

FINAL EIR

RESPONSE TO COMMENTS
ON THE
CARMEL VALLEY
ROAD IMPROVEMENT PLAN
ENVIRONMENTAL IMPACT REPORT

Prepared For:

County of Monterey
Department of Public Works and
Planning Department

November 1991

Planning Analysis & Development

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NOTICE OF PUBLIC HEARING

NOTICE IS HEREBY GIVEN that the County of Monterey, State of California, Board of Supervisors will hold a certification hearing on the Final Environmental Impact Report (EIR) #89-005 prepared for the Carmel Valley Master Plan Traffic Policy project. Said hearing has been scheduled for December 17, 1991 at 10:15 a.m. at the Board of Supervisors Chambers, Monterey County Courthouse East Wing, 2nd floor at Alisal and Church Streets in Salinas, California.

The Final EIR document is available for review at the Harrison Memorial Library in Carmel, three copies in Reference at Monterey City Library, three copies in Reference at the Carmel Valley Branch of the County Library and three copies in Reference at the Village in Carmel Valley. Loan copies (3 each) are also available at the Planning and Building Inspection offices at the Courthouses at Aguajito Road in Monterey and in Salinas. Phone questions about availability of copies should be made at 755-5025 (Planning and Building Inspection Department) Monday through Friday or at 647-7820 (Planning staff in Monterey Tuesdays and Thursdays).

MONTEREY COUNTY PLANNING AND
BUILDING INSPECTION DEPARTMENT

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Draft

Environmental Impact Report

CARMEL VALLEY ROAD IMPROVEMENT PLAN

Prepared For:

**The County of Monterey
Department of Public Works and
Planning Department**

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**CHAPTER ONE
INTRODUCTION**

A. REASONS FOR PREPARING THIS EIR

The Purpose of this EIR

Policy 39.3.2.1 of the Carmel Valley Master Plan (CVMP) requires monitoring and reporting of traffic conditions in Carmel Valley to determine whether traffic thresholds are being reached. On October 11, 1988, the Monterey County Board of Supervisors found that traffic volumes on Carmel Valley Road had not exceeded the threshold levels for purposes of policy 39.3.2.1 of the CVMP. However, because traffic threshold conditions were being approached in certain areas, the Board directed staff to proceed with the preparation of an EIR addressing traffic impacts and mitigations on Carmel Valley Road.

The Monterey County Planning and Public Works Departments authorized this EIR to evaluate the traffic impacts of the CVMP and to refine the traffic analysis contained in the Carmel Valley Master Plan EIR (County EIR #850002). This EIR integrates the environmental effects of the CVMP circulation and land use elements so that informed and economical decisions can be made with regard to balancing growth with transportation needs.

Background and History

Planning for the Carmel Valley has been the focus of intense and enduring public interest for more than a decade. The chief planning goals have been the retention of rural qualities including scenic resources and open space, and growth control. One of the more obvious manifestations of conflicts between environmental preservation and growth is traffic, which is thought by many to threaten the rural quality of the Valley. To address this problem, a growth limit and traffic "traffic thresholds" were established as mitigation measures in the 1984 CVMP EIR. These mitigations were adopted as policies of the current Carmel Valley Master Plan.

The growth limit for Carmel Valley was set in 1986 at 1,310 residential lots, including 572 existing and buildable vacant lots of record, and 425 visitor-accommodating units (hotel or motel rooms). There is no numerical limit on commercial development such as office and retail space. However, commercial development is limited to the six small areas designated for commercial use in the Carmel Valley Master Plan.

The CVMP EIR recommended periodic monitoring of traffic conditions in the Valley to determine whether the traffic thresholds identified in the traffic threshold policy were being reached, and if so where. On-going counts and analyses were conducted by the County Department of Public Works, but a degree of controversy has arisen due to variations in the traffic counts obtained for Carmel Valley Road. Because the traffic threshold has the potential to suspend growth and development in the Valley, it is important that reliable methods of monitoring traffic conditions be utilized in analyses.

The Objectives of this EIR

The objectives of this EIR are to present an independent and comprehensive review of the existing and expected traffic conditions in Carmel Valley, and make recommendations for traffic improvements that provide the desired level of service while maintaining rural quality. This EIR addresses them by:

- Updating and refining the existing CVMP traffic analysis in view of recent public comments and concerns;
- Providing a basis for approvals of future development considering traffic thresholds and environmental issues;
- Explaining methods of traffic analysis commonly used today, and their applicability to the Carmel Valley;
- Explaining the relationship between current traffic counts, projected increases and growth in background traffic levels;
- Match transportation improvements that are physically and economically feasible with the growth limits of the Carmel Valley Master Plan; and
- Recommending a circulation improvement program including cost allocation principles regarding who should pay for them.

B. TYPE OF EIR

This is a Subsequent EIR to the Carmel Valley Master Plan EIR (1986) which focuses on traffic improvements. The 1986 EIR evaluated the impacts of the 1984 Carmel Valley Master Plan. It was a full EIR that addressed the complete range of pertinent environmental issues. The present EIR should be read in conjunction with the 1986 CVMP EIR by those interested in a full environmental assessment of the Carmel Valley Master Plan. The EIR is on file with the Monterey County Planning Department and Building Inspection Department in Salinas.

Section 15162 of the California Environmental Quality Act (CEQA) Guidelines requires that a Subsequent EIR be prepared when any of the following circumstances have occurred:

- *There are changes in the project [or plan] which require important revisions of the previous EIR due to the involvement of significant new impacts not considered in that EIR;*
- *There are changes in the environmental conditions which require revisions to the previous EIR due to the involvement of significant new impacts not considered in that EIR; and*
- *New information of substantial importance to the project [or plan] becomes available regarding the kind and degree of impacts that will occur.*

All of the circumstances listed above have occurred regarding the 1986 CVMP EIR.

The changes which require the present EIR relate to traffic volumes and service levels in Carmel Valley. Although growth has proceeded as planned, the traffic increases have exceeded expectations. If traffic volumes approach thresholds established in the CVMP, policy 39.3.2.1(CV) would be activated. The policy states, in part, that:

With respect to those 12 identified road segments that are at level of service (LOS) C or below, approval of development will be deferred if the approval would significantly impact roads in the Carmel Valley Master Plan area which are at level of service (LOS) C or below unless and until an EIR is prepared which includes mitigation measures necessary to raise the LOS to an acceptable level . . .

This EIR includes mitigation measures to bring traffic levels of service within the acceptable range as defined by the CVMP.

The contents of this EIR supplement the traffic, noise and air quality sections of the 1986 CVMP EIR. The present EIR evaluates these impacts anew, based on existing conditions as well as new land use and traffic projections.

This is a Program EIR as defined in the CEQA Guidelines as it addresses the impacts of the transportation improvement program in the Carmel Valley Master Plan. CEQA Section 15168 states that:

A Program EIR may be prepared on a series of actions that can be characterized as one large project and are related either:

- (1) Geographically,*
- (2) A [sic] logical parts in the chain of contemplated actions,*
- (3) In connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program, or*
- (4) As individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways.*

Program EIRs can be used to simplify and streamline the preparation of future EIRs and Negative Declarations. The information in the Program EIR can be used in preparation of Initial Studies and to focus EIRs on just those impacts that had not been considered in the Program EIR. This EIR can be used to determine whether another EIR needs to be prepared for specific traffic improvement projects when they are implemented. The Program EIR need not itself address the impacts of such projects. For example, the site specific environmental impacts of the four-laning of a portion of Carmel Valley Road are not assessed in this Program EIR, because a separate project EIR is being prepared. In the case of another improvement, such as construction of a left-turn pocket, new environmental documentation might not be required. If it can be shown that there would be no new impacts or mitigation measures beyond those identified in this EIR or the 1986 Carmel Valley Master Plan EIR, the County could approve the left turn pocket without a new EIR.

C. ALTERNATIVES TO THE PROPOSED PROJECT

Four alternatives to the proposed project are discussed in this EIR, plus variations on the "no project alternative." Each would reduce or eliminate impacts associated with the growth permitted under the Carmel Valley Master Plan. These alternatives include the following:

Alternative A: *No Project Followed by a Moratorium on Development, Assuming the Hatton Canyon Freeway is Built.*

Alternative B: *No Project Followed by a Moratorium, Assuming the Hatton Canyon Freeway is Not Built.*

Alternative C: *No Project Followed by Build-out Without the Hatton Canyon Freeway.*

Alternative D: *Preferred Project without the Hatton Canyon Freeway.*

Alternative E: *Low Cost Alternative.*

Alternative F: *Transit Alternative.*

Alternative G: *Reduced Commercial Alternative.*

D. ISSUES OF CONTROVERSY

Planning in the Carmel Valley has been the focus of public attention for over a decade. The environmental issues of controversy addressed in this EIR include the following:

- Existing and future traffic conditions;
- Public safety on Valley roadways; and
- Preservation of rural quality.

A public scoping session for this EIR was held in Carmel Valley on August 17, 1989. At that meeting, numerous concerns were expressed by members of the community. These included the following:

- Appropriateness of the analytical methods used to determine traffic conditions;
- Air pollution due to traffic;
- Cumulative traffic from outside the Valley;

- Potential to increase the use of transit;
- The types of impact fees that can be levied to fund needed traffic improvements; and
- Impacts on rare and endangered plants and animals due to road construction.

E. ISSUES TO BE RESOLVED

The Monterey County Planning Commission and Board of Supervisors will need to decide the following:

- Whether to refine and/or adopt additional growth controls and transportation improvement policies;
- The type of funding program to meet the County's needs; and
- Whether or how to mitigate the significant impacts of the project.

F. HOW THIS EIR IS ORGANIZED

This EIR contains nine chapters, which are described below.

- Chapter One consists of an introduction to the report.
- Chapter Two contains a summary of the significant adverse impacts and mitigation measures.
- Chapter Three presents the project description.
- Chapter Four presents a discussion of the methodology and research design for this EIR.
- Chapter Five presents a discussion of the physical, social and environmental setting of the Carmel Valley; the potential impacts of the project; and mitigation measures to reduce or eliminate adverse impacts if the project is implemented.
- Chapter Six describes the significant adverse impacts that could not be avoided if the project were to be implemented, as required by the California Environmental Quality Act (CEQA) Guidelines.

- Chapter Seven describes and discusses the impacts of alternatives to the proposed project.

The remaining chapters provide information that is supplementary to the EIR.

- Chapter Eight identifies the EIR authors and the persons consulted in the preparation of the report.
- Chapter Nine contains technical appendices which provide supplementary information and tables for the Traffic, Land Use, Air Quality and Noise sections of the EIR.

The reader is encouraged to review the technical appendices prior to reading this EIR. Appendix B-1 is especially helpful in understanding levels of service and other traffic engineering terminology, while Appendix B-2 aids understanding of traffic data gathering.

CHAPTER TWO
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATIONS

This chapter presents a summary of significant impacts and recommended mitigation measures for traffic, noise, air quality and natural factors. Beneficial as well as adverse impacts are noted. *In parentheses is the page where a more complete description of an impact or mitigation measure can be found. Please note that the impact and mitigation numbers in this summary are not the same as those that appear in Chapter 5. This summary includes significant adverse impacts only, while all impacts are discussed in Chapter 5.*

Traffic Impacts

The traffic segments referred to below are shown in Figure 2, page 3-6.

- Impact 1:** Segment 2B was operating at LOS C in June of 1990, and will degrade to LOS D by 1995. This degradation is counter to the level of service policy; and segment 2B needs to be considered for improvement to mitigate the impact. (p. 5A-13)
- Impact 2:** Segment 2B will degrade from existing LOS C to LOS D by 1995. The Carmel Valley Master Plan includes no improvements for this segment. (p. 5A-18)
- Impact 3:** The left turn level of service on segment 3 would degrade from LOS C to LOS D. Thus, improvements to facilitate left turns will be needed along Carmel Valley Road from the mouth of the Valley to Ford Road. (Left turn LOS is not governed by policies of the CVMP.) (p. 5A-15)
- Impact 4:** The left turn level of service on segment 5 would degrade from LOS D to LOS E. (Left turn LOS is not governed by policies of the CVMP.) (p. 5A-15)
- Impact 5:** Segments 6 and 7 left turn level of service will degrade from LOS E to LOS F. The widening project would actually make left turns more difficult by making Carmel Valley Road twice as wide to cross. (p. 5A-13)

- Impact 6:** The level of service on segments 8 and 9 is already F and will remain that way. (p. 5A-13)
- Impact 7:** One new signalized intersection will be created on Carmel Valley Road in conjunction with the Hatton Canyon Freeway. The level of service at this location is projected to be D for 2000 and level of service E for 2005. (p. 5A-18)
- Impact 8:** The planned new interchange of the Hatton Canyon Freeway with Carmel Valley Road will operate at LOS E in the year 2005. This is counter to the CVMP policy to maintain Level of Service C. (p. 5A-18)

Accidents

- Impact 9:** For the road segments that would not be changed by the CVMP improvements (1, 2A, 2B, 8 and 9), the annual number of accidents will increase in proportion to the increase in traffic volume. (p. 5A-17)
- Impact 10:** Higher than normal accident rates will remain at Via Mallorca and along segment 2B in the Village. The CVMP includes no improvements at via Mallorca or on segment 2B. Left turn lanes would not improve the existing situation. (p. 5A-19)

Cumulative Traffic Impacts

- Impact 11:** Left turns from cross-streets will operate at LOS D or worse on all segments from the mouth of the Valley to Ford Road. The CVMP includes turn pockets for left turns from Carmel Valley Road, but these will not help left turns from cross-streets. (Left turn LOS is not governed by policies of the CVMP) (p. 5A-18)
- Impact 12:** The intersection of Carmel Valley Road at Carmel Rancho Boulevard will be improved in conjunction with the Hatton Canyon Freeway. This widening plus the Rio Road extension would result in level of service C in the year 2005. Without the Rio Road extension, the level of service would be D, and no further widening would be practical. If the Rio Road extension were not built it would cause a significant impact. (p. 5A-18)

Traffic Mitigations

The following mitigation measures would reduce traffic impacts to a level of insignificance unless otherwise noted. Some existing conditions (such as accidents at Via Mallorca) are not addressed by the CVMP traffic improvement policies and program. Therefore, additional improvements are recommended to further mitigate adverse but existing environmental conditions.

Mitigation 1. *Continuous Two-Way Left Turn Lane on Segment 2B:* The CVMP includes no improvements to this segment, but year 2005 traffic volumes will be in the LOS D range and the accident rate is higher than normal through the Village. The recommended improvement is a continuous two-way left-turn lane which could be built in the median from Pilot to Esquiline. This median lane would remove left-turning vehicles from the traffic stream, which would reduce accidents and reduce through traffic delays. *Impacts would be reduced to a level of insignificance.* (p. 5A-19)

Mitigation 2. *Acceleration Lanes for Left Turns from Cross-Streets:* Levels of service for outbound left turns would be D or worse on segments 3, 5, 6, 7, 8, and 9. The CVMP does not address the outbound left-turn problem. In fact, the planned four-laning of segments 6 and 7 will make outbound left turns even more difficult. The recommended solution is to create acceleration lanes in the median for outbound left turns. With acceleration lanes in place, a left-turning motorist would have to wait for a gap in one direction of traffic only. This would result in much shorter delays than if gaps are needed in both directions simultaneously.

Acceleration lanes will be needed at all median breaks along segments 6, 7, 8, and 9. Along segments 3 and 5, acceleration lanes will be needed at a minimum at all major cross-streets: Scarlett, Rancho Fiesta, Miramonte, Rancho/Boronda, Country Club, Panetta, and Laurel. In locations where cross-streets are closely spaced, the acceleration lanes and left-turn pockets will encroach upon each other, so a continuous two-way left-turn lane should be installed. *These mitigations would reduce impacts to a level of insignificance.* (p. 5A-19)

Mitigation 3. The segment 3 accident rate could be cut 50% with shoulder widening and left turn pockets. *This would substantially reduce impacts.* (p. 5A-17)

- Mitigation 4. *Hatton Canyon/Carmel Valley Road Interchange:*** The design should provide for three left-turn lanes. Three eastbound lanes will also be required from the signal to Carmel Rancho Boulevard to receive the triple left-turn lanes. The curb lane could become a right-turn-only lane at Carmel Rancho Boulevard. The resulting level of service would be C in the year 2005. *This mitigation would reduce the impact to a level of insignificance.* (p. 5A-20)
- Mitigation 5. *Accidents at Via Mallorca:*** This intersection had five left-turn accidents in 1987, five in 1988 and two in 1989. The only improvement options are signalization or grade-separation. *Without these improvements, a significant condition would not be mitigated.* (5A-20)
- Mitigation 6:** On segment 6, the CVMP improvements would eliminate the accident problem at Dorris. *This mitigation would reduce impacts to a level of insignificance.* (p. 5A-17)
- Mitigation 7:** The CVMP improvements for segments 3 and 5 call for the addition of left-turn pockets or the conventional two-lane highway. This would reduce the accident rate by up to 30% versus a two-lane highway without left-turn pockets. *This measure would substantially mitigate the impacts.* (p. 5A-17)

Noise Impacts

- Impact 1. Road segment 5:** Noise levels will increase from 67 dBA in 1990 to 69 dBA by the year 2005. This is the highest expected noise level along Carmel Valley Road and is considered "conditionally acceptable." (p. 5C-4)
- Impact 2. Traffic Noise:** Most noise increases expected in Carmel Valley do not represent a significant impact because they would not exceed 3 dBA, which is the threshold of perception for the human ear. A 3 decibel increase would only occur in three locations, and would not occur before the year 2005. Although the 3 decibel increase is barely perceptible, the noise levels that would be reached would be in the 55-69 dBA range which is considered "conditionally acceptable" for low density residential uses according to County noise standards. This noise would impact residences close to Carmel Valley Road and the cross streets at segments 1, 5 and 6. (p. 5C-4)

Impact 3. Cumulative Noise: The cumulative noise impacts of the project plus the Hatton Canyon Freeway would raise noise levels for some residences in Hatton Canyon by 4 - 8 decibels, which would be significant. (p. 5C-5 through 5C-7)

Noise Mitigations

Mitigation 1. The cumulative noise impacts due to road improvements at the mouth of the Valley should be mitigated by taking post-construction noise measurements at residences impacted by the Hatton Canyon Freeway, Carmel Valley Road and Highway One changes. If accepted County noise standards for residential use are exceeded, remedial action shall be taken, such as retrofitting windows, building noise walls or other action to achieve a meaningful noise reduction. (p. 5C-8)

Air Quality Impacts

Impact 1: Construction in the project area would temporarily increase total suspended particulates (TSP) and particulate matter (PM₁₀) concentrations and would lead to violations of the Federal and State 24-hour average PM₁₀ standards. (p. 5D-11)

Impact 2. In a worst-case situation (construction occurring simultaneously along the entire length of each roadway segment for which improvements are proposed), approximately 51 tons of dust would be generated. (p. 5D-1) Although large stretches of loose dirt would likely be exposed prior to paving the newly constructed portions of the roadway, only a portion of each stretch would be worked on at any one time. Therefore, actual dust emissions could be less than 51 tons. (p. 5D-13)

Impact 3. Large numbers of construction vehicles and equipment operating or idling in a small area may cause spot violations of the CO standards. (p. 5D-13)

The cumulative increase in total emissions for NO_x will be 3%. The project will account for all of this. (p. 5D-13)

Air Quality Mitigation Measures

The following mitigations would reduce air quality impacts during construction to a level of insignificance if they were implemented as a group.

- Mitigation 1.** Unpaved construction sites should be sprayed with water at least twice a day to moisten dirt, thereby reducing the likelihood that individual particles will be lifted into the air by wind. (p. 5D-16)
- Mitigation 2.** Stockpiles of soil, sand, and other such materials should be covered. (p. 5D-16)
- Mitigation 3.** Trucks hauling debris, soil, sand, or other such materials should also be covered. (p. 5D-16)
- Mitigation 4.** Streets surrounding demolition and construction sites should be swept at least once a day to minimize the amount of construction-generated particulates lifted into the air by automobiles traveling on these streets. (p. 5D-16)
- Mitigation 5.** Paving and planting should be installed as soon as possible to cover or consolidate loose dirt. (p. 5C-16)
- Mitigation 6.** Construction equipment engines should be turned off when not in use and should receive periodic maintenance. This would reduce emissions of air pollutants associated with their use and, consequently, reduce the likelihood of spot violations of the CO standards and odor complaints. (p. 5D-16)
- Mitigation 7.** Traffic congestion during construction could be minimized by limiting roadway widening to one side of the road at a time. (p. 5D-16)
- Mitigation 8.** Environmental evaluations on the individual construction projects should include analysis of potential air quality impacts from particulate matter based on specific information on the pacing and extent of construction. (p. 5D-16)

Natural Factors Impacts

This part of the summary lists the broad or generic impacts due to the traffic improvements as a whole. For details of impacts at specific segments, the reader is referred to chapter 5E, pp. 5E-9 through 5E-12.

Impact 1: Roadway widening and realignment could impact large, mature trees. (p. 5E-6)

Impact 2: Roadway widening and realignment for left turn lanes could impact the Carmel Valley Bush Mallow (*Malacothamnus palmeri*) and the Carmel Valley Malacothrix (*Malacothrix saxatilis*). These rare and endangered plant species are located along Carmel Valley Road between Robinson Canyon Road and Los Laureles Grade. (p. 5E-6)

Impact 3: The CVMP road improvement might necessitate removal of chaparral along segments of Carmel Valley Road because this vegetation might be in the construction area. Removal could adversely affect soil stability and wildlife habitat. (p. 5E-6)

Impact 4: Many areas of 30% slope gradient lie close to Carmel Valley Road; these slopes could be impacted by widening, new interchanges and other construction. Highly unstable slopes are susceptible to further slope failure during excessive rainfall or seismic groundshaking, or when modified by non-engineered grading. Cutting, earthmoving and blasting could cause unstable slopes to slide. (p. 5E-6)

Impact 5: Cutting, filling, earthmoving and blasting could adversely affect unstable slopes and could cause erosion and siltation which would impact the water quality in the Carmel River. (p. 5E-6)

Impact 6. The riparian areas and riverbed located adjacent to the south side of Carmel Valley Road could be adversely affected by roadway realignment. (p. 5E-6)

Cumulative Biotic Impacts

Impact 7. CVMP road improvements have the potential to impact rare and endangered species, although not the same species as the Hatton Canyon Freeway. (pp. 5E-9 and 5E-16)

- Impact 8.** CVMP road improvements have the potential to add to the cumulative loss of trees in the area. (pp. 5E-9 and 5E16-17)
- Impact 9.** The only riparian zone in Carmel Valley that might be impacted by the road improvements lies at the far eastern end of the Valley. Any construction here could add to the cumulative riparian impacts in the vicinity. (pp. 5E-6 and 5E-19)

Biotic Mitigations

- Mitigation 1.** Roadway widenings and realignments should be planned so that removal of trees is minimized. (p. 5E-14)
- Mitigation 2.** Trees that must be removed should be replaced adjacent to the widened roadway to restore rural quality in the manner specified in by Policy 7.2.2.5 (CV) of the Carmel Valley Master Plan. (p. 5E-14)
- Mitigation 3.** Roadway widenings and improvements should be designed so that they avoid rare or endangered plants or the existing buffer areas around such plants. (p. 5E-14)
- Mitigation 4.** Roadway improvements should be planned so that they are located outside of the floodplain. (p. 5E-15)

Mitigations for Cumulative Biotic Impacts

- Mitigation 5.** If rare and endangered species are impacted in Carmel Valley, Monterey County should implement a mitigation plan similar to the one recommended by Caltrans, which includes replacement habitat in the vicinity. (p. 5E-23)
- Mitigation 6.** If a significant amount of trees are lost in Carmel Valley, Monterey County should revegetate in the immediate area on a one for one basis. (p. 5E-23)
- Mitigation 7.** When site-specific EIRs are prepared for the road improvements, a qualified professional should investigate the sites to assure that Hickman's onion will not be impacted. If the onion is found, a mitigation plan to transplant the species at suitable nearby locations should be developed. (p. 5E-23)

Mitigation 8. When a site-specific EIR is prepared for road improvements at the far eastern end of the Valley, a qualified professional should investigate the potential riparian zone impacts. If temporary or permanent impacts are found to be likely, a mitigation plan should be implemented to avoid or replace impacted species at a ratio greater than 1:1. The replacement of plants shall be done in the Carmel River riparian zone.

Mitigation 9. When project-specific EIRs are prepared on the proposed road improvements, the potential for sedimentation impacts to the Carmel River should be assessed. A mitigation plan should be developed to prevent any sediment from reaching the river.

The reader is referred to a summary of the Hatton Canyon Freeways impacts and mitigation measures from the Hatton Canyon Freeway EIR/EIS which are incorporated by reference in this EIR and summarized on pp. 5E-15 through 5E-22.

Fiscal Impacts

The reader is referred to Chapter 5E for the discussion of fiscal impacts. This short section contains information on costs, sources of revenue and alternative expenditure scenarios that explain the economics of traffic mitigation measures.

CHAPTER THREE
PROJECT DESCRIPTION

A. INTRODUCTION

The Carmel Valley Master Plan (CVMP) was adopted by the Monterey County by the Board of Supervisors on December 16, 1986. The adequacy of the CVMP EIR was upheld by the Superior Court on May 5, 1987. Since that time traffic and land use conditions have changed. This EIR describes the changes in land use and traffic that have occurred since the previous EIR was prepared, and the probable effects of the land use and traffic policies of the CVMP over the 20-year life of the plan. This Chapter describes the following:

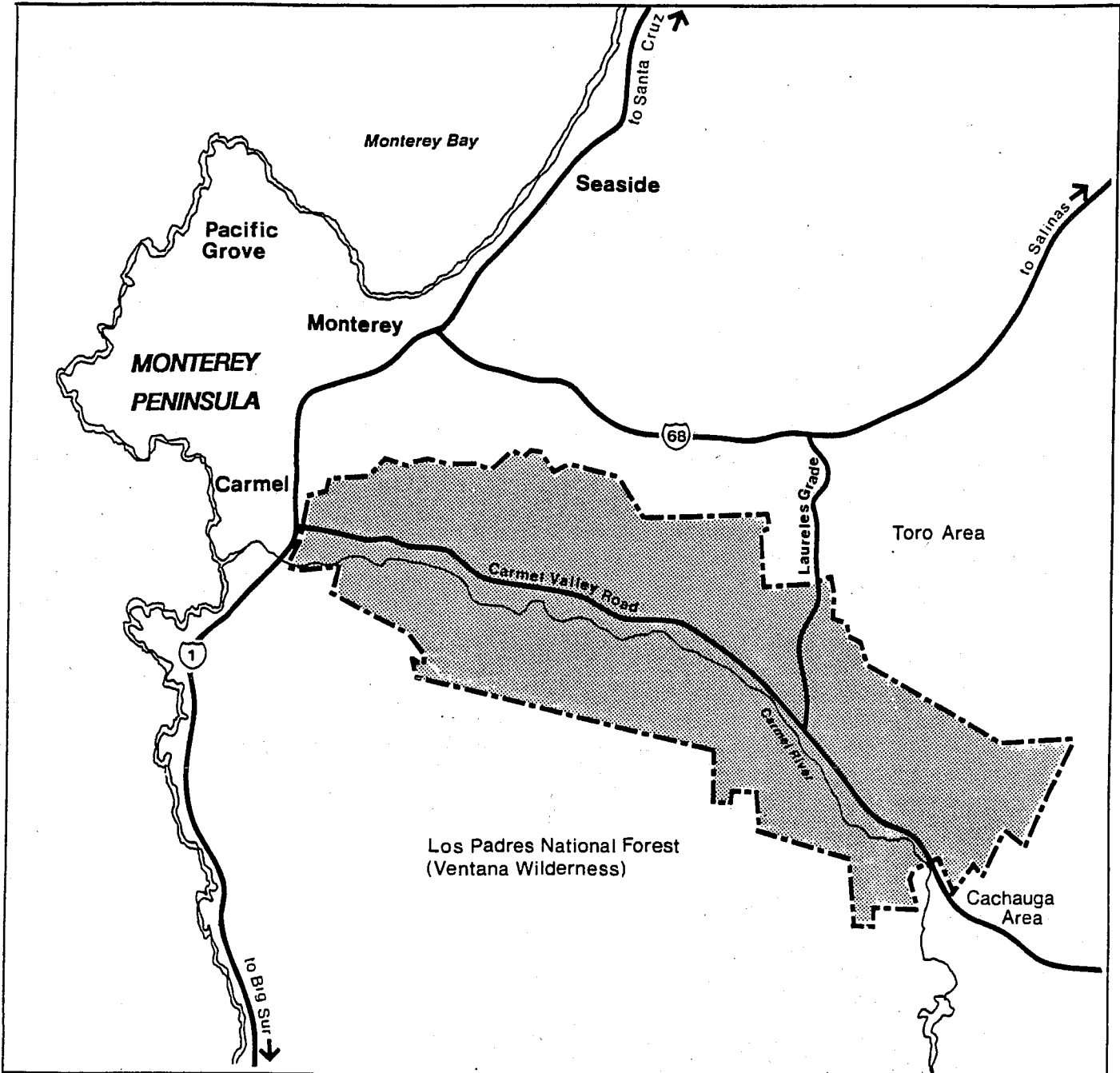
- Location of the planning area;
- Project objectives and characteristics;
- Relevant policies of the CVMP;
- Agencies expected to use this EIR in their decision-making processes;
- Process and approvals required; and
- List of approvals for which this EIR will be used.

B. LOCATION OF THE PLANNING AREA

The CVMP encompasses the Carmel Valley, which is located in Monterey County. As shown in Figure 1, Carmel Valley is located within the Greater Monterey Peninsula area. It is east of the City of Carmel-by-the-Sea, south of the City of Monterey and southwest of the City of Salinas. Carmel Valley is accessible from the west by Highway 1 and from the north by Highway 68 via Los Laureles Grade.

C. PROJECT OBJECTIVES AND CHARACTERISTICS

The "project" that is the subject of this EIR are the land use and transportation policies of the Carmel Valley Master Plan. The primary objectives of the project are as follows:



**FIGURE 1
REGIONAL LOCATION**

--- CVMP AREA BOUNDARY

source: Planning Analysis and Development

**CARMEL VALLEY
TRAFFIC EIR**



- Balance growth with transportation improvements that are feasible both physically and economically; and
- Provide a circulation improvement program including physical improvements and cost allocation principals.

The policies of the Carmel Valley Master Plan that are relevant to this EIR are presented below.

D. RELEVANT POLICIES OF THE CARMEL VALLEY MASTER PLAN

Land Use Policies

This section of the EIR discusses the major land use policies of the Carmel Valley Master Plan which govern the amount of growth that can occur in the Valley.

Residential Quota: The Carmel Valley Master Plan places a limit on residential development over the 20 year life of the plan (1986 - 2006). A total of 1310 lots can be developed. Of these, 572 were existing vacant lots of record as of December 9, 1986. The remaining 738 are new lots that can be created in new subdivisions. /1/ This number (738) is reduced by the amount of adjunct units. Adjunct units include second units or more approved by use permit on individual lots of record, senior citizen units (counted 2:1), apartment or other living quarters approved by use permit, caretaker units, and low and moderate income units.

The CVMP also permits 108 units that were already approved at Carmel Valley Road, which this EIR counts among the vacant lots of record that have a right to develop at any time.

Annual Allocation: The CVMP limits the amount of new dwellings that can be approved annually to 37 market rate units (738 new lots divided by 20 years). No more than 25 market rate units can be permitted in any one project annually.

Low and Moderate Income Housing: Inclusionary housing is exempt from the annual allocation, but is counted against the overall quota. Thus, the annual increase in housing can exceed 37 units per year by the amount of inclusionary housing approved.

Senior Citizen Housing: As with inclusionary housing, senior housing is exempt from the annual allocation. It is counted against the overall quota on a two-for-one basis, that is, two senior units are treated as one unit with respect to the quota.

Visitor Accommodations: The visitor accommodations (such as hotels) are limited to a total of 425 rooms. Two policies govern the location of permissible rooms: policy 28.1.26 states that:

All further development of visitor accommodations in the area west of Via Mallorca and north of Carmel River shall be limited to a moderately-sized facility, not to exceed 175 units, at the Rancho Canada Golf Club.

Policy 28.1.27 states:

There shall be a maximum of 250 additional visitor accommodation units approved east of Via Mallorca, including units at Carmel Valley Ranch.

Commercial Development: Commercial development, i.e., office and retail space, is limited to established commercial zones (policy 28.1.7). This includes the Lower Valley (policies 28.1.15 and 28.1.21), Mid-Valley, Valley Hills (policies 28.1.16 and 28.1.18), the Village and designated service centers (policies 28.1.19 and 28.1.20B). Although there are restrictions on where commercial development can occur, there is no limit on how much can occur, or when it can develop except through the public hearing and review process.

Transportation Policies

The Carmel Valley Master Plan contains many transportation policies, most of which are aimed at maintaining the rural quality of the Valley. Preservation of aesthetic resources, assurance of smooth road functioning, reduction in safety hazards and emphasis on non-auto modes of

travel are also prominent in CVMP policies. There are a number of traffic improvement policies that are intended to serve existing development and planned growth at an acceptable level of service. These policies are listed below. Figure 2 shows the location of the road segments referred to in the Carmel Valley Master Plan policies.

Carmel Valley Road Improvements:

Policy 39.3.1.1 a) Via Petra to Robinson Canyon Road (Road Segments 6-8)

It is recommended that this 4.4 mile section of Carmel Valley Road be widened to four lanes when it reaches design capacity. This should be preceded by a reevaluation of the Official Plan Line alignment in order to reduce road cuts in several locations.

b) Robinson Canyon Road to Laureles Grade (Segment 5)

This section of Carmel Valley Road is adequate for the foreseeable future. Every effort should be made to preserve its rural character by maintaining it as a two-lane road with paved shoulders, and left turn channelizations at intersections where warranted.

c) Laureles Grade to Ford Road (Segment 3)

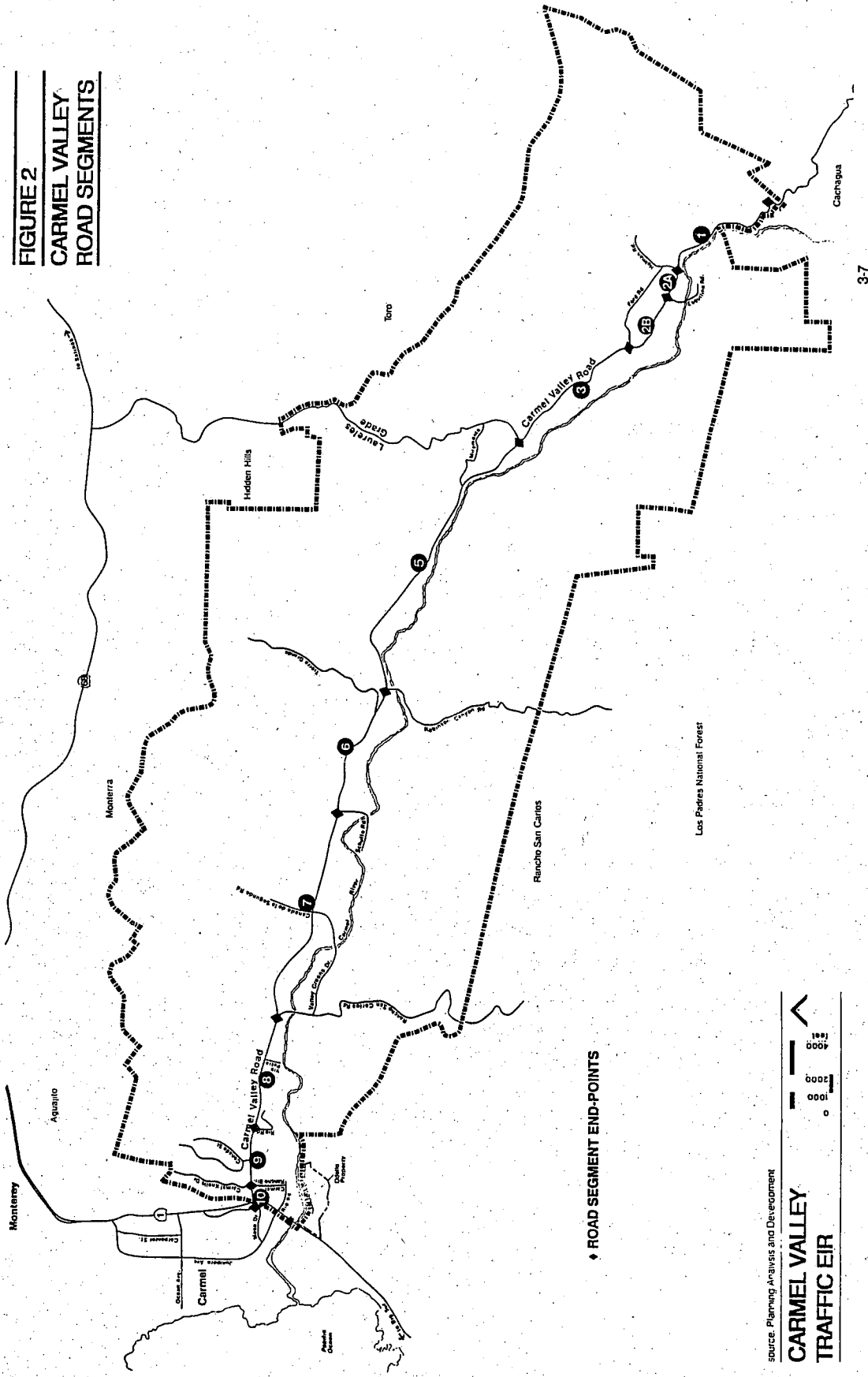
Shoulder improvements and widening should be undertaken here and extended to Pilot Road, and may include left turn channelization at intersections as warranted.

d) East of Esquiline Road (Segments 1 and 2)

Shoulder improvements should be undertaken at the sharper curves. Curves should be examined for spot realignment needs.

