Army Airfield to public use, a fifteen year, three-stage capital development program has been proposed by the City of Marina. The first stage include development of the minimum level of improvements necessary to operate the facility in a safe and efficient manner for the first five years. Improvements include: approach slope indicators, security lighting and fencing, retention of existing Army fire and rescue vehicles or acquisition of new vehicles, and new fuel storage and distribution facilities. Improvements proposed in future stages include: runway and taxiway extensions, (from 3,000 to 5,240 feet), runway/taxiway lighting, an instrument landing system, and facility improvements.

¹⁶ Regional Airport System Plan, AMBAG, August 1995.

This airport is surrounded by residential uses to the south and southwest, agricultural lands to the north and northeast, and open space to the northwest and southeast. The City of Marina proposes that approximately 265 of the 845.5 acres on the north and east of the airport be designated for industrial and commercial development.

Locating the proposed air museum at the Marina Municipal Airport offers several advantages ~~over the proposed site and the other two public service airports considered~~ because it is close to the urban centers of Salinas and the Monterey Peninsula, it is not yet fully utilized, and has ample area for new development within its existing facilities and boundaries.

Locating the air museum at this location would not result in the loss of prime farmland that would occur at the proposed site. In addition, services such as sewer collection and treatment and the provision of potable water could be provided by existing public agencies serving the area: the Monterey Regional County Sanitation District and the Marina Coast Water District. The former Fort Ord base where the airport is located is a water constrained area and the final allocation of water provision to this site is subject to approval by the City of Marina and in accordance with planning within their available resources.

7.2.4.2 Mesa Del Rey Airport

The Mesa Del Rey Airport is owned by the City of King, and is located on the north boundary of King City within the City limits. The airport is identified as one of the three aviation facilities in the Monterey County Regional Transportation Plan. Surface access to the Mesa Del Rey Airport is via Lyons Street which becomes Bitterwater Road to the Airport Road entrance. The distance to the City center is approximately 1 mile. The less direct route to the principal airport use area would be via Metz Road. U.S. Highway 101 is the principal north-south highway through King City. Access from the south is via old U.S. 101 (First Street) and from the north via Broadway.

The airport system consists of one runway and associated taxiways. Runway 11/29 is a Visual Flight Rules (VFR) runway 100 feet wide by 4,485 feet in length. Terminal facilities are located on the southwest side of the airport. There are 14 nested hangars with capacity for 14 aircraft and three small hangars. The airport has sufficient hangar capacity for 26 aircraft. A fuel island is located near the hangar and in the apron service area.

Mesa Del Rey Airport has no control tower. There is a radio station at the airport which is used for homing. Mesa Del Rey Airport is essentially an island of city-owned property dedicated primarily to aviation activity. There are new industrial facilities adjacent to the airport. Agricultural land uses surround the airport site and existing county land use and zoning plans reflect this use.

Locating the proposed air museum at this location would result in similar benefits associated with proximity to urban centers and utilization of existing facilities compared with the Marina Municipal Airport, Monterey Peninsula Airport, and Salinas Municipal Airport. The comprehensive land use plan indicates an industrial reserve area on the northeast boundary

of the airport. Industrial use is considered ideal as an airport buffer zone. One of the principal reasons for the identification of additional lands for industry on the northeast is that land available for airport oriented industrial development on the southeast is very limited by Airport Road and difficult topography.

The project applicant for Yanks Air Museum is proposing to locate the project adjacent to a major highway (U.S. Highway 101). The uses on the site will benefit from pass-by trips to the hotel, restaurants, museum, retail, gasoline service stations, and RV Parking area. The Mesa Del Rey Airport is not located along a major state highway and would not provide the number of pass-by trips to the facility as the proposed project location.

The Mesa Del Rey Airport industrial reserve area on the northeast boundary of the airport would not allow hotel, restaurants, museum, retail, gasoline service stations, and RV Parking area as provided with the proposed project. The industrial reserve area would need to be modified to allow the proposed uses in the Yanks Air Museum project.

Under this alternative, loss of agricultural land would continue to be an issue, although the site is designated as an industrial reserve area. Traffic would be increased with this alternative. The intersections surrounding the Mesa Del Rey Airport would be adversely affected by the proposed project. Traffic distribution patterns would impact the northern roads in King City such as Broadway, First Street and Metz Road. Services such as sewer collection and treatment and provision of potable water could be provided by existing public and private agencies and/or private companies serving the area.

7.2.4.3 Monterey Peninsula Airport

The Monterey Peninsula Airport is located 15 miles west of Salinas on the Monterey Peninsula. The airport is owned and operated by the Monterey Peninsula Airport District. This airport is the only airport in Monterey County served by certified air carriers. Access to the airport is via Highway 68 and Garden Road.

The airport site is 515 acres and contains two runways. The main runway for commercial jet operations is 7,597 feet long. The second runway is 3,500 feet long by 60 feet wide and is used for general aviation.

The airport has instrument landing systems (ILS), runway identifier end lights, approach light systems, remote transmitter installations, visual approach slope indicator, and runway visual range instrumentation. The airport's south area contains the passenger terminal, with related access and parking facilities, and two fixed-base operators -- Del Monte Aviation and Monarch Aviation. The FAA control tower and remote transmitter installations are also located on the south side of the airport.

A 17-acre area to the northwest includes hangars, buildings used for commercial operations. An undeveloped area of 150 acres lies just north of the airfield. This area is designated in the Airport master Plan for industrial-research uses¹⁷.

The airport is bounded on the north by residential uses in the City of Del Rey Oaks, on the south by the Garden Road office uses, on the west by the U.S. Navy golf course, and on the east by the commercial portions of Del Rey Oaks and Ryan Ranch in the City of Monterey.

Locating the air museum at this location would not result in the loss of prime farmland that would occur at the proposed site. In addition, services such as sewer collection and treatment and the provision of potable water could be provided by existing public private agencies and/or private companies serving the area: the Monterey Regional County Sanitation District and the California-American Water Company. Because the Airport District is within the Monterey Peninsula Water Management District, it receives an allocation of potable water for existing and proposed uses. The Airport District's remaining unused allocation is 40 acre-feet, of which is only a portion could be used of what is required for the air museum and related facilities if located on the airport property. Additional water for this use is unlikely given the constrained water resource situation on the Monterey Peninsula.

Locating the proposed air museum at this location would result in similar benefits associated with proximity to urban centers and utilization of existing facilities compared with the Marina Municipal Airport. However, this airport is more fully developed than the Marina airport and vehicle access is much more constrained due to congested conditions on Highway 68.

7.2.4.4 Salinas Municipal Airport

The Salinas Municipal Airport is located three miles southeast of the city center and serves general aviation aircraft. Scheduled air carrier service is not currently available, but it is anticipated that commuter service will available within the next five years¹⁸. Access to the airport is via Highway 101 to Airport Boulevard from the west and Alisal and Skyway Boulevards from the north and east.

The airfield has four runways, the longest of which is 5,000 feet in length and the shortest if 1,056 feet. The facility includes approximately 170 T-hangar units and 9 other hangars. In addition, there is a 7,500 sf terminal building and substantial apron areas for based and transient aircraft. The airport has a medium intensity approach light system with runway alignment indicator lights, as well as an air traffic control tower and flight service station. There is a very high frequency omni-directional navigational facility (VORTAC) located on the airport and all runways have visual approach slope indicator (VASI) systems installed.

¹⁷ *IBID.*

¹⁸ *IBID.*

A public golf course borders the airport to the north. The Salinas Airport Industrial Park is located adjacent to the airport on the south. To the southwest across Highway 101 is industrial land. Agricultural lands surround the airport on the east.

Locating the proposed air museum at this location would result in similar benefits associated with proximity to urban centers and utilization of existing facilities compared with the Marina Municipal Airport and Monterey Peninsula Airport. However, this airport is also more fully developed than the Marina airport. Future development at this site is constrained by the Highway 101 offramp/Airport Boulevard intersection.

Locating the air museum at this location would not result in the loss of prime farmland that would occur at the proposed site. In addition, services such as sewer collection and treatment and the provision of potable water could be provided by existing public private agencies and/or private companies serving the area: the Monterey Regional County Sanitation District and the California Water Service Company.

7.2.5 Environmentally Superior Alternative

CEQA requires that an environmentally superior alternative to the proposed project be specified, if one is identified. In general, the environmentally superior alternative is supposed to minimize adverse impacts to the project site and surrounding environment while achieving the basic objectives of the project. The "No Project" alternative could be considered the environmentally superior alternative because none of the adverse impacts associated with the proposed project would result. However, the "No project" alternative does not satisfy any of the objectives of the project.

The proposed project, as amended by mitigation measures recommended in this EIR generally results in impacts which can be mitigated to a less-than-significant level. These mitigation measures include connection to the City's sewer and water systems by agreement, rather than through annexation, increased landscaping, reduced signage, and circulation improvements to adjacent roadways and freeway ramps. However, the project will result in the conversion of prime farmlands to predominantly nonagricultural uses, resulting in an unavoidable adverse impact. ~~Therefore, the environmentally superior alternative which satisfies the objectives of the project is locating the aircraft museum at an existing airport in Monterey County.~~

~~The No Project Alternative would avoid the impacts associated with traffic, air quality, land use, noise, and aircraft safety associated with the proposed project and the unavoidable adverse impact identified for the proposed project of loss of prime agricultural land. In this sense, the No Project Alternative is the environmentally superior alternative. As discussed in subsection 7.2.4, there are several potential benefits to locating the proposed air museum to an existing airport: it would avoid the permanent loss of prime agricultural land; it would consolidate new airport operations at an existing public airport, and the air museum could be located nearer to population centers and existing visitor serving uses.~~

However, where the No Project Alternative is identified as the environmentally superior alternative, CEQA requires that the EIR also identify an environmentally superior alternative among the other alternatives. The only remaining alternative that significantly reduces impacts and avoids the impact of loss of prime farmland is locating the project at another site. Existing airports in Monterey County were reviewed. This would consolidate new airport operations at an existing public airport, and the air museum could be located nearer to population centers and existing visitor serving uses. Four alternative locations were considered: Marina Municipal Airport (formerly Fritzsche Army Airfield), Monterey Peninsula Airport, Salinas Municipal Airport, and King City Airport. Locating the proposed air museum at existing airports in Monterey County would completely avoid the significant impact of the permanent loss of prime agricultural land, with the exception of King City. The King City location could also result in the loss of some agricultural land. The amount would be dependent upon the design and location of the facilities and some development on agricultural land has already been planned and approved for this site. The Mesa Del Rey Airport, however, is not located along a major state highway and would not provide the number of pass-by trips to the facility as the proposed project location. Although locating the proposed project at an existing airport in Monterey County would not impact prime agricultural land, it should be noted that this alternative would not meet the applicant's project objective of locating development at the proposed site in South Monterey County.

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8.1 Report Preparation

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County of Monterey, *Central Salinas Valley Area Plan*, November 1987.

Association of Monterey Bay Area Governments, *Regional Airport System Plan*, August 1995.

Caltrans, *Airport Land Use Planning Handbook*, December 1993.

Local Agency Formation Commission, *Inventory of Local Agencies*, Monterey county, June 1994.

Yanks Air Museum Master Plan, November 1994.

APPENDIX A.

Initial Study and Notice of Preparation (NOP)

NOTICE OF PREPARATION

DATE: FEBRUARY 6, 1995

Agency Name
Agency Address
City, Ca, zip

Dear Affected Agency:

The County of Monterey will prepare an Environmental Impact Report for the Yanks Air Museum (EIR 95-01) to allow a General Plan Amendment, Reclassification, General Development Plan, Major Lot Line Adjustment, Use Permit to allow Airport, Aircraft Museum, Hanger Facilities, Winery, Retail Commercial, Hotel, Restaurant, Amphitheater and service stations; Variance to allow addition to Height Requirements.

The EIR will focus on the following items:

See the attached Scope of Work which is Exhibit A of the Environmental Impact Report Consultant contract.

If you wish to have additional information discussed in the EIR, please submit your comments in writing within 30 days of receipt of this letter. Your response must include reasons why this information is necessary.

A project description, site plan and location map are included in the initial study. If you need additional information, please feel free to contact us.

If we do not hear from you within 30 days, we will assume that you agree with the County's proposal regarding the EIR. Thank you.

Sincerely,

Kris Berry
Senior Planner

Attachments: Scope of Work
Yanks/Letter.NOP

J. ENVIRONMENTAL INITIAL STUDY:

ENVIRONMENTAL CHECKLIST FORM
(To Be Completed By Lead Agency)

NAME OF PROPONENT: Charles Nichols on behalf of Yanks Air Museum Inc.

ADDRESS AND PHONE NUMBER OF PROPONENT: 13470 Dalewood St., Baldwin Park, CA 92335
(818) 962-1065

PROJECT LOCATION: Greenfield, CA Monterey County
City County

PROJECT ADDRESS: Easterly side of Highway 101 at Thorne Road approximately
one-half mile north of the City of Greenfield.

DATE OF CHECKLIST SUBMITTAL: November, 1994

AGENCY REQUIRING CHECK LIST: County of Monterey

NAME OF PROPOSAL: Yanks Air Museum

ENVIRONMENTAL IMPACTS:

(CEQA requires that an explanation of all answers be provided along with this checklist, including a discussion of ways to mitigate effects identified. Attach separate sheets.)

Yes Maybe No

I. EARTH. Will the proposal result in:

- | | | | |
|--|-------------------------------------|-------------------------------------|-------------------------------------|
| a) Unstable earth conditions or changes in geologic substructures? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Disruptions, displacements, compaction or overcovering of the soil? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Change in topography or ground surface relief features? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) The destruction, covering or modification of any unique geologic or physical features? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Any increase in wind or water erosion of soils, either on or off the site? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| f) Changes in deposition or erosion of beach sands, or changes in siltation deposition or erosion which may modify the channel of a river or stream or the bed of the ocean or any bay, inlet or lake? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

- g) Exposure of people or property to geologic hazards, such as earthquakes, landslides, mudslides, ground failure, or similar hazards?

II. AIR. Will the proposal result in:

- a) Substantial air emissions or deterioration of ambient air quality?
- b) The creation of objectionable odors?
- c) Alteration of air movement, moisture, or temperature, or any change in climate, either locally or regionally?
- d) Emission of hazardous air pollutants within one-fourth of a mile of a school?
- e) Burning of municipal wastes, hazardous waste or refuse-derived fuel that requires either the construction of a new facility or the expansion of an existing facility by more than 10 percent?

III. WATER. Will the proposal result in:

- a) Changes in currents, or the course of direction of water movements, in either marine or freshwaters?
- b) Changes in absorption rates, drainage patterns, or the rate and amount of surface runoff?
- c) Alterations to the course or flow of flood waters?
- d) Changes in the amount of surface water in any water body?
- e) Discharge into surface waters, or in any alteration of surface water quality, including, but not limited to, temperature, dissolved oxygen or turbidity?
- f) Alteration of the direction or rate of flow of ground waters?
- g) Change in the quantity of ground waters, either through direct additions or withdrawals, or through interceptions of an aquifer by cuts or excavations?
- h) Substantial reduction in the amount of water otherwise available for public water supplies?
- i) Exposure of people or property to water related hazards such as flooding or tidal waves?
- j) Significant changes in the temperature, flow or chemical content of surface thermal springs?

IV. PLANT LIFE. Will the proposal result in:

- a) Change in the diversity of species, or number of any species of plants (including trees, shrubs, grass, crops, and aquatic plants)?
- b) Reduction of the numbers of any unique, rare, or endangered species of plants?
- c) Introduction of new species of plants into an area, or in a barrier to the normal replenishment of existing species?
- d) Reduction in acreage of any agricultural crop?

V. ANIMAL LIFE. Will the proposal result in:

- a) Change in the diversity of species, or numbers of any species of animals (birds; land animals, including reptiles; fish and shellfish, benthic organisms or insects)?
- b) Reduction of the numbers of any unique, rare, or endangered species or animals?
- c) Introduction of new species of animals into an area, or result in a barrier to the migration or movement of animals?
- d) Deterioration to existing fish or wildlife habitat?

VI. NOISE. Will the proposal result in:

- a) Increases in existing noise levels?
- b) Exposure of people to severe noise levels?

VII. LIGHT and GLARE. Will the proposal:

- a) Produce new light or glare?

VIII. LAND USE. Will the proposal result in:

- a) Substantial alteration of the present or planned land use of an area?

IX. NATURAL RESOURCES. Will the proposal result in:

- a) Increase in the rate of use of any natural resources?
- b) Substantial depletion of any non-renewable natural resource?

X. RISK OF UPSET. Will the proposal involve:

- a) A risk of an explosion or the release of hazardous substances (including, but not limited to: oil, pesticides, chemicals or radiation) in the event of an accident or upset conditions?
- b) Possible interference with an emergency response plan or an emergency evacuation plan?

XI. POPULATION. Will the proposal:

- a) Alter the location, distribution, density or growth rate of the human population of an area?

XII. HOUSING. Will the proposal:

- a) Affect existing housing, or create a demand for additional housing?

XIII. TRANSPORTATION/CIRCULATION. Will the proposal result in:

- a) Generation of substantial additional vehicular movement?
- b) Effects on existing parking facilities, or demand for new parking?
- c) Substantial impact upon existing transportation systems?
- d) Alterations to present patterns of circulation or movement of people and/or goods?
- e) Alterations to waterborne, rail or air traffic?
- f) Increase in traffic hazards to motor vehicles, bicyclists, or pedestrians?

XIV. PUBLIC SERVICES. Will the proposal have an effect upon, or result in a need for new or altered governmental services in any of the following areas:

- a) Fire protection?
- b) Police protection?
- c) Schools?
- d) Parks or other recreational facilities?
- e) Maintenance of public facilities, including roads?
- f) Other governmental services?

XV. ENERGY. Will the proposal result in:

- a) Use of substantial amounts of fuel or energy?
- b) Substantial increase in demand upon existing sources of energy, or require the development of new sources of energy?

XVI. UTILITIES and SERVICE SYSTEMS. Will the proposal result in a need for new systems, or substantial alteration to the following utilities:

- a) Power or natural gas?
- b) Communications systems?
- c) Water?
- d) Sewer or septic tanks?
- e) Storm water drainage?
- f) Solid waste and disposal?

XVII. HUMAN HEALTH. Will the proposal result in :

- a) Creation of any health hazard (excluding mental health)?
- b) Exposure of people to potential health hazards?

XVIII. AESTHETICS. Will the proposal result in:

- a) The obstruction of any scenic vista or view open to the public?
- b) The creation of an aesthetically offensive site open to public view?

XIX. RECREATION. Will the proposal result in:

- a) Impact upon the quality or quantity of existing recreational opportunities?

XX. CULTURAL RESOURCES. Will the proposal result in:

- a) Result in the alteration of or the destruction of a prehistoric or historic archaeological site?
- b) Result in adverse physical or aesthetic effects to a prehistoric or historic building, structure, or object?

- c) The potential to cause a physical change which would affect unique ethnic cultural values?
- d) Restrict existing religious or sacred uses within the potential impact area?

XXI. MANDATORY FINDINGS OF SIGNIFICANCE.

- a) **Potential to degrade:** Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?
- b) **Short-term:** Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals? (A short-term impact on the environment is one which occurs in a relatively, brief definitive period of time. Long-term impacts will endure well into the future.)
- c) **Cumulative:** Does the project have impacts which are individually limited, but cumulatively considerable? (A project may impact on two or more separate resources where the impact on each resource is relatively small, but where the effect on the total of those impacts on the environment is significant.)
- d) **Substantial adverse:** Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

XXII. DISCUSSION OF ENVIRONMENTAL EVALUATION.

(This section may be filled out by using narrative, or by using a form, such as the example given in the CEQA Guidelines.)

XXIII. DISCUSSION OF LAND USE IMPACTS.

(An examination of whether the project would be consistent with existing zoning, plans, and other applicable land use controls.)

DETERMINATION

(To be completed by the Lead Agency.)

On the basis of this initial evaluation:

- I find that the proposed project **COULD NOT** have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.
- I find that although the proposed **COULD HAVE** a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on an attached sheet have been added to the project. A **MITIGATED NEGATIVE DECLARATION** will be prepared.
- I find the proposed project **MAY HAVE** a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.
- I find that the proposed project **MAY HAVE** a significant effect on the environment, but that this project is consistent with a previously prepared **TIERED EIR** on the overall program, plan, policy or ordinance, environmental effects of this project.

Signature

Print Name

Monterey County
For

Date

APPENDIX B.

Proposed Building Square Footages

AIRCRAFT MUSEUM	
Description	Area (sq. ft.)
Display Gallery / Hanger	138,000 s.f.
Workshop	24,200 s.f.
Parts Storage	4,250 s.f.
Theater	1,100 s.f.
Cafeteria	3,000 s.f.
Meeting Rooms	4,900 s.f.
a. Meeting Rooms (4,384 s.f.)	
b. Chair storage closet (500 s.f.)	
c. Kitchenette (16 s.f.)	
Lobby, Sales and Information Counter	1,000 s.f.
Restrooms (men/women)	1,300 s.f.
Offices	1,000 s.f.
Stairs / Elevators / Hallways	2,000 s.f.
Mechanical Room / Janitor's Storage	500 s.f.
TOTAL AREA	181,250 S.F.

Table 2-2

GASOLINE SERVICE STATION (2 each)	
Description	Area (sq. ft.)
Sales Area	1250 s.f.
Gasoline Pump Area	not computed in building area
Storage	620 s.f.
Restrooms (men/women)	130 s.f.
TOTAL AREA (per building)	2,000 s.f.

HOTEL	
Description	Area (sq. ft.)
Lobby Area / Lounge	2,750 s.f.
Registration & Cashiers	440 s.f.
Advance Registration Area	340 s.f.
Administrative Offices	3,040 s.f.
a. Managers office (140 s.f.)	
b. Secretary's area (100 s.f.)	
c. Accounting area (150 s.f.)	
d. Records / supply storeroom (150 s.f.)	
Lobby Restrooms (men/women)	1,400 s.f.
Gift Shop / Concession Area (6 shops)	4,500 s.f.
Meeting Rooms / Banquet Rooms (4 Rooms) / Kitchen Facilities	42,000 s.f.
Restaurant / Cocktail Lounge (see freestanding restaurant)	7,000 s.f.
Guest Rooms (150 rooms @ 250 s.f. each)	37,500 s.f.
Employees Restroom / Locker Room (men/women)	1,000 s.f.
Laundry Facilities	2,000 s.f.
Housekeeping Office	270 s.f.
Mechanical Room's	3,000 s.f.
Delivery / Service Area	1,160 s.f.
Guest Floor Service Area	1,000 s.f.
Storage	5,000 s.f.
Furniture Storage	500 s.f.
Swimming Pool / Jacuzzi	not computed in bldg. area
Sauna Room	500 s.f.
Exercise Room / Gymnasium	1,600 s.f.
Tennis Courts	not computed in bldg. area
Stairways / Corridors / Elevators	20,000 s.f.
TOTAL AREA	135,000 S.F.