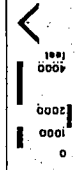
- Policy 39.3.1.2** *It is recommended that the County reduce the dangers of driving Carmel Valley Road by repainting the lines as consistent with the California Vehicle Code.*
- Policy 39.3.1.3** *Left turn channelizations and/or ingress-egress tapers at significant access points on Carmel Valley Road should be high priority improvements to alleviate existing hazards.*
- Policy 39.3.1.4** *The following road connections may be established, as controlled emergency accesses:*
- a) De los Helechos to Paso Hondo as a dry weather ford;*
 - b) Paso del Rio (off W. Garzas) to Carmel Valley Road;*
 - c) Tierra Grande to Saddle Road in Hidden Hills;*
 - d) Country Club Drive to El Caminito;*
 - e) Robles del Rio area east of Esquiline Road;*
 - f) Outlook Drive to High Meadows (once Hatton Canyon Freeway is completed).*

**FIGURE 2
CARMEL VALLEY
ROAD SEGMENTS**



source: Planning, Analysis and Development

**CARMEL VALLEY
TRAFFIC EIR**



Policy 39.3.1.5 *To accommodate existing and future traffic volumes at level of service C, the following road improvements are recommended pursuant to Monterey County General Plan policies 37.2.1 and 39.1.4:*

- a) Widen Highway One to four lanes between Carmel Valley Road and Rio Road in conjunction with the Hatton Canyon Freeway project;*
- b) Laureles Grade - undertake shoulder improvements, widening and spot realignment;*
- c) Carmel Valley Road, Robinson Canyon Road to Ford Road - add left turn channelization at all intersections. Shoulder improvements should be undertaken.*

Policy 39.3.1.6 *It is recommended that signals be provided at the following intersection and at other locations when accepted engineering warrants are met as a result of development under the Carmel Valley Master Plan:*

- Carmel Valley Road/Rio Road.*

Policy 39.3.1.7 *The County shall consider constructing minor interchanges as an alternative to signalizing the Carmel Valley Road intersection. This would result in an unimpeded flow of traffic on Carmel Valley Road and would facilitate left turning movements from and onto Carmel Valley Road intersections.*

Policy 39.3.1.8 *In the event the State does not build the Hatton Canyon Freeway or widen Highway One, the County shall consider an interchange at Highway One and Carmel Valley Road.*

Policy 39.3.1.9 *A northbound climbing lane should be considered for construction on Laureles Grade to accommodate future traffic volumes.*

Alternatively, several curves should be flattened and widths should be increased.

Traffic Monitoring Policy (Policy 34.3.2.1)

The CVMP also contains a policy that requires monitoring of traffic conditions to assure that growth is not lowering service levels below thresholds established in 1986 when the plan was adopted. The central components of the monitoring program are:

- Twice yearly monitoring of average daily traffic at 12 locations;
- A yearly traffic evaluation report that indicates where traffic volumes are deteriorating below acceptable levels of service;
- Annual public hearings if roadway segments are within 100 ADT of a lower service level; and
- Deferral of project approvals if development would lower certain service levels to C or below, unless and until an EIR is prepared which includes mitigation measures to raise the LOS to an acceptable level.

On October 11, 1988, the Monterey County Board of Supervisors found that traffic volumes on Carmel Valley Road had not exceeded the 1985 threshold levels for purposes of policy 39.3.2.1 of the CVMP. (Resolution 88-506) However, the Supervisors directed staff to proceed with this EIR to assess traffic impacts occurring on Carmel Valley Road because, in certain areas, threshold conditions were being approached. This EIR satisfies the requirements of Policy 39.3.2.1.

Fiscal Policies

The CVMP includes a policy to obtain funds to offset the cost of planned traffic improvements. Policy 39.1.7 states:

It is recommended that fees for off-site major thoroughfares be imposed as a condition of granting building permits. The recommended zone of influence is the Carmel Valley Master Plan Study Area with funds to be expended for the Valley Road or other major improvements.

In response to this policy, the staff of the Department of Public Works (DPW) prepared cost estimates for the traffic improvements listed in the CVMP. The total cost was estimated at \$26,310,000, with the majority, some \$14,500,000, to be used for widening Carmel Valley Road to four lanes between Via Petra and Robinson Canyon Road. DPW also prepared a draft fee structure and implementation schedule for the improvements.

The fee program proposes that these improvements be paid with a combination of FAS/FAU (Federal Aid Secondary/Federal Aid Urban) highway assistance funds supplemented with development fees. The latter would be an exaction on all new development within the CVMP area. The level of assessment proposed is as follows:

- \$15,000 for each new lot created,
- \$15,000 for each new visitor accommodation (room),
- \$5.00 per square foot for all commercial development, and
- \$5,000 each building permit for a new residential unit on a lot of record.

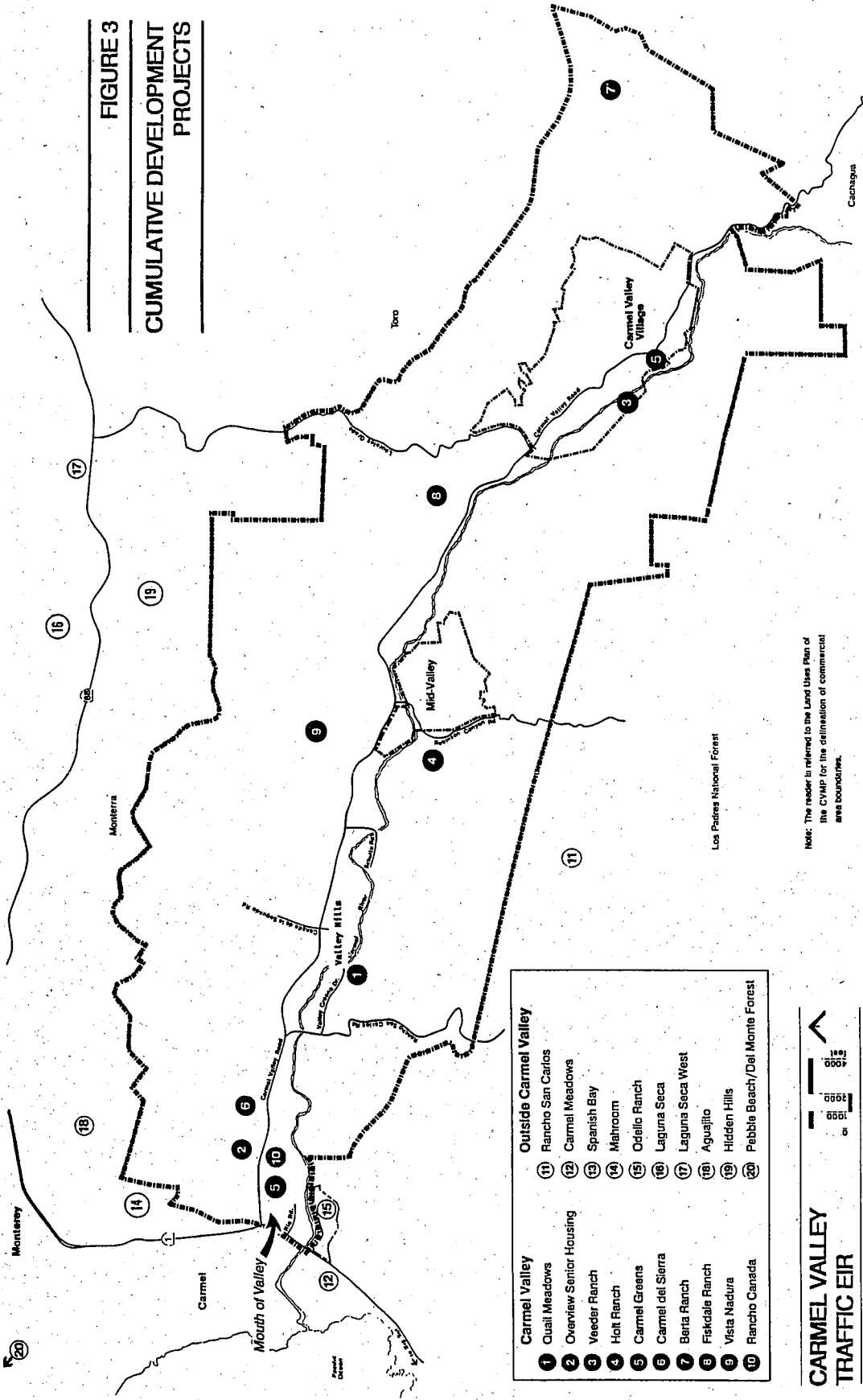
This EIR reviews the draft fee program. (See Chapter 5B.) The EIR explores the types of fees that can be used to fund the improvements, the incidence of the fee, the ability to pay, the likely yield of imposing the fees on different land uses and alternatives to impact fees.

Cumulative Development Projects: This EIR evaluates the traffic, air quality and noise impacts of all of the growth that could be permitted under the Carmel Valley Master Plan. At the time of preparing this EIR, the following information was available regarding cumulative development projects. See Figure 3 for the location of these projects.

Within Carmel Valley

- 548 vacant lots of record
- 738 units in new subdivisions, as follows:
 - ▲ Quail Meadows: 56 market rate units
9 inclusionary units
 - ▲ Overview Senior Housing: 200 inclusionary units.
 - ▲ Minor Subdivisions: 4 units
 - ▲ Veeder Ranch: 30 market rate units
 - ▲ Holt Ranch: 84 market rate units
65 inclusionary units
 - ▲ Carmel Greens: 74 market rate units
20 inclusionary units

FIGURE 3
CUMULATIVE DEVELOPMENT PROJECTS



- | Carmel Valley | |
|-----------------------|-------------------------------|
| 1 | Quail Meadows |
| 2 | Overview Senior Housing |
| 3 | Veeder Ranch |
| 4 | Holt Ranch |
| 5 | Carmel Greens |
| 6 | Carmel del Sierra |
| 7 | Berta Ranch |
| 8 | Fiskdale Ranch |
| 9 | Vista Nacura |
| 10 | Rancho Canada |
| Outside Carmel Valley | |
| 11 | Rancho San Carlos |
| 12 | Carmel Meadows |
| 13 | Spanish Bay |
| 14 | Mahroom |
| 15 | Odello Ranch |
| 16 | Laguna Seca |
| 17 | Laguna Seca West |
| 18 | Aguajito |
| 19 | Hidden Hills |
| 20 | Pebble Beach/Del Monte Forest |

CARMEL VALLEY TRAFFIC EIR

Note: The reader is referred to the Land Uses Plan of the CVMP for the delineation of commercial area boundaries.

- ▲ Carmel del Sierra: 93 market rate units
9 inclusionary units
- ▲ Berta Ranch: 25 market rate units
- ▲ Fiskdale Ranch: 39 market rate units
- ▲ Vista Nadura: 30 market rate units
- 325 visitor-rooms, including:
 - ▲ Rancho Canada: 175 rooms
 - ▲ Quail Meadows: 40 rooms
 - ▲ Other Projects: 100 rooms
- Commercial development: 394,000 square feet, including
 - ▲ Mouth of the Valley: 200,000 square feet
 - ▲ Mid-valley: 20,000 square feet
 - ▲ Valley Hills: 100,000 square feet
 - ▲ Village: 74,000 square feet

Figure 3 shows the location of major cumulative development projects. It should be noted that the number of units assumed for each projects was determined based on discussions with Planning Department staff. The actual numbers will depend on the specific applications submitted by project sponsors as well as the discretionary actions of the Board of Supervisors.

This EIR evaluates the effects of circulation system improvements and the cumulative impacts of development outside the Carmel Valley. These projects include the following:

- Traffic changes with and without the Hatton Canyon Freeway.
- Development outside Carmel Valley, including:

**Table 1
CUMULATIVE DEVELOPMENT OUTSIDE CARMEL VALLEY**

▲ Rancho San Carlos:	125 dwelling units 300 visitor rooms
▲ Cachagua:	275 dwelling units 40,000 square feet of commercial
▲ Toro:	2,720 dwelling units 163,350 square feet of commercial
▲ Carmel Meadows:	14 dwelling units
▲ Spanish Bay:	80 dwelling units 270 visitor rooms
▲ Mahroom:	36 dwelling units
▲ Odello Ranch:	74 dwelling units
▲ Laguna Seca:	100 dwelling units
▲ Laguna Seca West:	25 lots
▲ Aguajito:	100 lots
▲ Hidden Hills:	75 dwelling units
▲ Pebble Beach/ Del Monte Forest:	1067 dwelling units 270 visitor rooms

Source: PAD Inc. and Monterey County Department of Planning and Building Inspection.

Total out-of-Valley development identified above that would have an impact on Carmel Valley:

- ◆ 4,666 dwelling units
- ◆ 840 visitor rooms
- ◆ 203,000+ square feet of commercial
- ◆ 25 commercial lots

This development is proposed, approved, under construction or otherwise not accounted for in baseline traffic conditions. It includes development that will have the greatest potential to impact Carmel Valley. Traffic growth from the cities of Monterey, Carmel, Pacific Grove, Del Rey Oaks, Sand City, Seaside, Marina and Fort Ord was projected in the traffic model developed in this EIR. However, specific development projects in these cities were not used. Traffic projections were based on housing and employment trends and general plan build-out.

E. Agencies Expected to Use This EIR

The following agencies are expected to use this EIR in their planning and decision-making process:

- 1) Monterey County Board of Supervisors
- 2) Monterey County Department of Planning and Building Inspection
- 3) Monterey County Department of Public Works
- 4) California Department of Transportation (Caltrans)
- 5) Monterey Peninsula Water Management District (MPWMD)
- 6) Association of Monterey Bay Area Governments (AMBAG)
- 7) Monterey Bay Unified Air Pollution Control District (MBUAPCD)

F. Implementation Process

All of the improvements included in the Carmel Valley Mater Plan require approval and implementation by the Monterey County Board of Supervisors. These projects are in the Public Works 5-Year Improvement Program, which is reviewed annually by the Board. All of the improvement projects will undergo environmental review prior to implementation. This program EIR addresses impacts of the improvement plan as a whole, not individual project impacts at specific locations.

The involvement and approval of other agencies depends on the specific improvement and funding mechanism involved. The 4-laning of Carmel Valley Road between Via Petra and Robinson Canyon Road will be funded by Measure B. The expenditure of these funds requires approval of the Board of Supervisors. An EIR is being prepared for that project.

The Board of Supervisors will adopt a traffic impact fee to provide partial funding for certain improvements addressed in this EIR. The proposed impact fee program is described in Chapter 5B.

Improvements that affect Highway One and the proposed Hatton Canyon Freeway will be reviewed by the State Department of Transportation (Caltrans).

Road improvements that involve the use of federal FAU and FAS funds are described in the County's Combined Road Plan. These projects require review and approval by the Federal Highway Administration as well as the County Board of Supervisors.

The Monterey Bay Unified Air Pollution Control District will review all of the road improvement projects for consistency with the 1989 Air Quality Management Plan.

Footnotes to Chapter 3

- /1/ In addition to the vacant lots of record that are part of the growth limit, 109 lots in Carmel Valley Ranch can be developed. These units are not included in the quota and allocation tally.

CHAPTER FOUR

METHODOLOGY AND RESEARCH DESIGN

A. METHODOLOGICAL OVERVIEW

In order to determine existing and future traffic conditions in Carmel Valley, it is necessary to understand the land use conditions in Carmel Valley because development is the source of traffic. Planning Analysis & Development, the EIR authors, prepared an inventory of existing land uses based on County Tax Assessor's data, the Department of Planning and Building Inspection project application records and other sources. The land uses were categorized as residential, vacant lots of record, retail, offices, services, industrial and institutional. The Valley was divided into 49 traffic analysis zones (TAZs), and each parcel of land was assigned to a TAZ with information on land use and intensity.

Trip generation rates were applied to each land use by Barton-Aschman Associates Inc. to estimate the amount of traffic generated in each TAZ. Traffic was then assigned to the street system using a computer modeling procedure. The assigned traffic was compared to that observed throughout the Valley. The observed traffic consisted of traffic counts made by both Monterey County Department of Public Works and Barton-Aschman Associates. When the assigned and observed traffic levels were in balance, a calibrated traffic model resulted. This model was then used to predict future traffic volumes due to future land use development.

In order to project future traffic volumes, it was necessary to project future land uses with respect to type, size, location and timing. The EIR authors projected future growth in five year increments based on consultation with County planners and the growth allowed by the Carmel Valley Master Plan (CVMP). The five-year increments are as follows:

- Phase 1: 1986 - 1990
- Phase 2: 1991 - 1995
- Phase 3: 1996 - 2000
- Phase 4: 2001 - 2005

Trip generation rates for future land uses were calculated, and traffic was assigned to the TAZs to predict future levels of service for each five-year period.

The traffic improvements listed in the CVMP were evaluated to determine whether they would sufficiently mitigate the land use impacts that will be generated by the growth permitted by the CVMP. The level of mitigation is that required by the CVMP, i.e., LOS C or better, except in locations where LOS C was not obtained in 1986 when the plan was adopted.

/1/

Traffic service levels in Carmel Valley are affected by conditions outside the Valley. To account for this, the EIR included land use and traffic estimates from expected development in Toro, Cachagua, Rancho San Carlos, Monterey Peninsula, Pebble Beach and the Big Sur Coast. Tourist traffic was also taken into consideration.

For more detail on the methods used to predict traffic impacts, the reader is referred to the technical appendices and traffic reports on file with the Monterey County Department of Public Works.

B. RESEARCH DESIGN

The key tasks involved in preparing the environmental setting, impacts, mitigation measures and cumulative impact assessment in this EIR are outlined below.

Environmental Setting

- Describe the roadway network and Traffic Analysis Zones (TAZs);
- Quantify and describe existing land uses by location using traffic zones (TAZs);
- Estimate origins and destinations of existing traffic;
- Characterize trip purposes and type of traveler;
- Describe unique geographic features that influence circulation; and
- Determine appropriate measures to describe traffic conditions.
- Quantify existing traffic conditions in Carmel Valley;
- Identify trouble-spots where thresholds are exceeded;

Environmental Impacts

- Collect data on pending development projects by land use and location;
- Project future development in five-year increments;
- Determine future traffic impacts;
- Distinguish impacts of intra-Valley from Peninsula and through traffic;
- Quantify tourist traffic;
- Present qualitative and quantitative assessment of future traffic conditions;
- Identify future trouble-spots where thresholds will be reached; and
- Identify contribution of out-of-Valley sources to reaching traffic thresholds.

Mitigation Measures

- Evaluate roadway improvements in the CVMP and recommended by the Department of Public Works;
- Identify other improvements to meet CVMP standards;
- Make recommendations for improvements based on:
 - ◆ physical limitations
 - ◆ cost considerations
 - ◆ functional limitations
 - ◆ planning and policy considerations;
- Describe the efficacy of Transportation Demand Management (TDM), mode shift and other non-infrastructure mitigations to reduce trips to the Valley such as toll roads, restricted hours of access, etc. ;
- Weigh the relative merits of mitigations in terms of the impacts they generate; and

- Describe the growth-inducing impacts of the mitigation measures.

Cumulative Impact Assessment

This EIR addresses the cumulative contribution to traffic volumes that will be caused by:

- Existing lots of record in Carmel Valley;
- New subdivisions in Carmel Valley;
- New commercial development in Carmel Valley;
- Growth in surrounding areas such as Toro and Cachagua; and
- Tourism in Big Sur and on the Monterey Peninsula.
- The Hatton Canyon Freeway

C. EXISTING AND FUTURE LAND USE

Existing land uses in Carmel Valley were researched in order to relate existing traffic levels to existing levels of development via the traffic model. Table 2 presents a summary of existing development in Carmel Valley. As shown, there were a total of 6,056 residential dwelling units in the Valley as of March 1989. Of these, 4,847 were single family dwellings and 1,209 were multi-family units.

There were 440 vacant lots of record accounted for in the quota and allocation system at this time. (See Chapter 3 for a description.) In addition, there were 108 lots at Carmel Valley Ranch which were subdivided, but not counted in the quota and allocation system. Therefore, the total numbers of developable lots of record in the Valley was 548 ($440 + 108 = 548$) as of March 1989. These are lots that have been subdivided and can be developed at anytime, but were vacant in March of 1989. These lots can be developed with at least one residential dwelling unit. Their distribution by Traffic Analysis Zone (TAZ) is shown in Figure 4. Table A-1 in Appendix gives the distribution of lots of record by TAZ and phase.

Table 2 shows that there are 12 hotel-type establishments in Carmel Valley with a combined total of 476 rooms.

TABLE 2

EXISTING LAND USE IN CARMEL VALLEY
(1989)

LAND USES	Dwelling Units/ Rooms	Number of Business Establishments	Square Feet
▲ RESIDENTIAL	6,056		
Single Family	4,847		
Multi Family	1,209		
▲ HOTELS	476	12	
▲ RETAIL	--	134	369,000
▲ SERVICE /a/	--	37	94,800
▲ RESTAURANTS	--	26	93,800
▲ OFFICE			
Medical	--		33,000
Other	--		316,158
◆ TOTAL COMMERCIAL	--		906,758
▲ VACANT LOTS OF RECORD	548		
▲ GOLF COURSES	72 holes		

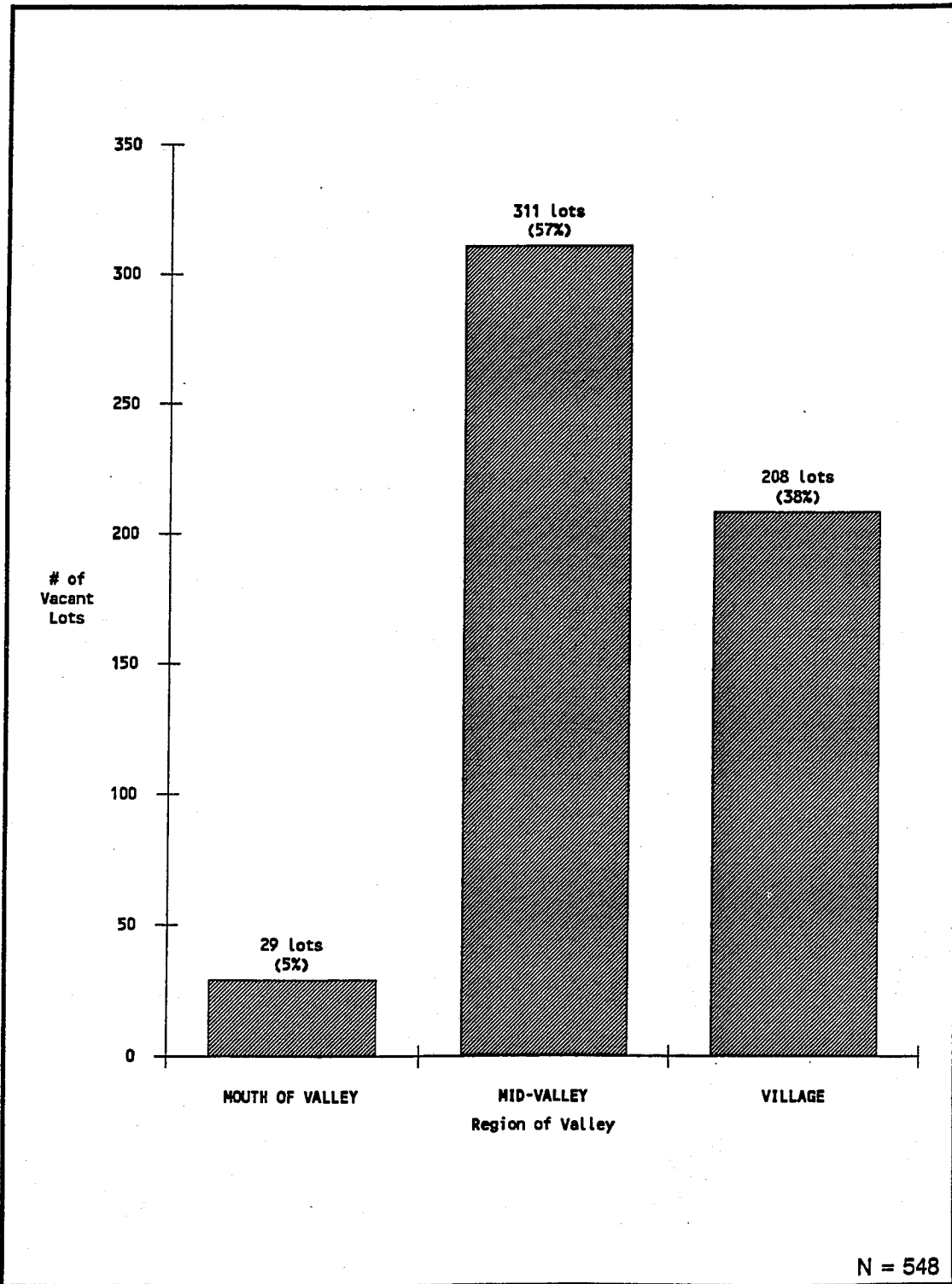
Table Notes:

/a/ Service uses include construction centers.

Source: *Planning Analysis & Development*

FIGURE 4

**NUMBER OF VACANT LOTS OF RECORD
IN CARMEL VALLEY BY REGION**



There are 134 retail establishments with approximately 369,000 square feet of space. The majority of the establishments and square footage is located at the mouth of the Valley with the rest at Valley Hills, in Mid-Valley and the Village.

There are 37 service establishments with approximately 94,800 square feet of space. These businesses provide construction-related service and materials.

There are 26 restaurants with approximately 93,800 square feet of space. The majority are located at the mouth of the Valley, with others scattered throughout.

There are four golf courses located throughout the Valley, offering a total of 72 holes of golf.

This land use data was categorized by Traffic Analysis Zone (TAZ) and trip generation rates were assigned to calculate the number of trips generated in each TAZ. This provides the base data for the traffic analysis.

To assess future traffic conditions, land uses development was projected in five-year increments (Phase 1 - 4) in accordance with the growth limits of the Carmel Valley Master Plan. Overall, the CVMP permits the growth listed on page 3-3. Table 3: Composite Land Use Projections shows one likely development scenario in Carmel Valley for each phase. The housing number includes both market rate housing and inclusionary housing; the latter is subject to the overall quota on housing, but not the annual allocation. /2/

Phase 1: Although the CVMP prescribes the number of units that can be approved annually and overall, no major subdivisions were approved and built between 1986-1989, which is most of Phase 1. Therefore, a backlog of permissible development has accumulated. Consequently, Quail Meadows was permitted to subdivide 56 market rate lots, which were expected to be created as lots by filing a Final Map in 1990, rather than being restricted to 37 units annually.

The other major residential development in Phase 1 will be the Overview Senior Housing project which will provide 200 units. (See Table 4: Future Resident and Development by Phase.) Because this project is not subject to the annual allocation, it represents a large one-year jump in the number of units that will be built. As it counts against the overall quota, it reduces the annual amount of market rate housing that can be permitted. This reduction is assumed to occur in Phases 3 and 4. Overall, Phase 1 will have 269 new dwelling units constructed as new subdivision housing, as shown in Table 4.

**TABLE 3:
COMPOSITE LAND USE PROJECTIONS**

LAND USE	PHASE 1 (1986-1990)	PHASE 2 (1991-1995)	PHASE 3 (1996-2000)	PHASE 4 (2001-2005)	TOTAL
Subdivisions:					
Market Rate	60	190	155	30	435
Inclusionary: Senior Housing	200				200
Other	9	66	28	0	103
Vacant Lots /a/	57	163	166	162	548
Hotel Rooms	50	215	40	20	325
Commercial Area	4,000	180,000	100,000	110,000	394,000
Table Notes					
/a/ Includes 108 lots at Carmel Valley Ranch that are not a part of the quota and allocation system.					
Source: Planning Analysis & Development					

**TABLE 4
FUTURE RESIDENTIAL DEVELOPMENT BY PHASE**

PROJECT	PHASE 1 (1986-1990)	PHASE 2 (1991-1995)	PHASE 3 (1996-2000)	PHASE 4 (2001-2005)	TOTAL
1 Quail Meadows	65	0	0	0	65
2 Minor Subs	4	0	0	0	4
3 Overview	200	0	0	0	200
4 Veeder	0	30	0	0	30
5 Holt (EIR)	0	99	45	5	149
6 Carmel Greens (EIR)	0	69	20	5	94
7 Carmel del Sierra	0	58	39	5	102
8 Berta Ranch (No Appl.)	0	0	20	5	25
9 Fiskdale (No Appl.)	0	0	34	5	39
10 Vista Nadura (No Appl.)	0	0	25	5	30
TOTALS	269	256	183	30	738
Source: Planning Analysis & Development					

(The Overview project was not under construction by mid-1990; however, it appeared that it would have been started when work on the EIR began. Therefore, it is included in the Phase 1 development scenario. The fact that these units will not be build until Phase 2 slightly overstates Phase 1 impacts.)

Based on historical trends, it is estimated that 57 vacant lots of record will be developed in Phase 1. In addition, there will be 50 visitor-rooms, 40 of these associated with Quail Meadows's seminar facility. (See Table 5.) (As with Overview, the Quail Meadows units were assumed to develop in 1990 as the EIR got under way. In fact, they will develop in Phase 2. This slightly overstates the Phase 1 impacts.)

Phase 1 will include a small amount of new commercial development: 4,000 square feet which will be built in the Village area. (See Table 6.)

Phase 2: Major new residential development in Phase 2 will include the Veeder property (30 market rate units); Holt Ranch (54 market rate units and 45 inclusionary units); Carmel Greens (53 market rate units and 16 inclusionary units); and Carmel del Sierra (53 market rate units and 5 inclusionary units). /3/ This development would result in 190 market rate units and 66 inclusionary units for a total of 256 dwelling units in new subdivisions.

It is expected that there will be 163 units developed on vacant lots of record.

It is estimated that 215 hotel rooms will be built: 175 at Rancho Canada and 40 east of Via Mallorca.

Phase 2 will also see development of 180,000 square feet of commercial development: 80,000 square feet at the mouth of the Valley, 40,000 square feet at Valley Hills, 10,000 square feet at Mid-Valley and 50,000 square feet in the Village.

**TABLE 5:
FUTURE HOTEL DEVELOPMENT**

LOCATION	PHASE 1 (1986-1990)	PHASE 2 (1991-1995)	PHASE 3 (1996-2000)	PHASE 4 (2001-2005)	TOTALS
Rancho Canada /a/	0	175	0	0	175
Quail Meadows /b/	40	0	0	0	40
Other E. of Via Mallorca /c/	10	40	40	20	110
TOTALS	50	215	40	20	325

Table Notes

/a/ Rancho Canada units included in the CVMP.
 /b/ Quail Meadows approved in 1989.
 /c/ CVMP permits an additional 110 units east of Via Mallorca.
 Phase 1: 10 units st Valley Lodge, Los Laureles Lodge & Robles Del Rio.
 Phase 2, 3, and 4: 80 units at the extreme east of the Village, 20 just east of Village
 (Valley Lodge, Los Laureles, Robles Del Rio, Holman Property, Berta Ranch.)

Source: Planning Analysis & Development

**TABLE 6
COMMERCIAL LAND USE PROJECTIONS
(Thousands of Square Feet)**

LOCATION	PHASE 1 (1986-1990)	PHASE 2 (1991-1995)	PHASE 3 (1996-2000)	PHASE 4 (2001-2005)	TOTALS
Mouth of Valley /a/	0	80,000	20,000	100,000	200,000
Mid-Valley	0	10,000	10,000	0	20,000
Valley Hills /b/	0	40,000	60,000	0	100,000
Village /c/	4,000	50,000	10,000	10,000	74,000
TOTALS	4,000	180,000	100,000	110,000	394,000

Tablenotes

/a/ Mouth of Valley: assumes a maximum of three stories over parking.
 /b/ Valley Hills assumes 40,000 square feet in a service center comprised of 7,500 s.f. of retail lumber and 32,500 s.f. for lumber storage associated with the sales facility. The 60,000 s.f. is an additional amount of commercial square footage.
 /c/ Village assumes gallery; four offices at 700 s.f. each; a service center with 17 rental cubicles for contractors, mini-storage and RVs; the Landing at Lahaina (21,900 s.f.); and Bill Parnham's service center (11,500 s.f.) for a total of 33,400 s.f..

Source: Planning Analysis & Development

Phase 3: Major new residential development in Phase 3 will include an additional 45 units on Holt Ranch (25 market rate units and 20 inclusionary units); 20 Carmel Greens (16 market rate units and 4 inclusionary units); and 39 Carmel del Sierra (35 market rate units and 4 inclusionary units).

Although there are no current applications on file, the County expects that the following projects would seek and gain approval for the following market rate units: Berta Ranch for 20 units, Fiskdale Ranch for 34 units, Vista Nadura for 25 units.

The total of new subdivision units in Phase 3 would result in 155 market rate units and 28 inclusionary units for a total of 183 dwelling units in new subdivisions.

Phase 3 is expected to see the development of 166 vacant lots of record.

About 40 hotel rooms will be developed in Phase 3, all of them east of Via Mallorca.

There will be 100,000 square feet of commercial development: 60,000 in Valley Hills, 20,000 at the mouth of the Valley, 10,000 at Mid-Valley and 10,000 in the Village.

Phase 4: The overall quota of new subdivisions will be virtually exhausted by Phase 4. It is assumed that all of the Phase 3 projects would be granted permits for five units each, for a total of 30 new subdivision units in this phase.

Phase 4 is expected to see the development of 162 vacant lots of record.

About 20 hotel rooms will be developed in Phase 4, all of them east of Via Mallorca.

There will be approximately 110,000 square feet of commercial space: 100,000 at the mouth of the Valley and 10,000 in the Village.

D. GROWTH OUTSIDE THE VALLEY

Traffic in Carmel Valley is affected by sources outside the Valley. The existing and future land uses in locations that feed traffic to Carmel Valley Road were taken into consideration for the traffic analysis in this EIR. Traffic from the Monterey Peninsula (Carmel, Pebble Beach, Del Monte Forest), Cachagua, Toro, the Highway 68 area, and Rancho San Carlos are among the locations taken into consideration.

Existing Land Use

Monterey Peninsula /4/: Land use development in the Monterey Peninsula has a significant impact on Carmel Valley. Highway One and the commercial development at the mouth of the Valley are major attractants for vehicle trips. It is difficult to generalize about the Peninsula as a whole because it consists of multiple jurisdictions and covers a large land area of 140,000 acres. The Greater Monterey Peninsula Area Plan notes a 1980 population of approximately 129,000 for Carmel, Del Rey Oaks, Marina, City of Monterey, Pacific Grove, Sand City, Seaside and the unincorporated County lands, excluding Fort Ord. By the year 2000, AMBAG predicts that 185,300 people will live on the Peninsula, although this figure may be high. There were approximately 50,500 dwelling units on the Peninsula in 1980.

The Peninsula economy is based on the military, tourism and the convention industry. The future of the military, particularly Fort Ord, is uncertain as a result of Congressional action to close unessential military bases. Tourism and convention business can fluctuate widely from year to year, with a concomitant impact on traffic. Other important industries on the Peninsula are commercial and sport fishing, research laboratories and light manufacturing.

Cachagua /5/: Cachagua consists of approximately 135,500 acres located to the southeast of Carmel Valley. Approximately 40% of this (54,200 acres) is in public ownership, principally the Los Padres National Forest. There are approximately 300 legal dwelling units in this area, which has a low population density of 3.4 persons per square mile. The 1980 Census population was 729. Commercial uses are minimal and include a store, restaurant and two bars. The only other significant land uses are an AT&T communication facility and water treatment facilities. The main roads are Carmel Valley Road, Cachagua Road and Tassajara Road. The planning area does not generate significant traffic.

Toro /6/: The Toro area is located to the northeast of Carmel Valley. There were approximately 2,200 dwelling units as of 1980. The 1980 Census population was 6,423, or 87 persons per square mile. Most of the population of the 47,000-acre planning area resides in subdivisions off Highway 68. The population projection for the year 2000 hovers around 10,000. This area is undergoing substantial change from grazing to residential use. Industrial uses include sewage treatment, utilities and communication facilities. There are three small shopping areas and several isolated commercial uses along Highway 68, and two other small commercial areas.