RETAIL COMMERCIAL	
Description	Area (sq. ft.)
Retail Area (total floor area of all buildings)	60,000 s.f.
TOTAL AREA	60,000 S.F.

Table 2-5

FAST FOOD RESTAURANT (2 each)	
Description	Area (sq. ft.)
Dining Room	1,650 s.f.
Service / Pick-Up Area	125 s.f.
Scullery Area (dish/pot washing area)	150 s.f.
Freezer / Cooler	200 s.f.
Kitchen Area / Food Prep Area	325 s.f.
Dry Storage	175 s.f.
Restrooms (men/women)	200 s.f.
Manager's Office	100 s.f.
Trash Area	not included in building area
Mechanical Room	75 s.f.
TOTAL AREA	3,000 S.F.

FREE STANDING RESTAURANT

Description	Area (s.f.)
Dining Room(s)	5,000 s.f.
Service / Pick-Up Area	225 s.f.
Scullery Area (dish/pot washing area)	250 s.f.
Freezer / Cooler	350 s.f.
Cooking / Kitchen Area	350 s.f.
Delivery / Service Area	160 s.f.
Dry Storage	200 s.f.
Restrooms (men/women)	1,000 s.f.
Entry Vestibule / Waiting Area / Cashier	400 s.f.
Employee Dressing Rooms (men/women)	100 s.f.
Manager's Office	110 s.f.
Cocktail Lounge Area	1,255 s.f.
Food Preparation Areas	400 s.f.
Trash Area	not included in building area
Mechanical Room	200 s.f.
TOTAL AREA	10,000 S.F.

WINERY

Description	Area (s.f.)
Entry	400 s.f.
Dining Room	1,050 s.f.
Wine Tasting Room	1,500 s.f.
Kitchen (delicatessen)	725 s.f.
Restrooms	725 s.f.
Office	1,300 s.f.
Office	400 s.f.
Mechanical Room	500 s.f.
Fermentation Shed	8,500 s.f.
Wine Storage	2,000 s.f.
Bottling	1,700 s.f.
Hallways	1,600 s.f.
Laboratory	300 s.f.
Wood Tank Room	1,800 s.f.
Barrel Washing Room	1,600 s.f.
Service Court	not in building area
Garden (picnic area)	not in building area
Vineyards	not in building area
Gift Shop	400 s.f.
Employee Dining Area	500 s.f.
Storage	5,000 s.f.
TOTAL AREA	30,000 S.F.

AIRCRAFT STORAGE HANGARS	
Description	Area (s.f.)
Aircraft Storage Hangers	75,375 s.f.
TOTAL AREA	75,375 S.F.

APPENDIX C.

*Erosion Control
Best Management Practices*

3. BMP SELECTION

OVERVIEW

BMPs are generally selected in a three step process:

- **Define BMP Objectives:** Define locations where erosion is likely to occur, and where other construction related pollutants may be generated.
- **Identify BMP Category:** Select the appropriate category or categories of BMPs which address each objective.
- **Select appropriate BMPs:** BMPs for contractor activities and erosion and sedimentation control are chosen from each category based on site constraints, construction requirements, and cost-effectiveness considerations.

Table 3.1 shows the relationship between BMP objectives and categories of BMPs. Chapters 4 and 5 present the particular BMPs by each category, including key information describing appropriate applications and cost-effectiveness considerations. The number in parentheses correspond to the BMP Fact Sheets in Chapters 4 and 5 (CA stands for Contractor Activities and ESC stands for Erosion and Sedimentation Control). The remainder of this chapter outlines a BMP selection process. The selection procedures for post-construction BMPs are discussed briefly at the end of this chapter and in more detail in the Municipal BMP Handbook.

DEFINE BMP OBJECTIVES

Each construction project is unique. Therefore, an understanding of the pollution

risks of the construction activity is essential for selecting and implementing BMPs. Defining these risks requires review of the characteristics of the site and the nature of the construction, information which you should have assembled for the SWPPP. Once these pollution risks are defined, BMP objectives are developed, and BMPs selected. The BMP objectives for construction projects are as follows:

- **Practice Good Housekeeping:** Perform activities in a manner which keeps potential pollutants from either draining or being transported off-site by managing pollutant sources and modifying construction activities.
- **Contain Waste:** Dispose of all construction waste in designated areas, and keep storm water from flowing on to or off of these areas.
- **Minimize Disturbed Areas:** Only clear land which will be actively under construction in the near term (e.g., within the next 6-12 months), minimize new land disturbance during the rainy season, and avoid clearing/disturbing sensitive areas (e.g., steep slopes and natural watercourses) and other areas where site improvements will not be constructed.
- **Stabilize Disturbed Areas:** Provide temporary stabilization of disturbed soils whenever active construction is not occurring on a portion of the site. Provide permanent stabilization during finish grade and landscape the site.

- Protect Slopes and Channels: Outside of approved grading plan area, avoid disturbing steep or unstable slopes. Safely convey runoff from the top of the slope, and stabilize disturbed slopes as quickly as possible. Avoid disturbing natural channels. Stabilize temporary and permanent channel crossings as quickly as possible, and ensure that increases in runoff velocity caused by the project do not erode the channel.
- Control Site Perimeter: Upstream runoff should be diverted around or safely conveyed through the construction project. Local codes usually state that such diversions must not cause downstream property damage or be diverted into another watershed. Runoff from the project site should be free of excessive sediment and other constituents.
- Control Internal Erosion: Detain sediment-laden waters from disturbed, active areas within the site.

Site characteristics and contractor activities affect both the potential for erosion and contamination by other constituents used on the construction site. Before defining BMP objectives, you should carefully consider:

1. Site conditions that affect sedimentation and erosion including:
 - a. Soil type, including underlying soil strata which are likely to be exposed to storm water.
 - b. Natural terrain and slope.
 - c. Final slopes and grades.
 - d. Location of concentrated flows, storm drains, and streams.
 - e. Existing vegetation and ground cover.
2. Climatic factors, which in arid and semi-arid regions include:
 - a. Seasonal rainfall patterns.
 - b. Appropriate design storm
 - quantity of rainfall
 - intensity of rainfall

3. Type of construction activity.
4. Construction schedules.
5. Construction sequencing and phasing of construction.
6. Size of construction project and area to be graded.
7. Location of the construction activity relative to adjacent uses and public improvements.
8. Cost-effectiveness considerations.
9. Types of construction materials and potential pollutants present on-site.

Chapter 2 discussed how these considerations are incorporated into site planning (see Figure 2.3) and design activities.

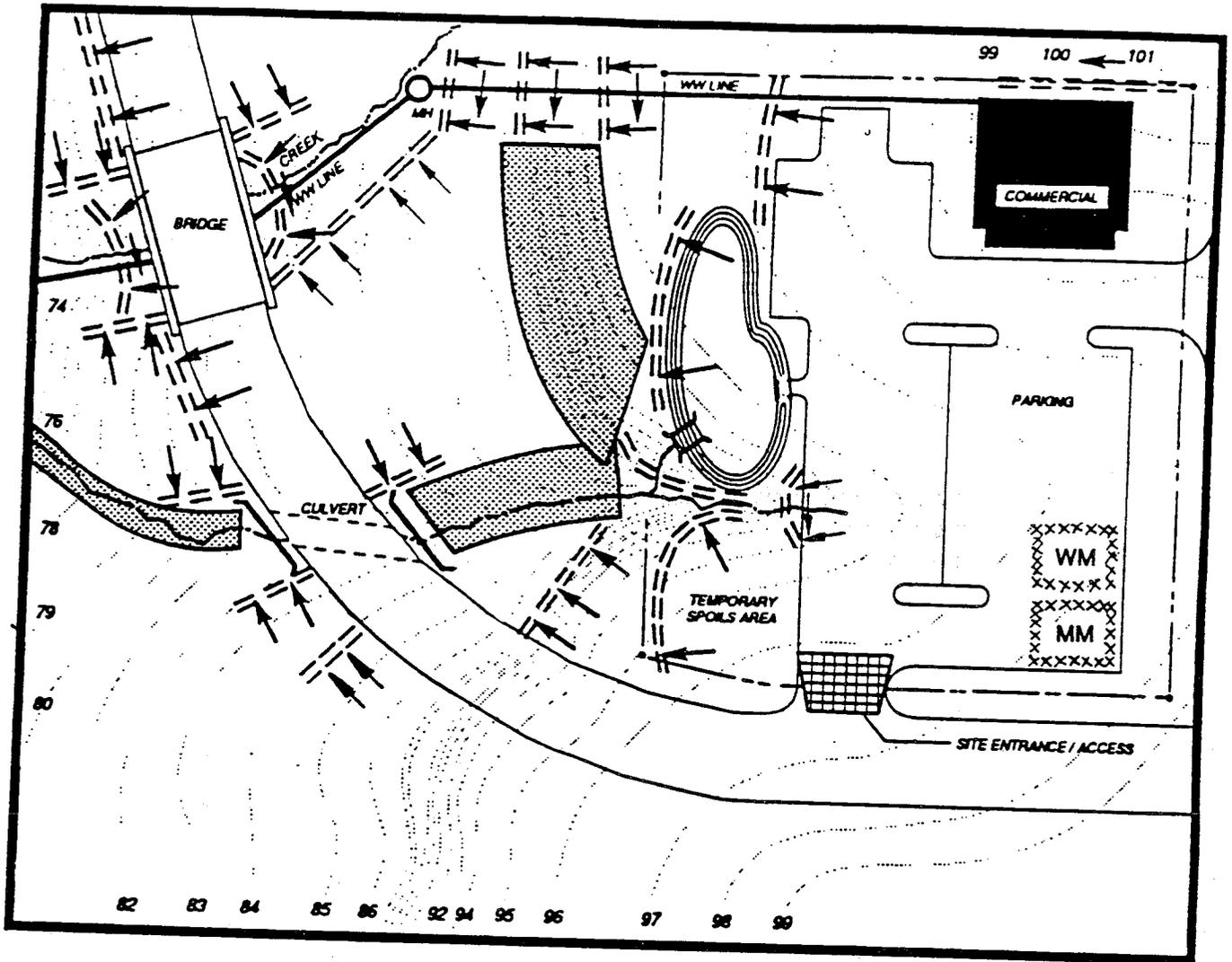
IDENTIFY BMP CATEGORIES

Once the BMP objectives are defined, it is necessary to identify the

category of BMPs that is best suited to meet each objective. A category is a groupings of BMPs which are related in how they control storm water pollution (see Table 3.1). The particular BMP selected from each category depends on the specific site conditions, construction activities, and cost-effectiveness considerations.

To determine where to place categories of BMPs, a map of the project site is prepared (Chapter 2) with sufficient topographic detail to show existing and proposed drainage patterns and existing and proposed permanent storm water control structures. The project site map should identify the following:

- Locations where storm water enters and exits the site. Include both sheet and channel flow for the existing and final grading contours.



BMP CATEGORIES

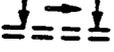
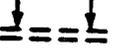
- 
MM MATERIAL MANAGEMENT
- 
WM WASTE MANAGEMENT
- 
SITE PLANNING
- 
PHYSICAL STABILIZATION
- 
DIVERSION
- 
VELOCITY REDUCTION
- 
SEDIMENT TRAPPING
- 
POST-CONSTRUCTION



FIGURE 3.1 SELECTION OF BMP CATEGORIES

planning considerations are generally discussed in Section 2, with each site planning BMP described in detail in the first section of Chapter 5. These BMPs all have a similar goal, which is to minimize the amount of the site subject to erosion. Consider the following BMPs:

1. Do not disturb any portion of the site unless an improvement is to be constructed there.
2. The staging and timing of construction can minimize the size of exposed areas and the length of time the areas are exposed and subject to erosion.
3. The staging of grading operations should limit the amount of areas exposed to erosion at any one time. Only the areas that are actively involved in cut and fill operations or are otherwise being graded should be exposed. Exposed areas should be stabilized as soon as grading is complete in that area.
4. Retain existing vegetation and ground cover where feasible, especially along watercourses and along the downstream perimeter of the site.
5. Do not clear any portion of the site until active construction begins.
6. Quickly complete construction on each portion of the site.
7. Install landscaping and other improvements that permanently stabilize each part of the site immediately after the land has been graded to its final contour.
8. Minimize the amount of denuded areas and any new grading activities during the wet months of October through April.
9. Construct post-construction storm water control facilities (e.g., detention basins) early in the project and use for sediment trapping, slope stabilization, velocity reduction, etc. during the construction period.

Site Stabilization BMPs

Vegetative Stabilization

- Seeding and Planting (ESC10)
- Mulching (ESC11)

Physical Stabilization

- Geotextiles and Mats (ESC20)
- Dust Control (ESC21)
- Temporary Stream Crossing (ESC22)
- Construction Road Stabilization (ESC23)
- Stabilized Construction Entrance (ESC24)

STABILIZE DISTURBED AREAS

The purpose of site stabilization BMPs is to prevent erosion by covering disturbed soil. This covering may be vegetative, chemical, or physical (see box, above). Any exposed soil is subject to erosion--either by rainfall striking the ground, runoff flowing over the soil, wind blowing across the soil, and vehicles driving on the soil. Thus all exposed soils should be stabilized except where active construction is in progress. Locations on a construction site which are particularly subject to erosion and should be stabilized as soon as possible include:

- Slopes
- Highly erosive soils
- Construction entrances
- Stream channels
- Soil stockpiles

Stabilize disturbed areas keeping in mind the following:

1. As a rule, native vegetation in undisturbed areas represents the "baseline" for erosion control. The Subdivision Map Act provides language to limit erosion to pre-development levels. Thus, retaining native vegetation in undisturbed areas provides the first and best line of defense against erosion and sedimentation and does so at least cost to the contractor, while minimizing the requirement to revegetate or provide structural controls.

for using BMPs for perimeter control may be considered.

1. Divert upstream runoff around or through the construction site (according to local drainage policies) with no contact with exposed soils or construction activities (i.e., the diversion of runoff BMP category);
2. Runoff from areas upslope of those that have been denuded should not be allowed to cross the exposed soils, particularly when the denuded areas are on slopes (i.e., the diversion of runoff BMP category);
3. Leave a vegetative barrier along the property boundary and interior water courses (i.e., the site planning BMP category); and
4. Trap and remove sediment in runoff from the construction site before it leaves the property (i.e., the sediment trapping BMP category).

Perimeter controls should be placed everywhere runoff enters or leaves the site. They are usually installed just before clearing, grubbing and rough grading begin. Perimeter controls for all but the smallest projects will become overloaded by both runoff and sediment, and should be supplemented by additional controls within the interior of the construction site once rough grading is complete.

Runoff which is free of excessive sediment should be diverted around disturbed areas of the construction site and other locations highly susceptible to erosion. If possible, the runoff should be diverted to stabilized areas where the runoff can be retained and allowed to soak into the ground, or into stabilized drainage ways with sufficient hydraulic capacity to convey any increases in flow. Major flow diversions (i.e., from areas greater than 1 acre) should be designed according to local design standards, and approved by the local municipality as part of the project approval process. This avoids potential flood damage to the construction site or downstream areas. When possible, permanent drainage structures should be built

early in the construction project to collect and convey flow diversions.

Runoff Diversion BMPS

- Earth Dike (ESC30)
- Temporary Drains/
Swales/Drains (ESC31)
- Slope Drain (ESC32)

Note: Runoff diversions from areas greater than 1 acre should be constructed according to local drainage design criteria.

Several types of temporary runoff diversions are described in this Handbook (see box, above). Runoff diversions should be considered in the following situations:

1. Divert upslope water around unvegetated areas of the construction site with dikes, swales, or temporary storm drains.
2. Divert runoff to soils able to absorb water (areas which are vegetated, mulched, or where surface roughening exists).
3. Dikes and ditches are the two most common BMPs to divert upland runoff away from a disturbed area; to intercept runoff on cut or fill slopes; and to prevent runoff from entering a disturbed area, such as a group of building pads.
4. Upstream, off-site flow can be taken to the downstream area of the project site and released (according to local drainage policies) back into the natural drainage pattern. A spreading basin or other **temporary** form of energy dissipator may be needed for large diverted flows or at the base of steep slopes.
5. Perimeter channel or berm to divert flow should not flood, cause erosion or otherwise adversely impact surrounding properties. While structures designed for

SELECTION OF POST-CONSTRUCTION BMPs

Most post-construction BMPs will be proposed by the developer

early in the planning stage of a project.

Usually, these BMPs will be oriented toward municipal requirements established in a master plan or by ordinance. For most projects, there will be no single BMP which addresses all the post-construction storm water quality problems. Instead, a multi-level strategy will be worked out with the local municipality which incorporates source controls, on-site treatment controls, and community-wide treatment controls. This section provides a brief discussion of selecting post-construction BMPs from the owner/developers perspective. A more thorough discussion may be found in Chapters 3, 4, and 5 of the Municipal Handbook.

SOURCE CONTROL BMPs

The following six categories of source control BMPs are described in Chapter 4 of the Municipal Handbook:

- **Planning Management:** Municipalities may regulate through zoning ordinances, subdivision ordinances, or buffer/setback requirements the amount of runoff from a site. The municipality may discourage development in environmentally sensitive areas. For a specific project, the developer may achieve these goals by minimizing the impervious area that is directly connected to the drainage system, and by incorporating setbacks from surface waters.
- **Materials Management:** The objective of these BMPs is to minimize the opportunity for rainfall or runoff to come into contact with pollutants. Commercial and industrial project designs should be adopted to keep pollutant storage/use/disposal areas out of floodplains, away from drainage paths, under cover, and/or in containment areas.

- **Spill Prevention:** Spill prevention BMPs should be incorporated into project design by using containments, leak-resistant materials, and accessways for proper cleanup.
- **Illegal Dumping:** Signs may be installed at inlets or along drainageways, and brochures may be distributed to residents/tenants of new facilities to increase awareness about illegal dumping.
- **Illegal Connections:** Most municipalities will have ordinances, and may require inspection of construction sites, to prevent connections to the storm water system from non-storm water sources. This includes connections of floor drains, washdown areas, septic tank overflows, and the like.
- **Street/Storm Drain Maintenance:** Infrastructure maintenance after construction will be required and may be performed by the municipality or property owner. Such BMPs would include street sweeping, catch basin cleaning, and drainage structure cleanouts. Maintenance considerations (e.g., easements, access, disposal) should be integrated into the infrastructure when designed.

TREATMENT CONTROL BMPs

When are treatment control BMPs needed? No clear answer to this question exists in the regulations or general permits. The decision to provide a treatment control BMP should be made during the planning/design phase for a project. The municipality may have conducted a master plan (or equivalent planning procedures) to determine where on-site and community-wide facilities are appropriate. Where on-site facilities are needed, the municipality would most likely define the performance standards through ordinances or policies. Typical performance standards include holding peak flow and/or runoff volume after construction equal to runoff peak flow/volume before development, or capture of a specific amount of runoff. Where community-wide facilities are desired, the developer may need to

SANITARY SEWER FLOW QUANTITIES G.P.D.

NOTE: Flows from table B, Title 15-35, Chapter 15.20 Monterey County Code, Revised 1989.

1.	Winery		
	a. Dinning:	40 Seats x 30 G.P.D.	= 1200 GPD
	b. Tasting:	40 Seats x 15 G.P.D.	= 600 GPD
	c. Kitchen:		= 1000 GPD
	d. Laboratory:		= 500 GPD
	e. Employee Dinning:	5 Seats x 30 G.P.D.	= 150 GPD
	f. Restrooms:	2 each x 400 G.P.D.	= 400 GPD
		SUB-TOTAL	= 4,250 GPD
2.	Museum		
	a. Cafeteria:		= 3500 GPD
	b. Restrooms:	6 Each x 400 G.P.D.	= 2400 GPD
		SUB-TOTAL	= 5,900 GPD
3.	Hanger:	20 Persons/W.Showers x35G.P.D.	= 700 GPD
4.	Service Stations:	2 Each x150 VPD x10 G.P.D.	= 3000 GPD
5.	Fast Food:	2 Each x 3500 G.P.D.	= 7000 GPD
6.	Retail Commercial:	1 Restroom per ea 2000 sq ft. = $\frac{60000}{2000} \times 400$ G.P.D.	=12,000 GPD
7.	Hotel:		
	a. Suites:	150 Each x 60 G.P.D.	= 9000 GPD
	b. Restaurant:	150 Seats x 30 G.P.D.	= 4500 GPD
	c. Bar:	50 Seats x 15 G.P.D.	= 750 GPD
	d. Kitchen:		= 1000 GPD
	e. Restrooms:	6 each x 400 G.P.D.	= 2400 GPD
	f. Laundry:	150 RMS x 50 G.P.D. 1 Washer per 4 Rms	= 1875 GPD
	g. Banquet Rooms:	250 Seats @ 1/3 Occupancy = 250 x 30 G.P.D.	= 2500 GPD
	h. Banquet Kitchen:		= 1000 GPD
		SUB-TOTAL	=23,025 GPD
8.	Restaurant:		
	a. Dinning:	160 Seats x 30 G.P.D.	= 4800 GPD
	b. Bar:	10 Seats x 15 G.P.D.	= 150 GPD
	c. Kitchen:		= 1000 GPD
	d. Restrooms:	2 Each x 400 G.P.D.	= 800 GPD
		SUB-TOTAL	=6,750 GPD
		GRAND TOTAL	62,625 G.P.D.

APPENDIX E.