Rancho San Carlos /7/: Rancho San Carlos is comprised of 20,000 acres of grazing land located south of Carmel Valley. The main access is via Robinson Canyon Road. There is limited additional access via Rancho San Carlos Road which is made possible due to an easement across private properties. The County recently issued a Draft EIR that addresses the impacts of several alternative densities for this ranch. The densities range from 160 to 10 acres per unit, and would result in development of 125 - 2,000 dwelling units. A 200 - 400 room hotel, 5,000 square feet of commercial and a golf course are under consideration. The current ranch operation generates no significant traffic in Carmel Valley. Depending on the density ultimately adopted by the County, this would be substantially changed in the future.

Future Development

Table 7 presents the future land uses in locations outside Carmel Valley that are expected to impact the Carmel Valley road network. Figure 5 shows where the expected future development would be located. The data was derived from land use plans and policies for these areas, and is assigned to the four phases described above. Over the 20-year planning period for the Carmel Valley, it is expected that adjacent areas will undergo development of approximately 4,586 single family residences, 80 condominiums, 840 hotel rooms and 203,000 square feet of commercial development.

Phase 1

- ▲ The 1986 - 1990 period was assumed to have the development of 50 homes and 10,000 square feet of neighborhood commercial in Cachagua.
- ▲ The Toro area is expected to experience development of 520 single family residences.
- ◆ Total development in Phase 1 will be 570 single family residences and 10,000 square feet of neighborhood commercial.

**TABLE 7:
DEVELOPMENT OUTSIDE CARMEL VALLEY**

PROJECT/LOCATION	Use	PHASE 1 (1986-1990)	PHASE 2 (1991-1995)	PHASE 3 (1996-2000)	PHASE 4 (2001-2005)	TOTALS
Cachagua	SFD	50 units	50 units	75 units	100 units	275 units
	Comm	10,000 sq.ft.	10,000 sq.ft.	10,000 sq.ft.	10,000 sq.ft.	40,000 sq.ft.
Toro	SFD	520 units	1,350 units	550 units	300 units	2,720 units
	Comm	0 sq.ft.	163,350 sq.ft.	0 sq.ft.	0 sq.ft.	163,350 sq.ft.
Carmel Meadows	SFD		14 units			14 units
Spanish Bay	Condos		80 units			80 units
	Hotel		270 units			270 units
High Meadows	SFD		14 units			14 units
Mahroom	SFD		36 units			36 units
Odello	SFD			74 units		74 units
Rancho San Carlos	SFD			125 units		125 units
	Hotel			300 units		300 units
Laguna Seca	SFD			100 units		100 units
Laguna Seca West	Comm			25 lots		25 lots
Agujito	SFD			100 units		100 units
Hidden Hills	SFD			75 units		75 units
Pebble Beach/ Del Monte Forest	SFD				1,067 units	units
	Hotel				270 units	270 units
TOTALS:	SFD	570 units	1,464 units	1,099 units	1,467 units	4,600 units
	Condos	0 units	80 units	0 units	0 units	80 units
	Hotel	0 units	270 units	300 units	270 units	840 units
	Comm	10,000 sf	173,350 sf	10,000 sf	10,000 sf	203,350 sf

Key: "SFD": single-family detached housing
"Comm": commercial
"Condos": condominiums

Source: Planning Analysis & Development

Phase 2

- ▲ The 1991 - 1995 period will have the same level of development in Cachagua as Phase 1: 50 homes and 10,000 square feet of neighborhood commercial.
- ▲ The Toro area will undergo development of 1,350 home and 163,350 square feet of commercial development.
- ▲ Along the coast, Spanish Bay will undergo development of 80 condominiums and 270 hotel rooms.
- ▲ The Mahroom property to the northwest of Carmel Valley will undergo development of 36 single family residences.
- ▲ High Meadows, located west of Highway One near Carmel, will undergo development of 14 dwelling units.
- ◆ Total development for Phase 2 will be 1,450 single family residences, 80 condominiums, 270 hotel rooms and 173,350 square feet of commercial.

Phase 3

- ▲ The 1996 - 2000 period will see the development of 75 dwelling units in Cachagua and 10,000 square feet of neighborhood commercial.
- ▲ Toro will have development of 550 single family residences.
- ▲ Odello Ranch located at the mouth of Carmel Valley will be developed with 74 single family residences.
- ▲ Rancho San Carlos located south of Carmel Valley is expected to undergo development of 125 single family residences and 300 hotel rooms. Golf courses are also possibility.
- ▲ Laguna Seca to the north of Carmel Valley near Los Laureles Grade will see development of 100 single family residences. Laguna Seca West is expected to have 25 commercial lots subdivided in this period.
- ▲ Aguajito located north of Carmel Valley near the City of Monterey is expected to develop with 100 single family residences.

- ▲ Hidden Hills located north of Carmel Valley and west of Los Laureles Grade is expected to develop with 75 single family residences.
- ◆ In all, Phase 3 will see development of 1,099 homes, 300 hotel rooms, 10,000 square feet of neighborhood commercial and possibly golf courses.

Phase 4

- ▲ The 2001 - 2005 period is expected to see development of 100 homes in Cachagua and another 10,000 square feet of neighborhood commercial.
- ▲ Toro will undergo development of 300 single family residences.
- ▲ Pebble Beach and Del Monte Forest are expected to undergo development of 1067 homes and 270 hotel rooms. This development is likely to occur near the end of this period.
- ◆ In all, Phase 4 will have development of 1,467 homes, 270 hotel rooms and 10,000 square feet of commercial.

Footnotes to Chapter 4

- /1/ The second to the last sentence of Policy 39.3.2.1 of the CVMP is unclear and should be rewritten, but the intent of the policy seems to be that if a road segment had a LOS of less than C when the CVMP was adopted in 1986, then no development which worsens the LOS shall be approved until an EIR is done and the impact is mitigated.
- /2/ The distribution of development by phase was based on projects in the "pipeline." Some of them have current applications on file, others have been proposed but may not have an application on file. The decision to include a project as a potential future development was made by Lynne Mounday, Supervising Planner, in consultation with Planning Analysis & Development.
- /3/ The number of market and inclusionary units for each project does not necessarily reflect the applications or the desires of the project sponsors. For purposes of this EIR, it was assumed that the County would grant permits to as many qualified projects as possible, subject to the allocation and quota system. As more units are proposed than can be accommodated under the growth limit, most projects will get fewer units approved than applied for. It was further assumed by the EIR authors that permits for approved projects would be spread over a number of years. The distribution used in this EIR attempted to spread the permits fairly and consistently across years within phases, in proportion to the number of units that would be applied for.
- /4/ Greater Monterey Peninsula Area Plan, Monterey County Planning Department, May 1984, page 31.
- /5/ This information is derived from the Cachagua Area Plan, prepared by the Monterey County Planning and Building Inspection Department in November of 1989.

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- /6/ This information is derived from the Toro Area Plan, prepared by the Monterey County Planning and Building Inspection Department of 1983.

- /7/ The information in this section is derived from the Draft Supplemental EIR for the Rancho San Carlos Portion of the Greater Monterey Peninsula Area Plan, prepared by Planning Analysis & Development for the Monterey County Department of Planning and Building Inspection in February of 1990.

CHAPTER FIVE

A. TRAFFIC

Environmental Setting

The primary road providing access and local circulation within Carmel Valley is Carmel Valley Road. Carmel Valley Road is a Monterey County road extending from Highway One in Carmel on the east, through the Carmel Valley to Cachagua on the west and ultimately to Highway 101 at Greenfield. Regional access to Carmel Valley is provided by Highway One and Los Laureles Grade. Laureles Grade is a steep and winding two-lane road passing over the ridge between Carmel Valley and Highway 68. It is well-graded and has wide shoulders, so it provides a good level of service for a mountain road. At the mouth of the Valley, the road system includes Rio Road which connects to the City of Carmel, and Carmel Rancho Boulevard which connects Carmel Valley Road to Rio Road. Several other roads exist in the Valley, as shown on Figure 2; these all provide access to local development.

The following sections describe the present design of Carmel Valley Road, its traffic operations, and its accident history. For analytical purposes, Carmel Valley Road has been divided into ten segments, the same Carmel Valley Road segments used in the Carmel Valley Master Plan (CVMP). Two segment of road discussed in the CVMP are not actually in Carmel Valley, and were not analyzed for level of service in this EIR. Figure 2 shows the road segments addressed in this EIR.

Road Geometry

Carmel Valley Road varies from four lanes at the mouth of the Carmel Valley to two lanes toward Cachagua. The four-lane section begins at Carmel Rancho Boulevard and ends just west of Rancho San Carlos Road; it is 94 feet wide including shoulders and a 16-foot landscaped median that contains left-turn pockets at intersections. The intersection at Carmel Rancho Boulevard/Carmel Knolls Drive is signalized. All other intersections are unsignalized; some are controlled by stop signs.

The Carmel Valley Road segment from Rancho San Carlos Road to Los Laureles Grade is generally 40 feet wide with two 12-foot travel lanes and two 8-foot shoulders. The road widens to accommodate left-turn pockets at the following cross streets: Valley Greens Drive, Schulte Road, Carmel Valley Manor, Tierra Grande Drive, Dorris Drive, Berwick Drive,

Los Laureles Grade. A partial interchange exists at Robinson Canyon Road: westbound to southbound left turns must cross traffic, but northbound to westbound left-turns are grade-separated.

East of Los Laureles Grade the pavement narrows to 30 feet, with two 12-foot travel lanes and two 3-foot shoulders. A left-turn pocket exists at Ford Road. Beyond Esquiline Road, Carmel Valley Road narrows to 22 feet as it leaves the Carmel Valley Village area toward Cachagua.

At the mouth-of-the-Valley area (i.e., the west end of Carmel Valley), Rio Road parallels Carmel Valley Road and provides direct access between Carmel Valley and Carmel-by-the-Sea.

The mouth of the Valley is more intensely developed than the rest of Carmel Valley and has four signalized intersections: Carmel Valley Road at Carmel Rancho Boulevard; and where Rio Road meets Carmel Center Place, the Crossroads driveway, and Highway One. The Highway One/Carmel Valley Road intersection is not signalized, and westbound to southbound left turns are not allowed.

Existing Traffic Operations

Carmel Valley Road carries between 3,000 and 23,000 vehicles per day, depending on the road segment. The volume increases toward Highway One. The highest volume is just east of Carmel Rancho Boulevard; between this location and Highway One some of the traffic shifts to Rio Road, slightly reducing westerly Carmel Valley Road traffic.

The existing levels of service (LOS) in Carmel Valley were calculated using three different techniques. In the mouth-of-the-Valley area, the level of service was calculated for each intersection using the Circular 212 methodology. /1/ In this area, traffic flow is controlled by intersection operations. The results of the calculations are presented in Table 8. Two intersections along Highway One at Carmel Valley Road and Rio Road are very congested, operating at level of service F. (See Appendix for level of service definitions.) Level of service C has been established as the minimum service standard for Carmel Valley according to policy 39.3.2.1 of the Carmel Valley Master Plan. Three other intersections are operating unacceptably (LOS D, or worse):

- Carmel Rancho Boulevard at Carmel Valley Road,
- Carmel Rancho Boulevard at Rio Road (southbound to eastbound left turn only),
and

- Los Laureles Grade at Carmel Valley Road (southbound to eastbound left turn).

It should be noted that the CVMP does not govern left turn level of service; policy 39.3.2.1 only applies to road segment level of service. This EIR addresses left turn LOS because they significantly impact many drivers.

Table 8
INTERSECTION PEAK-HOUR LEVELS OF SERVICE

Location	Level of Service (LOS)
Highway One and Carmel Valley Road	F /1/
Carmel Rancho Boulevard and Carmel Valley Road	D
Highway One and Rio Road	F /1/
Crossroads Driveway and Rio Road	A
Carmel Center Place and Rio Road	A
Carmel Rancho Boulevard and Rio Road	A /D /2/
Laureles Grade and Carmel Valley Road	A /F /3/

Table Notes:

- /1/ Blocked by downroad congestion on Highway One from Ocean Avenue to the intersection with Carmel Valley Road.
- /2/ Unsignalized intersection. LOS=A for eastbound to northbound left turn, LOS=D for southbound to eastbound left turn.
- /3/ Unsignalized intersection. LOS=A for eastbound to northbound left turn, LOS=F for southbound to eastbound left turn.

Source: Barton-Aschman Associates, Inc.

East of Carmel Rancho Boulevard, the level of service along Carmel Valley Road is measured in two ways. First, a level of service is given for the mainline flow. This is calculated based on headways, or gaps, between vehicles. When vehicles are closely spaced, the level of service is worse because drivers are often impeded. When vehicles are spread out, each driver can attain his own comfortable speed. Second, the level of service is also described by the difficulty in making turns on to or off of Carmel Valley Road. These two measures of level of service are not necessarily the same.

1989 mainline levels of service range from A to D, with level of service A on the four-lane section and level of service D on all of the two-lane sections up to Carmel Valley Village.

(See Table 9.) Thus, the majority of Carmel Valley Road operates at an unacceptable level of service in terms of mainline flow during peak hours. The level of service D designation means that 60% to 75% of motorists will be impeded with respect to maneuverability and speed. However, at level of service D, the average speed will still be very near the speed limit.

An acceleration lane for left turns is a pocket in the median that enabled the turning vehicles to safely merge with faster vehicles in through lanes. It also provides a refuge area so that left turning vehicles can cross the through traffic stream one by one.

Table 9
PEAK-HOUR LEVELS OF SERVICE FOR MAINLINE AND TURNING TRAFFIC
1989

Segment	Location	Mainline LOS		Turn LOS		
		% in Platoons	LOS	LT from Carmel Valley Road	LT from cross street	RT from cross street
1	East of Holman	44%	B	A	A	A
2 A	Esquiline to Holman	44%	B	A	A	A
2 B	Ford to Esquiline	59%	C	A	C	A
3	Laureles to Ford	65%	D	A	C	A
5	Robinson to Laureles	67%	D	A	D	B
6	Schulte to Robinson	69%	D	A	E	B
7	Rancho S. C. to Schulte	72%	D	A	E	B
8	Rio Road to Rancho S. C.	--	A	C	F	C
9	Carmel Rancho to Rio Road	--	A	C	F	C

Source: Barton-Aschman Associates, Inc.

The second way to depict level of service is from the standpoint of vehicles on driveways or cross-streets trying to enter or cross Carmel Valley Road. If these vehicles must wait a long time for gaps in traffic, then the level of service is D or E for the turning auto. Moderate waits are representative of level of service C, while little or no wait is indicative of level of service A or B. The levels of service can be calculated from peak-hour traffic volumes and road geometry using the unsignalized intersection methodology described in the *Highway*

Capacity Manual. Table 9 shows that levels of service for left turns onto Carmel Valley Road are about the same as mainline levels of service for the two-lane sections. Left turns off of Carmel Valley Road and right turns on are easier and operate at level of service C or better on all segments. On the four-lane segments of Carmel Valley Road, left turns from cross-streets are difficult (LOS E) where there are no acceleration lanes in the median. With an acceleration lane, 1/2 the level of service for left turns would be C or better. However, where no left-turn pockets exist on Carmel Valley Road, vehicles waiting to turn left can block the through traffic stream, which contributes to LOS D for the through traffic.

Traffic Profile

In order to determine the appropriate planning response to poor levels of service in Carmel Valley, it is important to know whether the traffic is locally-generated or through traffic. To determine this, the County conducted an origin-destination study along Carmel Valley Road near Rio Vista in August 1987. Table 10 shows that 87% of the traffic on Carmel Valley Road is generated by residents or visitors to Carmel Valley. The remainder (13%) are trips using Carmel Valley Road to travel between two external points. Most of these through trips use Laureles Grade and are made between Carmel and Salinas.

Table 10
TRAFFIC PROFILE ON CARMEL VALLEY ROAD

Origin/Destination	Percentage
Both trip ends in Carmel Valley	11%
One trip end in Carmel Valley	<u>76%</u>
Total	87%
Through trips	
Oriented to Laureles Grade	
Laguna Seca	4%
Salinas	3%
Other	2%
Oriented to Cachagua	
Within Monterey County	1%
Southern California	<u>3%</u>
Total	13%

Source: Barton-Aschman Associates, Inc.

Vehicular Safety

For this EIR, Monterey County provided accident records for Carmel Valley Road from 1984 through 1989. These records reveal the number and type of accidents for road segments and intersections. Table 11 compares the accident rates on Carmel Valley Road with statewide averages for similar roads and shows that many parts of Carmel Valley Road have a higher than average number of accidents. The portion of the road west of Los Laureles Grade, in particular, has more accidents than average due to the large number of intersecting streets and driveways and due to the narrow shoulder. The accidents on segments 6 and 8 are due primarily to two cross-streets: Via Mallorca and Dorris, which are discussed below. Without these two intersections, segments 6 and 8 would have average or below average accident rates.

Table 11
CARMEL VALLEY ROAD ACCIDENT ANALYSIS
(Number of Accidents in 6 Years)

Segment (#)	Location	Expected*	Actual	Difference**
(1)	Holman Road to east CVMP Boundary	27	31	+4
2A)	Carmel Valley Road between Ford and Esquiline	4	7	+3
(2B)	Carmel Valley Road between Esquiline to east of Holman	26	49	+23
(3)	Laureles Grade to Ford Road	70	117	+47
(5)	Robinson Canyon Road to Laureles Grade	103	90	-13
(6)	Schulte Road to Robinson Canyon Road	59	86	+27
(7)	Rancho San Carlos Road to Schulte Road	130	110	-20
(8)	Rio Road to Rancho San Carlos Road	38	56	+18
(9)	Carmel Rancho Blvd. to Rio Road	52	48	-4
(10)	Highway One to Carmel Rancho Blvd.	Not Applicable		

Segment (4) is Los Laureles Grade, which is not addressed in this project.

* Based on statewide averages for roads of this type. Source: Caltrans Accident Data on California State Highways.

** The difference is actual accidents minus expected accidents for the type of road represented by each segment.

Source: Barton-Aschman Associates, Inc.

The majority of accidents occur at cross-street intersections with Carmel Valley Road. Table 12 shows the number of accidents that occurred at each major cross-street over the last six years. Any cross-street not listed had fewer than eight accidents during the period. Cross-streets with 20 or more accidents deserve special analysis; these include Carmel Valley Road crossings with Highway One, Carmel Rancho, Via Mallorca, and Dorris. The high accident numbers at Highway One and Carmel Rancho are due to the high volumes at these locations, and no unusual hazards appear to exist. Via Mallorca and Dorris are discussed below.

As an indication of whether an intersection has a high number of accidents or not, most traffic engineers refer to "preventable" accidents and have established that five or more "preventable" accidents in a twelve-month period is cause for concern. (Monterey County's Department of Public Works uses three accidents in a twelve-month period.) A "preventable" accident is defined as one that might be avoided through the installation of a signal or other traffic control device. Generally, "preventable" accidents are those involving left turns. Table 12 shows the maximum number of "preventable" accidents that occurred in any one-year period at each cross-street. Again, Via Mallorca and Dorris are showing a problem. A field check shows that Dorris has very restricted sight distance for left turns due to a rise in Carmel Valley Road at Tierra Grande. The lack of sight distance is undoubtedly contributing to the high number of left-turn accidents. Via Mallorca is more problematic. No unusual conditions are present, although speeds are high on Carmel Valley Road at that point. The accident records suggest that the high proportion of elderly drivers using Via Mallorca may contribute to the high accident rate./3/

Areas of Concern and Recommendations for Improvement

The analysis of existing conditions indicates that the following are the areas of concern regarding traffic congestion and accidents in Carmel Valley:

- Highway One is operating at level of service F between Carpenter Street and Rio Road. This section needs to be widened or additional capacity needs to be provided by construction of the Hatton Canyon Freeway.
- Carmel Valley Road is operating at level of service D for mainline traffic from Rancho San Carlos Road to Ford Road. In order to meet the LOS C standard, these segments need to be widened to four lanes. (The CVMP road widening policy does not address four laning to Ford Road.)

Table 12
ACCIDENTS AT MAJOR CROSS-STREETS
 (Intersections with Carmel Valley Road)

Cross-Street	Total Number of Accidents (6 years)	"Preventable" Accidents (highest one-year period)
Highway One	26	1
Carmel Rancho	36	N/A*
Rio Vista	19	1
Rio Road	15	4
Via Mallorca	25	5
Via Petra	8	1
Rancho San Carlos	9	3
Valley Greens	18	4
Dorris	20	6
Laureles Grade	13	4
Rancho/Boronda	11	3
Country Club	10	1
Ford	9	2

* This intersection is already signalized.

Source: Barton-Aschman Associates, Inc.

- The level of service for left turns onto Carmel Valley Road is D or worse all the way from the mouth of the Valley to Ford Road. These segments need periodic left-turn acceleration lanes and (for safety) turn pockets or a continuous two-way left turn lane in the median. (The CVMP does not address levels of service for left turns onto Carmel Valley Road.)
- The intersection of Carmel Rancho Boulevard and Carmel Valley Road is operating at level of service D. The Rio Road extension would relocate some traffic away from Carmel Rancho Boulevard. Beyond this, one through lane in each direction needs to be added to Carmel Valley Road at Carmel Rancho Boulevard. This would bring the level of service up to C.

- The Laureles Grade/Carmel Valley Road intersection is operating at LOS F for left turns onto Carmel Valley Road. This intersection needs to be improved with a signal or minor interchange.
- Left-turn accidents are a problem at the cross-streets of Via Mallorca and Dorris. Intersection improvements are needed.

Master Plan Improvements

For the purpose of this EIR, the project is defined as build-out of the CVMP, both the land use and circulation elements. Build out will occur ~~between~~ by the year 2005. The analysis in this EIR assesses impacts for the following five-year intervals: 1990, 1995, 2000, and 2005, corresponding to land use development phases 1 through 4. Chapter 4 Section C of this EIR describes land use build-out. Table 13 describes the circulation improvements segment by segment that are included in the CVMP. Table 14 shows the assumed timing for these improvements, and Table 15 shows the assumed geometric configuration.

Environmental Impacts

Traffic conditions will change in Carmel Valley as a result of both land use development and road improvements. This EIR projects future traffic conditions for the years 1990, 1995, 2000, and 2005 based on the land development and road improvement schedules discussed earlier. This section of the EIR describes briefly the methodology used to predict future traffic volumes and then discusses the future level of service estimates for road segments and intersections. The road improvements included in the CVMP will result in better levels of service than would otherwise exist, given expected development, and in many cases will result in better traffic conditions than exist today (1990-1991). Nevertheless, some problems will remain, and these are discussed at the end of the chapter.

Table 13
Master Plan Improvements by Road Segment

Segment (1) Holman Road to east CVMP Boundary and (2A) Carmel Valley between Ford and Esquiline –No changes.

Segment (2B) Carmel Valley Road between Esquiline to point east of Holman--The plan calls for shoulder widening to eight feet on both sides of the road. The shoulder widening will continue into this segment as far as Pilot. No other changes are planned.

Segment (3) Laureles Grade to Ford Road--The plan calls for shoulder widening to eight feet on both sides of the road plus left-turn pockets at four cross-streets: Rancho/Boronda, Country Club, Panetta, and Laurel.

Segment (5) Robinson Canyon Road to Laureles Grade--This segment will get left-turn channelization at three cross-streets: Scarlett, Rancho Fiesta, and Miramonte. The intersection of Laureles Grade with Carmel Valley Road will be grade-separated, as at Robinson Canyon Road.

Segments (6) Schulte Road to Robinson Canyon Road and (7) Rancho San Carlos Road to Schulte Road--The plan calls for these segments to be significantly widened to two lanes in each direction plus a median. The median will give way to turn pockets at cross-streets. The design will be like the existing four-lane section.

Segments (8) Rio Road to Rancho San Carlos Road and (9) Carmel Rancho Blvd. to Rio Road and --No change except the addition of an interchange at Rio Road to accommodate the Rio Road extension (described below).

Segment (10) Highway One to Carmel Rancho Blvd.--This section of Carmel Valley Road will be widened to six lanes in conjunction with construction of the Hatton Canyon freeway. The intersection of Carmel Valley Road at Carmel Rancho Boulevard will be restriped to accommodate two through lanes in each direction on Carmel Valley Road plus a second westbound to southbound left-turn lane.

Rio Road Extension--The plan calls for Rio Road to be extended from its terminus east of Carmel Rancho to Carmel Valley Road adjacent to the Rancho Canada Golf Club. The extension will reduce traffic volumes at the Carmel Rancho/Carmel Valley intersection by providing an alternate route between Carmel Valley and Carmel through the mouth of the Valley.

Hatton Canyon Freeway--The planned freeway will eliminate the severe congestion in the Highway One area by providing a high-capacity roadway on a parallel alignment. An interchange at Carmel Valley Road will provide access to Carmel Valley. According to current designs, the new freeway will pass over Rio Road with no connecting ramps. Details about the Hatton Canyon freeway and its impact are included in the EIS prepared by Caltrans. /4/

Source: Carmel Valley Master Plan

Table 14
ASSUMED TIMING OF CVMP ROAD IMPROVEMENTS

Road Improvement	Approximate Year of Completion
Hatton Canyon Freeway	2000
Rio Road Extension	2000
Rio Road Grade Separation	2000
Widening on Segments 6 and 7 (4-laning)	2000
Left-turn pockets on Segments 3 and 5	1995
Grade-separation at Laureles Grade	2000

Source: Barton-Aschman Associates, Inc.

Table 15
ASSUMED GEOMETRIC CONFIGURATION OF CVMP ROAD IMPROVEMENTS

Improvement	Configuration
Hatton Canyon Freeway	Four-lane freeway to Carmel Valley Road, single-point diamond interchange at Carmel Valley Road, overpass at Rio Road.
Rio Road Extension	Two-lane roadway along edge of golf course, widened for turn lanes at intersections.
Rio Road Grade Separation	Rio Road underpass for WB to SB left turn, NB to WB left turn not accommodated because of low demand.
Widening on Segments 6 and 7	Four through lanes with median, 14-foot travel lanes, 16-foot median, 8-foot shoulders, median breaks with turn pockets at cross-streets.
Left-turn Pockets on Segments 3 and 5	450-foot flares to accommodate turn pockets at Scarlett, Rancho Fiesta, Miramonte, Rancho, and Laurel.
Grade Separation at Laureles Grade	Laureles Grade underpass for SB to EB left turns, EB to NB left turns remain at grade.

EB = Eastbound, etc.

Source: Barton-Aschman Associates, Inc.

Traffic Forecasting Methodology

The traffic forecasts for this study were developed using an enhanced version of the Northern Monterey County travel demand model. This model was originally developed and used to prepare the traffic forecasts for the U.S. 101/Prunedale Bypass Alternatives study. The model covers the northern area of Monterey County from Carmel Valley north to the county line, Salinas, Castroville, and the Prunedale communities. The model was derived from the methods and procedures reported in the Transportation Research Board Report #187, "Quick-Response Urban Travel Estimation Techniques and Transferable Parameters."

Enhancements were made to the model in order to provide a more precise simulation of traffic variations along the length of Carmel Valley Road and especially in the vicinity of residential and commercial development sites. The enhancements included additional traffic zones, added network links and a more precise quantification of the land use within Carmel Valley. Forecasts were developed for 1990, 1995, and 2005 conditions.

The traffic forecasts were used to estimate future levels of service along Carmel Valley Road and at the key intersections. For mainline through traffic, the levels of service were determined using the nomograph developed to analyze existing conditions. For left-turn levels of service on Carmel Valley Road, the future volume forecasts were input into the *Highway Capacity Manual* unsignalized intersection methodology. The model was also used to project turning movements at the major intersections. The raw model output was calibrated using existing traffic counts for the intersections and for the Carmel Valley Road segments. Future year intersection levels of service were calculated using the *Circular 212* planning methodology. Appendix B provides additional detail about the traffic forecasting methodology and about the level of service calculations.

Future Traffic Operations

Future traffic volumes were compared to the capacity of Carmel Valley Road after the construction of CVMP improvements for mainline through traffic. (See Table 16.) Traffic volumes will continue to increase as development occurs under build-out of the CVMP. By the year 2005, the volume on Carmel Valley Road will be about 35% higher than today. Segments 1 and 2A will continue to have light traffic volume and will operate at LOS C or better. Segments 6 and 7 will degrade to LOS E by 1995 without widening. The widening to four lanes called for in the CVMP will improve the LOS to A. The other segments will degrade slightly or remain at the existing level of service. The following is a detailed list of impacts.

- Impact 1:** Segments 6 and 7 would improve to level of service A due to the planned construction of two additional lanes in each direction plus turn pockets. *This is a beneficial impact of the project.*
- Impact 2:** Segments 3 and 5 will have slightly greater capacity due to wider shoulders and turn pockets, but these improvements would be offset by greater traffic volume, and the levels of service will remain at D. According to past interpretations of the level of service policy for Carmel Valley Road, segments that are already operating at LOS D and do not get any worse than LOS D in the future are acceptable. *Therefore, this is not considered a significant impact.*
- Impact 3:** Segment 2B is now operating at LOS C and will degrade to LOS D in 1995. This degradation is counter to the level of service policy, and Segment 2B needs to be considered for improvement. *This is considered a significant impact.*

The other measure of traffic condition is the difficulty in making left turns onto Carmel Valley Road from cross-streets. The ease of this left-turn maneuver depends on whether or not acceleration lanes or refuge areas are present in the median. Without acceleration lanes or refuge areas, motorists must wait for simultaneous gaps in eastbound and westbound traffic. With median refuge areas or acceleration lanes, only one-half of the street must be crossed at a time, and the wait for gaps would be shorter. No acceleration lanes presently exist on Carmel Valley Road and the existing median is not wide enough to provide a refuge area. As a worst-case approach, no acceleration lanes were assumed for future years. Table 17 shows the levels of service for outbound left turns from cross-streets.

- Impact 4:** Segments 2A and 1 will continue to have light traffic volume and will operate at LOS C or better.
- Impact 5:** The left turn level of service on segments 8 and 9 is already F and will remain that way. *This could be considered a significant impact because the CVMP has no improvement policy for these locations.*
- Impact 6:** The left turn level of service on segments 6 and 7 will degrade from LOS E to LOS F. The 4-laning project would actually make outbound left turns more difficult at median breaks by making Carmel Valley Road twice as wide to cross. The present median break design does not call for acceleration lanes or refuge areas. *This is a significant impact.*

Table 16
FUTURE MAINLINE THROUGH TRAFFIC LEVELS OF SERVICE
ON CARMEL VALLEY ROAD
 (Level of Service)

Segment	(Existing)	1990	1995	2000	2005
	1989				
1	B	B	B	C	C
2 A	B	B	B	B	B
2 B	C	C	D	D	D
3	D	D	D	D	D
5	D	D	D	D	D
6	D	D	E	A	A
7	D	D	E	A	A
8	A	A	B	B	B
9	A	B	B	B	B
10	<i>Not applicable, controlled by signals</i>				

Source: Barton-Aschman Associates, Inc.

Table 17
FUTURE LEFT TURN LEVELS OF SERVICE FROM CROSS-STREETS

Segment	(existing)	1990	1995	2000	2005
	1989				
1	A	A	A	A	A
2 A	A	A	A	A	A
2 B	C	C	C	C	C
3	C	C	D	D	D
5	D	D	D	D	D
6	E	E	E	F	F
7	E	E	E	F	F
8	F	F	F	F	F
9	F	F	F	F	F
10	<i>Not applicable; no cross-streets</i>				

NOTE: Left turn level of service is not governed by policies of the Carmel Valley Master Plan.

Source: Barton-Aschman Associates, Inc.

- Impact 7:** The left turn level of service on segment 5 would degrade from LOS D to LOS E. *This is considered a significant impact.*
- Impact 8:** Segment 3 would degrade from LOS C to LOS D. *This is considered a significant impact.*
- Impact 9:** Segments 1, 2A, and 2B will continue to operate at LOS C or better. *This is a beneficial impact.*

At the mouth of the Valley intersection level of service, rather than road segment level of service, is the appropriate measure of traffic conditions. Table 18 shows the projected future levels of service given land use growth and the planned road improvements. The minor intersections along Rio Road (Crossroads, Carmel Center, Via Nona Marie) are not analyzed since they are operating at LOS A and have more than adequate reserve capacity. The intersection of Carmel Rancho Boulevard and Rio Road is assumed to be signalized with the Rio Road extension; this would eliminate potential congestion there.

- Impact 10:** The intersection of Laureles Grade and Carmel Valley Road will be extensively modified with a grade separation by the year 2000. The southbound to eastbound left turn movement will be eliminated, which will improve the level of service to B. *This is a beneficial impact.*

Table 18
FUTURE INTERSECTION LEVELS OF SERVICE

Location	(existing)				
	1989	1990	1995	2000	2005
Highway One and Carmel Valley Road	F	F	F	A	A
Carmel Rancho and Carmel Valley Road	D	E	F	B	C
Highway One and Rio Road	F	F	F	C	C
Carmel Rancho and Rio Road	D	D	D	A	A
Hatton Canyon Freeway and Carmel Valley Road	--	--	--	D	E
Laureles Grade and Carmel Valley Road	F	F	F	B	B

Source: Barton-Aschman Associates, Inc.

Accident Impacts

Many of the CVMP road improvements would decrease accidents as well as add capacity. These include widening and median installation on segments 6 and 7, and left-turn pockets and shoulder widening on segments 3 and 5. However, these improvements will be partially offset by an overall increase in traffic volume, which tends to increase accidents. (See Table 19.) Via Mallorca is one area that poses difficult traffic conditions that cannot be readily changed to reduce accidents. The intersection is already well designed and the high accident rate is attributed to a high proportion of elderly drivers. Signalization and a grade separation could reduce accidents, but such improvements are not warranted by the amount of traffic alone.

Table 19
FUTURE ACCIDENT ANALYSIS WITH CVMP IMPROVEMENTS
(2005 vs. 1995)

Segment	Accident Rate	Volume Increase	Total # of Accidents
1	No change	30%	+30%
2A	No change	35%	+35%
2B	No change	20%	+20%
3	-50%	25%	-25%
5	-30%	40%	+10%
6	No change *	40%	+40%
7	No change *	40%	+40%
8	No change	40%	+40%
9	No change	35%	+35%
10	No change	55%	+55%

* No change in accident rate but accidents on segments 6 and 7 will be of a less severe type.

Source: Barton-Aschman Associates, Inc.

Impact 11: Segments 6 and 7 would be widened to four lanes with a median as a CVMP traffic improvement. According to Caltrans' records, four-lane divided highways have about the same accident rate, per million vehicle miles, as two-lane undivided highways. One can expect a reduction in left-turn accidents but an increase in

lane-change accidents. The traffic volume will increase by about 40% by the year 2005. The absolute number of accidents will increase a like amount, since the accident rate will remain the same. However, lane change accidents tend to be much less severe than left-turn accidents. *This is considered a slightly beneficial impact.*

Impact 12: On segment 6, the CVMP improvements would result in the elimination of the accident problem at Dorris. In conjunction with construction of the four-laning project, the County will remove the crest in Carmel Valley Road that restricts sight distance at Dorris. Once adequate sight distance is created at this location, the incidence of left-turn accidents should decrease. *This is considered a beneficial impact.*

Impact 13: The CVMP improvements for segments 3 and 5 call for the addition of left-turn pockets to the conventional two-lane highway. Caltrans' records indicate that this improvement can reduce the accident rate by up to 30% versus a two-lane highway without left-turn pockets. *This is considered a beneficial impact.*

Impact 14: Segment 5 is projected to experience a 40% increase in traffic by the year 2005, which would more than offset the reduced accident rate. The actual number of accidents, therefore, would increase slightly. *This is not considered a significant impact.*

Impact 15: Segment 3 is projected to have a 25% increase in traffic, so the number of accidents there will decrease a little due to the left-turn pockets. In addition, segment 3 is planned to receive widened shoulders. This improvement will further reduce the number of accidents by moving obstacles farther from the traveled way. The records show that 45% of the accidents on segment 3 involve vehicles running off the road and hitting things. Assuming the widened shoulders would cut the rate of these accidents in half, the overall reduction in accident rate would equal 20%. Added to the impact of left-turn pockets, the accident rate on segment 3 could be cut 50%. *This is a beneficial impact.*

Impact 16: For the road segments that would not be changed by the CVMP (1, 2A, 2B, 8 and 9), the annual number of accidents will increase in proportion to the increase in traffic volume. *This could be a significant impact where the greatest traffic increases would occur.*

Cumulative Impacts

The following are impacts that will occur due to the Hatton Canyon Freeway when considered in conjunction with the CVMP growth. (For a discussion of the mouth of the Valley area with the CVMP but *without* the Hatton Canyon Freeway, see Chapter 7 "Alternatives to the Project".)

Impact 17: The intersections of Carmel Valley Road and Rio Road with Highway One will be affected by the Hatton Canyon Freeway, which will improve their levels of service to A and C, respectively. The intersection of Carmel Valley Road at Carmel Rancho Boulevard will be improved in conjunction with the Hatton Canyon Freeway. This widening plus the Rio Road extension would result in level of service C in the year 2005. Without the Rio Road extension, the level of service would be D, and no further widening would be practical. Therefore, the Rio Road extension is an important element in avoiding congestion at the mouth of the Valley. *If built, the Rio Road extension and the Hatton Canyon Freeway would have beneficial impacts on the level of service at these intersections.*

Impact 18: One new signalized intersection will be created in conjunction with the Hatton Canyon Freeway. This is the single-point diamond interchange with Carmel Valley Road. The level of service at this location would not be up to the LOS C standard, however, given the current Caltrans design, level of service D is projected for 2000 and level of service E for 2005. *This is a significant impact on traffic.*

Problems Remaining After CVMP Implementation

The road improvements included in the CVMP will not solve all of the problems with accidents and traffic operations that exist today or will exist in the future. The following traffic operations problems will remain:

Impact 19: Segment 2B will degrade from existing LOS C to LOS D by 1995. The CVMP includes no improvements for this segment. *This is a significant impact.*

Impact 20: Left turns from cross-streets will operate at LOS D or worse on all segments from the mouth of the Valley to Ford Road. The CVMP includes turn pockets for left turns from Carmel Valley Road, but these will not help left turns from cross-streets. *This could be considered a significant impact.*

Impact 21: The planned new interchange of the Hatton Canyon Freeway with Carmel Valley Road will operate at LOS E in the year 2005. *This is a significant impact.*

Impact 22: Higher than normal accident rates will remain at Via Mallorca and along segment 2B in the Village. The CVMP includes no improvements at via Mallorca or on segment 2B. *This is a significant impact.*

Mitigation Measures

This section describes further improvements that should be planned to eliminate the traffic operations and accident problems that are not addressed by the CVMP improvements. This section also presents a cost estimate for the mitigation program. *If adopted, these measures would reduce impacts to a level of insignificance.*

Mitigation 1. *Segment 2B:* The CVMP includes no improvements to this segment, but year 2005 traffic volumes will be in the LOS D range and the accident rate is higher than normal through the village. The recommended improvement is a continuous two-way left-turn lane in the median from Pilot to Esquiline. This median lane would get left-turning vehicles out of the traffic stream, which would reduce accidents and reduce through traffic delays. A median with individual turn pockets at cross-streets would not work because the cross-streets are very close together in the Village.

Mitigation 2. *Left Turns from Cross-Streets:* Levels of service for outbound left turns would be D or worse on segments 3, 5, 6, 7, 8 and 9. The CVMP does not address the outbound left-turn problem. Acceleration lanes should be created in the median for outbound left turns. With acceleration lanes in place, a left-turning motorist need only wait for a gap in one direction of traffic. This would result in greater safety and much shorter delays than if gaps are needed in both directions simultaneously.

Acceleration lanes could be incorporated into all median breaks along segments 6, 7, 8 and 9. The acceleration lanes can be designed into the planned median for segments 6 and 7. Segments 8 and 9 could be retrofitted. Along segments 3 and 5, acceleration lanes are needed at a minimum at all major cross-streets: Scarlett, Rancho Fiesta, Miramonte, Rancho/Boronda, Country Club, Panetta, and Laurel. In locations where cross-streets are closely spaced, the acceleration lanes and left-turn pockets will encroach upon each other, so a continuous two-way left-turn lane should be installed.

Mitigation 3. *Hatton Canyon/Carmel Valley Road Interchange:* The single-point diamond intersection will operate at LOS E due to heavy traffic volumes making southbound to eastbound left turns. The present design includes two left-turn lanes

to accommodate this movement. The design should provide for three left-turn lanes. Three eastbound lanes will also be required from the signal to Carmel Rancho Boulevard to receive the triple left-turn lanes. The curb lane could become a right-turn-only lane at Carmel Rancho Boulevard. The resulting level of service would be C in the year 2005. The alternative is a three-level interchange with a direct connector ramp from southbound Hatton Canyon to eastbound Carmel Valley Road.

Mitigation 4. *Accidents at Via Mallorca:* This intersection had five left-turn accidents in 1987, which is enough to cause concern. Improvement options are limited. The intersection is already well-engineered with channelization and good sight distance. The only improvement options are signalization or grade-separation. (A left-turn prohibition would create U-turns and would not solve the accident problem.) Signalization usually causes even more accidents to occur, but these are primarily rear-end accidents -- less severe than left-turn accidents. A signal at Via Mallorca, however, may not be in keeping with the spirit of the CVMP to keep the Valley rural.

A grade separation at Via Mallorca would solve the accident problem. However, this is a very high cost solution, and it would require the removal of at least one house to provide sufficient right-of-way. The County Board of Supervisors should make the decision as to which approach to take (signal or grade-separation) to control accidents at Via Mallorca.

Costs

The Monterey County Public Works Department has estimated the cost for the road improvements included in the CVMP. Their total cost estimate (in 1988 dollars) was \$26.3 million, excluding the cost of the Hatton Canyon Freeway. A detailed breakdown of these costs is included in the document titled, "Carmel Valley Road Proposed Financial Plan," prepared by the Department of Public Works in October 1988. A revised financing program was prepared for this EIR, and is included as Tables 25 and 27 in Chapter 5B.

These documents were revised to include the added costs of the mitigation measures described above. (See Chapter 5B, Fiscal Impacts.) Table 20 gives costs estimates for the recommended mitigation measures. Depending on the mitigation options chosen, the total additional cost will range from \$1.4 million to \$3.7 million. The largest share of this cost, some \$2.5 million, is attributable to the Via Mallorca minor interchange.

Table 20
COST ESTIMATES FOR MITIGATION MEASURES

Mitigation Measure	Cost
Two-way left-turn lane Pilot to Esquiline	\$300,000
Acceleration lanes for left turns 2 locations on Segments 8 and 9 (2 @ \$20,000)	\$40,000
10 locations on Segments 5 and 3 (10 @ \$90,000)	\$900,000
Signal at Via Mallorca or Minor interchange at Via Mallorca (optional)	\$120,000 \$2,500,000
Total (range)	\$1,360,000 to \$3,740,000

Source: Barton-Aschman Associates, Inc.

Footnotes to Chapter 5A

- /1/ Transportation Research Board Circular 212, Interim Materials on Highway Capacity, 1980.
- /2/ An acceleration lane for left turns is a pocket in the median that enables the turning vehicle to safely merge with faster vehicles in through lanes. It also provides a refuge area so that left turning vehicles can cross the through traffic stream one by one.
- /3/ Transportation Research Board Circular 212, Interim Materials on Highway Capacity, 1980.
- /4/ U.S. Department of Transportation General Highway Administration and State of California Department of Transportation (Caltrans) Final EIS Highway Improvement Project for State Route Number 1 in Monterey County Near Carmel (no date). Additional change to this EIS and the proposed Hatton Canyon Freeway project are expected in 1990-1991.

CHAPTER FIVE
B. FISCAL FACTORS

Environmental Setting

This section of the EIR evaluates and makes recommendations regarding Monterey County's proposed fee and financing structure for traffic improvements in the Carmel Valley area. The County's proposed financing plan was developed prior to the passage of a half-cent sales tax increase on November 7, 1989. Major components of the financial plan are described below and are summarized in Table 21. Although revenues and expenditures are presented by year, the dates are used for analytical reasons and should not be construed as representing actual commitment by the County to make the improvements and fund allocations in a specific year. The improvements will be made as needs and funding become available, and after due consideration by the Board of Supervisors.

County's Financing Plan Assumptions

Level and Phasing of Development

- Based on the growth policies of the Carmel Valley Master Plan, the County calculated the potential for approximately 740 new residential lots to be created, and assumed these will be developed evenly, at an average of 37 lots per year, over the 20-year planning period (1986-2005).
- The County projected 300 new units of visitor accommodations, estimating 200 of these in year 5 (1990) and additions of 50 units each in year 10 (1995) and year 15 (2000).
- For commercial space, the County projected a total of 650,000 sq. ft. of new commercial building area over the 20-year planning period. It assumed a large share in the early years: 180,000 sq. ft. each in years 1 and 2 (1986 and 1987) and an additional 30,000 sq. ft. each in years 3, 4 and 5 (1988-90). The balance was projected at 50,000 sq. ft. each in year 10 and 15 (1995 and 2000) and 75,000 sq. ft. in year 2005.

Table 21

County Proposed Financing Program

CASH INTEREST RATE: CONSTRUCTION ESCALATION RATE:	6 PERCENT										4 PERCENT									
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
YEAR-->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
DEVELOPMENT AND FEDERAL INCOME SOURCES	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
FAU	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37
NEW LOTS																				
VISITOR ACCOM.	180	180	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
COMMERCIAL	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
DISCRETIONARY																				
LOTS OF RECORD																				
INCOME (IN MILLIONS OF DOLLARS) - NOTE: NO INFLATION FIGURED																				
FAS	0	0	0	0	0	0.76	0.76	0.76	0.76	0.76	0	0	0	0	0	0.76	0.76	0.76	0.76	0.76
FAU	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
NEW LOTS	20,000	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74
VISITOR ACCOM.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
COMMERCIAL	10,000	1.8	0.3	0.3	0.3	0	0	0	0	0.5	0	0	0	0	0.75	0	0	0	0	0
DISCRETIONARY	15,000	0.15	0.15	0.15	0.15	0.075	0.075	0.075	0.075	0.075	0.03	0.045	0.03	0.045	0.03	0.045	0.03	0.045	0.03	0.045
LOTS OF RECORD																				
TOTAL	2.74	2.74	1.24	1.24	4.24	1.625	1.625	1.625	1.625	2.875	0.82	0.835	0.82	0.835	2.32	1.595	1.58	1.595	1.58	2.345
EXPENDITURES (IN MILLIONS OF DOLLARS)																				
CVR 4-LANE	14.5									21.464		2.738			2.882		2.922			6.5734
RIO ROAD EXT.	1.71																			4.3822
CHANNELIZATION	1.6																			
LGR SHOULDERS	1.5																			
LGR PASSING LNS	3																			
MINOR INTERCHGS	4																			
ADMIN PER YEAR	0.005	0.005	0.006	0.006	0.006	0.006	0.007	0.007	0.007	0.007	0.008	0.008	0.008	0.009	0.009	0.009	0.010	0.010	0.011	0.011
TOTAL EXPEND.	28.31	0.005	0.006	0.006	0.006	0.006	0.007	0.007	0.007	21.471	0.008	2.746	0.008	0.009	6.492	0.009	2.932	0.010	0.011	10.967
NET REVENUE AND EXPENDITURE - CARRY FORWARD																				
REVENUES	2.74	2.74	1.24	1.24	4.24	1.625	1.625	1.625	1.625	2.875	0.82	0.835	0.82	0.835	2.32	1.595	1.58	1.595	1.58	2.345
EXPENDITURES	0.005	0.005	0.006	0.006	0.006	0.006	0.006	0.007	0.007	21.471	0.008	2.746	0.008	0.009	6.492	0.009	2.932	0.010	0.011	10.967
NET ANNUAL BALANCE	2.735	2.735	1.234	1.234	4.239	1.619	1.618	1.618	1.617	-18.6	0.812	-1.91	0.812	0.826	-4.17	1.588	-1.35	1.585	1.569	-8.622
INTEREST INCOME (1)	0.082	0.246	0.38	0.4768	0.6695	0.885	1.0354	1.195	1.3634	0.9359	0.459	0.453	0.447	0.523	0.454	0.404	0.435	0.468	0.591	0.4149
CARRY FORWARD - NEXT YR	2.735	5.716	7.33	9.0408	13.944	16.45	19.102	21.91	24.896	7.236	8.507	7.049	8.308	9.658	5.94	7.929	7.013	9.066	11.23	3.0199

(1) Interest Income assumes 1/2 year Income for current year and full year for carry forward Balance

- Finally, the County calculated a potential of 100 discretionary permits required for existing lots of record, with a majority of these occurring in the first five years (1986-1990). /1/

County's Fee Structure

The County's proposed fees for new development in the Carmel Valley are as follows:

New lots:	\$20,000 per lot
Visitor Accommodations:	\$15,000 per unit
Commercial:	\$10 per sq. ft. of building area
Discretionary:	\$15,000 per discretionary permit

In addition to fee revenues, the County assumed revenue for the road improvement program from two other sources:

- (1) FAS (Federal Aid Secondary) funds to the County in the amount of \$760,000 per year. The County indicated it could devote two five-year periods from this revenue stream to the Carmel Valley Master Plan roadway improvement plan: from year 6 through 10 (1991-1995), and from year 16 through 20 ((2001-2005). Total revenues from this source would be \$7.6 million.
- (2) FAU (Federal Aid Urban) funds in the amount of \$50,000 per year are earmarked by the County for this program, for a total of \$1 million over the 20-year planning period.

Combining these federal sources with fees for the total 20-year life of the Carmel Valley Master Plan results in a total of \$35.9 million in revenues for the improvements. (This can be determined by summing total income across years 1-20 in Table 21.) This does not include any inflation adjustments.

County's Projected Improvement Schedule and Costs

The road improvements are identified in the Traffic section of this EIR, and are listed in the County's October 1988 "Proposed Financial Plan." Preliminary cost estimates are:

4-laning of Carmel Valley Road	\$14.5 million
Rio Road extension and signals	1.7 million
Carmel Valley Road channelization	1.6 million
Laureles Grade shoulders	1.5 million
Laureles Grade passing lane	3.0 million
Carmel Valley Road minor interchanges	<u>4.0 million</u>
Total	\$26.3 million

The County proposed to augment revenues with interest earned at the rate of 6% from funds in hand, until there was enough to pay for improvements on a cash basis. The cost of improvements was assumed to escalate at 4% per year.

As shown in Table 21, widening the Carmel Valley Road to four lanes was assumed to take place in 1995 (year 10), and would cost \$21.46 million at that time. There would be \$24.9 million in accrued revenues at the end of 1994 (year 9). Other improvements would take place in 1997, 2000, 2001, and 2005, respectively (years 12, 15, 17, and 20). Inflation would push total improvement costs to an estimated \$44.72 million at the time of construction. By paying cash, the County would have incurred no interest expenses. Revenues collected over the 20-year period (even without any factor added for inflation) would leave a positive balance of \$3 million in 2005.

Fiscal Impacts

A major change in the proposed financing system has been made possible by the passage of an added half-cent sales tax. The County can finance the \$14.5 million widening of Carmel Valley Road to four lanes from this source, reducing the funds required from impact fees and other sources. Several other substantial changes in the financing plan are possible because of the development projections made in this EIR, which differ from those that underlie the County's financing plan.

EIR Authors Assumptions for Development

The growth projections for this EIR differ from those made by the County when the financing plan was drafted. The new projections are reflected below, with modification of the amount and timing of development.

The actual number of market rate units to be created over the planning period is projected to be 435, instead of the County Plan's assumption of 740. In addition, 303 inclusionary units are projected for seniors, low income households and worker housing. Phasing of the 435 new lots is projected at 60 in 1990 (year 5), 38 lots per year between 1991 and 1995 (years 6 through 10), a gradual decrease down to 15 lots per year in 2001 and 2002 (years 16 and 17), and no new lots or units from then on.

PAD Inc's estimate of new visitor accommodations is slightly higher than the County's: based on the Carmel Valley Master Plan, 325 units rather than 300 rooms are projected. Phasing of these units is slightly different from the County's: 50 in 1990 (year 5), 215 in 1993 (year 8), 40 in 1998 (year 13), and 20 in 2003 (year 18).

PAD projected a substantial reduction in projected commercial square footage from the County's 650,000 to 394,000. Moreover, phasing of this development is much more gradual: 4,000 sq. ft. in 1990 (year 5), 36,000 sq. ft. per year from 1991-1995 (years 6 to 10), and 20,000-22,000 sq. ft. per year from 1996-2005 (years 11 to year 20).

EIR Author's Fee Structure

This EIR recommends alternative impact fees, with reductions made possible by use of the sales tax revenue for 4-laning, and the lower cost of projects being funded from this source. The fees for different land uses have been adjusted based on an "ability-to-pay" standard. The recommended fees are:

- \$10,000 per new residential lot;
- \$3.00 per square foot of commercial area; and
- \$10,000 per new visitor units.

Table 22 summarizes the differences between impact fees, other sources of revenue, and total revenues generated by the County's financing plan and the recommendations in this EIR. As shown, the County's plan generated a total of almost \$36,000,000, while this EIR's recommendations generate about \$12,300,000.

Table 22
COMPARISON OF COUNTY AND
CONSULTANT FINANCING PLAN

	County Ordinance			Recommended Fee			Difference	
	Units	Per Unit	(\$000)	Units	Per Unit	(\$000)	(\$000)	Percentage
FAS	10	\$760,000	\$7,600	4	\$760,000	\$3,040	(\$4,560)	-60%
FAU	20	50,000	1,000	9	50,000	450	(550)	-55%
NEW LOTS	740	20,000	14,800	435	10,000	4,350	(10,450)	-71%
VISITOR ACCOM	300	15,000	4,500	325	10,000	3,250	(1,250)	-28%
COMMERCIAL	650	10,000	6,500	394	3,000	1,182	(5,318)	-82%
DISCRETIONARY	100	15,000	1,500	100	0	0	(1,500)	-100%
TOTAL			\$35,900			\$12,272	(\$23,7628)	-66%

Source: Strong Associates, Inc.

Table 22 compares the County's proposed impact fees to those recommended in this EIR with respect to land or development value and annual income for each use. The recommended impact fees represent a small percentage of estimated value and annual income for residential and business uses. The fee for visitor uses is comparatively higher at 50% of estimated value and 41% of estimated annual income. This may be justified by the unique market for visitor accommodation in Carmel Valley. It is still 50% less than the County's originally proposed fees.

Table 23, Alternative Financing Plan, shows the distribution of costs and revenues over time assuming development projections, Barton-Aschman's timing of improvements and the effect of the half-cent sales tax revenues on other revenue sources. Because of the ability to fund the \$14.5 million Carmel Valley Road 4-laning from the sales tax surcharge, it would be possible to reduce impact fees, and to reduce the commitment of FAS and FAU revenues to the CVMP improvements if no additional mitigation costs are added (as per Table 20). The EIR authors recommend that income from FAS, at \$760,000 per year, be allocated for four years (1995-1999), instead of ten years. Income from FAU, at \$50,000 per year, is recommended to be allocated for 1990-1998 (years 5-13), rather than for the entire planning period.

TABLE 23

ALTERNATIVE FINANCING PLAN

	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	'05	'06
CASH INTEREST:	6 PERCENT																	
CONSTRUCTION ESCALATION RATE:	4 PERCENT																	
FEE INCREASE ESCALATION RATE:	8 PERCENT																	
BOND INTEREST RATE:	8 PERCENT																	
	DEVELOPMENT AND FEDERAL INCOME SOURCES																	
YEAR-->	1990	'91	'92	'93	'94	'95	'96	'97	'98	'99	2000	'01	'02	'03	'04	'05	'06	'06
FAS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
FAU	60	38	38	38	38	38	38	37	29	29	24	15	15	0	0	0	0	0
MRKT RATE LOTS	50			215					40		20	22	22	22	22	22	22	22
VISITOR ACCOM. UNIT	4	36	38	36	36	36	20	20	20	20	20	22	22	22	22	22	22	22
COMMERCIAL KSF	10	10	10	10	10	5	5	5	5	5	2	3	3	3	2	3	3	2
DISCRETIONARY DU																		
	INCOME (IN MILLIONS OF DOLLARS) - NOTE: 4% INFLATION FOR FEES ONLY (NOT FAS/FAU)																	
FAS	760,000	0.00	0.00	0.00	0.00	0.76	0.76	0.76	0.76	0.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FAU	50,000	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MRKT RATE LOTS	10,000	0.60	0.40	0.41	0.43	0.46	0.46	0.49	0.40	0.41	0.36	0.23	0.24	0.00	0.00	0.00	0.00	0.00
VISITOR ACCOM. COMMERCIAL	3,000	0.01	0.11	0.12	0.12	0.13	0.08	0.08	0.08	0.08	0.09	0.10	0.11	0.11	0.11	0.11	0.12	0.00
DISCRETIONARY	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	1.16	0.56	0.58	3.02	0.62	1.40	1.34	1.36	1.84	1.31	0.44	0.33	0.35	0.44	0.11	0.12	0.12	0.00
	EXPENDITURES (IN MILLIONS OF 1988 DOLLARS)																	
CVR 4-LANE (2)	0.00																	
MITIGATION COSTS	1.71																	
RIO ROAD EXT.	1.55																	
CHANNELIZATION	1.50																	
LGR SHOULDERS	3.00																	
LGRPASSING LN	4.00																	
MINOR INTERCHGS	0.005																	
ADMIN PER YEAR	0.005																	
TOTAL EXPEND.	11.76	0.005	0.005	0.006	1.819	0.006	0.007	0.007	0.007	0.007	0.007	0.008	0.008	0.008	0.008	0.008	0.009	0.009
	NET REVENUE AND EXPENDITURE - CARRY FORWARD (IN MILLIONS OF DOLLARS)																	
REVENUES	1.16	0.56	0.58	3.02	0.62	1.40	1.34	1.36	1.84	1.31	0.44	0.33	0.35	0.44	0.11	0.12	0.12	0.00
EXPENDITURES	0.01	0.01	0.01	1.82	0.01	0.01	0.01	0.01	14.54	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00
NET ANNUAL BALANCE	1.16	0.55	0.57	1.20	0.61	1.40	1.33	1.37	-12.70	1.30	0.44	0.32	0.34	0.43	0.11	0.03	0.00	0.00
INTEREST INCOME (1)	0.03	0.09	0.12	0.19	0.25	0.33	0.43	0.53	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BOND INTEREST EXPENSE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.50	-0.20	-0.11	-0.08	-0.06	-0.04	-0.01	-0.00	-0.00	-0.00
CARRY FORWARD - NEXT YR	1.16	1.79	2.49	3.88	4.74	6.47	8.23	10.13	-2.47	-1.36	-1.04	-0.79	-0.52	-0.13	-0.03	-0.00	-0.00	-0.00

Source: Strong Associates

(1) Interest income assumes 1/2 year income for current year and full year for carry forward Balance
 (2) CVR 4-Lane cost of \$14.5 million will be financed from the 1/2 cent sales tax revenue

In addition to the infrastructure costs noted in Tables 22 and 23, further mitigation are recommended by Barton-Aschman Associates Inc. (as noted in Table 20) The costs for these mitigation measures range from a low cost option which adds \$1,360,000 of traffic improvements, including a signal at Via Mallorca, to a high cost alternative of \$3,740,000 which replaces that signal with a minor interchange.

Table 24 summarizes the difference between the EIR's authors recommended impact fees as outlined in Tables 22 and 23 and compares them with changes in local impact fees and County subvention revenues from FAU and FAS sources. The changes are necessary to finance an additional \$1,360,000 mitigation cost as noted in Table 20. This approach includes an additional year of FAU funds for \$50,000 and increases the fee for the "new lots" from \$10,000 to \$12,000. All other fees and contributions would remain the same as those noted in the recommended fee structure in Table 22.

The "new lots" were considered the most appropriate land use to target for change in fees. Because of the limited number of "new lots" that can be subdivided and the unique location of the potential development, it was determined by the consultant that demand for developable residential lots would not be as price sensitive as the other uses that would be charged fees.

Table 25, Low Cost Mitigation Financing Program, shows the distribution of costs and revenues over time. This table uses the same development projection assumptions found in Table 23. The difference is in the additional mitigation costs which are assumed to be financed in 1993. These costs are estimated at \$1,360,000 in 1988 dollars, and would be inflated to an estimated \$1,810,000 in 1993.

Table 26 is similar to Table 24, comparing the difference between the EIR authors' recommended impact fees with fees and County subvention FAS and FAU monies needed to finance the high cost mitigation measures of \$3,740,000, which includes a minor interchange at Via Mallorca. (See Table 20). This approach requires an additional year of FAU funds for \$50,000 and increases the fee for the "new lots" from \$10,000 to \$15,000. All other fees and contributions would remain the same as those in the Table 22 fee structure.

Table 27, High Cost Mitigation Financing Program, shows the distribution of costs and revenues over time. This table uses the same development projections found in Table 23. The difference is in the additional mitigation costs which are estimated to be financed in 1993. These costs are estimated at \$3,740,000 in 1986 dollars, and would be inflated to an estimated \$4,380,000 in 1993.

Table 24
COMPARISON OF COUNTY AND CONSULTANT FINANCING PLAN
WITH ADDITIONAL \$1,360,000 MITIGATION COSTS
(Low Cost Traffic Mitigation*)

	Without Mitigation Cost			With Mitigation Cost			Difference	
	No. of Units	Per Unit	(\$000)	No. of Units	Per Unit	(\$000)	(\$000)	Percentage
FAS	5	\$760,000	\$3,800	5	\$760,000	\$3,800	\$0	0%
FAU	10	50,000	500	11	50,000	550	50	10%
NEW LOTS	435	10,000	4,350	435	12,000	5,220	870	20%
VISITOR ACCOM	325	10,000	3,250	325	10,000	3,250	0	0%
COMMERCIAL	394	3,000	1,182	394	3,000	1,182	0	0%
DISCRETIONARY	92	0	0	92	0	0	0	0%
TOTAL			\$13,082			\$14,002	920	7%

* Includes a signal at Via Mallorca

Source: Strong Associates, Inc.

Table 25

Low Cost Mitigation Financing Program with Inflation Fees
With additional \$1,360,000 Mitigation Costs

	CASH INTEREST:		CONSTRUCTION ESCALATION RATE:		FEE INCREASE ESCALATION RATE:		BOND INTEREST RATE:											
	6 PERCENT	4 PERCENT	4 PERCENT	8 PERCENT	4 PERCENT	8 PERCENT	4 PERCENT	8 PERCENT										
YEAR-->	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	20	'06
	1990	'91	'92	'93	'94	'95	'96	'97	'98	'99	2000	'01	'02	'03	'04	'05		
DEVELOPMENT AND FEDERAL INCOME SOURCES																		
FAS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0
FAU	60	36	36	36	38	38	36	37	29	29	24	15	15	0	0	0	0	0
MRKT RATE LOTS	50			215				40	40									
VISITOR ACCOM. UNIT	4	36	36	36	36	36	20	20	20	20	20	22	22	22	22	22	22	22
COMMERCIAL KSF	10	10	10	10	10	5	5	5	5	5	2	3	2	3	2	3	2	2
DISCRETIONARY DU																		
INCOME (IN MILLIONS OF DOLLARS) - NOTE: 4% INFLATION FOR FEES ONLY (NOT FAS/FAU)																		
FAS	760,000	0.00	0.76	0.76	0.76	0.76	0.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FAU	50,000	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00
MRKT RATE LOTS	12,000	0.72	0.47	0.49	0.51	0.53	0.55	0.58	0.48	0.50	0.43	0.28	0.29	0.00	0.00	0.00	0.00	0.00
VISITOR ACCOM.	10,000	0.50	0.00	0.00	2.42	0.00	0.00	0.00	0.55	0.00	0.00	0.00	0.00	0.33	0.00	0.00	0.00	0.00
COMMERCIAL	3,000	0.01	0.11	0.12	0.12	0.13	0.08	0.08	0.08	0.09	0.09	0.10	0.11	0.11	0.11	0.12	0.00	0.00
DISCRETIONARY	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	1.28	0.64	1.42	3.88	1.47	1.50	1.43	0.71	1.16	0.63	0.57	0.38	0.39	0.44	0.11	0.12	0.00	0.00
EXPENDITURES (IN MILLIONS OF 1988 DOLLARS)																		
CVR 4-LANE (2)	0.00			0.00														
MITIGATION COSTS	1.36			1.59														
RIO ROAD EXT.	1.71																	
CHANNELIZATION	1.55			1.61														
LGR SHOULDERS	1.50																	
LGR PASSING LN	3.00																	
MINOR INTERCHGS	4.00																	
ADMIN PER YEAR	0.005	0.005	0.006	0.008	0.008	0.008	0.007	0.007	0.007	0.007	0.007	0.008	0.008	0.009	0.009	0.009	0.009	0.000
TOTAL EXPEND.	13.12	0.005	0.006	3.410	0.006	0.006	0.007	0.007	14.539	0.007	0.008	0.008	0.008	0.009	0.009	0.009	0.000	0.000
NET REVENUE AND EXPENDITURE - CARRY FORWARD (IN MILLIONS OF DOLLARS)																		
REVENUES	1.28	0.64	1.42	3.88	1.47	1.50	1.43	0.71	1.16	0.63	0.57	0.38	0.39	0.44	0.11	0.12	0.00	0.00
EXPENDITURES	0.01	0.01	0.01	3.41	0.01	0.01	0.01	0.01	14.54	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00
NET ANNUAL BALANCE	1.28	0.63	1.41	0.45	1.46	1.49	1.43	0.71	-13.38	0.62	0.56	0.37	0.39	0.43	0.11	0.11	0.00	0.00
INTEREST INCOME (1)	0.04	0.10	0.16	0.23	0.30	0.41	0.52	0.61	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BOND INTEREST EXPENSE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.53	-0.18	-0.13	-0.09	-0.07	-0.05	-0.02	0.00	0.00	0.00
CARRY FORWARD - NEXT YR	1.28	2.00	3.58	4.26	6.03	7.92	9.87	11.18	-2.06	-1.60	-1.17	-0.89	-0.58	-0.19	-0.11	-0.00	-0.00	-0.00

Source: Strong Associates

(1) Interest income assumes 1/2 year income for current year and full year for carry forward Balance
(2) CVR 4-Lane cost of \$14.5 million will be financed from the 1/2 cent sales tax revenue

Table 26
COMPARISON OF COUNTY AND CONSULTANT FINANCING PLAN
WITH ADDITIONAL \$3,740,000 MITIGATION COSTS
(High Cost Traffic Mitigation)*

	Without Mitigation Cost			With Mitigation Cost			Difference	
	No. of Units	Per Unit	(\$000)	No. of Units	Per Unit	(\$000)	(\$000)	Percentage
FAS	5	\$760,000	\$3,800	5	\$760,000	\$6,080	\$2,280	60%
FAU	10	50,000	500	13	50,000	650	150	30%
NEW LOTS	435	10,000	4,350	435	15,000	6,525	0	0%
VISITOR ACCOM	325	10,000	3,250	325	10,000	3,250	0	0%
COMMERCIAL	394	3,000	1,182	394	3,000	1,182	0	0%
DISCRETIONARY	92	0	0	92	0	0	0	0%
TOTAL			\$13,082			\$17,687	4,605	35%

* Includes minor interchange at Via Mallorca.

Source: Strong Associates, Inc.

Table 27
High Cost Mitigation Financing Program With Inflation for Fees
With Additional \$3,740,000 Mitigation Costs

CASH INTEREST: CONSTRUCTION ESCALATION RATE: FEE INCREASE ESCALATION RATE: BOND INTEREST RATE:	6 PERCENT		4 PERCENT		4 PERCENT		8 PERCENT												
	1990	'91	'92	'93	'94	'95	'96	'97	'98	'99	2000	'01	'02	'03	'04	'05	'06		
DEVELOPMENT AND FEDERAL INCOME SOURCES																			
FAS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
FAU	60	36	38	38	38	38	36	37	29	29	24	15	15	0	0	0	0		
MRKT RATE LOTS	50			215				40						20					
VISITOR ACCOM. UNIT	4	36	36	36	36	36	20	20	20	20	20	22	22	22	22	22	22		
COMMERCIAL KSF	10	10	10	10	10	5	5	5	5	5	2	3	2	3	2	3	2		
DISCRETIONARY DU																			
INCOME (IN MILLIONS OF DOLLARS) - NOTE: 4% INFLATION FOR FEES ONLY (NOT FAS/FAU)																			
FAS	760,000	0.00	0.00	0.76	0.76	0.76	0.78	0.76	0.76	0.76	0.76	0.00	0.00	0.00	0.00	0.00	0.00		
FAU	50,000	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.00	0.00	0.00	0.00		
MRKT RATE LOTS	15,000	0.90	0.59	0.62	0.64	0.67	0.69	0.73	0.60	0.62	0.53	0.35	0.36	0.00	0.00	0.00	0.00		
VISITOR ACCOM.	10,000	0.50	0.00	0.00	2.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.33	0.00	0.00	0.00		
COMMERCIAL	3,000	0.01	0.11	0.12	0.12	0.13	0.13	0.08	0.08	0.09	0.09	0.10	0.11	0.11	0.11	0.12	0.00		
DISCRETIONARY	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
TOTAL	1.46	0.76	0.78	3.99	1.60	1.63	1.57	1.62	2.03	1.51	1.43	0.50	0.52	0.44	0.11	0.12	0.00		
EXPENDITURES (IN MILLIONS OF 1988 DOLLARS)																			
CVR 4-LANE (2)	0.00			0.00															
MITIGATION COSTS	3.74			4.38															
RIO ROAD EXT.	1.71																		
CHANNELIZATION	1.55			1.81															
LGR SHOULDRS	1.50																		
LGR PASSING LN	3.00																		
MINOR INTERCHGS	4.00																		
ADMIN PER YEAR	0.005	0.005	0.006	0.008	0.006	0.006	0.007	0.007	0.007	0.007	0.007	0.007	0.007	0.009	0.009	0.009	0.000		
TOTAL EXPEND.	15.5	0.005	0.006	6.194	0.006	0.006	6.194	0.007	0.007	0.007	0.007	0.007	0.007	0.009	0.009	0.009	0.000		
NET REVENUE AND EXPENDITURE - CARRY FORWARD (IN MILLIONS OF DOLLARS)																			
REVENUES	1.46	0.76	0.78	3.99	1.60	1.63	1.57	1.62	2.03	1.51	1.43	0.50	0.52	0.44	0.11	0.12	0.00		
EXPENDITURES	0.01	0.01	0.01	6.19	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00		
NET ANNUAL BALANCE	1.46	0.75	0.78	-2.20	1.60	1.63	1.56	1.61	14.54	1.51	1.42	0.49	0.51	0.43	0.11	0.06	0.00		
INTEREST INCOME (1)	0.04	0.11	0.16	0.13	0.12	0.12	0.33	0.45	-12.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.00		
BOND INTEREST EXPENSE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50	-0.30	-0.21	-0.11	-0.08	-0.04	-0.01	-0.00	-0.00		
CARRY FORWARD - NEXT YR	1.46	2.32	3.28	1.18	2.90	4.75	6.64	8.70	-3.77	-2.57	-1.35	-0.97	-0.54	-0.15	-0.06	-0.00	-0.00		

Source: Strong Associates

(1) Interest income assumes 1/2 year income for current year and full year for carry forward Balance
(2) CVR 4 - Lane cost of \$14.5 million will be financed from the 1/2 cent sales tax revenue

Recommendations

Recommendation 1.

Inflation Factor: The County's proposed fee structure makes no provision for inflation. If the same dollar per unit fee is charged in 1990 as in 2005, it is, in effect, penalizing those who develop earlier, while undercharging those who develop later. Building inflation into the fee structure could be done in one of several ways, such as:

- a) adding a fixed amount per year;
- b) adding a percentage amount tied to the Consumer Price Index or other available measure of inflation; or
- c) adding an amount tied to the estimated increase in the cost of constructing the improvements.

Which ever method is chosen, a method of adjusting fees for inflation should be built into the ordinance.

For the EIR consultants recommended financing plan, an inflation factor of 4% per year was used based on estimated construction cost increases. This factor was also added to fees in all future years.

Recommendation 2.

Discretionary Permits: The County proposed an impact fee of \$15,000 for discretionary permits on existing lots of record. These permits can be major or minor, and it may be appropriate for the County to consider a sliding scale depending on the magnitude or value of the action proposed. This EIR has conservatively assumed no fees on discretionary permits for existing lots of record.

Recommendation 3.

Clarification: The ordinance needs to clearly define not only the amount of fee charged for each type of land use, but also the point at which fees must be paid. It is recommended that the ordinance specify that fees be charged at the time of creating new lots for residential purposes, and at the issuance of a building permit for new commercial or visitor-serving uses.

The major concern with the County's proposed schedule was that some improvements were built in 1999, while other work was not completed until 2005. Meanwhile development dependent on those improvements was assumed to proceed earlier. This would create major traffic problems. However, building the improvements before fees could be collected could produce financial problems. The passage of the added sales tax enables commencement of major improvements much sooner, with other projects funded with impact fees accrued to cover them.

The results of this financing scenario are presented in Tables 21, 23 and 27. The cost of Carmel Valley Road widening is not included, since it will be financed from the sales tax surcharge. All other improvements would take place in 1995 through 1999 except for a second phase of minor interchanges, which is slated for 2005.

The County would amass over \$6.6 million by 1994 from fees and FAS and FAU sources. With the capital investments in the following several years, this balance would be reduced to about \$1.2 million by 1999. The fund would then increase again to almost \$3.5 million by 2004, enabling the last phase of improvements to be covered in 2005.