*Traffic Analysis
Worksheets*

TRAFFIC IMPACT ANALYSIS

INTERSECTION CAPACITY CALCULATION -- GREER & CO., Engineers and Planners

YANKS AIR MUSEUM, GREENFIELD, CA.
EL CAMINO REAL/US 101 SB OFFRAMP/ THORNE RD

EXISTING GEOMETRICS

P.M. PEAK HOUR
DATE : 3 Jul-94

DIREC- TION	** EXISTING **					** PRE - PROJECT **					** POST - PROJECT **				
	VOLUMES/ #LANES	VOLUMES TOTAL/LANE/CRITICAL				1996 VOLUMES/ #LANES	VOLUMES TOTAL/LANE/CRITICAL				1997 PHASE 2 VOLUMES/ # LANE	VOLUMES TOTAL/LANE/CRITICAL			
North bound	2 Left	0	0	0	0	2 Left	0	0	0	0	2 Left	0	0	0	0
	Thr-Lft	0				Thr-Lft	0				Thr-Lft	0			
	1 Through	1	3	3		1 Through	1	3	3		1 Through	1	3	3	
	Thr-Rt	0			3	Thr-Rt	0			3	Thr-Rt	0			3
0 Right	0	0	0		0 Right	0	0	0		0 Right	0	0	0		
	CODE	1				CODE	1				CODE	1			
West bound	0 Left	0	0	0	0	0 Left	0	0	0	0	0 Left	0	0	0	0
	Thr-Lft	0				Thr-Lft	0				Thr-Lft	0			
	0 Through	0	0	0		0 Through	0	0	0		0 Through	0	0	0	
	Thr-Rt	0			0	Thr-Rt	0			0	Thr-Rt	0			0
0 Right	0	0	0		0 Right	0	0	0		0 Right	0	0	0		
	CODE	0				CODE	0				CODE	0			
South bound	0 Left	0	0	0	0	0 Left	0	0	0	0	0 Left	0	0	0	0
	Thr-Lft	0				Thr-Lft	0				Thr-Lft	0			
	204 Through	1	214	214		213 Through	1	223	223		442 Through	1	453	453	
	Thr-Rt	0			214	Thr-Rt	0			223	Thr-Rt	0			453
10 Right	0	0	0		10 Right	0	0	0		11 Right	0	0	0		
	CODE	1				CODE	1				CODE	1			
East bound	0 Left	0	0	0	0	0 Left	0	0	0	0	0 Left	0	0	0	0
	Thr-Lft	0				Thr-Lft	0				Thr-Lft	0			
	0 Through	1	7	7		0 Through	1	7	7		0 Through	1	7	7	
	Thr-Rt	0			7	Thr-Rt	0			7	Thr-Rt	0			7
7 Right	0	0	0		7 Right	0	0	0		7 Right	0	0	0		
	CODE	3				CODE	3				CODE	3			
			TOTAL	224				TOTAL	233				TOTAL	463	
	2 PHASES	CAPACITY	1500			2 PHASES	CAPACITY	1500			2 PHASES	CAPACITY	1500		
		V/C	0.15				V/C	0.16				V/C	0.31		
		LOS	A				LOS	A				LOS	A		

INTERSECTION CAPACITY CALCULATION -- GREER & CO., Engineers and Planners

YANKS AIR MUSEUM, GREENFIELD, CA.
EL CAMINO REAL/US 101 SB OFFRAMP/ THORNE RD

EXISTING GEOMETRICS

P.M. PEAK HOUR
DATE : 6 Jul-94

USA BUILDOUT							USA BUILDOUT + PROJECT							USA BUILDOUT + PROJECT						
DIREC-TION	VOLUMES/ #LANES		VOLUMES TOTAL/LANE/CRITICAL				VOLUMES/ #LANES		VOLUMES TOTAL/LANE/CRITICAL				VOLUMES/ # LANE		VOLUMES TOTAL/LANE/CRITICAL					
North bound	24	Left	0	0	0	0	24	Left	0	0	0	0	0	Left	0	0	0	0		
		Thr-Lft	0					Thr-Lft	0					Thr-Lft	0					
	1	Through	1	25	25		1	Through	1	25	25		0	Through	1	0	0			
		Thr-Rt	0			25		Thr-Rt	0			25		Thr-Rt	0			0		
	0	Right	0	0	0		0	Right	0	0	0		0	Right	0	0	0			
		CODE	1					CODE	1					CODE	1					
West bound	0	Left	0	0	0	0	0	Left	0	0	0	0	0	Left	0	0	0	0		
		Thr-Lft	0					Thr-Lft	0					Thr-Lft	0					
	0	Through	0	0	0		0	Through	0	0	0		0	Through	0	0	0			
		Thr-Rt	0			0		Thr-Rt	0			0		Thr-Rt	0			0		
	0	Right	0	0	0		0	Right	0	0	0		0	Right	0	0	0			
		CODE	0					CODE	0					CODE	0					
South bound	0	Left	0	0	0	0	0	Left	0	0	0	0	0	Left	0	0	0	0		
		Thr-Lft	0					Thr-Lft	0					Thr-Lft	0					
	408	Through	1	428	428		634	Through	1	654	654		0	Through	1	0	0			
		Thr-Rt	0			428		Thr-Rt	0			654		Thr-Rt	0			0		
	20	Right	0	0	0		20	Right	0	0	0		0	Right	0	0	0			
		CODE	1					CODE	1					CODE	1					
East bound	0	Left	0	0	0	0	0	Left	0	0	0	0	0	Left	0	0	0	0		
		Thr-Lft	0					Thr-Lft	0					Thr-Lft	0					
	0	Through	1	14	14		0	Through	1	14	14		0	Through	1	0	0			
		Thr-Rt	0			14		Thr-Rt	0			14		Thr-Rt	0			0		
	14	Right	0	0	0		14	Right	0	0	0		0	Right	0	0	0			
		CODE	3					CODE	3					CODE	3					
TOTAL						467	TOTAL						693	TOTAL						0
2 PHASES CAPACITY						1500	2 PHASES CAPACITY						1500	2 PHASES CAPACITY						1500
V/C						0.31	V/C						0.46	V/C						0.00
LOS						A	LOS						A	LOS						A

INTERSECTION CAPACITY CALCULATION -- GREER & CO., Engineers and Planners

YANKS AIR MUSEUM, GREENFIELD, CA.
EL CAMINO REAL/US 101 SB ONRAMP

EXISTING GEOMETRICS

A.M. PEAK HOUR
DATE: 3 Jul-94

DIRECTION	** EXISTING **					** PRE - PROJECT **					** POST - PROJECT **						
	VOLUMES/	# LANES	VOLUMES TOTAL/LANE/CRITICAL			1996 VOLUMES/	# LANES	VOLUMES TOTAL/LANE/CRITICAL			1997 PHASE 2 VOLUMES/	# LANE	VOLUMES TOTAL/LANE/CRITICAL				
North bound	0	Left	0	0	0	0	Left	0	0	0	0	Left	0	0	0		
		Thr-Lft	0				Thr-Lft	0					Thr-Lft	0			
	3	Through	1	285	285	3	Through	1	297	297	3	Through	1	342	342		
		Thr-Rt	0				Thr-Rt	0				Thr-Rt	0				
	282	Right	0	0	0	294	Right	0	0	0	339	Right	0	0	0		
		CODE	1				CODE	1				CODE	1				
West bound	65	Left	0	0	0	68	Left	0	0	0	214	Left	0	0	0		
		Thr-Lft	0				Thr-Lft	0				Thr-Lft	0				
	0	Through	1	67	67	0	Through	1	70	70	0	Through	1	216	216		
		Thr-Rt	0				Thr-Rt	0				Thr-Rt	0				
	2	Right	0	0	0	2	Right	0	0	0	2	Right	0	0	0		
		CODE	3				CODE	3				CODE	3				
South bound	8	Left	0	0	0	8	Left	0	0	0	172	Left	0	0	0		
		Thr-Lft	0				Thr-Lft	0				Thr-Lft	0				
	112	Through	1	120	120	117	Through	1	125	125	120	Through	1	292	292		
		Thr-Rt	0				Thr-Rt	0				Thr-Rt	0				
	0	Right	0	0	0	0	Right	0	0	0	0	Right	0	0	0		
		CODE	1				CODE	1				CODE	1				
East bound	0	Left	0	0	0	0	Left	0	0	0	0	Left	0	0	0		
		Thr-Lft	0				Thr-Lft	0				Thr-Lft	0				
	0	Through	0	0	0	0	Through	0	0	0	0	Through	0	0	0		
		Thr-Rt	0				Thr-Rt	0				Thr-Rt	0				
	0	Right	0	0	0	0	Right	0	0	0	0	Right	0	0	0		
		CODE	0				CODE	0				CODE	0				
				TOTAL	472				TOTAL	492				TOTAL	850		
			2 PHASES	CAPACITY	1500				2 PHASES	CAPACITY	1500				2 PHASES	CAPACITY	1500
			V/C		0.31				V/C		0.33				V/C		0.57
			LOS	A					LOS	A				LOS	A		

INTERSECTION CAPACITY CALCULATION -- GREER & CO., Engineers and Planners

YANKS AIR MUSEUM, GREENFIELD, CA.
EL CAMINO REAL/US 101 SB ONRAMP

EXISTING GEOMETRICS

P.M. PEAK HOUR
DATE : 3 Jul-94

DIRECTION	** EXISTING **						** PRE - PROJECT **						** POST - PROJECT **					
	VOLUMES/ #LANES		VOLUMES TOTAL/LANE/CRITICAL				1996 VOLUMES/ #LANES		VOLUMES TOTAL/LANE/CRITICAL				1997 PHASE 2 VOLUMES/ # LANE		VOLUMES TOTAL/LANE/CRITICAL			
North bound	0	Left	0	0	0	0	0	Left	0	0	0	0	0	Left	0	0	0	0
		Thr-Lft	0					Thr-Lft	0					Thr-Lft	0			
	1	Through	1	241	241		1	Through	1	252	252		1	Through	1	307	307	
		Thr-Rt	0			241		Thr-Rt	0			252		Thr-Rt	0			307
	240	Right	0	0	0		251	Right	0	0	0		306	Right	0	0	0	
		CODE	1					CODE	1					CODE	1			
West bound	39	Left	0	0	0	0	41	Left	0	0	0	0	308	Left	0	0	0	0
		Thr-Lft	0					Thr-Lft	0					Thr-Lft	0			
	0	Through	1	41	41	41	0	Through	1	43	43	43	0	Through	1	310	310	310
		Thr-Rt	0					Thr-Rt	0					Thr-Rt	0			
	2	Right	0	0	0		2	Right	0	0	0		2	Right	0	0	0	
		CODE	3					CODE	3					CODE	3			
South bound	5	Left	0	0	0	0	5	Left	0	0	0	0	231	Left	0	0	0	0
		Thr-Lft	0					Thr-Lft	0					Thr-Lft	0			
	206	Through	1	211	211	211	215	Through	1	220	220	220	218	Through	1	449	449	449
		Thr-Rt	0					Thr-Rt	0			220		Thr-Rt	0			449
	0	Right	0	0	0		0	Right	0	0	0		0	Right	0	0	0	
		CODE	1					CODE	1					CODE	1			
East bound	0	Left	0	0	0	0	0	Left	0	0	0	0	0	Left	0	0	0	0
		Thr-Lft	0					Thr-Lft	0					Thr-Lft	0			
	0	Through	0	0	0	0	0	Through	0	0	0	0	0	Through	0	0	0	0
		Thr-Rt	0			0		Thr-Rt	0			0		Thr-Rt	0			0
	0	Right	0	0	0		0	Right	0	0	0		0	Right	0	0	0	
		CODE	0					CODE	0					CODE	0			
				TOTAL	493					TOTAL	515					TOTAL	1066	
		2 PHASES	CAPACITY	1500					2 PHASES	CAPACITY	1500				2 PHASES	CAPACITY	1500	
		V/C		0.33					V/C		0.34				V/C		0.71	
		LOS	A						LOS	A					LOS	C		

INTERSECTION CAPACITY CALCULATION -- GREER & CO., Engineers and Planners

YANKS AIR MUSEUM, GREENFIELD, CA.
EL CAMINO REAL/US 101 SB ONRAMP

WITH MITIGATION

P.M. PEAK HOUR
DATE : 6 Jul-94

** EXISTING **						** PRE - PROJECT **						** POST - PROJECT **					
DIRECTION	VOLUMES					1996	VOLUMES					1997 PHASE 2	VOLUMES				
	VOLUMES/	#LANES	TOTAL/LANE/CRITICAL				VOLUMES/	#LANES	TOTAL/LANE/CRITICAL				VOLUMES/	#LANE	TOTAL/LANE/CRITICAL		
North bound	0	Left	0	0	0	0	Left	0	0	0	0	Left	0	0	0		
		Thr-Lft	0				Thr-Lft	0				Thr-Lft	0				
	1	Through	1	241	241	1	Through	1	252	252	1	Through	1	307	307		
		Thr-Rt	0		241		Thr-Rt	0		252		Thr-Rt	0		307		
	240	Right	0	0	0	251	Right	0	0	0	306	Right	0	0	0		
		CODE	1				CODE	1				CODE	1				
West bound	39	Left	0	0	0	41	Left	0	0	0	90	Left	0	0	0		
		Thr-Lft	0				Thr-Lft	0				Thr-Lft	0				
	0	Through	1	41	41	0	Through	1	43	43	0	Through	1	92	92		
		Thr-Rt	0		41		Thr-Rt	0		43		Thr-Rt	0		92		
	2	Right	0	0	0	2	Right	0	0	0	2	Right	0	0	0		
		CODE	3				CODE	3				CODE	3				
South bound	5	Left	0	0	0	5	Left	0	0	0	231	Left	0	0	0		
		Thr-Lft	0				Thr-Lft	0				Thr-Lft	0				
	206	Through	1	211	211	215	Through	1	220	220	218	Through	1	449	449		
		Thr-Rt	0		211		Thr-Rt	0		220		Thr-Rt	0		449		
	0	Right	0	0	0	0	Right	0	0	0	0	Right	0	0	0		
		CODE	1				CODE	1				CODE	1				
East bound	0	Left	0	0	0	0	Left	0	0	0	0	Left	0	0	0		
		Thr-Lft	0				Thr-Lft	0				Thr-Lft	0				
	0	Through	0	0	0	0	Through	0	0	0	0	Through	0	0	0		
		Thr-Rt	0		0		Thr-Rt	0		0		Thr-Rt	0		0		
	0	Right	0	0	0	0	Right	0	0	0	0	Right	0	0	0		
		CODE	0				CODE	0				CODE	0				
TOTAL					493	TOTAL					515	TOTAL					848
2 PHASES CAPACITY					1500	2 PHASES CAPACITY					1500	2 PHASES CAPACITY					1500
V/C					0.33	V/C					0.34	V/C					0.57
LOS					A	LOS					A	LOS					A

INTERSECTION CAPACITY CALCULATION -- GREER & CO., Engineers and Planners

YANKS AIR MUSEUM, GREENFIELD, CA.
EL CAMINO REAL/US 101 SB ONRAMP

EXISTING GEOMETRICS

P.M. PEAK HOUR
DATE : 6 Jul-94

USE BUILDOUT						USA BUILDOUT + PROJECT														
DIREC- TION	VOLUMES/ #LANES		VOLUMES TOTAL/LANE/CRITICAL			VOLUMES/ #LANES	VOLUMES TOTAL/LANE/CRITICAL		VOLUMES/ # LANE	VOLUMES TOTAL/LANE/CRITICAL										
North bound	0	Left	0	0	0	0	Left	0	0	0	0	Left	0	0	0					
		Thr-Lft	0				Thr-Lft	0				Thr-Lft	0							
	12	Through	1	171	171	171	Through	1	220	220	220	Through	1	0	0					
		Thr-Rt	0				Thr-Rt	0				Thr-Rt	0		0					
	159	Right	0	0	0	208	Right	0	0	0	0	Right	0	0	0					
		CODE	1				CODE	1				CODE	1							
West bound	119	Left	0	0	0	386	Left	0	0	0	0	Left	0	0	0					
		Thr-Lft	0				Thr-Lft	0				Thr-Lft	0							
	0	Through	1	131	131	408	Through	1	408	408	408	Through	1	0	0					
		Thr-Rt	0		131		Thr-Rt	0				Thr-Rt	0		0					
	12	Right	0	0	0	22	Right	0	0	0	0	Right	0	0	0					
		CODE	3				CODE	3				CODE	3							
South bound	10	Left	0	0	0	236	Left	0	0	0	0	Left	0	0	0					
		Thr-Lft	0				Thr-Lft	0				Thr-Lft	0							
	412	Through	1	422	422	412	Through	1	648	648	648	Through	1	0	0					
		Thr-Rt	0		422		Thr-Rt	0				Thr-Rt	0		0					
	0	Right	0	0	0	0	Right	0	0	0	0	Right	0	0	0					
		CODE	1				CODE	1				CODE	1							
East bound	0	Left	0	0	0	0	Left	0	0	0	0	Left	0	0	0					
		Thr-Lft	0				Thr-Lft	0				Thr-Lft	0							
	0	Through	0	0	0	0	Through	0	0	0	0	Through	0	0	0					
		Thr-Rt	0		0		Thr-Rt	0		0		Thr-Rt	0		0					
	0	Right	0	0	0	0	Right	0	0	0	0	Right	0	0	0					
		CODE	0				CODE	0				CODE	0							
TOTAL					724	TOTAL					1276	TOTAL					0			
2 PHASES					CAPACITY	1500	2 PHASES					CAPACITY	1500	2 PHASES					CAPACITY	1500
V/C					0.48	V/C					0.85	V/C					0.00			
LOS					A	LOS					D	LOS					A			

INTERSECTION CAPACITY CALCULATION -- GREER & CO., Engineers and Planners

YANKS AIR MUSEUM, GREENFIELD, CA.
EL CAMINO REAL/US 101 SB ONRAMP

WITH MITIGATION

P.M. PEAK HOUR
DATE : 6 Jul-94

USE BUILDOUT						USA BUILDOUT + PROJECT						TOTAL						
DIREC-TION	VOLUMES/ #LANES		VOLUMES TOTAL/LANE/CRITICAL			DIREC-TION	VOLUMES/ #LANES		VOLUMES TOTAL/LANE/CRITICAL			DIREC-TION	VOLUMES/ #LANES		VOLUMES TOTAL/LANE/CRITICAL			
North bound	0	Left	0	0	0	0	0	Left	0	0	0	0	0	Left	0	0	0	
		Thr-Lft	0					Thr-Lft	0					Thr-Lft	0			
	12	Through	1	171	171		12	Through	1	220	220		0	Through	1	0	0	
		Thr-Rt	0		0			Thr-Rt	0		220			Thr-Rt	0		0	
	159	Right	0	0	0		208	Right	0	0	0		0	Right	0	0	0	
		CODE	1					CODE	1					CODE	1			
West bound	119	Left	0	0	0	168	Left	0	0	0	0	0	Left	0	0	0		
		Thr-Lft	0					Thr-Lft	0					Thr-Lft	0			
	0	Through	1	131	131		0	Through	1	190	190		0	Through	1	0	0	
		Thr-Rt	0		131			Thr-Rt	0		190			Thr-Rt	0		0	
	12	Right	0	0	0		22	Right	0	0	0		0	Right	0	0	0	
		CODE	3					CODE	3					CODE	3			
South bound	10	Left	1	10	10	0	236	Left	1	236	236	236	0	Left	1	0	0	0
		Thr-Lft	0					Thr-Lft	0					Thr-Lft	0			
	412	Through	1	412	412	412		Through	1	412	412	0		Through	1	0	0	
		Thr-Rt	0		412			Thr-Rt	0		0			Thr-Rt	0		0	
	0	Right	0	0	0		0	Right	0	0	0		0	Right	0	0	0	
		CODE	1					CODE	1					CODE	1			
East bound	0	Left	0	0	0	0	Left	0	0	0	0	0	Left	0	0	0	0	
		Thr-Lft	0					Thr-Lft	0					Thr-Lft	0			
	0	Through	0	0	0		0	Through	0	0	0		0	Through	0	0	0	
		Thr-Rt	0		0			Thr-Rt	0		0			Thr-Rt	0		0	
	0	Right	0	0	0		0	Right	0	0	0		0	Right	0	0	0	
		CODE	0					CODE	0					CODE	0			
TOTAL 543						TOTAL 646						TOTAL 0						
2 PHASES CAPACITY 1500						2 PHASES CAPACITY 1500						2 PHASES CAPACITY 1500						
V/C 0.36						V/C 0.43						V/C 0.00						
LOS A						LOS A						LOS A						

INTERSECTION CAPACITY CALCULATION -- GREER & CO., Engineers and Planners

YANKS AIR MUSEUM, GREENFIELD, CA.
EL CAMINO REAL/US 101 NB ONRAMP

EXISTING GEOMETRICS

A.M. PEAK HOUR
DATE : 3 Jul-94

DIREC- TION	** EXISTING **					** PRE - PROJECT **					** POST - PROJECT **				
	VOLUMES/ #LANES	VOLUMES TOTAL/LANE/CRITICAL			1996 VOLUMES/ #LANES	VOLUMES TOTAL/LANE/CRITICAL			1997 PHASE 2 VOLUMES/ # LANE	VOLUMES TOTAL/LANE/CRITICAL					
North bound	0 Left	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Thr-Lft	0													
	224 Through	1	226	226	233	235	235	235	240	443	443	443	443		
	2 Thr-Rt	0		226	2	0	0	235	203	0	0	0	0		
	2 Right	0	0	0	2	0	0	0	0	0	0	0	0		
	CODE	1			CODE	1			CODE	1					
West bound	3 Left	0	0	0	3	0	0	0	148	0	0	0	0		
	Thr-Lft	0													
	0 Through	1	5	5	0	5	5	5	0	269	269	269	269		
	2 Thr-Rt	0		5	2	0	0	5	121	0	0	0	269		
	2 Right	0	0	0	2	0	0	0	0	0	0	0	0		
	CODE	1			CODE	1			CODE	1					
South bound	0 Left	0	0	0	0	0	0	0	0	0	0	0	0		
	Thr-Lft	0													
	0 Through	0	0	0	0	0	0	0	0	0	0	0	0		
	0 Thr-Rt	0		0	0	0	0	0	0	0	0	0	0		
	0 Right	0	0	0	0	0	0	0	0	0	0	0	0		
	CODE	1			CODE	1			CODE	1					
East bound	0 Left	0	0	0	0	0	0	0	0	0	0	0	0		
	Thr-Lft	0													
	4 Through	1	68	68	4	71	71	71	168	236	236	236	236		
	64 Thr-Rt	0		68	67	0	0	71	68	0	0	0	236		
	64 Right	0	0	0	67	0	0	0	0	0	0	0	0		
	CODE	1			CODE	1			CODE	1					
	TOTAL		299		TOTAL		311		TOTAL		948				
	2 PHASES	CAPACITY	1500		2 PHASES	CAPACITY	1500		2 PHASES	CAPACITY	1500				
	V/C		0.20		V/C		0.21		V/C		0.63				
	LOS	A			LOS	A			LOS	B					

INTERSECTION CAPACITY CALCULATION -- GREER & CO., Engineers and Planners

YANKS AIR MUSEUM, GREENFIELD, CA.
EL CAMINO REAL/US 101 NB ONRAMP

EXISTING GEOMETRICS

P.M. PEAK HOUR
DATE : 3 Jul-94

DIRECTION	** EXISTING **					** PRE - PROJECT **					** POST - PROJECT **					
	VOLUMES/	#LANES	VOLUMES			VOLUMES/	#LANES	VOLUMES			VOLUMES/	#LANE	VOLUMES			
			TOTAL/LANE/CRITICAL			1996		TOTAL/LANE/CRITICAL			1997 PHASE 2		TOTAL/LANE/CRITICAL			
North bound	0	Left	0	0	0	0	Left	0	0	0	0	Left	0	0	0	
		Thr-Lft	0				Thr-Lft	0				Thr-Lft	0			
	186	Through	1	189	189	195	Through	1	198	198	200	Through	1	478	478	
		Thr-Rt	0				Thr-Rt	0		198		Thr-Rt	0		478	
	3	Right	0	0	0	3	Right	0	0	0	278	Right	0	0	0	
		CODE	1				CODE	1				CODE	1			
West bound	2	Left	0	0	0	2	Left	0	0	0	269	Left	0	0	0	
		Thr-Lft	0				Thr-Lft	0				Thr-Lft	0			
	0	Through	1	4	4	0	Through	1	4	4	0	Through	1	489	489	
		Thr-Rt	0		4		Thr-Rt	0		4		Thr-Rt	0		489	
	2	Right	0	0	0	2	Right	0	0	0	220	Right	0	0	0	
		CODE	1				CODE	1				CODE	1			
South bound	0	Left	0	0	0	0	Left	0	0	0	0	Left	0	0	0	
		Thr-Lft	0				Thr-Lft	0				Thr-Lft	0			
	0	Through	0	0	0	0	Through	0	0	0	0	Through	0	0	0	
		Thr-Rt	0		0		Thr-Rt	0		0		Thr-Rt	0		0	
	0	Right	0	0	0	0	Right	0	0	0	0	Right	0	0	0	
		CODE	1				CODE	1				CODE	1			
East bound	0	Left	0	0	0	0	Left	0	0	0	0	Left	0	0	0	
		Thr-Lft	0				Thr-Lft	0				Thr-Lft	0			
	1	Through	1	40	40	1	Through	1	42	42	227	Through	1	268	268	
		Thr-Rt	0		40		Thr-Rt	0		42		Thr-Rt	0		268	
	39	Right	0	0	0	41	Right	0	0	0	41	Right	0	0	0	
		CODE	1				CODE	1				CODE	1			
			TOTAL	233					TOTAL	244					TOTAL	1235
2 PHASES			CAPACITY	1500		2 PHASES			CAPACITY	1500		2 PHASES			CAPACITY	1500
			V/C	0.16					V/C	0.16					V/C	0.82
			LOS	A					LOS	A					LOS	D