Footnotes to Chapter 5B. Fiscal Factors

- /1/ Discretionary permits refer to permits for projects which require discretionary review and approval by a decision-making body.

CHAPTER FIVE
C. NOISE

Environmental Setting

This section of the EIR evaluates the noise impacts of the roadway improvements that constitute the project evaluated in this EIR. This noise analysis builds on and updates the extensive noise measurements and impact analysis undertaken for the 1986 EIR on the CVMP. That analysis is incorporated by reference in this EIR, and is summarized below.

The major source of noise in the Carmel Valley is vehicular traffic on Carmel Valley Road. [In 1986] the overall noise level was quiet enough to be compatible with "normally acceptable" exterior noise levels for residential land uses, that is 50 - 55 dBA for low density housing. "Normally acceptable" noise levels for offices and other commercial uses are 50 - 67 dBA.

In general, noise measurement along Carmel Valley Road ranged from 60 - 66 dBA with less than 60 dBA along minor roadways. Carmel Valley traffic can be heard at considerable distances on the hillsides. This phenomenon occurs because there is very little local traffic or other sources of noise to mask the sound of Carmel Valley Road traffic. Further, there is little attenuation from buildings and intervening terrain.

Human response to changes in community noise levels are as follows:

- *An increase of 1 dB in A-weighted sound level is not perceptible;*
- *A 3dB increase is just noticeable;*
- *A 5 dB increase results in sporadic complaints; and*
- *A 10dB increase is perceived as roughly a doubling in noise and results in wide-spread complaints.*

The only area where development proposed in the CVMP would result in a noticeable increase in traffic noise is in the vicinity of Robinson Canyon Road. A

5 dBA increase from 53 to 58 dBA was predicted, primarily due to the assumption that Rancho San Carlos would develop with 2000 units. (It is currently assumed to develop with 125 dwelling units and a 300-room hotel, which would result in about one-fourth the traffic from Rancho San Carlos.)

Most of the rest of the locations along Carmel Valley Road would experience noise increases of 2 dBA, which is imperceptible. However, adding this to the existing 60 - 66 dBA would approach "conditionally acceptable" noise levels [according to the Noise Compatibility Guidelines of the Monterey County General Plan] for residences in close proximity to Carmel Valley Road, especially those at the west end of the Valley.

Policies of the CVMP are generally adequate to mitigate expected traffic noise impacts. These policies include a 100-foot setback from Carmel Valley Road for new construction and densities of one acre per unit.

Environmental Impacts

The noise impacts of the planned road improvements were evaluated in terms of changes in the amount and distribution of traffic that they would generate on the various segments of Carmel Valley Road. To obtain the change in existing noise levels, the existing traffic volumes in 1986 were compared to the existing traffic volumes in 1989. Likewise, the 2005 traffic levels predicted in 1986 were compared to the 2005 traffic levels predicted for this EIR. The changes in traffic volumes were then converted to changes in noise levels. Appendix C explains the conversion methods used for this EIR.

Based on the traffic projections of the Carmel Valley traffic model, existing noise levels in 1990 are generally the same as those predicted in 1986. Future noise levels, i.e., the predictions for 2005 made in 1990, differ from the predictions for 2005 made in 1986. The difference lies in the fact that more traffic is currently predicted for the year 2005 than was predicted in 1986.

Table 28 shows the existing and future noise levels by road segment that were determined in 1986, and compares them to the existing and future predictions made in 1990. The main differences are in road segment 1 (Carmel Valley Road between Holman Road and east end of the Valley), segment 5 (Carmel Valley Road between Robinson Canyon Road and Los Laureles Grade), and segment 6 (Carmel Valley Road between Schulte Road and Robinson Canyon Road).

Table 28
COMPARISON OF NOISE LEVELS (In dBA)

ROAD SEGMENT (#)	EXISTING NOISE		FUTURE NOISE	
	1986 /1/	1990 /2/	2005 /3/	2005 /4/
<u>CARMEL VALLEY ROAD</u>				
<i>Holman Road to east CVMP Boundary (1)</i>	60	63	61	63
<i>Ford Road to Holman Road (2)</i>	59-62	59-62	61-63	61-63
<i>Esquiline to east of Holman Road (2a)</i>	53	53	55	55
<i>Ford Road to Esquiline (2b)</i>	58	62	60	63
<i>Laureles Grade to Ford Road (3)</i>	53-54	54-55	54-55	55-56
<i>Robinson Canyon Road to Laureles Grade (5)</i>	66	67	67	69
<i>Schulte Road to Robinson Canyon Road (6)</i>	53-56	55-58	53-56	55-58
<i>Rancho San Carlos Road to Schulte Road (7)</i>	53-54	53-54	55-56	55-56
<i>Carmel Rancho Blvd. to Rio Road (9)</i>	65	66	66	67
<u>OTHER ROADS</u>				
<i>Carmel Rancho Blvd. from Rio Road to Carmel Valley Road (11)</i>	62	62	63	63
<i>Rio Road from Carmel Rancho Blvd. to Highway 1 (12)</i>	64	64	64	64

Table Notes:

- /1/ Represents the measured noise level in 1986.*
- /2/ Represents the estimated noise level in 1990 based on 1986 measurements adjusted for known traffic increases in 1990.*
- /3/ Represents the noise level for the year 2006 that was predicted in 1986, based on the Higgins Report. 2005 noise levels are assumed to be the same as 2006.*
- /4/ Represents the noise level for the year 2005 that was predicted in 1990 based on the Carmel Valley traffic model.*

*Sources: 1986 values from The Carmel Valley Master Plan EIR, Charles M. Salter and Associates.
1990 values from Planning Analysis & Development.*

- Impact 1.** Road segment 1 (Holman Road to the east end of Carmel Valley) had measured noise levels of 60 dBA in 1986. By 2005, it was expected that noise levels there would reach 61 dBA. In fact, 63 dBA was reached in 1990. The increase is due to greater than expected traffic increase. No further increases are expected by the year 2005 according to calculations made for this EIR. *The improvements would not have a significant noise impact on road segment 1.*
- Impact 2.** Road segment 5 (Robinson Canyon Road to Los Laureles Grade) had measured noise levels of 66 dBA in 1986. By 2005, it was expected that noise levels there would reach 67 dBA. In fact, 67 dBA was reached in 1990. An increase to 69 dBA is expected by the year 2005, according to calculations made for this EIR. This is the highest expected noise level along Carmel Valley Road. *Although a 2 decibel increase is not significant, the high overall ambient noise level is considered "conditionally acceptable" for many land uses according to the standards of the County General Plan. New development in such areas require noise mitigations.*
- Impact 3.** Road segment 6 had measured noise levels of 53 - 56 dBA in 1986. This was not expected to change by the year 2005. In fact, increases to 55 - 58 dBA were reached in 1990. However, no further increases are expected by the year 2005 according to calculations made for this EIR. *This is not a significant noise impact.*
- Impact 4.** Under worst-case assumptions, three locations would have noise increases of 3 decibels or more, the threshold of perception for human ears:
- Segment 2 (Carmel Valley Road between Ford Road and Holman Road) could increase from a low of 59 dBA in 1990 to a high of 63 dBA in 2005.
 - Segment 6 (Carmel Valley Road between Schulte Road and Robinson Canyon Road) could increase from a low of 55 dBA in 1990 to a high of 58 in 2005.
 - Segment 7 (Carmel Valley Road between Rancho San Carlos Road and Schulte Road) could increase from a low of 53 in 1990 to a high of 56 in 2005.
- All of these noise levels are in the "conditionally acceptable" range for most land uses, which means new development would require noise abatement.*
- Impact 5.** The Rio Road extension would involve construction of a new road between the existing Rio Road and Carmel Valley Road. This improvement would bring vehicles into an area that is largely open space. The traffic volumes predicted for this new roadway are presented in Table 29 below.

**TABLE 29
PREDICTED TRAFFIC VOLUMES ON RIO ROAD EXTENSION**

	1990	1995	2000	2005
Rio Road Extension				
East-bound	NA	2,523	2,547	2,759
West-bound	NA	<u>1883</u>	<u>2393</u>	<u>2703</u>
Total	NA	4,406	4,940	5,462

Source: Carmel Valley Traffic Model.

As Table 29 shows, traffic is expected to range between 4400 (1995) and 5500 (2005) vehicles per day. Noise levels from this amount of traffic would be about 55 decibels at the roadway. /1/ *Although there is a school nearby, the Rio Road extension traffic is not expected to significantly impact it.*

Impact 6. Construction Noise: The road improvement projects would generate noise impacts during construction. This noise would be due to road graders and other vehicles used to prepare road beds and pour asphalt. This equipment is not expected to generate objectionable noise as perceived by sensitive receptors. To the extent that the improvements reduce noise due to traffic flow, there may be slight localized improvements in the ambient noise level. *This is not considered a significant impact.*

Cumulative Impacts

All of the development projects that would impact Carmel Valley roads were taken into consideration in developing the traffic volumes that underlie the noise impact assessment. Therefore, cumulative impacts due to land use are covered in the above assessment of traffic noise impacts. The Hatton Canyon Freeway would be a discrete noise source, which would impact a portion of Carmel Valley. The noise impacts from the Hatton Canyon Freeway are fully described in the EIS on that project /2/, and are summarized below and incorporated by refer-

portion of Carmel Valley. The noise impacts from the Hatton Canyon Freeway are fully described in the EIS on that project /2/, and are summarized below and incorporated by reference in this EIR. Caltrans assumed that the Hatton Canyon Freeway would be built by 1990. As the freeway has not been built, this EIR assumes it will be operational by 2000. In spite of the differences in years evaluated, the Caltrans data provide the reader with a detailed insight into the expected noise impacts of Hatton Canyon Freeway.

The Hatton Canyon EIS identifies the need for and feasibility of noise abatement at significantly impacted locations. The reader is referred to that document for more detail. The key impacts are described below.

The Caltrans EIS for the Hatton Canyon Freeway documented existing noise levels along the existing Highway 1 alignment, and predicted future noise levels along Highway 1 and the proposed Hatton Canyon Freeway alignment. The proposed Hatton Canyon Freeway alignment lies along a portion of the western boundary of Carmel Valley, and has the potential to add to the cumulative noise impacts in Carmel Valley. Specifically, locations near both Carmel Valley Road and the proposed Hatton Canyon Freeway alignment could experience cumulative traffic noise increases. Caltrans measured two such locations:

- (1) Receptor site 30 which is located on the west side of Hatton Canyon north of the Carmel Valley Road/Carmel Knolls Drive intersections, off Carmel Knolls Drive.*
- (2) Receptor site 40, which is located on the east side of Hatton Canyon, north of the Carmel Valley Road/Carmel Knolls Drive intersection, off Carmel Knolls Drive.*

Table 30 indicates the noise conditions in these two locations. The ambient noise level at location 30 was measured at 58 dB. This would increase to 64 dB when the freeway is first operational, and will increase to 66 dB by 2010. Caltrans did not consider this a significant noise level in need of abatement for the seven residences in the vicinity. /3/

Location 40 has an existing ambient noise level of 66 dB which will increase to 68 dB when the freeway is built, and to 69 dB by 2010. This increase requires abatement for the four residences in the vicinity. The Caltrans EIS states:

Carmel Valley Road, which is much closer to the receptor than the proposed Hatton Canyon alignment, is primarily responsible for the traffic noise level at receptor 40. Since the proposed Hatton Canyon

alignment would contribute only 3 dBA to the predicted 69 dBA at this site, no noise barriers are proposed as part of Alternatives 1 or 7.

**Table 30
SUMMARY OF NOISE DATA
HATTON CANYON ALIGNMENT**

Receptor Site /1/	Ambient Noise	No Build 1990	Hatton Canyon 1990	Hatton Canyon 2010
30	58	58	64	66
40	66	65	68 *	69 *

* Receptor site experiencing noise levels which would require the consideration of noise abatement.

Source: Caltrans, Final EIS, Highway Improvement Project for State Route 1 to Monterey County.

Mitigation Measures

The mitigations from the 1986 EIR on the CVMP are valid for this EIR, and are incorporated by reference. They are listed below.

The policies of the Noise Element of the County General Plan are generally effective in controlling the kinds of noise impacts that would occur under the CVMP. (For specific policies, refer to Table C-4 in Appendix C of the Carmel Valley Master Plan EIR.) Land use compatibility and construction noise standards would protect existing uses from additional noise impacts. In addition, the CVMP is amended to include the following policies:

45. *Where development is proposed in a conditionally acceptable noise environment, construction shall be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Multifamily housing proposed in noise environments where the L_{dn} exceeds 60 dB shall provide a report per the requirements of Title 24 of the California Administrative Code delineating how interior noise levels would be reduced to an L_{dn} (or CNEL) of 45 dB or less.*
46. *Noise generating construction activities shall be restricted to the hours of 8:00 AM to 5:00 PM Monday through Friday. All construction equipment utilizing internal combustion engines shall be required to have mufflers which are in good condition.*

The following mitigation measure is recommended as a result of the impact analysis of this EIR:

- Mitigation 1.** When specific road improvement projects are undertaken, their construction and operational noise impacts should be evaluated. If there is the potential for significant impacts to occur, noise abatement measures should be implemented to bring noise levels down to acceptable levels as indicated by the Noise Compatibility Guidelines of the Monterey County General Plan. (See Table C-1, Appendix C).
- Mitigation 2.** The cumulative noise impacts due to road improvements at the mouth of the Valley should be mitigated by taking post-construction noise measurements at residences impacted by the Hatton Canyon Freeway, Carmel Valley Road and Highway One changes. If accepted noise standards for residential use are exceeded, remedial action shall be taken, such as retrofitting windows, building noise walls or other action to achieve as meaningful noise reduction.

Footnotes to Chapter 5C.

/1/ Transportation and Traffic Engineering Handbook, Second Edition, 1982, Institute of Traffic Engineers, pages 392-393.

/2/ Final Environmental Impact Statement. Highway Improvement Project for State Route Number 1, Caltrans, pp. IV-12 to IV-20.

/3/ Op. cit., Final EIS, p. J-10.

CHAPTER FIVE
D. AIR QUALITY

Environmental Setting

This section of the EIR evaluates the air quality impacts of the roadway improvements that constitute the project evaluated in this EIR. This analysis builds on and updates the air quality impact analysis undertaken for the 1986 EIR on the Carmel Valley Master Plan (CVMP), focusing specifically on traffic-related air quality impacts. The 1986 analysis is incorporated by reference in this EIR, and the portions relevant to the environmental setting of the present analysis are summarized below. /1/

- *Air quality in the Carmel Valley is largely determined by the interaction of topography and the maritime climate, which often produce temperature inversions that prevent the upward dispersion of air pollutants.*

- *Under infrequent meteorological conditions pollutants may be transported toward Monterey Bay from upwind locations, particularly the San Francisco Bay Area. At such times, pollutants may be transported around the tip of the Monterey Peninsula and into the Carmel Valley, resulting in elevated concentrations of ozone and its precursors, nitrogen oxides and hydrocarbons.*

- *Occasional exceedances of the ozone air quality standard have occurred in the Carmel Valley.*

Regulatory Background

The 1970 Clean Air Act gave the U.S. Environmental Protection Agency (EPA) the authority to set federal ambient air quality standards. The 1977 Clean Air Act Amendments required that each state identify areas within its borders (i.e., non-attainment areas) that do not meet the federal primary standards and devise a State Implementation Plan (SIP), subject to EPA approval, to attain the federal primary standards no later than 1987. The California standards do not have specific attainment dates.

The California Air Resources Board (CARB) coordinates and oversees both state and federal air pollution control programs in California. As part of this responsibility, the CARB monitors existing air quality, establishes State standards, limits allowable emissions from vehicular sources, and is responsible for putting together the SIP. The CARB has divided the State into many single and multi-county air basins. Authority for air quality management within them has been given to local Air Pollution Control Districts (APCD) which develop local non-attainment plans within their jurisdiction.

Air Quality Planning and Control in the North Central Coast Air Basin (NCCAB): The Monterey Bay Unified Air Pollution Control District (MBUAPCD) is the local agency empowered to regulate air quality in Monterey, Santa Cruz, and San Benito Counties, which together make up the North Central Coast Air Basin (NCCAB). Planning for the attainment and maintenance of Federal and State air quality standards in the NCCAB is the joint responsibility of two agencies: the MBUAPCD, and the Association of Monterey Bay Area Governments (AMBAG). Together they authored the 1989 Air Quality Management Plan (AQMP) for the Monterey Bay Region, which was adopted in June 1989 and forwarded to the CARB for incorporation into the SIP.

Air Pollutants of Greatest Concern in the NCCAB

Particulate Matter: The potential health effects of particulate matter are shown in Figure 19. Measurement of PM₁₀ -- particulate matter which is less than 10 microns in diameter -- has replaced the total suspended particulates (TSP) measure as the standard by which air quality violations are determined. Since the MBUAPCD began measuring PM₁₀ concentrations in 1985, reporting stations in Salinas, Hollister and Santa Cruz have recorded numerous violations of the state PM₁₀ standard. However, no violations of the less stringent federal standards have been reported. /2/

The MBUAPCD does not measure PM₁₀ at its Carmel Valley station. However, the numerous measured violations of the state standard at each of the reporting stations in the NCCAB which do measure PM₁₀ indicate that the potential exists for violations in Carmel Valley.

Ozone and Its Precursors: Of all the air pollutants for which government standards exist and to which motor vehicles make significant contributions, only ozone exists at high enough ambient concentrations in Carmel Valley and throughout the NCCAB to pose a continued threat of violating state and federal air quality standards. /2/ Ozone levels are of concern because, at high enough concentrations, ozone can cause visibility reduction,

vegetation damage, aggravation of respiratory diseases and eye irritation. (See Table 31.) This section discusses vehicular emissions of the primary ozone precursors, reactive organic gasses (ROG) and nitrogen oxides (NO_x), which are emitted by motor vehicles and other pollutant sources and which combine to form ozone in the atmosphere. /2/

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TABLE 31

HEALTH EFFECTS SUMMARY OF THE MAJOR CRITERIA AIR POLLUTANTS

Air Pollutant	Adverse Effects
Suspended Particulates	<ul style="list-style-type: none"> - increased risk of chronic respiratory disease with long exposure - altered lung function in children - with SO₂, may produce acute illness - particulate matter 10 microns or less in size (PM₁₀) may lodge in and/or irritate the lungs
Ozone	<ul style="list-style-type: none"> - eye irritation - respiratory function impairment
Carbon Monoxide	<ul style="list-style-type: none"> - impairment of oxygen transport in the bloodstream, increase of carboxyhemoglobin - aggravation of cardiovascular disease - impairment of central nervous system function - fatigue, headache, confusion, dizziness - can be fatal in the case of very high concentrations in enclosed places

Source: Bay Area Air Quality Management District

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Since ozone forms at an altitude well above ground-level /3/, the portion which circulates to near ground-level will likely be far removed from the location where its precursors were emitted. Thus the concentration of ozone measured in Carmel Valley is not directly proportional to the amount of the precursors emitted within the Valley; rather, it is indirectly influenced by emissions of precursors from a much larger region. Conversely, the emission of ozone precursors within the Valley can influence ozone levels throughout the region. Therefore, the significance of any changes in the amount of the precursors emitted in Carmel Valley should be judged based on how they influence the regional ozone problem.

As shown in Table 32, the MBUAPCD's Carmel Valley Reporting Station has reported at least one violation of the state's one-hour ozone standard in five of the last ten years. The only other MBUAPCD recording stations which have measured ozone concentrations consistently over the past few years are those at Salinas and at Hollister. The Salinas station hasn't recorded a violation of this standard since 1980, but Hollister has recorded at least one and as many as many as 12 violations for each of the last ten years.

The Carmel Valley station has reported only two violations of the less stringent federal ozone standards in the last 10 years; Hollister has not reported a violation of this standard since 1981. (See Table 33.) To be designated by the EPA as an attainment area for ozone, the MBUAPCD would need to have accumulated fewer than four violations of the one-hour ozone standard among all the monitoring stations within the NCCAB over the previous three years. The sum of the violations observed at reporting stations operated by the MBUAPCD have not totaled more than four over a three-year period since the early 1980s /2/. However, the Pinnacles National Monument reporting station, operated by the National Park Service but located within the NCCAB, has reported numerous violations of the federal standard since it began operating in 1987 /2/. For this reason, the MBUAPCD's latest request for granting of attainment status for ozone was rejected by the EPA last year. /4/

As discussed in the 1986 CVMP SEIR air quality section, the 1982 Air Quality Management Plan for the Monterey Bay Region indicated that transport of pollutants from the San Francisco Bay Area to the NCCAB may significantly impact pollutant concentrations in the NCCAB. /1/ Subsequent studies reported in the 1989 AQMP have more precisely defined the routes by which the pollutants are transported, but have not quantified the impact of these pollutants upon total pollutant concentrations. /2,5/ Therefore, it is not possible to determine how many fewer violations of ozone standards would have occurred in the absence of this pollutant transport.

TABLE 32 /a/:
DAYS OZONE EXCEEDED STATE AMBIENT
AIR QUALITY STANDARDS /b/

Year	MBUAPCD Reporting Station:		
	Carmel Valley	Salinas	Hollister
1980	4	1	12
1981	0	0	7
1982	0	0	1
1983	1	0	4
1984	1	0	6
1985	1	0	11
1986	0	0	1
1987	0	0	7
1988	0	0	4
1989	3	0	1

Table Notes:

/a/ Number of days during which one or more hourly average ozone concentration readings exceeded state ambient air quality standards . This table is adapted from Table 4-2 in the 1989 Air Quality Management Plan (AQMP) for the Monterey Bay Region, Monterey Bay Unified Air Pollution Control District (MBUAPCD) and Association of Monterey Bay Area Governments (AMBAG), June 1989. It has been updated with the MBUAPCD's most recent ozone data.

/b/ The state ozone standard is 0.09 ppm.

Source: Planning Analysis & Development

**TABLE 34:
EMISSIONS OF OZONE PRECURSORS :
CHANGES FROM EXISTING 1989 CONDITIONS
(tons/day)**

Region	1989		2005 /a/							
	EXISTING CONDITIONS		FUTURE BASE CONDITIONS /b/				PROJECT /c/			
	ROG Total	NOx Total	ROG Total	% Change	NOx Total	% Change	ROG Total	% Change	NOx Total	% Change
EMISSIONS FROM ON-ROAD VEHICLES										
CARMEL VALLEY /d/:	0.51	0.81	0.28	-44%	0.74	-9%	0.30	-41%	0.78	-4%
MONTEREY COUNTY TOTALS /e/:	17.01	22.69	10.89	-36%	20.16	-11%	10.90	-36%	20.20	-11%
NCCAB TOTALS /e/:	30.34	37.47	19.82	-35%	34.04	-9%	19.83	-35%	34.08	-9%
EMISSIONS FROM ALL SOURCES										
CARMEL VALLEY /f/:	2.04	1.68	1.32	-35%	1.44	-14%	1.34	-34%	1.48	-12%
MONTEREY COUNTY TOTALS /e/:	62.00	58.71	61.95	0%	65.33	11%	61.96	0%	65.37	11%
NCCAB TOTALS /e/:	95.16	78.40	95.21	0%	85.53	9%	95.22	0%	85.57	9%

Tablenotes:

- /a/ Both 2005 scenarios presented here assume that the Hatton Canyon Freeway will be operational by this date.
- /b/ Future Base Conditions assumes no project (i.e. no CVMP-mandated roadway improvements) and no CVMP growth. Cumulative growth outside of the Valley and construction of the Hatton Canyon Freeway are assumed. Totals for Monterey County and NCCAB were derived from the year 2005 forecasts from the 1989 Air Quality Management Plan (AQMP)
- /c/ This scenario includes the ROG and NOx contributions from the roadway improvements and from CVMP growth.
- /d/ Emissions were derived by multiplying total Carmel Valley vehicle miles travelled (VMT) by average emission factors obtained using the EMFAC7 model. TOG (total organic gasses) emission values derived from EMFAC7 were converted to ROG values by multiplying by 0.9, a quantity which represents the typical ratio of ROG to TOG for vehicular emissions as measured by MBUAPCD.
- /e/ Emissions taken from the 1989 Air Quality Management Plan (AQMP) for the Monterey Bay Region.
- /f/ These emissions were derived from a combination of Monterey County emission totals and Carmel Valley on-road vehicle emission totals, with adjustments to account for point sources which are not evenly distributed throughout Monterey County.

Source: Planning Analysis & Development

Although large stretches of loose dirt would likely be exposed prior to paving of the newly constructed portions of the roadway, only a portion of each stretch would be worked on at any one time. Therefore, actual dust emissions would be less than those shown above.

In addition, about 45% of this dust is comprised of large particles which would settle out rapidly on nearby horizontal surfaces. Large diameter particulates generated by construction are, therefore, of concern more as a soiling nuisance rather than for unhealthful impacts.

At the mouth of the Valley, the impact from dust released by construction of the Hatton Canyon Freeway would be much greater than that from those CVMP improvements which would be constructed nearby. If construction on both the Freeway and the project improvements were to occur simultaneously, the impact on PM_{10} from the project improvements would be dwarfed by that from the freeway construction. Deeper within the Valley, construction of the CVMP improvements would have the predominant effect on local TSP levels; of greatest concern would be construction occurring near the Village because of the relatively high density of land uses near Carmel Valley Road in this shopping area and because of the drier climate. *Dust generation due to construction would be a significant impact.*

- Impact 3.** Construction vehicles/equipment would emit exhaust at the construction sites. Large numbers of such vehicle/equipment operating or idling in a small area may cause spot violations of the CO standards. *This would be a significant impact.*

Operational Impacts

- Impact 4.** **Total Emissions From On-Road Vehicles In Carmel Valley:** Better pollution controls for motor vehicles operating in the year 2005 together with the higher vehicle speeds with the Hatton Canyon Freeway will more than offset the effects of the additional VMT from traffic generated by the CVMP growth.

Nitrogen Oxide (NO_x)

- (a) Year 2005 NO_x emissions would be .78 tons/day with the project, compared to 1989 conditions of .81 ton/day. This is a 4% decline. If the project and associated CVMP growth after Phase 2 were not to occur, 2005 NO_x emissions would be .74 tons/day. This is a 9% reduction in 1989 emissions. *The project would not cause a significant impact.*

Reactive Organic Compounds (ROG)

- (b) Year 2005 ROG emissions would be .30 tons/day with the project, compared to 1989 conditions of .51 tons/day. This would be a 41% reduction. If the project and associated CVMP growth after Phase 2 were not to occur, 2005 ROG emission would be .28 tons/day. This is a 44% reduction in 1989 emissions. *The project would not cause a significant impact.*

Impact 5. Vehicular emissions of both ROG and NO_x would be 5% higher than levels without the project and associated CVMP growth. These increases are directly proportional to the expected 5% increase in vehicle miles traveled with the project and associated CVMP growth. *The project would not cause a significant impact.*

Impact 6. Total Emissions From All Sources In Carmel Valley: In Carmel Valley, emissions from motor vehicles represent about 25% of emissions of ROG and 48% of emissions of NO_x from all sources. The projected 44% decline in ROG and 9% decline in NO_x by 2005 (without the project) will result in corresponding reductions in these emissions from all sources. *The project would not cause a significant impact on overall emissions.* Reduced motor vehicle emissions are responsible for most of the reductions.

Impact 7. Total Emissions From On-Road Vehicles In Monterey County and Throughout the NCCAB: The project would add only 0.2 - 0.4% to the future base emissions of ozone precursors by motor vehicles in the County and the NCCAB. *This is not a significant impact.*

Impact 8. Total Emissions From All Sources In Monterey County and Throughout the NCCAB: In terms of total emissions of ROG and NO_x from all sources for Monterey County and NCCAB, not just from motor vehicles, the project would increase future base emissions by less than one tenth of one percent. (See Table 35.)

TABLE 35:
EMISSIONS OF OZONE PRECURSORS :
DIFFERENCE BETWEEN FUTURE BASE CONDITIONS AND FUTURE WITH PROJECT
(tons/day)

Region	2005 /a/					
	FUTURE BASE CONDITIONS /b/		FUTURE BASE + PROJECT /c/			
	ROG Total	NOx Total	ROG Total	% Difference	NOx Total	% Difference
EMISSIONS FROM ON-ROAD VEHICLES						
CARMEL VALLEY /d/:	0.28	0.74	0.30	5%	0.78	5%
MONTEREY COUNTY TOTALS /e/:	10.89	20.14	10.90	0.13%	20.20	0.30%
NCCAB TOTALS /e/:	19.82	34.02	19.83	0.07%	34.08	0.18%
EMISSIONS FROM ALL SOURCES						
CARMEL VALLEY /f/:	1.32	1.44	1.34	2%	1.48	3%
MONTEREY COUNTY TOTALS /e/:	61.94	65.31	61.96	0.03%	65.37	0.09%
NCCAB TOTALS /e/:	95.20	85.51	95.22	0.02%	85.57	0.07%

Tablenotes:

- /a/ Both 2005 scenarios presented here assume that the Hatton Canyon Freeway will be operational by this date.
- /b/ Future Base Conditions assumes no project (i.e. no CVMP-mandated roadway improvements) and no CVMP growth. Cumulative growth outside of the Valley and construction of the Hatton Canyon Freeway are assumed.
- /c/ This scenario adds the ROG and NOx contributions from the roadway improvements and from CVMP growth to the emissions for the future base scenario.
- /d/ Emissions were derived by multiplying total Carmel Valley vehicle miles travelled (VMT) by average emission factors obtained using the EMFAC7 model. TOG (total organic gasses) emission values derived from EMFAC7 were converted to ROG values by multiplying by 0.9, a quantity which represents the typical ratio of ROG to TOG for vehicular emissions as measured by MBUAPCD.
- /e/ Emissions taken from the 1989 Air Quality Management Plan (AQMP) for the Monterey Bay Region.
- /f/ These emissions were derived from a combination of Monterey County emission totals and Carmel Valley on-road vehicle emission totals, with adjustments to account for point sources which are not distributed throughout Monterey County (see Appendix B, Chapter 9).

Source: Planning Analysis & Development

Mitigation Measures

The portion of the mitigations discussion from the air quality section of the 1986 CVMP SEIR which is relevant to this analysis can be summarized as follows /1/:

- *Measures which would reduce the number of vehicle trips generated by development would be most effective in reducing air pollution. For instance, successful implementation of Carmel Valley Master Plan policies encouraging alternative transit and the provision of pedestrian and bicycle paths would result in less vehicle miles traveled and consequently, reduced vehicle emission levels.*

Construction Mitigations

- Mitigation 1.** Unpaved construction sites should be sprinkled with water at least twice per day to moisten loose dirt, thereby reducing the likelihood that individual particles will be lifted into the air by wind.
- Mitigation 2.** Stockpiles of soil, sand, and other such materials should be covered for the same reason.
- Mitigation 3.** Trucks hauling debris, soil, sand, or other such materials should be covered for the same reason.
- Mitigation 4.** Streets surrounding construction sites should be swept at least once per day to minimize the amount of construction-generated particulates lifted into the air by automobiles traveling on these streets.
- Mitigation 5.** Paving and planting should be done as soon as possible to cover or consolidate loose dirt.
- Mitigation 6.** Construction equipment engines should not be kept idling when not in use and should receive periodic maintenance. This would reduce emissions of air pollutants associated with their use and, consequently, reduce the likelihood of spot violations of the CO standards and odor complaints.

Mitigation 7. Traffic congestion during construction could be minimized by limiting roadway widening construction to one side of the road at a time.

Mitigation 8. Environmental Impact Reports on the individual construction projects should include analysis of potential air quality impacts from particulate matter based on specific information on the pacing and extent of construction. Such an analysis could predict whether the mitigations listed above would be sufficient to reduce the construction impacts to a level of insignificance.

Operational Mitigations

As the project would have no significant operational impacts, no mitigations are required. However, the 1989 AQMP discusses a number of air pollution control measures relating to transportation which are being implemented on a regional level /2/ and would apply to this project:

The TCMs [Transportation Control Measures] that were adopted in 1979 and 1982 and approved by the Air Resources Board and EPA are:

- *Improved Public Transit*
- *Area-wide Carpool Programs*
- *Bicycle Lanes and Storage Facilities*
- *Park-and-Ride*
- *Traffic Flow Improvements*
- *Employer Programs to Encourage Ridesharing*

Significant progress has been made in implementing these transportation control measures which are annually monitored for their effectiveness through the required Annual Reasonable Further Progress reports.

Footnotes to Chapter 5C:

- /1/ Subsequent Carmel Valley Master Plan Draft Environmental Impact Report, Monterey County, 1986, pp.110-114.
- /2/ 1989 Air Quality Management Plan for the Monterey Bay Region, Monterey Bay Unified Air Pollution Control District (MBUAPCD) and Association of Monterey Bay Area Governments (AMBAG), June 1989.
- /3/ Air Quality Handbook, 1989-1990, Bay Area Air Quality Management District.
- /4/ Bruce Katayama, Air Quality Planner, MBUAPCD, telephone communication, April 12, 1990.
- /5/ Janet Brennan, Air Quality Planner, MBUAPCD, telephone communication, May 8, 1990.
- /6/ Based on CO concentration data gathered at MBUAPCD reporting stations.
- /7/ Based on a formula for dust emitted by heavy construction activities: 1.2 ton/acre/month. Source: Compilation of Air Pollutant Emission Factors, Third Edition, Publication AP-42, Part B, United States Environmental Protection Agency, August 1977.
- /8/ The term "on-road vehicles" is used in the 1989 AQMP (see footnote 2, above) to refer to those vehicles which travel on roadways, as opposed to "other mobile" sources such as off-road vehicles, trains, ships, aircraft, etc.. For the purposes of this report, the term "motor vehicles" is used in a limited sense, referring to on-road vehicles only.
- /9/ These estimates are based on predicted vehicle fleet emissions incorporated into the California Air Resources Board's EMFAC7 model.

CHAPTER FIVE
E. NATURAL FACTORS

Environmental Setting

This chapter presents information regarding physical constraints that affect the Carmel Valley roadway network and may affect the physical improvements to the network including the natural geologic and vegetative characteristics.

The traffic improvements of the Carmel Valley Master Plan have the potential to impact features of the natural environment which contribute to the Valley's rural and environmental quality. These features include:

- biotic resources; and
- geologic and hydrologic conditions.

Biotic Resources

Figure 5 shows the location of pine and cypress trees, oak-mixed hardwood trees, redwood trees, rare and endangered plants and riparian areas. As shown in Figure 5: Biotic Resources, there are pine and cypress trees adjacent to the north side of Carmel Valley Road between Rio Road and Rancho San Carlos Road. There are some oak-mixed hardwood trees located along Canada de la Segunda and near Los Laureles Grade on both sides of Carmel Valley Road. Chaparral, redwoods and grasslands are near the north side of Carmel Valley Road at various locations throughout the Valley.

The area of Carmel Valley Road east of Holman Road is biologically sensitive: the Carmel River riparian area is adjacent to this segment of the road as are oak-mixed hardwood trees.

There are some rare and endangered plant species along segments of Carmel Valley Road including the Carmel Valley Bush Mallow (*Malacothamnus palmeri*) and the Carmel Valley Malacothrix (*Malacothrix saxatilis*). These plant species are located along Carmel Valley Road between Robinson Canyon Road and Los Laureles Grade. (See Figure 5.)

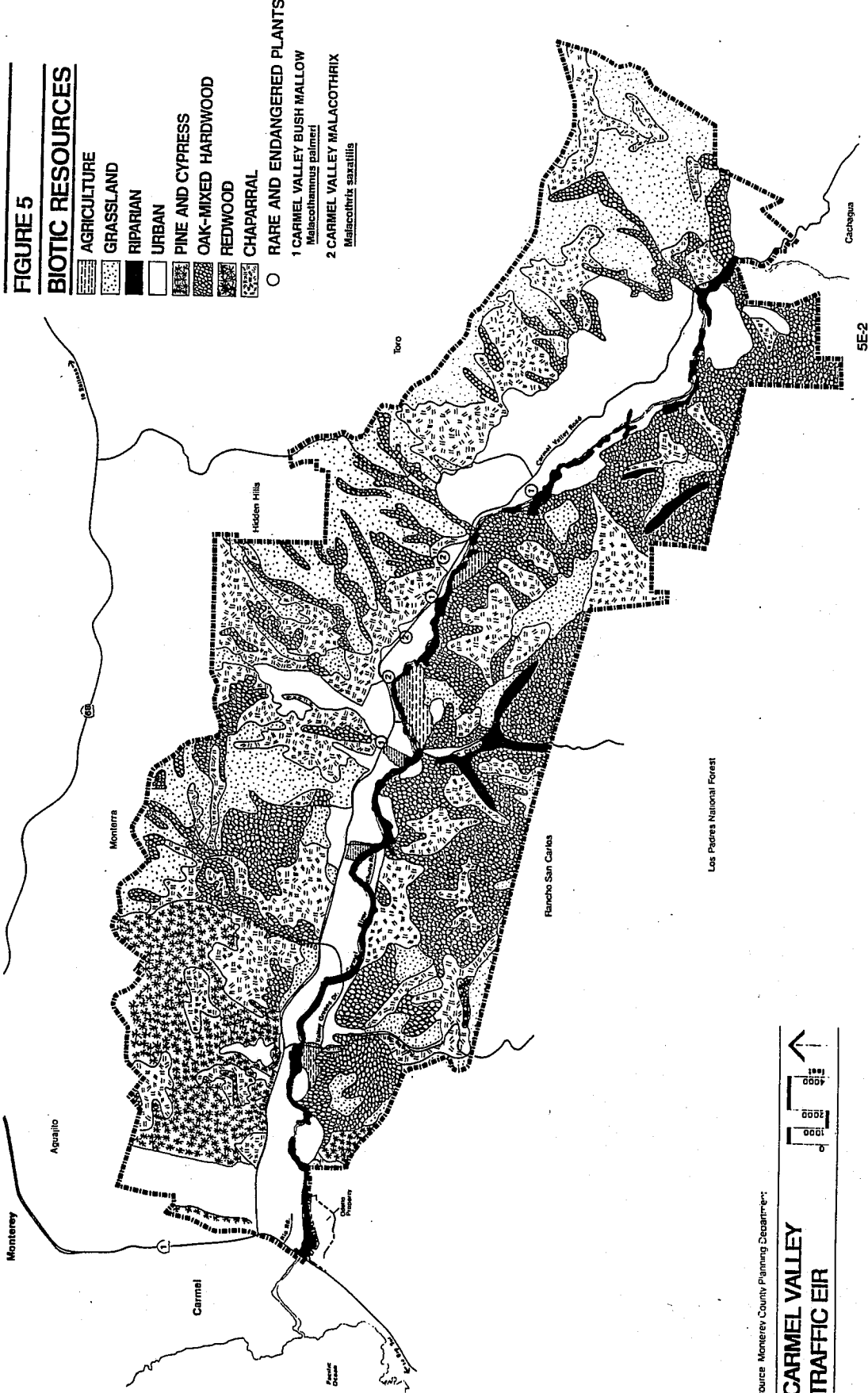
FIGURE 5

BIOTIC RESOURCES

- AGRICULTURE
- GRASSLAND
- RIPARIAN
- URBAN
- PINE AND CYPRESS
- OAK-MIXED HARDWOOD
- REDWOOD
- CHAPARRAL

RARE AND ENDANGERED PLANTS

- 1 CARMEL VALLEY BUSH MALLOW
Malacothrix palmeri
- 2 CARMEL VALLEY MALACOTHRIX
Malacothrix saxatilis



Source: Monterey County Planning Department

**CARMEL VALLEY
TRAFFIC EIR**

5E-2

Geology, Hydrology and Seismicity

Slope: Much of the land adjacent to Carmel Valley Road has a steep gradient of 30% or more, as shown in Figure 6: Slope Analysis. There are areas of exposed rock, particularly on the north side of the road, as shown in Figure 7: Geology & Seismicity. On the south side of the road, the gradient is less steep, ranging from 0-20% for the most part. However, this area is environmentally sensitive in that the terrain gently slopes down to the Carmel River.

Landslides are common throughout the Carmel Valley. Landslide potential exists where there are steep slopes and where soils are underlain with unstable materials such as Monterey Shale or old landslide deposits. The potential for landsliding increases during the winter months when the ground is saturated with the runoff. Landsliding can result from seismic activity, ground saturation or grading which undercuts or artificially steepens the toe of the slopes. Figure 8 shows the slope stability of areas near Carmel Valley Road as identified by Monterey County and the U.S. Soil Conservation Service. These categories are as follows:





1. **Generally Stable:** This category includes all gradients not underlain by landslide deposits or soil and bedrock susceptible to slope failure.
2. **Generally Unstable:** This includes 10-30% slopes not underlain by landslide deposits. Bedrock is susceptible to slope failure when modified by non-engineered grading, during excessive rainfall or seismic groundshaking.
3. **Moderately Unstable:** This category includes areas with slopes greater than 30% not underlain by landslide deposits. Soils and bedrock are highly susceptible to slope failure when modified by non-engineered grading or during excessive rainfall or seismic groundshaking.
4. **Highly Unstable:** This category includes all gradients underlain by landslide deposits. These areas are highly susceptible to additional slope failure during excessive rainfall or seismic groundshaking, or when modified by non-engineered grading.

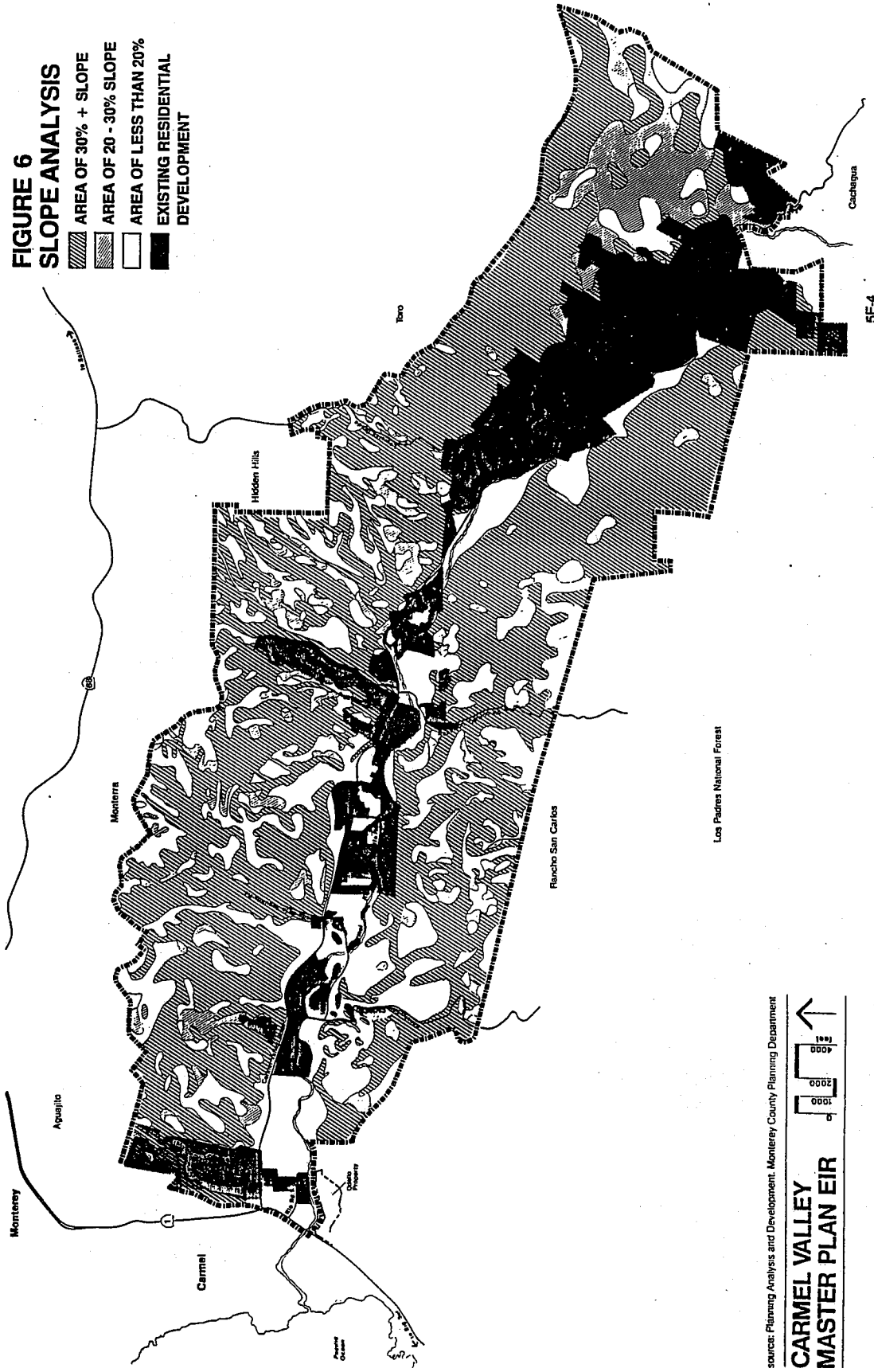
Faults: There are three potentially active faults that run close to Carmel Valley Road. These include the Navy Fault, the Tularcitos and Snivley's faults. (See Figure 7.)

Flooding: The area between Carmel Valley Road and the river is flat and much of it is within the Carmel River flood plain. As shown in Figure 9: Flood Plain Map, portions of Carmel Valley Road between Robinson Canyon Road and Los Laureles Grade are adjacent to the 100-year flood plain.

FIGURE 6

SLOPE ANALYSIS

-  AREA OF 30% + SLOPE
-  AREA OF 20 - 30% SLOPE
-  AREA OF LESS THAN 20% SLOPE
-  EXISTING RESIDENTIAL DEVELOPMENT



source: Planning Analysis and Development, Monterey County Planning Department

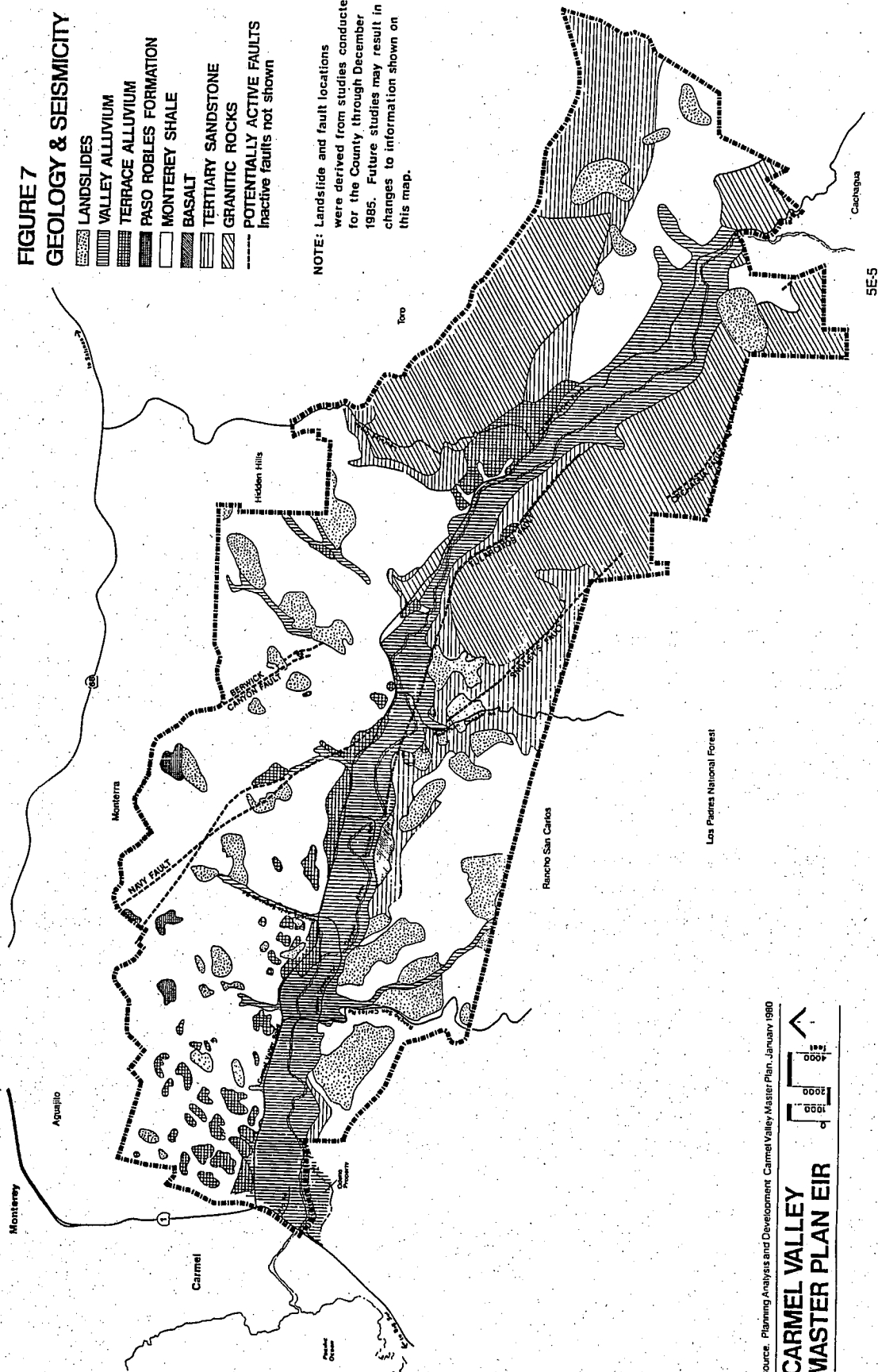
**CARMEL VALLEY
MASTER PLAN EIR**



**FIGURE 7
GEOLOGY & SEISMICITY**

- LANDSLIDES
- VALLEY ALLUVIUM
- TERRACE ALLUVIUM
- PASO ROBLES FORMATION
- MONTEREY SHALE
- BASALT
- TERTIARY SANDSTONE
- GRANITIC ROCKS
- POTENTIALLY ACTIVE FAULTS
- Inactive faults not shown

NOTE: Landslide and fault locations were derived from studies conducted for the County through December 1985. Future studies may result in changes to information shown on this map.



Source: Planning Analysis and Development Carmel Valley Master Plan, January 1980

**CARMEL VALLEY
MASTER PLAN EIR**

SE-5

Environmental Impacts

Traffic improvements could be constrained by natural features that are difficult to change, or that residents are reluctant to have changed because such actions would alter the rural quality of Carmel Valley. The road improvements could require cutting of slopes and filling of other areas to widen or realign Carmel Valley Road. The general types of impacts that would occur as a result of improvements are discussed below. These impacts are followed by a discussion of the impacts that would be generated by each improvement identified in the CVMP.

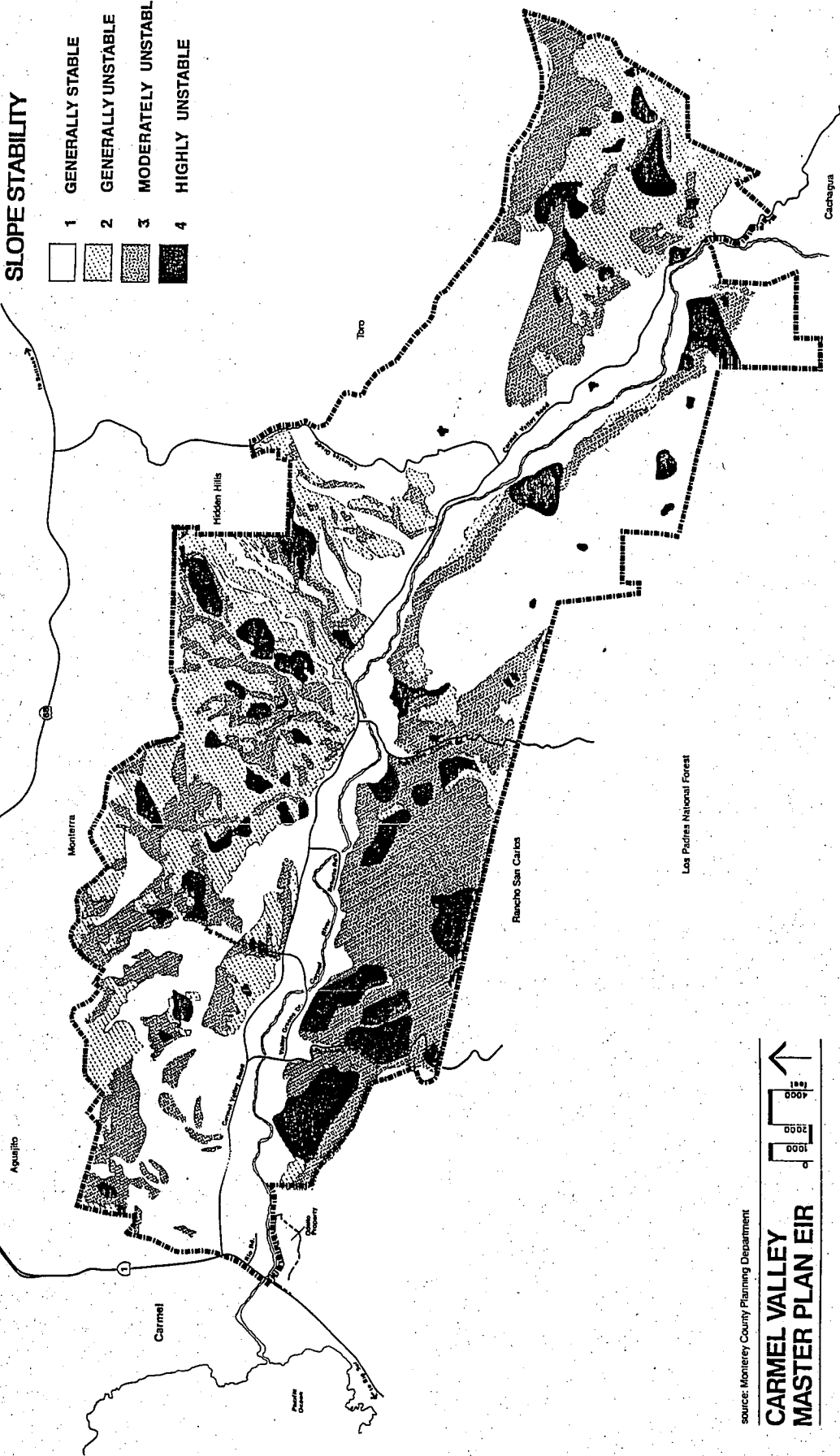
General Impacts

All of the following impacts have the potential to be significant unless otherwise noted.

- Impact 1:** Roadway widening and realignment could impact large, mature trees if they are in the planned right-of-way.
- Impact 2:** Roadway widening and realignment could impact the Carmel Valley Bush Mallow (*Malacothamnus palmeri*) and the Carmel Valley Malacothrix (*Malacothrix saxatilis*). These rare and endangered plant species are located along Carmel Valley Road between Robinson Canyon Road and Los Laureles Grade. (See Figure 5.)
- Impact 3:** Chapparal removal may be necessary along segments of Carmel Valley Road and could adversely affect soil stability and wildlife habitat. This vegetation would be impacted if it were in the right-of-way or adjacent areas which had to be graded for road improvements or slope stabilization.
- Impact 4:** Many areas of 30% slope gradient lie close to Carmel Valley Road; these slopes could be impacted by widening, new interchanges and other construction. Highly unstable slopes are susceptible to further slope failure during excessive rainfall or seismic groundshaking, or when modified by non-engineered grading. Cutting, earthmoving and blasting could cause unstable slopes to slide.
- Impact 5:** Cutting, filling, earthmoving and blasting could adversely affect unstable slopes and could cause erosion and siltation which would impact the water quality in the Carmel River.
- Impact 6:** The riparian areas and riverbed adjacent to the north side of Carmel Valley Road could be adversely impacted by roadway realignment.

SLOPE STABILITY

- 1 GENERALLY STABLE
- 2 GENERALLY UNSTABLE
- 3 MODERATELY UNSTABLE
- 4 HIGHLY UNSTABLE



SE-7

source: Monterey County Planning Department

CARMEL VALLEY
MASTER PLAN EIR

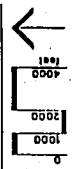
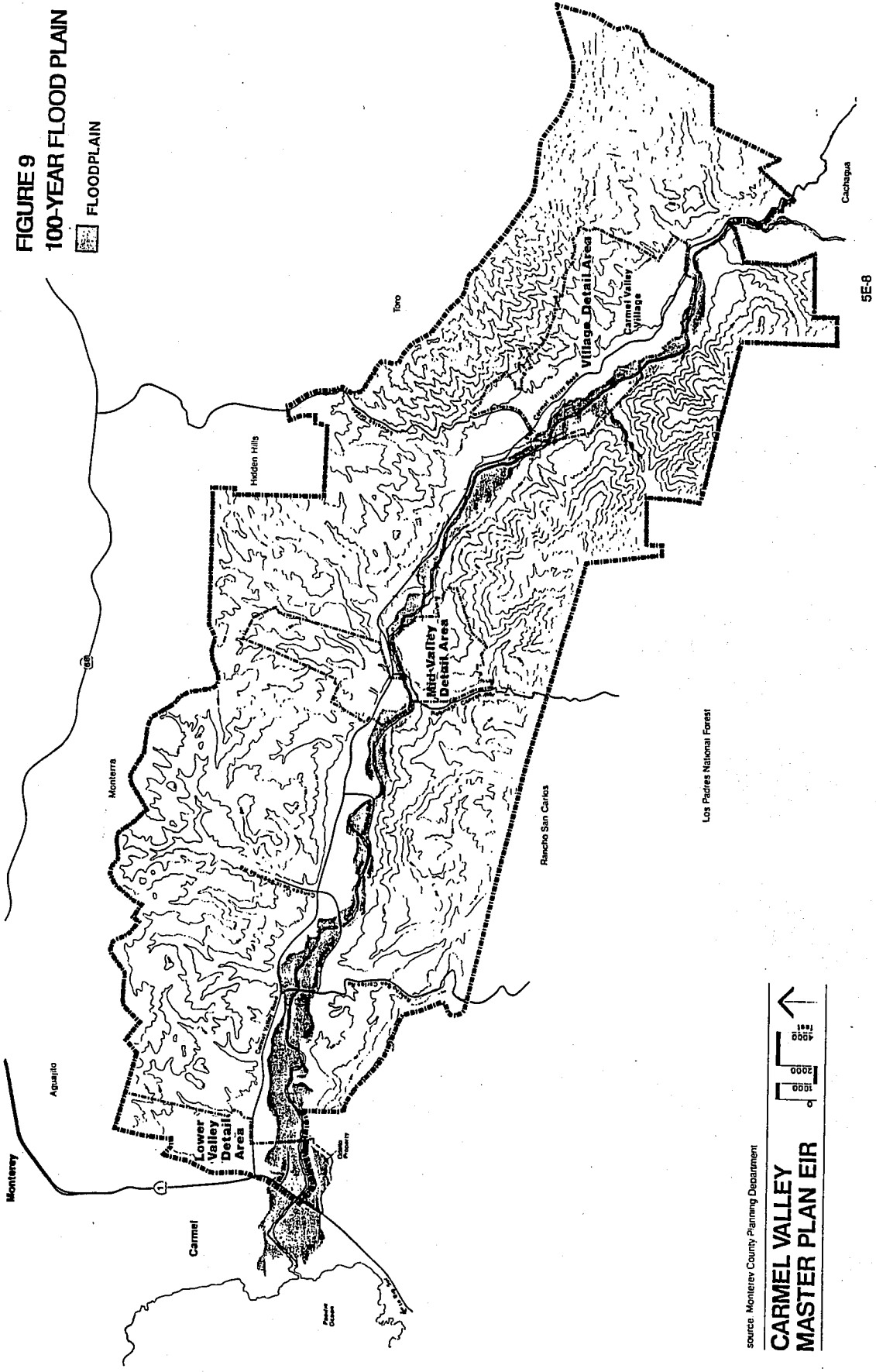


FIGURE 9
100-YEAR FLOOD PLAIN
FLOODPLAIN



5E-8

source: Monterey County Planning Department

CARMEL VALLEY
MASTER PLAN EIR



Impacts from Specific Improvements in the CVMP

The following impacts assume worst-case conditions; that is, each road improvement would or could adversely affect natural conditions in the vicinity of the improvements. This program EIR points out the possible impacts; environmental review for each individual road improvement project should assess site-specific impacts and recommend project-specific mitigation measures. In order to provide a conservative impact assessment, it is assumed that all of the following impacts, were they to occur, could be significant, unless otherwise noted.

● *Carmel Valley Road from Via Petra to Robinson Canyon Road (Segments 6-8)*

It is recommended that this 4.4 mile section of Carmel Valley Road be widened to four lanes when it reaches design capacity. This should be preceded by a reevaluation of the Official Plan Line alignment in order to reduce road cuts in several locations. (Policy 39.3.1.1 (CV) (a))

- Impact 6. Rare and Endangered:** The Carmel Valley Bush Mallow could be impacted by the 4-laning project. A small number of redwoods near Canada de la Segunda could be impacted by 4-laning of Carmel Valley Road.
- Impact 7. Trees:** There are pine and cypress trees on the north side of Carmel Valley Road opposite Rio Road and Rancho San Carlos Road which could be affected by the roadway widening.
- Impact 8. Chapparal Community:** There is a large chapparal community located on the north side of Carmel Valley Road just east of Canada de la Segunda Road which could be adversely affected by roadway widening.
- Impact 9. Unstable Slopes:** There are some generally unstable slopes located along the north side of Carmel Valley Road near both Canada de la Segunda Road and Robinson Canyon Road which would be adversely affected by cuts that may be required for roadway widening.
- Impact 10. Steep Slopes:** Steep slopes located on the north side of Carmel Valley Road between Meadows Drive and Brookdale Drive could be impacted by roadway widening.

● ***Carmel Valley Road from Robinson Canyon Road to Los Laureles Grade (Segment 5)***

This section of Carmel Valley Road is adequate for the foreseeable future. Every effort should be made to preserve its rural character by maintaining it as a two-lane road with paved shoulders, and left turn channelizations at intersections where warranted. (Policy 39.3.1.1 (CV) (b))

Impact 11. Trees: There are oak-mixed hardwood trees located on both sides of Carmel Valley Road near Los Laureles Grade which could be affected by any changes to this segment such as widening for left-turn channelizations at intersections.

Impact 12. Rare or Endangered Plants: The Carmel Valley Bush Mallow (*Malacothamnus palmeri*) and the Carmel Valley Malacothrix (*Malacothrix saxatilis*) are rare or endangered plants located in the segment along Carmel Valley Road between Robinson Canyon Road and Los Laureles Grade. If left turn channelizations would involve road widening, these plants could be adversely impacted.

Impact 13. Chaparral Community: There is a large chaparral community located on the north side of Carmel Valley Road between Scarlett Road and Rancho Fiesta which could be adversely affected if roadway widening is required for left turn lanes.

Impact 14. Unstable Slopes: The slide area that exists east of Scarlett Road approximately 1.5 miles west of Los Laureles Grade could impact future traffic operations, safety and water quality.

● ***Carmel Valley Road East of Esquiline Road (Segments 1 and 2)***

Shoulder improvements should be undertaken at the sharper curves. Curves should be examined for spot realignment needs. (Policy 39.3.1.1 (CV) (d))

Impact 15. Trees: There are oak-mixed hardwood trees located adjacent to Carmel Valley Road east of Holman Road which could be affected by roadway realignment.

Impact 16. Riparian Areas and the Carmel River: The riparian areas and riverbed located adjacent to the south side of Carmel Valley Road could be adversely affected by roadway realignment. Potential impacts include removal of riparian habitat and migration of sediment into the Carmel River.

Impact 17. Chapparal Community: The chapparal community located on the north side of Carmel Valley Road near Via Los Tulares could be adversely affected by roadway realignment.

Impact 18. Unstable Slopes: There is an area with highly unstable slopes located along the north side of Carmel Valley Road just east of Holman Road which could be adversely affected by realignment. (See Figure 8.)

Impact 19. Steep Slopes: There are steep cliffs on either side of Carmel Valley Road in the Via Los Tulares area which would be adversely affected by realignment.

● **Los Laureles Grade (Segment 4)**

Los Laureles Grade - undertake shoulder improvements, widening and spot realignment. (Policy 39.3.1.5 (CV) (b))

A northbound climbing lane should be considered for construction on Los Laureles Grade to accommodate future traffic volumes. Alternatively, several curves should be flattened and shoulder widths should be increased. (Policy 39.3.1.9 (CV))

Impact 20. Trees: Shoulder improvements, roadway widening and spot realignment on Los Laureles Grade could affect the oak-mixed hardwood trees that are adjacent to the road.

Impact 21. Steep Slopes: As shown in Figure 8, much of Los Laureles Grade is within areas of 30% slope or greater. Roadway widening and realignment would require cutting into steep slopes, which would cause erosion and aesthetic impacts.

● **Repaint Lines on Carmel Valley Road**

It is recommended that the County reduce the dangers of driving Carmel Valley Road by repainting the lines as consistent with the California Vehicle Code. (Policy 39.3.1.2 (CV))

No adverse environmental impact would result from repainting the lines on Carmel Valley Road.

● **Left Turn Channelizations/Ingress-Egress Tapers**

Left turn channelizations and/or ingress-egress tapers at significant access points on Carmel Valley Road should be high priority improvements to alleviate existing hazards. (Policy 39.3.1.3 (CV))

Impact 22. Biotic Resources: To the extent that road widening would be necessary, these improvements could impact trees and rare and endangered plants, and cause erosion and siltation.

● **Emergency Access**

The following road connections may be established, as controlled emergency accesses:

- a) De los Helechos to Paso Hondo as a dry weather ford;*
- b) Paso del Rio (off W. Garzas) to Carmel Valley Road;*
- c) Tierra Grande to Saddle Road in Hidden Hills;*
- d) Country Club Drive to El Caminito;*
- e) Robles del Rio area east of Esquiline Road; and*
- f) Outlook Drive to High Meadows (once Hatton Canyon Freeway is completed. (Policy 39.3.1.4 (CV))*

Impact 23: To the extent that additional right-of-way and/or construction staging area is needed, the establishment of road connections could adversely impact biotic resources and geologic conditions.

● **Construction of Minor Interchanges**

The County shall consider constructing minor interchanges as an alternative to signalizing the Carmel Valley Road intersection with the Hatton Canyon Freeway and Rio Road. This would result in an unimpeded flow of traffic on Carmel Valley Road and would facilitate left turning movements from and onto Carmel Valley Road intersections. (Policy 39.3.1.7 (CV))

Impact 24. To the extent that additional right-of-way and/or construction staging area is needed, construction of minor interchanges could impact biotic resources and geologic conditions.

Mitigation Measures

The following policies of the CVMP would mitigate the general impacts due to construction of roadway improvements:

- *The County shall discourage the removal of healthy native oak, madrone and redwood trees in the Carmel Valley Master Plan Area. A permit shall be required for removal of any of these trees with a trunk diameter in excess of six inches, measured two feet above ground level. (Policy 7.2.2.5(CV) of the CVMP)*
- *In order to preserve soil stability and wildlife habitat, the chapparal community shall be maintained in its natural state to the maximum extent feasible consistent with fire safety standards. (Policy 7.2.1.1. of the CVMP)*

CVMP policies to protect biotic resources include the following:

- *Preserve areas of biological significance and areas of critical habitat for rare and endangered species as open space; (Policies 7.1.1.1 (CV) and 7.1.1.2 (CV))*
- *Site development to protect riparian vegetation, minimize erosion, and preserve the visual aspects of the Carmel River; (Policy 7.1.1.3 (CV))*
- *Botanically appropriate species shall be used for required landscaping and erosion control (Policies 7.2.2.1 through 7.2.2.3 (CV) of the CVMP)*
- *In order to preserve soil stability and wildlife habitat, chapparal communities to be maintained in their natural state to the maximum extent feasible consistent with fire safety standards. (Policy 7.2.1.1 (CV) of the CVMP)*

CVMP policies to control erosion and siltation are as follows:

- Policy 3.1.1.1 (CV) requires a soils report;
- Policies 3.1.9 (CV) and 3.1.15 (CV) require an erosion control plan for development.

- Policy 3.1.1.2 (CV) includes specifications for an erosion control plan;
- Policy 3.1.1.3 (CV) requires protection during rainy seasons;
- Policy 3.1.7 (CV) recommends consideration of the potential for erosion and siltation when locating and designing development; and
- Policy 3.1.8 (CV) requires native vegetative cover.

CVMP policies for geology and flooding are as follows:

- *Require the study of areas subject to geologic hazards to determine constraints and recommend mitigation measures. (CVMP policy 15.1.16 (CV))*
- *Require a special permit for development within 200 feet of the nominal Carmel River bank or 30 feet from any tributary bank. (CVMP policy 16.2.3.1 (CV))*

Future project-specific EIRs such as that for the four-laning of Carmel Valley Road should assess the construction impacts of roadway improvements and recommend specific mitigation measures which shall be observed when construction plans are implemented. The impacts and mitigations for the actual construction of the roadway improvements cannot be assessed in greater detail until the specific alignment and engineering plans are available for review.

The following are mitigation measures which supplement the policies from the Carmel Valley Master Plan.

- Mitigation 1. Trees:** Roadway widenings and realignments should be planned so that removal of trees is minimized.
- Mitigation 2. Trees:** Trees that must be removed should be replaced adjacent to the widened roadway to restore rural quality in the manner specified in by Policy 7.2.2.5 (CV) of the Carmel Valley Master Plan.
- Mitigation 3. Rare or Endangered Plants:** Roadway widenings and improvements should be designed so that they do not affect rare or endangered plants or the existing buffer areas around such plants.

If Mitigation 3 cannot be achieved, in accordance with policy 11.1.1.1 (CV) of the CVMP, an Incidental Taking Permit or exclusion would have to be obtained as required by the Federal Endangered Species Act, and the State Department of Fish and Game would have to be notified of the existence of the rare or endangered species pursuant to Fish and Game Code Chapter 10 Section 1913c.

Mitigation 4. Flooding: Roadway improvements should be planned so that they are located outside of the floodplain.

Cumulative Impacts due to the Hatton Canyon Freeway

The roadway improvements have the potential to add to the cumulative impacts on biotic resources in general. Loss of habitat and disruption of rare and endangered species are the primary concerns. The cumulative development project which would have the greatest impact is the Hatton Canyon Freeway. There are two improvements called for in the Carmel Valley Master Plan which relate to the Hatton Canyon Freeway. These are:

(1) Highway One Widening

Widen Highway One to four lanes between Carmel Valley Road and Rio Road in conjunction with the Hatton Canyon Freeway project. (Policy 39.3.1.5 (CV) (a))

The impacts that the widening of Highway One would have on natural factors is the subject of the Highway One EIS/EIR. (See below.)

(2) Interchange at Highway One and Carmel Valley Road

In the event the State does not build the Hatton Canyon Freeway or widen Highway One, the County shall consider an interchange at Highway One and Carmel Valley Road. (Policy 39.3.1.8(CV))

The Hatton Canyon Freeway's impact on biotic resources would likely exceed that of all the CVMP improvement projects. The impacts of the Hatton Canyon Freeway are described in its own EIS/EIR, which is incorporated by reference in this EIR, and is summarized below. The impacts that the widening of Highway One would have on

natural factors is addressed as an alternative in the Hatton Canyon Freeway Final EIS. No information is available regarding the size and configuration of the Highway One interchange, or its impacts on natural factors cannot be determined in this EIR.

Cumulative Impacts due to Hatton Canyon Freeway /1/

A Biological Assessment Report (1985) was prepared for the proposed project [i.e., the Hatton Canyon Freeway] to evaluate the biological resource impacts associated with the project alternatives. The U.S. Fish and Wildlife Service (FWS) reviewed the Biological Assessment for the proposed project alternatives. FWS concurred with the findings of no effect on the following species:

Listed Species /2/

Smith's blue butterfly (Euphilotes enoptes smithi)

Candidate Species /2/

Sandmat manzanita (Arctostaphylos pumila)

Monterey ceanothus (Ceanothus rigidus)

Gowen cypress (Cupressus goveniana)

Monterey cypress (Cupressus macrocarpa)

Hutchinson's larkspur (Delphinium hutchinsonae)

Regarding a sixth candidate plant species, Hickman's onion (Allium hickmanii), FWS stated that Alternatives 1 [Hatton Canyon Freeway] and 7 [Hatton Canyon Freeway plus widening of Highway One] would "adversely affect the long term survival of Hickman's onion given our knowledge of the species distribution. . . ." Project design changes have reduced the impact on Hickman's onion to a non-significant level.

Alternative 1 (Hatton Canyon)

1. Native Monterey Pine Forest

Potential impacts to native Monterey pine forest from Alternative 1 would be from the direct displacement of forested areas by the proposed Hatton Canyon alignment. Approximately 21 acres of native Monterey pine forest would be directly impacted, with the greatest area of impact being at the head of Hatton Canyon near Carpenter Street. The impact has been reduced by approximately 5 acres through design revisions that have occurred since the

Draft EIS. Impacts to Monterey pine forest along the east wall of Hatton Canyon have been eliminated by a westerly shift in the proposed alignment in the lower portion of the canyon. Additional reductions in impacts to Monterey pine forest were achieved through the use of a retaining wall on the west side of the proposed alignment between the Route 68 (west)/Highway 1 Interchange and the proposed Carpenter Street Interchange. An approximation of the actual number of trees to be taken and the total number of trees in the project area are given below:

Table 36. Tree Impacts Due to Hatton Canyon Freeway

	<u>21 Acres Impacted</u>	<u>70 Acres in Project Area</u>
Mature Monterey Pine	7,700	30,000
Mature Oaks	1,250	5,800
Seedling (Oak & Pine)	4,200	21,600

Source: Caltrans, FEIR Highway Improvement Project, p. IV-23.