INTERSECTION CAPACITY CALCULATION -- GREER & CO., Engineers and Planners

YANKS AIR MUSEUM, GREENFIELD, CA.
EL CAMINO REAL/US 101 NB ONRAMP

WITH MITIGATION

P.M. PEAK HOUR
DATE : 3 Jul-94

DIREC- TION	** EXISTING **					** PRE - PROJECT **					** POST - PROJECT **									
	VOLUMES/ #LANES		VOLUMES TOTAL/LANE/CRITICAL			1996 VOLUMES/ #LANES		VOLUMES TOTAL/LANE/CRITICAL			1997 PHASE 2 VOLUMES/ # LANE		VOLUMES TOTAL/LANE/CRITICAL							
North bound	0	Left	0	0	0	0	Left	0	0	0	0	Left	0	0	0	0				
		Thr-Lft	0				Thr-Lft	0					Thr-Lft	0						
	186	Through	1	186	186	195	Through	1	195	195	200	Through	1	200	200					
		Thr-Rt	0				Thr-Rt	0				Thr-Rt	0				278			
	3	Right	1	3	3	3	Right	1	3	3	278	Right	1	278	278					
		CODE	1				CODE	1				CODE	1							
West bound	2	Left	1	2	2	2	Left	1	2	2	2	269	Left	1	269	269	269			
		Thr-Lft	0				Thr-Lft	0					Thr-Lft	0						
	0	Through	0	0	0	0	Through	0	0	0	0	Through	0	0	0	0				
		Thr-Rt	0				Thr-Rt	0					Thr-Rt	0				0		
	2	Right	1	2	2	2	Right	1	2	2	220	Right	1	220	220					
		CODE	1				CODE	1				CODE	1							
South bound	0	Left	0	0	0	0	Left	0	0	0	0	Left	0	0	0	0				
		Thr-Lft	0				Thr-Lft	0					Thr-Lft	0						
	0	Through	0	0	0	0	Through	0	0	0	0	Through	0	0	0	0				
		Thr-Rt	0				Thr-Rt	0					Thr-Rt	0				0		
	0	Right	0	0	0	0	Right	0	0	0	0	Right	0	0	0	0				
		CODE	1				CODE	1				CODE	1							
East bound	0	Left	0	0	0	0	Left	0	0	0	0	Left	0	0	0	0				
		Thr-Lft	0				Thr-Lft	0					Thr-Lft	0						
	1	Through	1	40	20	39	Through	1	42	21	41	227	Through	1	268	134	134			
		Thr-Rt	1				Thr-Rt	1					Thr-Rt	1						
	39	Right	0	0	0	41	Right	0	0	0	41	Right	0	0	0					
		CODE	1				CODE	1				CODE	1							
				TOTAL	227				TOTAL	238					TOTAL	681				
				2 PHASES	CAPACITY	1500				2 PHASES	CAPACITY	1500					2 PHASES	CAPACITY	1500	
				V/C	0.15				V/C	0.16					V/C	0.45			V/C	0.45
				LOS	A				LOS	A				LOS	A			LOS	A	

INTERSECTION CAPACITY CALCULATION -- GREER & CO., Engineers and Planners

YANKS AIR MUSEUM, GREENFIELD, CA.
EL CAMINO REAL/US 101 NB ONRAMP

EXISTING GEOMETRICS

P.M. PEAK HOUR
DATE : 6 Jul-94

USA BUILDOUT						USA BUILDOUT + PROJECT						USA BUILDOUT + PROJECT					
DIREC-TION	VOLUMES/ #LANES		VOLUMES TOTAL/LANE/CRITICAL			DIREC-TION	VOLUMES/ #LANES		VOLUMES TOTAL/LANE/CRITICAL			DIREC-TION	VOLUMES/ #LANES		VOLUMES TOTAL/LANE/CRITICAL		
North bound	0	Left	0	0	0	0	0	Left	0	0	0	0	0	Left	0	0	0
		Thr-Lft	0					Thr-Lft	0					Thr-Lft	0		
	143	Through	1	146	146		143	Through	1	421	421		0	Through	1	0	0
		Thr-Rt	0		146			Thr-Rt	0		421			Thr-Rt	0		0
	3	Right	0	0	0	278	Right	0	0	0		0	Right	0	0	0	
		CODE	1					CODE	1				CODE	1			
West bound	2	Left	0	0	0	269	Left	0	0	0	0	0	Left	0	0	0	
		Thr-Lft	0					Thr-Lft	0					Thr-Lft	0		
	0	Through	1	4	4		0	Through	1	489		489	0	Through	1	0	0
		Thr-Rt	0		4			Thr-Rt	0			489		Thr-Rt	0		0
	2	Right	0	0	0	220	Right	0	0	0		0	Right	0	0	0	
		CODE	1					CODE	1				CODE	1			
South bound	0	Left	0	0	0	0	Left	0	0	0	0	0	Left	0	0	0	
		Thr-Lft	0					Thr-Lft	0					Thr-Lft	0		
	0	Through	0	0	0		0	Through	0	0		0	0	Through	0	0	0
		Thr-Rt	0		0			Thr-Rt	0			0		Thr-Rt	0		0
	0	Right	0	0	0	0	Right	0	0	0		0	Right	0	0	0	
		CODE	1					CODE	1				CODE	1			
East bound	0	Left	0	0	0	0	Left	0	0	0	0	0	Left	0	0	0	
		Thr-Lft	0					Thr-Lft	0					Thr-Lft	0		
	1	Through	1	130	130		227	Through	1	356		356	0	Through	1	0	0
		Thr-Rt	0		130			Thr-Rt	0			356		Thr-Rt	0		0
	129	Right	0	0	0	129	Right	0	0	0		0	Right	0	0	0	
		CODE	1					CODE	1				CODE	1			
TOTAL					280	TOTAL					1266	TOTAL					0
2 PHASES CAPACITY					1500	2 PHASES CAPACITY					1500	2 PHASES CAPACITY					1500
V/C					0.19	V/C					0.84	V/C					0.00
LOS					A	LOS					D	LOS					A

INTERSECTION CAPACITY CALCULATION -- GREER & CO., Engineers and Planners

YANKS AIR MUSEUM, GREENFIELD, CA.
EL CAMINO REAL/US 101 NB ONRAMP

WITH MITIGATION

P.M. PEAK HOUR
DATE : 6 Jul-94

USA BUILDOUT						USA BUILDOUT + PROJECT											
DIRECTION	VOLUMES/ #LANES		VOLUMES TOTAL/LANE/CRITICAL			VOLUMES/ #LANES	VOLUMES TOTAL/LANE/CRITICAL			VOLUMES/ #LANE	VOLUMES TOTAL/LANE/CRITICAL						
North bound	0	Left	0	0	0	0	Left	0	0	0	0	Left	0	0	0		
		Thr-Lft	0				Thr-Lft	0				Thr-Lft	0				
	143	Through	1	143	143	143	Through	1	143	143	278	Through	1	0	0		
	3	Thr-Rt	0		143		Thr-Rt	0				Thr-Rt	0		0		
	Right	1	3	3		Right	1	278	278		Right	1	0	0			
	CODE	1				CODE	1				CODE	1					
West bound	2	Left	1	2	2	269	Left	1	269	269	269	0	Left	1	0		
		Thr-Lft	0				Thr-Lft	0				Thr-Lft	0		0		
	0	Through	0	0	0	0	Through	0	0	0	0	Through	0	0	0		
	2	Thr-Rt	0		0		Thr-Rt	0		0	0	Thr-Rt	0		0		
	Right	1	2	2		Right	1	220	220		Right	1	0	0			
	CODE	1				CODE	1				CODE	1					
South bound	0	Left	0	0	0	0	Left	0	0	0	0	0	Left	0	0		
		Thr-Lft	0				Thr-Lft	0				Thr-Lft	0		0		
	0	Through	0	0	0	0	Through	0	0	0	0	Through	0	0	0		
	0	Thr-Rt	0		0		Thr-Rt	0		0	0	Thr-Rt	0		0		
	Right	0	0	0		Right	0	0	0		Right	0	0	0			
	CODE	1				CODE	1				CODE	1					
East bound	0	Left	0	0	0	0	Left	0	0	0	0	0	Left	0	0		
		Thr-Lft	0				Thr-Lft	0				Thr-Lft	0		0		
	1	Through	1	130	65	129	Through	1	356	178	178	Through	1	0	0		
	129	Thr-Rt	1		129		Thr-Rt	1				Thr-Rt	1		0		
	Right	0	0	0		Right	0	0	0		Right	0	0	0			
	CODE	1				CODE	1				CODE	1					
TOTAL					274	TOTAL					725	TOTAL					0
2 PHASES CAPACITY					1500	2 PHASES CAPACITY					1500	2 PHASES CAPACITY					1500
V/C					0.18	V/C					0.48	V/C					0.00
LOS					A	LOS					A	LOS					A

INTERSECTION LEVEL OF SERVICE DEFINITIONS

<u>Level of Service</u>	<u>Corresponding Volume-to-Capacity Ratio</u>	<u>Interpretation</u>
A	< 0.60	Uncongested operations; all queues clear in a single cycle.
B	0.60 - 0.70	Stable operation; an occasional approach phase is fully utilized.
C	0.71 - 0.80	Light congestion; occasional backups on critical approaches.
D	0.81 - 0.90	Significant congestion on critical approaches but intersection functional. Cars required to wait through more than one cycle during short peaks. Not long standing queues formed.
E	0.91 - 1.00	Severe congestion with some long standing queues on critical approaches. Blockage of intersection may occur if traffic signal does not provide for protected turning movements. Traffic queue may block nearby intersection(s) upstream of critical approach(es).
F.	> 1.00	Total breakdown, stop-and-go operation.

Source: Highway Capacity Manual, Highway Research Board Special Report 87, 1965.