Proposed Mitigation Measures

Cut and fill slopes in the areas of the Monterey pine stands have been reduced in the project design to reduce the impact on the native Monterey pine forest. Disturbed areas would be revegetated with site specific Monterey pines, contract grown from the existing Hatton Canyon population.

The mitigation as proposed would mitigate the impact to the native Monterey pine forest to a non-significant level through replacement of trees removed with plantings of the same genetic stock.

2. Hickman's Onion (*Allium hickmanii*)

This rare native onion occurs only in several locations on the Monterey Peninsula and in the vicinity of Arroyo de la Cruz in San Luis Obispo County.

Hickman's onion occurs in perennial grasslands near the top of the east wall of Hatton Canyon and in the understory of Monterey pine forest near Carpenter Street. The Hatton Canyon population of Hickman's onion (approximately 9.5 acres) represents 68% of the

known population of Hickman's onion in Monterey County (based on 1984-87 field surveys and California Natural Diversity Data Base site records).

Approximately 1/3 of one of the areas of perennial grassland on the east wall of the canyon, and the area of Monterey pine forest near Carpenter Street would be impacted by Alternative 1 [the Hatton Canyon Freeway]. The Hickman's onion areas impacted by Alternative 1 represent approximately 1.5 acres or 16% of the existing population in Hatton Canyon. The remaining population of Hickman's onion in Hatton Canyon, located in the non-impacted perennial grasslands on the east side of Hatton Canyon, would be preserved.

Nearly all of the other populations of Hickman's onion in Monterey County are threatened by development pressures. The impact from Alternative 1 would represent the loss of approximately 1.5 acres, or 11% of the known Hickman's onion population in Monterey County. The loss of 1.5 acres is considered a significant adverse impact.

Proposed Mitigation Measures

The Hickman's onion locations in Hatton Canyon that would not be impacted by the proposed project would be preserved as an Environmentally Sensitive Area (ESA) in the State highway right-of-way, thereby providing long-term public protection for one of the largest areas of Hickman's onion in Monterey County. The preserve would include approximately eight acres of existing Hickman's onion habitat or 57% of the known Hickman's onion population in Monterey County.

Caltrans will also undertake a transplantation effort involving the Hickman's onion areas that are slated to be destroyed by the proposed project. These plants would be moved while dormant into suitable habitat areas within unoccupied portions of the designated ESA. The transplantation effort will be monitored for five years, with annual reports to FWS.

With the proposed ESA and management plan to compensate for project-related Hickman's onion losses, Alternative 1C /4/ would not adversely affect the long-term survival of Hickman's onion. Alternative 1C, with proposed mitigation, would not have a significant adverse impact on Hickman's onion. FWS has concurred with the assessment of Alternative 1C's impacts to Hickman's onion, and proposed measures to compensate for project related impacts.

3. Riparian Woodland\Wetlands

Riparian wetlands, primarily arroyo willow (*Salix lasiolepes*) and black cottonwood (*Populus trichocarpa*) would be removed along the stream channel in Hatton Canyon and at the Carmel River. Approximately 10.5 acres of riparian wetlands would be removed from the canyon area. From the mouth of the canyon to the existing Carmel Shopping Center, approximately one acre of discontinuous riparian wetlands would be removed. At the Carmel River Bridge, 0.5 to 1.5 acres of riparian wetlands, depending upon the design variation being considered, would be removed to accommodate a new bridge.

The riparian wetlands in the project area are important on a regional level due to their importance to anadromous fisheries and migratory bird species. The intensity of the impact from the loss of 13 acres of riparian wetland, including the permanent loss of the riparian system along the Hatton Canyon drainage, is very high. The riparian wetland impacts associated with Alternative 1 [Hatton Canyon Freeway] are significant.

Proposed Mitigation Measures

Impacts to riparian wetlands would be mitigated through a Wetland Mitigation Plan, developed in coordination with FWS.

The objectives of the wetland mitigation plan are to avoid unnecessary encroachment into riparian wetlands adjacent to the work area, and to compensate for unavoidable riparian wetland losses by replacing riparian wetland habitat on at least a 1:1 basis. The mitigation plan would meet the FWS Resource Category 2 goal of no net loss of in-kind habitat values.

The proposed mitigation measures are intended to recreate forested riparian wetland habitat similar to that which would be directly affected by the highway construction. With the off-site replacement plantings at greater than a 1:1 ratio, and the start of the off-site replacement plantings at least one year prior to the start of highway construction, the proposed mitigation should insure no loss of riparian wetland acreage or habitat value.

In addition, the restoration of a narrow band of riparian vegetation along the Hatton Canyon drainage would provide very minimal habitat value, but would be valuable for another important function of wetlands: the trapping of sediment.

Even with proposed mitigation, the impact to riparian wetlands from Alternative 1 is considered significant due to the permanent loss of riparian wetland habitat within Hatton Canyon.

Off-Site Wetland Replacement

Off-site restoration of riparian wetlands is proposed along the Carmel River, immediately upstream from the project area, as part of the mitigation of project related riparian wetland impacts. Potential sites for the off-site restoration were developed in consultation with the Monterey Peninsula Water Management District. Nineteen acres of the northern portion of the Odello East property was chosen as the proposed restoration site because of its proximity to the project area and its location within the historic limits of the Carmel River riparian forest.

4. Wildlife Habitat

Approximately 160 acres of vegetation that serves as wildlife habitat would be adversely impacted by Alternative 1. In addition to the impact upon wildlife habitat, wildlife movement would be restricted from crossing Hatton Canyon by the proposed highway. Wildlife populations isolated from feeding and habitat areas would be adversely impacted.

The loss of 160 acres of wildlife habitat contributes to the on-going loss of habitat through urbanization of the Monterey Peninsula area. The incremental loss of wildlife habitat is considered a significant long-term impact.

Indirect impacts to wildlife could also result from increased noise levels associated with vehicles traveling on the completed roadway. Increases in noise levels by as much as 26 dBA in the canyon (see discussion on noise impacts) may prevent some species from using remaining habitat adjacent to the roadway.

Proposed Mitigation Measures

Mitigation proposed for wildlife habitat impacts is limited to the revegetation of disturbed areas created by the project.

Alternative 1's impact on wildlife habitat, with proposed mitigation measures, is still considered a significant adverse impact.

5. Smith's Blue Butterfly (*Euphilotes enoptes smithi*)

*Impacts to the Federally listed Smith's blue butterfly would center around the loss of potential habitat. Approximately 25 plants of *Eriogonum parvifolium* and *Eriogonum nudum* subspecies *auriculatum*, both of which are used as a larval foodplant by the Smith's blue butterfly, would be impacted by Alternative 1 [the Hatton Canyon Freeway].*

The Smith's blue butterfly did not reside in the project area in 1985 and probably would not be found in the project area unless there were a substantial increase in the biomass of the host buckwheats.

Alternative 1 would not have an adverse impact upon the Smith's blue butterfly or suitable Smith's blue butterfly habitat.

6. Anadromous Fisheries

The Carmel River supports a productive anadromous fishery (steelhead). The proposed construction of a new Carmel River Bridge (Alternative 1) has the potential for short-term impacts to the steelhead fishery habitat during construction of bridge pilings and bridge abutments. Long-term effects on fishery habitat from changes in stream flow hydraulics are expected to be minimal. There would be no change in the grade of the Carmel River, increase in stream velocity, or obstructions to fish and migrations as a result of the proposed project alternatives.

Proposed Mitigation Measures

To minimize construction-related impacts on the fishery habitat, Caltrans has proposed the following measures:

- 1. All work within the Carmel River would be restricted to the dry season (May-November).*
- 2. Existing stream flow, if any, would be temporarily diverted from the construction area.*
- 3. A sedimentation barrier would be constructed downstream from the construction area.*
- 4. After completion of construction, the sedimentation barrier would be cleaned out and removed from the riverbed.*

5. *All equipment would be kept out of the live stream.*
6. *All disturbed slopes would be seeded for erosion control and riparian vegetation replanted prior to the first rains of the "rainy season." (See Riparian Vegetation Impacts and Mitigation.)*

7. Agricultural Lands

Alternative 1B&C, design variations of Alternative 1, would require the taking of approximately 2.8 acres of prime farmland east of the existing Highway, south of the Carmel River. Of the 2.8 acres of agricultural land approximately 2.2 acres are currently in artichoke production and is designated as farmland of statewide significance.

The Odello East property is currently proposed for residential/commercial development. As part of the development, it is proposed to reduce the height of the southern levee and create a dedicated floodway through the existing artichoke fields.

The remaining farmland is large enough that the loss of a 2.8 acre strip bordering highway 1 would not have an economic impact on the remainder of the farmland. No additional access to the farmland, above that which currently exists, would be provided.

The loss of 2.8 acres of prime farmland and 2.2 acres of farmland of statewide importance is considered a significant long-term impact.

Proposed Mitigation Measures

Few opportunities to provide new or reclaimed prime farmland exist within the project vicinity; however, Caltrans will stockpile topsoil from impacted areas for future use, in coordination with the soil conservation service.

Cumulative Biotic Impacts

Hickman's onion is not known to exist in areas of Carmel Valley other than those identified in the Hatton Canyon Freeway EIS. Therefore, the Carmel Valley road improvements would not add to the cumulative impacts on the species.

The Carmel Valley road improvements are not expected to add to the cumulative impacts on wildlife because the improvements would take place adjacent to existing roads and

developed areas. No rare or endangered wildlife are known to exist in the areas that will be affected.

The Carmel Valley road improvements are not expected to add to the cumulative loss of prime agricultural land.

The following cumulative impacts apply to the Carmel Valley road improvements plus the Hatton Canyon Freeway.

- Impact 1.** CVMP road improvements have the potential to impact rare and endangered species, although not the same species as the Hatton Canyon Freeway. *Any impact on rare and/or endangered species is considered significant.*
- Impact 2.** CVMP road improvements have the potential to add to the cumulative loss of trees in the area. *This would be a significant impact.*
- Impact 3.** The only riparian zone in Carmel Valley that might be impacted by the road improvements lies at the far eastern end of the Valley. Any construction here could add to the cumulative riparian impacts in the vicinity. *This would be a significant impact.*
- Impact 4.** The Carmel Valley road improvements have the potential to add to cumulative impacts in the Carmel River and fishery if sedimentation is not controlled during construction. Sediment can affect water quality which can in turn deteriorate the fish habitat. *This would be a significant impact.*

Mitigations for Cumulative Biotic Impacts

- Mitigation 1.** If rare and endangered species are impacted in Carmel Valley, Monterey County should implement a mitigation plan similar to the one recommended by Caltrans, which includes replacement habitat in the vicinity.
- Mitigation 2.** If a significant amount of trees are lost in Carmel Valley, Monterey County should revegetate in the immediate area on a one for one basis.
- Mitigation 3.** When site-specific EIRs are prepared for the road improvements, a qualified professional should investigate the sites to assure that Hickman's onion will not be impacted.

If the onion is found, a mitigation plan to transplant the species at suitable nearby locations should be developed.

Mitigation 4. When a site-specific EIR is prepared for road improvements at the far eastern end of the Valley, a qualified professional should investigate the potential riparian zone impacts. If temporary or permanent impacts are found to be likely, a mitigation plan should be implemented to avoid or replace impacted species at a ratio greater than 1:1. The replacement of plants shall be done in the Carmel River riparian zone.

Mitigation 5. When project-specific EIRs are prepared on the proposed road improvements, the potential for sedimentation impacts to the Carmel River should be assessed. A mitigation plan should be developed to prevent any sediment from reaching the river.

Footnotes to Chapter 5E. Natural Factors:

/1/ *Final EIR, Highway Improvement Project for State Highway 1 in Monterey County Near Carmel, Caltrans (no date). The text in italics summarizes the main impacts and mitigations from the Final EIS.*

/2/ The specific impacts of the four-laning of Carmel Valley Road are assessed in a separate project-specific EIR/EIS which is being prepared by the Monterey County Department of Public Works.

/3/ A "listed" species is one that has been designated rare or endangered. A "candidate" species is one that is a candidate for being listed as a rare or endangered species.

/4/ Alternative 1C is a variant of the preferred Hatton Canyon Freeway alignment which was the subject of Caltrans' EIR. It is described by Caltrans as follows:

Alternative 1C: Continue the new alignment south of the Carmel River and transition to the existing highway south of the Carmel River. The existing Highway 1, between Oliver Road and the southerly project limits would be maintained as a "southern entrance to Carmel." Oliver Road would continue to be closed to through traffic from Highway 1.

CHAPTER 6
REQUIRED CEQA CONSIDERATIONS

A. Unavoidable Adverse Impacts

Traffic: There are no unavoidable adverse impacts due to traffic. All impacts identified in this EIR can be mitigated.

Noise: There are no unavoidable adverse noise impacts due to traffic generated noise.

Air Quality: There are no unavoidable adverse air quality impacts due to the project traffic. If construction takes place in the dry season, the need to control dust by means of watering would have an adverse impact on water supply which is very limited in Carmel Valley.

Natural Factors: No unavoidable adverse impacts on natural factors are known at this time, although project-specific EIRs on the road improvements will be needed to confirm this.

B. Growth Inducing Impacts

The road improvements of the CVMP were designed to accommodate existing traffic plus the traffic from growth permitted under the plan. The plan sets a numerical limit for housing and visitor-accommodating rooms; no more will be permitted as a result of the improvements. This constraint enables the determination that the CVMP road improvements will not induce growth within Carmel Valley.

The improved access and circulation afforded by the road improvements might encourage further commercial development. However, there might not be land nor a market for more than the 394,000 square feet of space assumed in this EIR. Commercial development is limited by the following factors:

- availability of designated land;
- restrictions on site coverage;
- applicable CVMP policies; and
- the public review process.

The traffic monitoring policy (Policy 39.3.2.1 of the CVMP) would tend to constrain future commercial development.

The recommended mitigation measure to improve the roads in the vicinity of segment 2B in the Village could increase access and travel to Cachagua. However, this district has an Area Plan, designated holding capacity and growth limits which will not be affected by the mitigation, should it be implemented.

For the foregoing reasons, the road improvements are not expected to have a significant growth-inducing impact. The improvements will accommodate the pre-established growth levels of the CVMP.

C. Local Short-Term Uses of the Environment versus Long-Term Productivity: The project would not sacrifice long term environmental productivity to serve short term uses. The only ways in which the project might narrow beneficial uses of the environment would be with respect to biotic factors. The potential impacts will be studied in project EIRs, and mitigation shall be adhered to.

The project is justified now because traffic conditions in Carmel Valley are deteriorating without the improvements. Given the lead time necessary to complete construction, steps must be taken to begin the improvement process now.

D. Significant Irreversible Environmental Changes

The use of resources to construct the road improvements is irreversible, but this is not considered a significant impact. No other irreversible commitment of resources are known at this time.

CHAPTER SEVEN
ALTERNATIVES TO THE PROPOSED PROJECT

This chapter of the EIR evaluates the following alternatives:

Alternative A: *No Project Followed by a Moratorium on Development, Assuming the Hatton Canyon Freeway is Built.*

Alternative B: *No Project Followed by a Moratorium, Assuming the Hatton Canyon Freeway is Not Built.*

Alternative C: *No Project Followed by Build-out of Carmel Valley Assuming the Hatton Canyon Freeway is not built.*

Alternative D: *Preferred Project without the Hatton Canyon Freeway.*

Alternative E: *Low Cost Alternative.*

Alternative F: *Transit Alternative.*

Alternative G: *Reduced Commercial Alternative.*

Table 37: Alternative Scenarios presents the development assumptions underlying each of these alternatives.

Table 37
ALTERNATIVE SCENARIOS

		CVMP IMPROVE- MENTS	CVMP BUILD- OUT	HATTON CANYON FREEWAY
Alternative A	No Project	NO	NO	YES
Alternative B	No Project	NO	NO	NO
Alternative C	No Project	NO	YES	NO
Alternative D	Preferred Project	YES	YES	NO
Alternative E	Low Cost	YES/1/	YES	YES
Alternative F	Transit	YES	YES	YES
Alternative G	Reduced Commercial	YES	YES	YES

/1/ With modifications.

Source: Planning Analysis & Development

A. No Project Followed by a Moratorium on Development, Assuming the Hatton Canyon Freeway is Built

Description: Under this version of the No Project Alternative, none of the CVMP roadway improvements would be built. This alternative assumes that the Hatton Canyon Freeway would be operational in the year 2000.

In response to these traffic conditions, this alternative assumes that the Board of Supervisors would halt approvals for all commercial development and most new subdivisions once the traffic threshold was reached on any Carmel Valley Road segment. The only new development that would be built would be that approved before the traffic threshold is reached. According to the traffic model and land use projections made for this EIR, the threshold would be exceeded some time in Phase 2 (1991-1995). The following development would have gained approval, assuming all Phase 1 and 2 development listed in Table 3 in Chapter 4 were built:

- 184,000 square feet of commercial development
- 160 market rate dwelling units in new subdivisions
- 275 inclusionary dwelling units
- 265 visitor-accommodating units
- 220 vacant lots of record

The remaining 328 vacant lots of record would have the right to develop in Phases 3 and 4.

After Phase 2, there would be a cessation of new project approvals until the level of service could be brought back to the status prescribed in the Carmel Valley Master Plan. This could not be done without the roadway improvements analyzed in this EIR or similar improvements, so further development would be effectively halted under this version of the No Project Alternative. Conditions with respect to land use, traffic, noise and air quality would remain unchanged after Phase 2 unless and until exogenous traffic due to cumulative development outside the Valley worsened the existing conditions within the Valley.

If the traffic threshold were reached early in Phase 2, a lesser level of development than that cited above would occur. Therefore, this alternative might overstate impacts somewhat.

Environmental Impacts of Alternative A

Land Use: If none of the roadway improvements were constructed, much of the land use development permitted under the CVMP would not occur, unless the traffic threshold policy were repealed. At a minimum the following amount of growth would not occur:

- 210,000 square feet of commercial development (53% of amount permitted in the CVMP)
- 185 market rate dwelling units (54% of amount permitted)
- 28 inclusionary dwelling units (9% of amount expected)
- 60 visitor-accommodating units (18% of amount permitted)

The 548 existing lots of record (as of March 1989) could develop even without the roadway improvements. These lots are scattered throughout the Valley. The Board of Supervisors might also permit minor subdivisions to be developed.

Traffic: Under this alternative, the CVMP traffic thresholds would be reached at some time in Phase 2 (1991-1995). Segment 2B (Carmel Valley Road between Esquiline and Holman) would deteriorate from LOS C to LOS D, and segments 6 and 7 (Carmel Valley Road between Rancho San Carlos Road and Robinson Canyon Road) would deteriorate from LOS D to E. *This is a significant impact of the No Project Alternative.*

Beyond Phase 2, traffic volumes would continue to increase due to through trips and development of lots of record. This increase, however, would be insignificant, and future levels of service would not worsen due to through traffic after Phase 2, once the traffic thresholds were reached (see Table 38).

The reduction in commercial square footage under this alternative would cause residents to make more trips out of the Valley to meet their work, shopping and other needs.

Table 38
THROUGH TRAFFIC LEVELS OF SERVICE WITH ALTERNATIVE A

Segment	Existing	Phase 1	Phase 2	Phase 3	Phase 4
1	B	B	B	B	B
2A	B	B	B	B	B
2B	C	C	D	D	D
3	D	D	D	D	D
5	D	D	D	D	D
6	D	D	E	E	E
7	D	D	E	E	E
8	A	A	B	B	B
9	A	B	B	B	B

Source: Barton-Aschman Associates, Inc.

Air Quality Impacts: The moratorium on development would result in approximately 5% fewer vehicle miles traveled (VMT) than with the proposed project. Under this alternative there would be a corresponding decrease in NO_x emissions of 5% and a decrease in ROG emissions of about 5% from the emission levels expected to occur with the proposed project. (See Appendix Table D)

Despite an increase in vehicle miles traveled of nearly 20% from existing (1989) levels, this alternative would result in a decrease in NO_x emissions of about 9% and a decrease of ROG emissions of about 44% from existing levels. The reduction on emissions is due primarily to two factors: improved air pollution control for year 2005 vehicles which will result in greatly decreased emissions of pollutants; and construction of the Hatton Canyon

Freeway which will increase average vehicle speeds at the mouth of the Valley and the Hatton Canyon/Highway One corridor. Vehicles emit less pollutants at higher speeds. Additionally, total vehicle miles traveled will decrease from what they would be without the Hatton Canyon Freeway due to trips being rerouted from longer routes to the freeway.

Noise: With only two phases of land use development in Carmel Valley, traffic increases would be about half that of the preferred project (i.e., the CVMP road improvements). Consequently there would not be a significant change in existing or projected future noise levels (compared to the preferred project), as this impact is driven by traffic. There would be no construction noise impacts under the No Project alternative.

Without the roadway improvements, traffic would not flow as smoothly. There would be more stops and starts, but this would not have a perceptible impact on noise levels because the change would not be as much as ± 3 decibels, the threshold of human response to noise.

The distribution of traffic under this No Project Alternative would remain generally the same as under existing conditions, until the Hatton Canyon Freeway or a similar project were built. Then, traffic circulation and distribution west of the mouth of the Valley would change, as indicated in the Hatton Canyon Freeway Final EIS.

Cumulative Noise Impacts: The Hatton Canyon Freeway would increase existing noise levels near its proposed alignment. The noise impacts are evaluated in the Hatton Canyon Final EIS, and are incorporated by reference in this EIR. (See Chapter 5C, Cumulative Noise Impacts section of this EIR.) Overall, however, the Hatton Canyon Freeway would reduce ambient noise levels, compared to what they would be in the future without the freeway. By 2010, traffic on Highway One, absent the freeway or other changes in Highway One, would cause significant noise impacts at 9 of 15 receptor sites studied for the Hatton Canyon Freeway EIS (page IV-20). Cumulative noise impacts would occur whether or not the CVMP improvement plan is implemented.

Natural Factors: Under this No Project Alternative, none of the impacts on soils, geology, the Carmel River, flora or fauna would occur because there would be no road construction.

Fiscal Impacts: Under all of the No Project Alternatives, the County would not incur any costs associated with the improvements. Therefore, Phase 1 and Phase 2 development would not be required to pay impact fees. Unless developing vacant lots of record were required to pay impact fees (which is not proposed in the road improvement financing program), there would be no source of impact fees to improve existing traffic conditions. The sales tax revenues could be assigned to other uses under any no project alternative.

Mitigation Measures for Alternative A

As noted in Chapter 5A: Traffic section of this EIR, the CVMP roadway improvements are needed to serve existing land uses. If the improvements were not undertaken, the community would have to endure the existing levels of service, which would worsen due to Phase 1 and Phase 2 development, plus non-Valley traffic which would impact locations such as the mouth of the Valley. Reserve capacity, if not levels of service, would be reduced by development of the 548 existing lots of record.

Land Use Mitigations

- Mitigation 1.** The loss of development potential under this alternative could only be mitigated by lifting the moratorium, which would, in effect, override the traffic threshold policy of the CVMP. *This mitigation would generate significant traffic impacts.*
- Mitigation 2.** The County could place a moratorium on the development of existing lots of record when traffic thresholds are reached. *While this mitigation might have noticeable effects over the 20-year planning period, it would not provide substantial mitigation in any one year.*
- Mitigation 3.** The County could deny any new small subdivision applications to reduce traffic impacts. *While this mitigation might have noticeable effects over the 20-year planning period, it would not provide substantial mitigation in any one year.*

Traffic Mitigations

- Mitigation 4.** The traffic impacts due to existing development cannot be mitigated without some combination of the proposed roadway improvements. Although transit should be encouraged as a mitigation measure, *it is not reasonable to assume that transit can attract a sufficient amount of drivers out of their cars such that service levels will improve in the near future.*
- Mitigation 5.** The traffic impacts on Carmel Valley Road due to cumulative development outside the Valley will be mitigated by the Hatton Canyon Freeway and associated Carmel Valley improvements. *However, additional mitigation will be needed to raise the 2005 LOS from E to C at the proposed single-point diamond intersection proposed. (See page 5A-20 of this EIR.)*

Mitigation 6. The Board of Supervisors could limit development outside the Valley as a means of controlling exogenous traffic that impacts the Valley, but such a mitigation will have limited applicability because there is a substantial amount of traffic generated by sources over which the County has no direct control (e.g., tourists and other jurisdictions). *This mitigation is not likely to reduce impacts to a level of insignificance.*

Noise

Mitigations: None needed.

Air Quality

Mitigations: There would be no improvements, so no construction mitigations are required.

The same operational mitigations of the preferred project apply to Alternative A.

Fiscal

Mitigations: None needed.

Natural Factors

Mitigations: None needed.

B. No Project Followed by a Moratorium, Assuming the Hatton Canyon Freeway is Not Built.

Description: Under this alternative, none of the CVMP road improvements would be built, Carmel Valley would not build out and the Hatton Canyon Freeway would not be built. A moratorium would go into effect as soon as the traffic threshold was reached at one or more of the Carmel Valley Road segments. As with Alternative A, the threshold is expected

to be reached some time in Phase 2 at segments 2B, 6 and 7. The same level of land use development would occur under Alternatives A and B.

Environmental Impacts for Alternative B

Land Use: The land use impacts in Carmel Valley would be the same as under Alternative A.

Traffic: Traffic impacts in Carmel Valley would be the same as Alternative A.

Cumulative Traffic Impacts: As this alternative assumes that neither the CVMP road improvements nor the Hatton Canyon Freeway would be built, a serious deterioration of traffic conditions can be expected in and around the Valley. Growth would occur in Phases 1 and 2 within the Valley, and growth outside the Valley would continue as well. As noted above, traffic thresholds would be met on one road segment after another. The Final EIS on the Hatton Canyon Freeway discusses the No Project (i.e., no freeway) Alternative as follows:

There would be a substantial increase in traffic volumes on the existing Highway 1 by the year 2010. These increases range from 41 to 62% on Route 1 and from 26 to 80% on contributing collector roads (Rio Road, Ocean Avenue, Carpenter Street, etc.). The increased traffic volumes would exacerbate the existing congestion and delay problems on Highway 1.

The levels of service on the existing Highway 1 and the contributing collector roads would deteriorate considerably. From Rio Road to Carpenter Street, Highway 1 would operate at LOS F. Traffic on the portion of Highway 1 between Carmel Valley Road and Ocean Avenue would be more than twice the theoretical service volume during the PM peak period. South of Rio Road and north of Carpenter Street, Highway 1 would operate at capacity (LOS E).

By the year 2010 traffic on Carmel Valley Road would have increased by over 70%, assuming that projected growth is achieved and no building moratorium is imposed in Carmel Valley. PM peak period would continue to operate at LOS F, but the length of the PM peak period would be significantly extended.

Because of the added forecasted traffic volumes, certain operational changes would evolve on Highway 1 and contributing collector roads:

- 1) *The PM peak traffic period would be significantly extended.*

- 2) *Motorists on Highway 1 would experience an increase in the number and length of traffic delays.*
- 3) *Contributing collector roads would experience longer back-ups, increasing the time necessary to access Highway 1.*
- 4) *Southbound traffic would continually back up through the Ocean Avenue intersection during PM peak periods causing longer delays to Ocean Avenue traffic trying to access Highway 1. At times, this would cause a backup of eastbound vehicles towards downtown Carmel.*
- 5) *With the congestion on Highway 1 during P.M. peak periods, motorists would utilize parallel routes to bypass Highway 1 on Carmel Hill. Most of the "other routes" are city streets in Carmel, and would be significantly impacted by the increased traffic.*
- 6) *The additional tourist traffic during the summer months would further adversely impact the above.*

The No Project Alternative would have a significant adverse impact on traffic circulation in the project area.

Air Quality: Under this alternative emissions of NO_x would be about 3% lower than existing (1989) levels and emissions of ROG would be about 10% lower than existing levels.

Without construction of the Hatton Canyon Freeway traffic speeds in the mouth of the Valley-Highway One corridor will decline from present levels. Vehicles emit more pollutants at slower speeds and therefore this alternative would result in greater pollutant emissions than Alternative A.

This alternative would result in about 5% fewer vehicle mile traveled compared to the proposed project without the Hatton Canyon Freeway (Alternative D). This would result in a 5% reduction in emissions of ROG and a 5% reduction of NO_x .

Noise: This alternative would not generate any construction noise. Traffic noise in Carmel Valley would be less than for the preferred project, neither of which would be.

significant. A discussion of cumulative noise impacts due to the combined effect of Carmel Valley Road and Hatton Canyon Freeway traffic is presented in Chapter 5C. The impacts at two receptor sites would not change substantially if the freeway is not built, because noise levels at one is not considered significant and noise at the other is due mainly to Carmel Valley Road traffic. However, the Hatton Canyon Freeway Final EIS notes that overall traffic noise would be worse without the freeway than with it. Page IV-20 of the FEIS states:

If no operational improvements are made to Highway 1 in the project area, the existing noise levels would continue to increase as projected traffic increases occur. By 1990, predicted noise levels show that eight of the 15 receptor sites along the existing highway would experience significant noise levels. At the end of the study period (2010), nine of the 15 receptor sites along the existing would experience significant noise levels (Receptor Sites 15 #, 17 E, 30 E, 40 E, 70 E, 80 E, 100 E, 150 E and 160 E).

Natural Factors: There would be no significant impacts because there would be no project.

Fiscal Factors: There would be no basis for assessing impact fees because there would be no construction projects to improve existing traffic problems.

Mitigation Measures for Alternative B

Land Use Mitigation

Mitigations 1, 2, and 3 under Alternative A apply to Alternative B as well.

Traffic Mitigation

Mitigations 4, 5, and 6 under Alternative A apply to Alternative B as well.

Noise Mitigation

- Mitigation 1.** Cumulative traffic noise is expected to worsen outside the Valley if the Hatton Canyon Freeway is not built. This impact can be mitigated by implementing one of the alternatives under consideration for the improvement of Highway One between Rio Road and points to the north.

Air Quality Mitigation

Same as the operational mitigations that apply to the preferred project.

Fiscal Mitigation

None needed.

C. No Project Followed by Build-out Without the Hatton Canyon Freeway

Description: Under this version of the No Project Alternative, none of the roadway improvements would be built but development is assumed to proceed within the growth limits of the Carmel Valley Master Plan. It is assumed that the Hatton Canyon Freeway would not be built. The rationale for this alternative is that it would provide a "worst-case" scenario which is possible under CVMP Policy 39.3.2.1.(d), the traffic threshold policy. That policy allows the Board of Supervisors to make findings of overriding considerations that would in effect permit development after the certification of this EIR even without the roadway improvements.

The traffic thresholds would be reached in Phase 2 (1991-1995). Segment 2B (Carmel Valley Road between Esquiline and Holman) would deteriorate from LOS C to LOS D, and segments 6 and 7 (Carmel Valley Road between Schulte and Robinson Canyon Road) would deteriorate from LOS D to E. The thresholds in other segments would not be reached.

Project approvals would be granted according to the land use projections presented in Table 3 of this EIR. Exogenous traffic due to cumulative development outside the Valley would continue to impact the existing conditions within the Valley.

Environmental Impacts for Alternative C

Land Use: If none of the roadway improvements were constructed and all land use development permitted under the CVMP were approved, the following amount of growth would occur:

- 548 existing lots of record
- 435 market rate dwelling units
- 303 inclusionary dwelling units
- 325 visitor-accommodating units
- 394,000 square feet of commercial development

Traffic: Tables 39, 40 and 41 show the calculated levels of service for through traffic, cross-street left turns, and intersections, respectively. The levels of service would be unacceptable at all intersections (LOS E or F) and for cross-street left turns (LOS D or worse) from the mouth of the Valley to Ford Road. For mainline through traffic, the level of service would be E on segments 6 and 7, and D on segments 2B, 3, and 5. Accident rates would continue to be higher than normal for most of the length of Carmel Valley Road.

**Table 39
THROUGH TRAFFIC LEVELS OF SERVICE WITH NO-PROJECT ALTERNATIVE C
(Level of Service)**

Segment	(existing) 1989	1990	1995	2000	2005
1	B	B	B	C	C
2 A	B	B	B	B	B
2 B	C	C	D	D	D
3	D	D	D	D	D
5	D	D	D	D	D
6	D	D	E	E	E
7	D	D	E	E	E
8	A	A	B	B	B
9	A	B	B	B	B

Source: Barton-Aschman & Associates, Inc.

Table 40
LEFT TURN LEVELS OF SERVICE WITH NO-PROJECT ALTERNATIVE C
(Level of Service)

Segment	(existing) 1989	1990	1995	2000	2005
1	A	A	A	A	A
2A	A	A	A	A	A
2B	C	C	C	C	C
3	C	C	D	D	D
5	D	D	D	E	E
6	E	E	E	F	F
7	E	E	E	F	F
8	F	F	F	F	F
9	F	F	F	F	F

Source: Barton-Aschman & Associates, Inc.

Table 41
INTERSECTION LEVELS OF SERVICE WITH NO-PROJECT ALTERNATIVE C
(Level of Service)

Location	EXISTING				
	1989	1990	1995	2000	2005
Highway 1 and Carmel Valley Road	F	F	F	F	F
Carmel Rancho and Carmel Valley Road	D	E	F	F	F
Highway 1 and Rio Road	F	F	F	F	F
Carmel Rancho and Rio	D	D	D	E	E
Laureles Grade and Carmel Valley Road	F	F	F	F	F

Source: Barton-Aschman & Associates, Inc.

Cumulative Traffic Impacts

Without the Hatton Canyon Freeway, cumulative traffic impacts would be the same as under Alternative B.

Air Quality: There would be greater traffic congestion under this alternative, compared to the preferred project. Without the traffic improvements included in the proposed project, vehicle miles traveled would be about 1% higher than with the project and no Hatton Canyon Freeway. There would be a corresponding increase in emissions of NO_x and of ROG of about 1%.

Under this alternative emissions of NO_x would be about 3% more and emissions of ROG would be about 4% less than existing (i.e., 1989) levels.

Noise: With build-out of the CVMP, vehicular trip increases would be the same as under the preferred project generating similar noise levels for this alternative. However, there would not be a significant change from existing noise levels. Without the roadway improvements, traffic would not flow as smoothly. There would be more stops and starts, but this would not have a perceptible impact on noise levels.

The Final EIS for the Hatton Canyon Freeway predicts cumulative noise increases in certain locations if the freeway is not built, due to expected traffic increases in Highway One traffic in the future. These cumulative impacts are presented under Alternative B.

Natural Factors: Under this No Project Alternative, none of the impacts on soils, geology, the Carmel River, flora or fauna would occur because there would be no construction.

Fiscal Impacts: Under this No Project Alternative, the County would not incur any costs associated with the improvements. The sales tax revenues could be assigned to other uses, and there would be no basis for assessing impact fees to improve existing conditions.

Mitigation Measures for Alternative C

As noted in Chapter 5A (Traffic Section) the roadway improvements are needed to serve existing land uses. If the improvements were not undertaken, the community would have

to endure deteriorating existing levels of service, which would worsen substantially due to in-Valley and non-Valley traffic.

Land Use Mitigations

Mitigations 1, 2 and 3 under Alternative A apply to Alternative C.

Traffic Mitigations

Mitigations 4, 5 and 6 under Alternative A apply to Alternative C.

Noise Mitigations

None needed

Air Quality Mitigations

Same as operational mitigations for the preferred project.

Natural Factors Mitigations

None needed.

Fiscal Factors Mitigations

None needed.

D. Preferred Project Without the Hatton Canyon Freeway

Description: Under this alternative, the CVMP improvements would be built and planned growth would occur within CVMP limits. However, it is assumed that the Hatton Canyon Freeway is not built.

Environmental Impacts for Alternative D

Land Use: The land use impacts of this alternative would be the same as under the preferred project because growth in Carmel Valley would proceed in the same manner and at the same rate. This would only change if the County Board of Supervisors made development contingent on completion of the Hatton Canyon Freeway. If they did, the Supervisors would have to determine which projects would go ahead without the freeway (e.g. vacant lots of record, pipeline projects) and which would not. As this EIR cannot speculate on Board actions, this alternative assumes project approval would not be contingent on the Hatton Canyon Freeway, and that all planned growth would proceed according to the projections made for the preferred project. Therefore, the land use impacts would be those of CVMP build-out.

Traffic: Traffic under this alternative is the same as the preferred project except that the Hatton Canyon Freeway is omitted. The traffic model indicates that the omission of the Hatton Canyon Freeway would not significantly affect traffic volume projections on Carmel Valley Road. Thus, the traffic impact of this alternative would be the same as the preferred project with respect to Carmel Valley Road.

Cumulative Traffic Impacts: The cumulative traffic impacts that would occur without the Hatton Canyon Freeway are the same as described under Alternatives B and C.

Air Quality: Without the Hatton Canyon Freeway, average vehicle speeds in the mouth of the Valley/Highway One area would be significantly lower and vehicle miles traveled would be about 3% higher than with the proposed project (which assumes the freeway will be built). As a result, emissions of NO_x would be about 6% higher and emissions of ROG would be about 62% higher than the levels expected with the proposed project. Emissions of NO_x would be about 2% more than existing (1989) levels and emissions of ROG would be about 5% less than 1989 levels with this alternative.