INTERSECTION CAPACITY CALCULATION -- GREER & CO., Engineers and Planners

YANKS AIR MUSEUM, GREENFIELD, CA.
EL CAMINO REAL/US 101 SB OFFRAMP/ THORNE RD

EXISTING GEOMETRICS

A.M. PEAK HOUR
DATE : 3 Jul-94

DIREC- TION	** EXISTING **					** PRE - PROJECT **					** POST - PROJECT **				
	VOLUMES/ #LANES	VOLUMES TOTAL/LANE/CRITICAL				1996 VOLUMES/ #LANES	VOLUMES TOTAL/LANE/CRITICAL				1997 PHASE 2 VOLUMES/ # LANE	VOLUMES TOTAL/LANE/CRITICAL			
North bound	3	Left	0	0	0	3	Left	0	0	0	3	Left	0	0	0
		Thr-Lft	0				Thr-Lft	0				Thr-Lft	0		
	2	Through	1	5	5	2	Through	1	5	5	2	Through	1	5	5
	0	Right	0	0	0	0	Right	0	0	0	0	Right	0	0	0
	CODE	1				CODE	1				CODE	1			
West bound	0	Left	0	0	0	0	Left	0	0	0	0	Left	0	0	0
		Thr-Lft	0				Thr-Lft	0				Thr-Lft	0		
	0	Through	0	0	0	0	Through	0	0	0	0	Through	0	0	0
	0	Right	0	0	0	0	Right	0	0	0	0	Right	0	0	0
	CODE	0				CODE	0				CODE	0			
South bound	0	Left	0	0	0	0	Left	0	0	0	0	Left	0	0	0
		Thr-Lft	0				Thr-Lft	0				Thr-Lft	0		
	111	Through	1	119	119	116	Through	1	124	124	282	Through	1	290	290
	8	Right	0	0	0	8	Right	0	0	0	8	Right	0	0	0
	CODE	1				CODE	1				CODE	1			
East bound	0	Left	0	0	0	0	Left	0	0	0	0	Left	0	0	0
		Thr-Lft	0				Thr-Lft	0				Thr-Lft	0		
	0	Through	1	9	9	0	Through	1	9	9	0	Through	1	10	10
	9	Right	0	0	0	9	Right	0	0	0	9	Right	0	0	0
	CODE	3				CODE	3				CODE	3			
			TOTAL	133				TOTAL	138				TOTAL	305	
	2 PHASES	CAPACITY	1500		2 PHASES	CAPACITY	1500		2 PHASES	CAPACITY	1500				
		V/C	0.09			V/C	0.09			V/C	0.20				
		LOS	A			LOS	A			LOS	A				

APPENDIX F.

*Air Quality Worksheets/
AMBAG Consistency Determination*

Project Name : YANKS AIR MUSEUM

Date : 01-30-1996

Analysis Year = 2000

Temperature = 70

EMFAC7 VERSION : EMFAC7D ...11/88

Unit Type	Trip Rate	Size	Tot Trips	Days Op.
Commercial Retail	1.0/store	2440	2440	1
Winery	1.0/store	310	310	1
Aircraft Hangars	1.0/store	397	397	1
Museum	1.0/store	274	274	1
Restaurant (Fast Food)	1.0/store	1112	1112	1
Restaurant (Sit Down)	1.0/store	270	270	1
Hotel	1.0/store	522	522	1
Gas Stations	1.0/store	1311	1311	1
RV Park	1.0/store	6	6	1

	Residential			Commercial	
	Home-Work	Home-Shop	Home-Other	Work	Non-Work
Trip Length	8.4	15.0	40.0	8.4	8.4
% Started Cold	88.3	40.2	58.3	77.4	27.2
Trip Speed	35	35	35	35	35
Percent Trip	27.3	21.2	51.5		

Vehicle Fleetmix

Vehicle Type	Percent Type	Leaded	Unleaded	Diesel
Light Duty Autos	72.8	0.2	97.3	2.5
Light Duty Trucks	14.3	0.6	96.8	2.6
Medium Duty Trucks	4.3	2.0	98.0	0.0
Heavy Duty Trucks	3.9	18.0	82.0	N/A
Heavy Duty Trucks	3.9	N/A	N/A	100.0
Motorcycles	0.9	100.0	N/A	N/A

Project Emissions Report in Lb/Day

Unit Type	TOG	CO	NOx
Commercial Retail	32.1	314.9	64.7
Winery	4.2	42.6	8.3
Aircraft Hangars	5.2	50.8	10.5
Museum	4.3	46.8	7.4
Restaurant (Fast Food)	14.5	141.2	29.5
Restaurant (Sit Down)	3.6	35.0	7.2
Hotel	7.1	71.7	13.9
Gas Stations	17.0	164.4	34.7
RV Park	0.1	0.8	0.2

Project Emissions Report in Lb/Day

Unit Type	FUEL USE	PM10	SOx
-----------	----------	------	-----

Commercial Retail	845.2	60.5	7.9
Winery	107.4	16.5	1.0
Aircraft Hangars	137.5	8.0	1.3
Museum	94.9	6.8	0.9
Restaurant (Fast Food)	385.2	17.3	3.6
Restaurant (Sit Down)	93.5	7.3	0.9
Hotel	180.8	27.7	1.7
Gas Stations	454.1	10.5	4.3
RV Park	2.1	0.0	0.0



MONTEREY BAY
Unified Air Pollution Control District

-serving Monterey, San Benito, and Santa Cruz counties

AIR POLLUTION CONTROL OFFICER
Doug Quetin

24580 Silver Cloud Court • Monterey, California 93940 • 408/647•9411 • FAX 408/647•8501

October 3, 1995

Nick Hall
Denise Duffy & Associates
546-A Hartnell Street
Monterey, CA 93940

SUBJECT: CONSISTENCY DETERMINATION FOR YANK'S AIR MUSEUM

Dear Mr. Hall:

This letter responds to your September 20, 1995 request for a consistency determination for the Yank's Air Museum proposal. The project would include:

- ▶ 180,000 sq. ft. aircraft museum and 30,000 sq. ft. winery
- ▶ 150-room hotel
- ▶ 60,000 sq. ft. retail
- ▶ 2 gasoline stations
- ▶ 50-60 aircraft tiedowns in aircraft storage hangars
- ▶ 7,000 sq. ft. restaurant, including 2 fast food restaurants

These uses will include services that are geared towards tourists from outside the region. Consistency for commercial uses not associated with population growth is determined by assessing whether ozone precursor emissions from such uses have been accommodated for in the AQMP for the Monterey Bay Region.

Staff finds that the proposed 150-room hotel is within the growth in hotel and motel facilities that is accommodated by the AQMP between 1987 and 2000. As such, the hotel land use is consistent with the 1994 AQMP. In addition, the remaining commercial land uses which would be related to the hotel use and are determined to be consistent with the 1994 AQMP.

If you have any further questions, please call Douglas Kim of planning staff.

Sincerely,

Janet Brennan
Senior Planner, Planning and
Air Monitoring Division

CHAIR:
Alan Styles
Salinas

DISTRICT BOARD MEMBERS

VICE CHAIR:
Ruth Kesler
San Benito County

PAM/dk

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Larry Cain
San Juan Bautista

John Myers
King City

Simon Salinas
Monterey County

Edith Johnsen
Monterey County

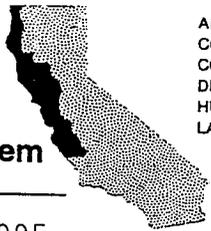
Judy Pennycook
Monterey County

Walt Symons
Santa Cruz County

APPENDIX G.

Archaeological Records Search

**Historical
Resources
Information System**



ALAMEDA
COLUSA
CONTRA COSTA
DEL NORTE
HUMBOLDT
LAKE

MARIN
MENDOCINO
MONTEREY
NAPA
SAN BENITO
SAN FRANCISCO

SAN MATEO
SANTA CLARA
SANTA CRUZ
SOLANO
SONOMA
YOLO

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Rohnert Park, California 94928-3609
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December 14, 1995

File No: 95-426

Nick Hall
Project Manager
Denise Duffy and Associates
546 A Hartnell Street
Monterey, CA 93940

re: Archaeological Record Search for Proposed Airstrip/Aircraft Museum
Development

Dear Mr. Hall:

Review of records and literature on file at this office indicates that the proposed project area contains no recorded Native American or historic cultural resources listed with the Northwest Information Center. State and federal inventories list no historic properties within the project area. This office has no record of an archaeological study of the project area.

At Euroamerican contact the Native Americans that lived in the area spoke Salinan, a version of the Hokan language (Levy 1978:485). Native American archaeological sites in this portion of Monterey County tend to be situated on midslope terraces and alluvial plains near former and existing watercourses. The project area is located on an alluvial plain far from a sources of water. Given the environmental setting of the project area there is a low potential for Native American sites in the project area.

Review of historic literature and maps on file in this office gave no indications of historic archaeological sites or historic structures in the project area. There is a low possibility of identifying historic cultural resources in the project area.

RECOMMENDATIONS:

1) There is a low possibility of identifying cultural resources in the project area and further archival and field study by an archaeologist is not recommended at this time.

2) Review for possible historic structures has included only those sources listed in the attached bibliography and should not be considered comprehensive with respect to architecture. The Office of Historic Preservation has determined that buildings and structures 45 years or older may be of historic value. If the project area contains such properties, they should be evaluated, prior to commencement of project activities.

3) If cultural resources are encountered during the project, avoid altering the materials and their context until a cultural resource consultant has evaluated the situation. Project personnel should not collect cultural resources. Prehistoric resources include chert or obsidian flakes, projectile points, mortars, and pestles; and dark friable soil containing shell and bone dietary debris, heat-affected rock, or human burials. Historic resources include stone or adobe foundations or walls; structures and remains with square nails; and refuse deposits, often in old wells and privies.

4) Identified cultural resources should be recorded on forms DPR 422 (archaeological sites) and/or DPR 523 (historic properties) or similar forms.

Thank you for using our services. Please contact our office if you have any questions, (707) 664-2494.

Sincerely,


Lynn Compas
Researcher II

LITERATURE REVIEWED

In addition to archaeological maps and site records on file at the Northwest Information Center, California Archaeological Inventory, the following literature was reviewed:

Gudde, Erwin G.

- 1969 **California Place Names: The Origin and Etymology of Current Geographical Names.** Third Edition. University of California Press, Berkeley and Los Angeles.

Hester, Thomas Roy

- 1978 Salinan. In **California**, edited by Robert F. Heizer, pp. 500-504. Handbook of North American Indians, vol. 8, William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

Hoover, Mildred Brooke, Hero Eugene Rensch, and Ethel Rensch, revised by William N. Abeloe

- 1966 **Historic Spots in California.** Third Edition. Stanford University Press, Stanford.

Hoover, Mildred Brooke, Hero Eugene Rensch, and Ethel Rensch, William N. Abeloe, revised by Douglas E. Kyle

- 1990 **Historic Spots in California.** Fourth Edition. Stanford University Press, Stanford.

Kroeber, A.L.

- 1925 Handbook of the Indians of California. **Bureau of American Ethnology**, Bulletin 78, Smithsonian Institution, Washington, D.C. (Reprint by Dover Publications, Inc., New York, 1976)

Monterey County Historical Society, Inc.

- n.d. List of Surveyed Sites for Salinas Historic Survey. Monterey County Historical Society, Inc., Salinas.

National Park Service (compiler)

- 1993a National Register of Historic Places Index by Property Location: Listed Properties (Computer Listing for 1966 through 29 September 1995). National Park Service, United States Department of the Interior, Washington, D.C.

- 1992b National Register of Historic Places Index by Property Location: Determined Eligible Properties (Computer Listing for 1966 through 29 September 1995). National Park Service, United States Department of the Interior, Washington, D.C.

State of California Department of Parks and Recreation

- 1976 **California Inventory of Historic Resources.** State of California Department of Parks and Recreation, Sacramento.

State of California Office of Historic Preservation
1995 Historic Properties Directory. Listing by City (through 29
September 1995). State of California Office of Historic
Preservation, Sacramento.