Noise: Within Carmel Valley, noise impacts would be the same as with the preferred project. Without the Hatton Canyon Freeway, the noise impacts would be the same as under Alternatives B and C.

Natural Factors: This alternative would have the same impacts as the preferred project, but the Hatton Canyon Freeway would not contribute to cumulative impacts.

Fiscal: The fiscal impacts would be the same as the preferred project.

Mitigation Measures for Alternative D

All of the mitigation measures that apply to the preferred project would apply to this alternative. The Hatton Canyon Freeway would not contribute to or alleviate cumulative impacts. With respect to natural factors, cumulative impacts would be less, therefore the need for mitigation would be less.

Cumulative Noise

Mitigation: With respect to noise, the following mitigation for the No Hatton Canyon Freeway Alternative is cited from the Final EIS:

Areas experiencing noise levels in excess of FHPM Noise Abatement Criteria levels, where no project is being undertaken, are eligible for consideration under Caltrans' ongoing program to mitigate existing noise impacts on State Highways. Noise abatement projects under this program are prioritized on a Statewide basis, as funds become available.

Noise barriers that would be considered under the State's Noise Abatement Program are described under Alternative 3. Even with these noise barriers, five receptor sites would continue to experience noise impacts (Receptor Sites 40 E, 80 E, 100 E, 150 E and 160 E).

E. Low-Cost Alternative

Description: This alternative is designed to solve the Valley's traffic operations and accident problems at the least cost. This is accomplished through the following differences with the CVMP:

- A three-lane cross-section, rather than four lanes, on segments 7 (Carmel Valley Road between Rancho San Carlos Road and Schulte Road) and 6 (Shulte Road to Robinson Canyon Road). There would be a median and alternating passing lanes eastbound and westbound. Alternately, the three-lane cross section could include a median, two lanes eastbound, and one lane westbound. In addition the road would have the narrowest possible cross-section: three 12-foot lanes, a 12-foot median and a 6-foot shoulder on both sides.
- Turn pockets and acceleration lanes added to segment 5 (Carmel Valley Road from Robinson Canyon Road to Los Laureles Grade) within the existing pavement width. Carmel Valley Road is now 40 feet wide including shoulders on segment 5, which is enough for three 12-foot lanes plus 2-foot shoulders on both sides. The shoulders would only need to be narrowed at cross-streets where turn lanes and acceleration lanes are needed. Otherwise the existing striping would be maintained.
- Signals, rather than minor interchanges, at Via Mallorca, the Rio Road extension, and Laureles Grade.
- No shoulder widening, just the addition of turn pockets, on segment 3.

Environmental Impacts for Alternative E

Land Use Impacts: Growth would be the same as under the preferred project. With the low-cost improvement plan, the traffic conditions would not trigger a moratorium at any time. Therefore, traffic would not preclude any land use development in accordance with the CVMP growth limits. This alternative would, however, provide less roadway reserve capacity, so its growth-inducing tendency would be less than the preferred project.

Traffic Impacts: Compared to the preferred project, the low-cost alternative would only alter traffic conditions on segments 6 and 7 and at the following intersections with Carmel Valley Road: Via Mallorca, Rio Road extension, and Laureles Grade. Other segments and intersections would be improved according to CVMP policies and would operate the same as with the preferred project. The CVMP improvements would result in the same services levels as shown in Chapter 5A, Table 16. Table 42 shows the levels of service on segments 6 and 7 with both three-lane options which are part of the low-cost alternative.

Table 42
LEVELS OF SERVICE ON SEGMENTS 6 AND 7 WITH LOW-COST ALTERNATIVE E

Alternative	LOS By Segment By Year			
	6		7	
	2000	2005	2000	2005
Alternating passing lanes	C	C	C	C
2 lanes EB, 1 lane WB	D	D	D	D

Source: Barton-Aschman & Associates, Inc.

With alternating passing lanes, the average level of service would be C on each segment compared to A with the preferred project. This represents an average calculated by combining LOS E when the eastbound direction would have only one lane with LOS A when the passing lane would be present. The average segment level of service would be in conformance with the LOS C standard.

The three-lane configuration that would have two lanes eastbound and one lane westbound would operate at LOS D (for westbound traffic) in the year 2005 compared to A with the preferred project. This level of service is worse than the LOS C standard but is equal to the existing level of service for eastbound traffic on segments 6 and 7. County policy could be interpreted to allow level of service D if it represents no worsening of existing conditions.

The installation of signals rather than minor interchanges at some locations would not create traffic problems. Levels of service would be B or better at all three locations. Table 43 presents the intersection LOS with this alternative.

The effect of these changes would be to lower the total cost of Carmel Valley Road improvements by \$16.5 million. A new financing plan would need to be developed, but it is likely that these cost savings could be used to alleviate other road system problems around Monterey County. Table 44: Low Cost Alternative summarizes the financial features of this alternative.

Table 43
INTERSECTION LEVELS OF SERVICE WITH LOW-COST ALTERNATIVE E

Intersection	LOS By Year		
	1995	2000	2005
Via Mallorca	A	A	A
Rio Road extension	--	B	B
Laureles Grade	A	A	A

Source: Barton-Aschman & Associates, Inc.

Accident Analysis

The low-cost alternative would have the same effect on accidents as the CVMP improvements except on segments 5 (Carmel Valley Road between Robinson Canyon Road and Los Laureles Grade), segment 3 (Los Laureles Road to Ford Road) and at the three proposed signals. Segment 5 would receive left-turn pockets but at the expense of narrowing the shoulders at the cross-streets. The turn pockets would reduce accidents, and the shoulder narrowing would increase accidents involving vehicles running off the road. These two opposite effects would result in no net change relative to existing accident rates.

The low-cost alternative for segment 3 involves keeping the existing 3-foot shoulders as is. This segment has a higher-than-average accident rate due to the lack of turn pockets and due to the narrow shoulders. The addition of turn pockets alone (included in the low-cost alternative) would reduce the accident rate significantly, but it would still be 25% above normal.

Table 44
LOW-COST ALTERNATIVE

Change	Cost Savings*
3 lanes versus 4 lanes on Segments 7 and 6, minimum cross-section	\$8,700,000
No widening on Segment 5	\$670,000
Signals rather than interchanges at Via Mallorca, Rio Road, Laureles Grade	\$6,140,000
No shoulder widening on Segment 3	\$960,000
Total	\$16,470,000

* Compared to current Master Plan *plus* mitigation measures recommended in Chapter 5A of this EIR.

Source: Barton-Aschman & Associates, Inc.

The addition of signals at Via Mallorca, the Rio Road extension, and Los Laureles Grade would result in more accidents than with minor interchanges, as specified in the CVMP. Comparison of Robinson Canyon with Carmel Rancho Boulevard provides an indication of how accident rates at minor interchanges compare to signals. After adjustment for volume differences, the signal at Carmel Rancho has three times the number of accidents as the minor interchange at Robinson Canyon. Thus, opting for signals rather than minor interchanges at Via Mallorca, Rio Road extension, and Laureles Grade would result in 300% more accidents at those locations. Most accidents at signalized intersections, however, are relatively minor. For example, 75% are rear-end accidents.

Noise: The Low-Cost Alternative would generate less construction noise than the preferred project as construction would be of a shorter duration. Traffic noise would not change significantly with respect to the preferred project or existing conditions, as no more traffic would be generated by this alternative. One possible exception is from noise vehicular stopping and starting at the proposed signals, which could be noisier than vehicles ascending and descending the minor interchange under the preferred project, although the difference would not be significant.

Air Quality: This alternative would have air quality impacts similar to the preferred project because the growth that would occur and could be accommodated would be the same. Traffic flow would be improved over existing conditions, and might be slightly worse than with the preferred project, but this is not expected to make a difference in regional air quality because this alternative would not affect vehicle miles traveled and average speeds enough to have a measurable impact on air quality.

Natural Factors: The Low-Cost Alternative would have less of an impact on natural features compared to the preferred alternative. This would be true for plants, trees, and terrain. The lesser impact is due to the fact that less construction would take place, and less land area would be converted to road use with signals rather than interchanges.

Mitigation Measures for Alternative E

Land Use Mitigations

No mitigations are necessary.

Traffic Mitigations

- Mitigation 1.** The option of building two eastbound lanes and one westbound lane on Carmel Valley Road segments 6 and 7 would result in LOS D from 2000 to 2005. This is not acceptable under the CVMP and further mitigations would be required, such as the alternate passing lane option, which would result in LOS C. *This mitigation would reduce impacts to a level of insignificance.*

Noise Mitigations

Same as the preferred project as presented in Chapter 2, Summary.

Air Quality Mitigations

Same as the preferred project as presented in Chapter 2, Summary.

Natural Factors Mitigations

Same as the preferred project as presented in Chapter 2, Summary, plus the following:

Mitigation 2: If the County elects to implement this alternative, field checks should be made to determine whether there might be any impacts on natural factors of concern such as those identified in Chapter 5E of this EIR. This investigation should take place when preliminary alignments and engineering drawings are available for review.

F. Transit Alternative

Description: The purpose of the transit alternative is to reduce the number of automobile trips generated in Carmel Valley. This could be done by attracting people to buses or car pools. As is explained in more detail below, the transit alternative would not eliminate the need for road improvements. It could, however, get some cars off the road. Land use would be the same as under the preferred project, i.e., CVMP growth would proceed as planned.

Environmental Impacts for Alternative F

Land Use: Over time, increasing the availability of transit in Carmel Valley would influence land use patterns by fostering more intensive development near transit stops. The areas of Carmel Valley that are more intensively developed are the mouth of the Valley, Mid-Valley and the Village. Thus, transit would encourage commercial and high density housing development in these areas, subject to the growth limiting policies of the Carmel Valley Master Plan. As these areas are already designated for commercial and high density residential uses, transit would not generate a significant land use impact.

Transportation: Transit usage would be best promoted at the employment end of the trip, which focuses on the mouth-of-the-Valley area. A transit promotion program involving subsidized monthly passes could achieve a 5% modal share of work trips. This would result in a 1% reduction in total trips at the mouth of the Valley.

Significant transit usage within the residential areas of Carmel Valley would be much harder to achieve. Development densities are low and incomes are high, creating a very difficult market for transit. In addition, the road system is so sparse that bus routes must run almost entirely on Carmel Valley Road, which is farther than reasonable walking distance

from most homes. One exception is the Hacienda Carmel retirement community on Via Mallorca. A similar market will exist in the planned Carmel Valley Overview project.

Air Quality Impacts: As the number of automobile drivers who would switch to transit is expected to at most decrease total trips by 1%, compared to the preferred project, emissions of ozone precursors would decrease by a similar amount. This alternative would not significantly reduce air pollution in the region. However, any reduction is desirable and beneficial.

Noise Impacts: The reduction in automobile traffic under this alternative would not be enough to cause a noticeable decrease in ambient noise levels when compared to both existing conditions and future conditions under the preferred project.

Natural Factors: There would be no difference in natural factors impacts under this alternative, compared to the preferred project because the CVMP road improvements would still be needed.

Mitigation Measures for Alternative F

Land Use Mitigations

None are required.

Traffic Mitigations

Mitigation 1: High-density concentration of senior citizens are an excellent transit market. Rather than using full-sized buses, this market would be best served by small shuttle buses or a subsidized taxi program. While the number of trips removed from Carmel Valley Road would be small, the number of accidents at the Via Mallorca intersection with Carmel Valley Road could be reduced. This would partially address the safety problem that exists today at that intersection. The CVMP should emphasize small vehicle transit for Hacienda Carmel and Carmel Valley Overview. *This mitigation could not by itself reduce traffic impacts to a level of insignificance.*

Mitigation 2: Car pools could further reduce vehicle trips in the Valley to supplement the mitigating effect of transit. Car pools are typically formed at the

workplace rather than in the residential neighborhood. Only the mouth of the Valley has an employment concentration large enough to promote carpool formation. An aggressive carpool program involving preferential parking, computerized matching, and perhaps partial subsidization would achieve a 10% - 15% modal share for work trips. Total peak-hour trips would be reduced by about 3% in the mouth-of-the-Valley area. Such a minor reduction would not reduce the need for roadway improvements. *This mitigation could not by itself reduce traffic impacts to a level of insignificance.*

Noise Mitigations

Same as for the preferred project as presented in Chapter 2, Summary.

Air Quality Mitigations

Same as for the preferred project as presented in Chapter 2, Summary.

Natural Factors Mitigations

Same as for the preferred project as presented in Chapter 2, Summary.

Fiscal Mitigations

To offset fiscal impacts due to providing additional transit services, the County could adopt a transit impact fee for Carmel Valley to pay for shuttle service at Hacienda Carmel, Carmel Overview and other high density housing locations.

G. Reduced Commercial Alternative

Description: This alternative would reduce the amount of allowable new commercial development. The intent of such a reduction would be to reduce traffic volumes near the mouth of the Valley.

Environmental Impacts for Alternative G

Land Use: The land use projections for this EIR include 394,000 square feet of new commercial development. This is mostly new office space concentrated in the mouth-of-the-Valley area. Under this alternative, the effects of reducing the amounts of permitted commercial development is reviewed. If commercial growth were reduced by 50%, there would be 197,000 square feet permitted in the Valley. To have the greatest effect on traffic, it is assumed that most of this occurs at the mouth of the Valley, with equal parts of the remainder occurring at Valley Hills and the Village. By 2005 (CVMP build-out) the distribution of commercial growth would be as follows:

Mouth of Valley	90,000 square feet (reduced from 200,000 s.f.)
Valley Hills	50,000 square feet (reduced from 100,000 s.f.)
Village	37,000 square feet
Mid Valley	<u>20,000</u> square feet
	197,000

If less commercial development were permitted in Carmel Valley, it might result in more vehicle trips to shopping and work sites outside the Valley.

Traffic: A traffic model run was undertaken with the commercial growth reduced by half. The results indicated that daily traffic volumes at the mouth of the Valley would not be reduced. Closer inspection revealed that the total trip reduction due to less development would be offset by Carmel Valley residents leaving the Valley for jobs and services. Table 41 shows that the planned 394,000 square feet of new commercial development would promote a good balance of residential and commercial land, so that trips are internalized to the greatest extent possible. For example, the number of non-work trips produced by the homes in Carmel Valley are 50,700 per day, and the number attracted by Carmel Valley businesses are 51,500. This is a very good balance. If the commercial square footage were reduced by 197,000, then the number of daily non-work trips attracted by Carmel Valley businesses would drop to 41,000. This would not be enough commercial development to meet residents' needs, and more trips outside the Valley would ensue.

Noise: Noise impacts would be the same as under the preferred project because there will not be a reduction in traffic.

Air Quality: Under this alternative emissions from motor vehicles will be slightly more than with the proposed project. A reduction in trips in the Valley due to reduced commercial development in the Valley will be compensated by increased trips to destinations outside of the Valley for work and shopping. This would increase vehicle miles of travel and therefore increase emissions of pollutants from motor vehicles.

Natural Factors: The impacts would be the same as under the preferred project.

Table 45
YEAR 2005 DAILY TRIP PRODUCTIONS AND ATTRACTIONS IN CARMEL VALLEY
ASSUMING BUILDOUT OF THE CVMP*

Component Businesses	Produced By Valley Residents	Attracted To	Valley
Home-based work trips	10,610		9,328
Home-based non-work trips	36,831		39,244
Other trips	13,887		12,307

* Added commercial area = 394,000 square feet

Source: Barton-Aschman & Associates, Inc.

Fiscal Impact

This alternative would reduce the amount of traffic impact fees that could be collected if the road improvement financing plan were implemented. The recommended impact fee of \$3 per square foot of commercial space would result in the County forsaking \$591,000. These revenues would not be available for road improvement projects.

Mitigation Measures for Alternative G:

Land Use Mitigations

Mitigation: None required.

Traffic Mitigations

Mitigation: The only way to mitigate the impacts of more trips out of the Valley is to increase commercial facilities that provide goods, services, and work opportunities for Carmel Valley residents.

Noise

Mitigation: Same as preferred project.

Air Quality

Mitigation: Same as for the preferred project.

Fiscal

Mitigation: Impact fees on other land uses could be increased to address the short fall of revenues that would occur under this alternative.

CHAPTER 8
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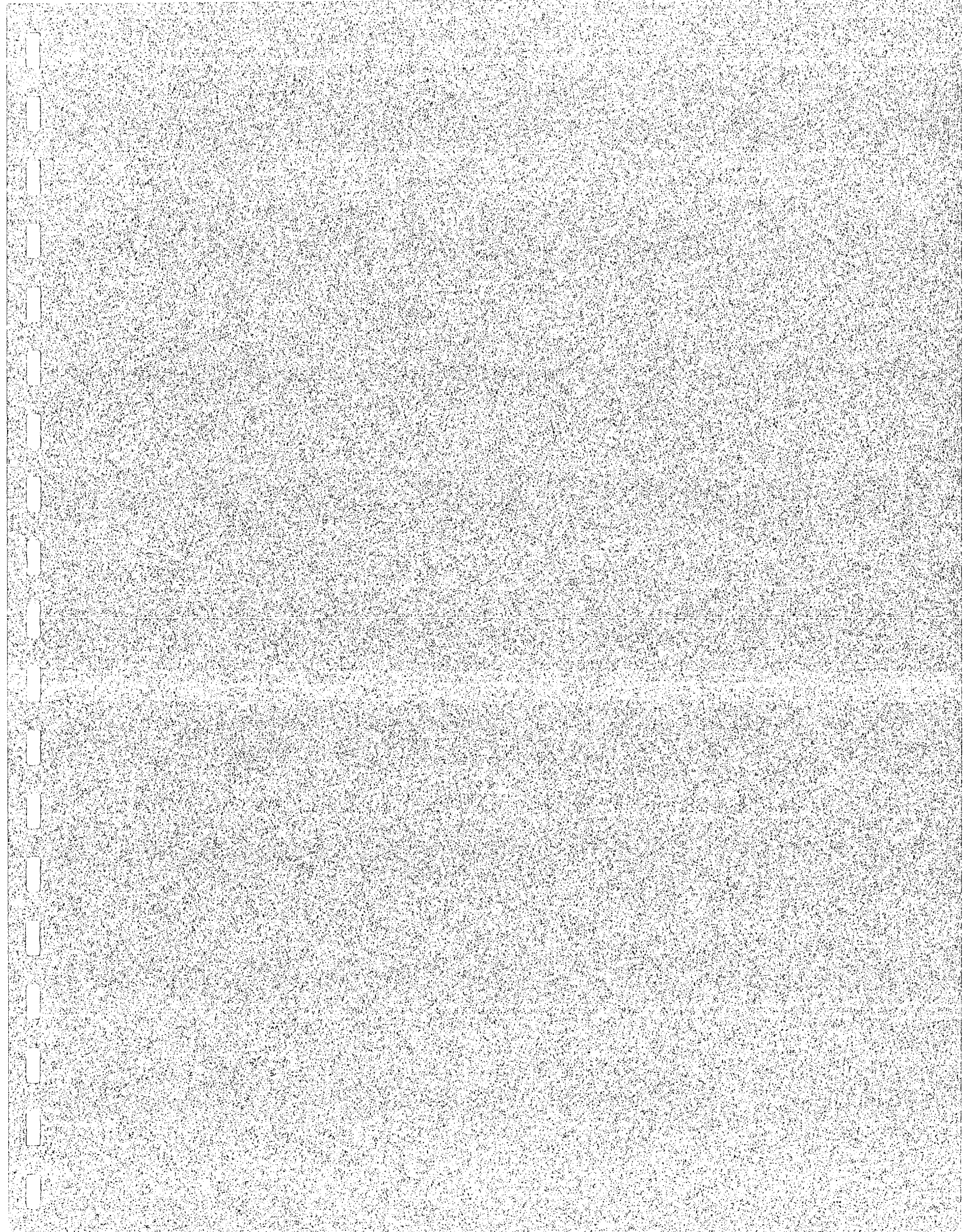
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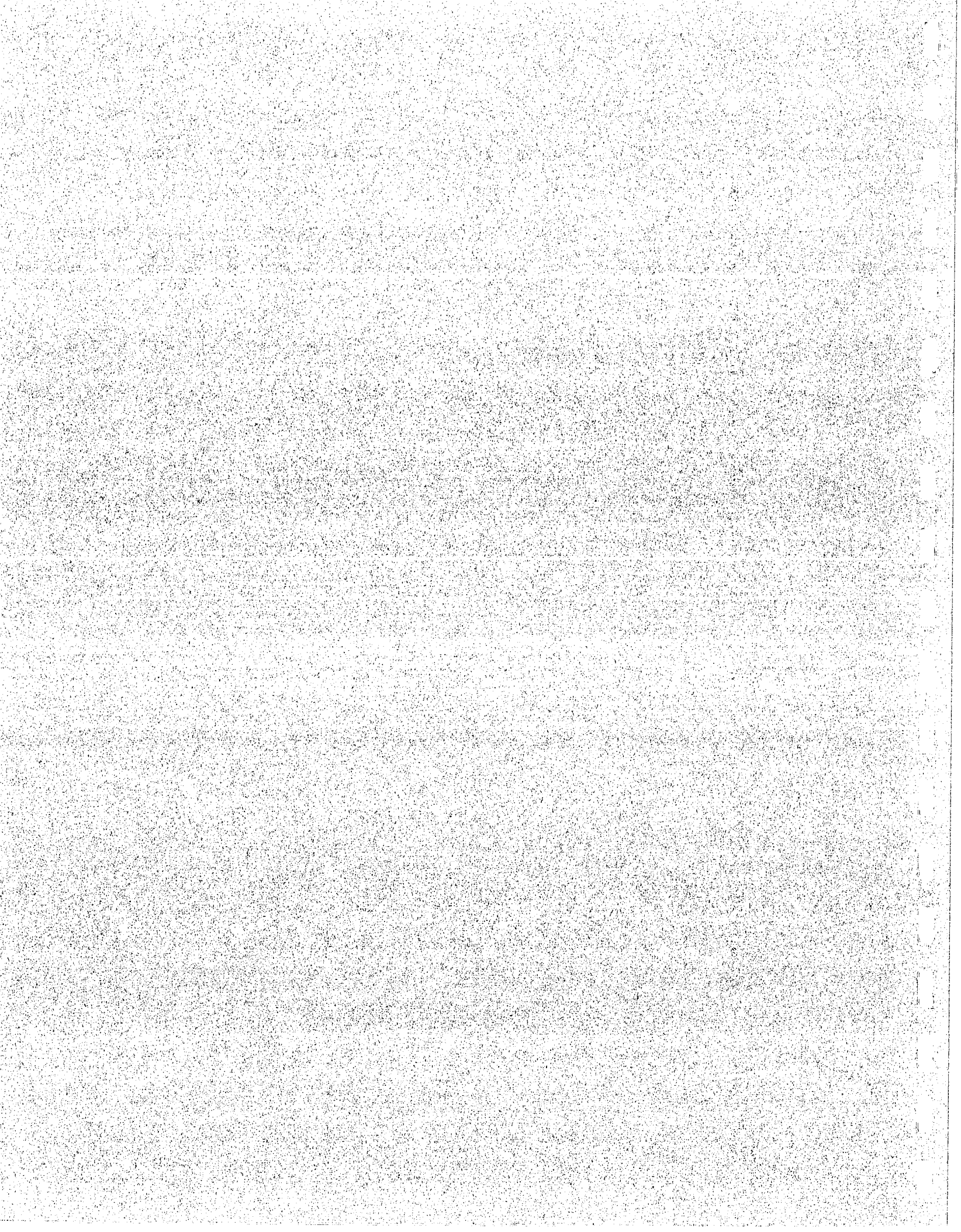
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Monterey Bay Unified Air Pollution Control District

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**Response to Comments on the
Environmental Impact Report**

CARMEL VALLEY ROAD IMPROVEMENT PLAN

Prepared For:

**The County of Monterey
Department of Public Works and
Planning Department**

Prepared By:

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November 1991



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CHAPTER RTC - 1
INTRODUCTION

1.1 Purpose of the Final EIR

This document, the Response to Comments on the Draft Environmental Impact Report (Draft EIR), constitutes the Final Environmental Impact Report (Final EIR) on the Carmel Valley Road Improvement Plan. It includes the Draft EIR, appendices, a copy of all letters sent to the County commenting on the Draft EIR and a response to comments on the DEIR.

The Final EIR has been prepared in accordance with the provisions of the California Environmental Quality Act (CEQA), Section 15146 which states:

- (a) *The Final EIR shall consist of:*
 - (1) *The Draft EIR or a revision of the draft.*
 - (2) *Comments and recommendations received on the Draft EIR either verbatim or in summary.*
 - (3) *A list of persons, organizations and public agencies commenting on the Draft EIR.*
 - (4) *The responses of the Lead Agency to significant environmental points raised in the review and consultation process.*
- (b) *The response of the Lead Agency to comments received may take the form of a revision of the Draft EIR or may be an attachment to the Draft EIR. The response shall describe the disposition of significant environmental issues raised (e.g., revisions to the proposed project to mitigate anticipated impacts or objections). In particular, the major issues raised when the Lead Agency's position is at variance with recommendations and objections raised in the comments must be addressed in detail giving reasons why specific comments and suggestions were not accepted.*

1.2 Environmental Process

The Draft EIR was distributed to the public and interested public agencies on January 18, 1991. The public comment period closed on March 1, 1991. Subsequently, issues were discussed at a town hall meeting on March 21, 1991 and the comment period was extended until April 15, 1991.

Responses for each letter have been prepared and are contained in Chapter RTC-2 of this volume. Copies of the written comments received on the Draft EIR are contained in Chapter RTC-3.

1.3 How to Use this Report

The Response to Comments document is intended to be read with the DEIR. This report is divided into four Chapters as follows:

Chapter RTC-1 Introduction;

Chapter RTC-2 Response to Comments presents comments and responses to each letter received. Minor text changes to the DEIR are included in some of the responses. Some of the comments were observations and opinions regarding the project generally, not the adequacy of the DEIR itself. Some of these comments are noted for the record, to give the reader a sense of public concerns. Such comments do not require a response in this document under CEQA Guidelines;

Chapter RTC-3 Comment Letters Received contains copies of the comment letters received during the review period;

The Appendix RTC-A contain supplemental information germane to the issues raised in the comments.

CHAPTER RTC - 2
RESPONSE TO COMMENTS ON THE DRAFT EIR

2.1 Introduction

A Draft Environmental Impact Report (DEIR) for the Carmel Valley Road Improvement Plan was prepared and circulated for public review and comment. The comment period was opened for 77 days and closed on April 3, 1991. This Chapter is the Response to Comments on the Draft EIR.

The response to the comments received are organized by letter and comments in the letter. A total of 28 letters were received and may be referred to in Chapter 3 of this document. The responses address the environmental issue raised by the commenter. Comments that are not related to the contents of the EIR, per se, are noted for the record. In some cases the response is for an entire letter, and in other cases the response is for a particular paragraph of the letter or to a specific comment made about a page in the DEIR.

2.2 Response to Comments

Letter 1: Monterey Unified Air Pollution Control District

The Air District letter stated that the DEIR does not include an evaluation of project consistency with the 1989 Air Quality Plan.

The project evaluated in the DEIR consists of the road improvements which are a part of the Carmel Valley Master Plan (CVMP) as adopted in 1986. The project does not involve any change of land use or land development policies. The overall growth limit established in the CVMP has not and will not change as a result of the road improvements. The growth limits for Carmel Valley are the basis of Association of Monterey Bay Area Governments' (AMBAG) population projections for Carmel Valley. Therefore, these growth limits should be the basis of population forecasts developed by the Air Quality Management Plan. There is no evident reason to assume inconsistency with the Air District's Plan.

If a formal finding of consistency is required, this shall be undertaken by Monterey County planning staff.

Letter 2: Association of Monterey Bay Area Governments (AMBAG)

AMBAG's recommendation that the County provide funds for the tourist shuttle should be considered by the Board of Supervisors.

The recommendation for development of a Transportation Management Association (TMA) program has been added as a mitigation measure to page 5A-20 of the DEIR as Mitigation 5:

Mitigation 5: *The development of a Transportation Management Association (TMA) for businesses in the Barnyard/Rio Road area and along Carmel Valley Road to Carmel Valley Village for the purpose of promoting Transportation Demand Management should be promoted by the County.*

Letter 3: Association of Monterey Bay Area Governments (AMBAG)

No response necessary.

Letter 4: Monterey County Water Resources Agency

Comment regarding page 5E-6, Impact 6, of the DEIR: The comment is correct. Impact 6 is changed to read as follows:

The riparian areas and riverbed adjacent to the ~~north~~ south side of Carmel Valley Road would be adversely impacted by roadway realignment.

Comment regarding page 5E-9 of the DEIR: Impact 6 is re-numbered Impact 6A to distinguish it from the Impact 6 on page 5E-6.

Comment regarding page 5E-12 of the DEIR: Comment noted. The text of the DEIR simply cites a Carmel Valley Master Plan policy and has no implication regarding fill in the floodway. The following text is added to the end of Impact 23:

Emergency Access - The proposed dry weather fords would be subject to requirements that no fill be imported into the floodway and that crossings would not impede or divert flood flows or increase flood elevations.

Comment regarding page 5E-15 of the DEIR: The comment regarding the floodplain is noted and the text of the DEIR is changed as follows:

Mitigation 4: Flooding: *Roadway improvements should be planned so that they are located outside of the designated 100-year floodplain.*

Letter 5: State Lands Commission

Comments noted. No projects proposed in the DEIR would involve construction that would impact the Carmel River within the jurisdiction of the State Lands Commission.

Letter 6. Department of Transportation (Caltrans)

Comment regarding page 2-4 of the DEIR: While triple left-turn lanes at a single-point interchange may be unusual, triple left-turn lanes have been built at many signalized intersections. The traffic consultants for the EIR are confident that a workable design could be achieved.

Comment regarding page 4-4 of the DEIR: The statements on page 4-4 should not be construed as implying that the Hatton Canyon Freeway would add traffic to Carmel Valley Road. In fact, the EIR authors believe that the opposite may be true: the Hatton Canyon Freeway could serve trips that are now avoiding Highway One by using Carmel Valley Road and Laureles Grade. Regarding the inclusion of the Carmel Valley Road improvements as a contributor to cumulative impacts, this was not done because these improvements constituted the project under CEQA. The project and cumulative development projects are by definition different.

Comment regarding page 5E-12 of the DEIR: The statement on page 5E-12 referring to a minor interchange at the intersection of Carmel Valley Road with the Hatton Canyon Freeway is incorrect as it is from an outdated version of the Carmel Valley Master Plan (CVMP). The current policy is cited below.

The County shall consider constructing minor interchanges as an alternative to signalizing the Carmel Valley Road intersection. This would result in an unimpeded flow of traffic on Carmel Valley Road and would facilitate left turning movements from and onto Carmel Valley Road intersections.

Comment regarding page 5E-15 of the DEIR: Comment noted.

Comment regarding page 5E-20 of the DEIR: The comment is noted and incorporated into the Final EIR. However, all text derived from the Highway One Improvement Project EIR/EIS is deleted from the Carmel Valley Road Improvement Plan EIR. (See next response below.)

Comment regarding pages 5E-15 to 23 of the DEIR: Regarding the Highway One Improvement EIS, this document was not circulated by Caltrans and has been withdrawn pending decisions of which improvement plan for Highway One to support and implement. Given the uncertainty regarding the preferred alternative and the unavailability of any EIS on the Highway One plan, the Final EIR on the Carmel Valley Road Improvements deletes all reference to the Highway One EIS. The latter document was used for cumulative impact assessment purposes because the Highway One project was the greatest contributor to cumulative impacts related to noise and biotic factors. As it is not known what project will be adopted, its cumulative impacts cannot be known. The impacts of the Carmel Valley Road improvements are described in this EIR. Greater detail will be forthcoming in project-specific EIRs such as the one being done on the proposed four-laning of Carmel Valley Road.

Letter 7: Paola Berthoin

The comments in this letter have been numbered along the right margin of the letter. The following responses are keyed to the numbered comments.

Page 1, comment 1 of letter: This EIR analyzes the Carmel Valley Road Improvement Plan only. As such, it need only consider the impact of the Hatton Canyon Freeway, or its alternatives, to the extent that they have an impact on Carmel Valley Road. The EIR analyzes Carmel Valley Road both with and without the Hatton Canyon Freeway and finds no significant difference in impact on Carmel Valley Road. Please refer to the discussion of Alternative D on page 7-16 of the DEIR. Since the impact of no Highway One improvement would be insignificant on Carmel Valley Road, then the impact of a reduced capacity alternative would also be insignificant.

Page 1, comment 2 of letter: When and if specific road improvement projects are proposed to include the use of federal funds, environmental review under the National Environmental Policy Act (NEPA) would be required. The Federal Highway Administration could require an EIS or make a finding of no significant impact (FONSI). The County is preparing an EIR and EIS for the proposed four-laning of Carmel Valley Road.

Page 1, comment 3 of letter: The citation that the commenter attributes to the CVMP is not a policy of the CVMP. The impacts of four-laning are being addressed in a separate EIR on the construction of that project. Effects on rural quality and consistency with other CVMP policies should be addressed in that EIR. Page 3-5 of the Carmel Valley Road Improvement Plan DEIR cites the CVMP regarding four-laning of Carmel Valley Road. This EIR represents environmental analysis of the transportation policies in the CVMP at a programmatic level. One of those policies is the four-laning of Carmel Valley Road (Policy 39.3.1.1).

Page 1, comment 4 of letter: Increases in population have no relation to methods of traffic analysis, although they might influence assumptions about the rate of background growth in vehicle trips. The opinions of the Sierra Club are noted. While it is true that increases in capacity can ultimately result in more traffic in Carmel Valley, controls on the source of trips can offset this. In Carmel Valley, the growth limits operate to control the amount of traffic that might otherwise result from in-Valley development. Exogenous traffic, particularly at the mouth of the Valley, is obviously not controlled by the growth limits in Carmel Valley.

Page 2, comment 5 of letter: Chapter 5D of the DEIR addresses the air quality impacts of the project and recommends mitigation measures. The traffic improvement plan per se would not have significant impacts and may in fact improve localized air quality to the extent that it reduces congestion. In tandem, the Carmel Valley Master Plan (CVMP) limits future growth. Table 35, page 5D-15 of the DEIR presents the impacts that can be expected in the future with and without (1) the growth permitted in the CVMP and (2) the road improvements which are the subject of this EIR. Increases of 5% in ROG and NOG are expected in Carmel Valley.

Page 2, comment 6 of the letter, regarding Chapter 2, Mitigation 2 of the DEIR: The commenter's opinion of the effect of acceleration lanes on rural quality is noted.

Page 2, comment 7 of the letter, regarding Chapter 2, Mitigation 4 of the DEIR: This EIR projects traffic volume to the year 2005 only because the Carmel Valley Master Plan (CVMP) will be in effect to the year 2006. The year 2005 was used instead of 2006 because comparable traffic and population data were available for that year from other sources. This information was useful in the modeling effort. The annual growth rate is small enough that little difference will exist between any two years. Therefore, year 2005 traffic estimates are sufficiently accurate to represent year 2006 as well. Additionally, the commenter is referred to the purpose of this EIR. As stated on page 1-1 of the DEIR; "... [to] evaluate the traffic impacts of the CVMP and to refine the traffic analysis contained in the Carmel Valley Master Plan EIR. ..." Therefore the traffic analysis does not include evaluation through the year 2010.

Page 3 comment 8 of the letter, regarding Chapter 2, Mitigation 5 of the DEIR: Comment noted. A traffic signal at Via Mallorca would reduce speeds. A traffic signal is one of the mitigation options that is offered in the EIR.

Page 3, comment 9 of the letter, regarding Chapter 2, Mitigation 6 of the DEIR: This EIR does recommend flattening out Carmel Valley Road at Dorris, which would eliminate the sight distance problem at that location.

Page 3, comment 10 of the letter, regarding Natural Factors Impacts: The map used in the EIR is the County's graphic prepared for the Carmel Valley Master Plan EIR. The County can correct the map if it so chooses. Comment noted regarding slope analysis. Comment noted regarding road widening and tree removal. The reader should note that the forthcoming Carmel Valley four-laning EIR (expected Spring 1992) will address these issues in detail.

Page 3, comment 11 of the letter, regarding Chapter 4 of the DEIR: Future development will be constrained by the available water supply, as implied by the commenter. Comments noted regarding toll roads. Points A through E made by the commenter should be considered by the Board of Supervisors when they are deciding which mitigation measures to adopt with the Final EIR. With respect to point E, developers do not always look to available road capacity in making investment decisions. Although road capacity can play a roll, the more obvious and influential factors underlying growth are economic prosperity, interest rates and migration pressures. The roadway changes specified in the Carmel Valley Master Plan and this EIR are not of sufficient magnitude to create any changes in travel patterns or travel behavior.

Page 4, comment 12A of the letter: The commenter does not state the page and paragraph which gives rise to the comment about LOS in the peak hour. Table 8, page 5A-3 of the DEIR under the heading "Existing Traffic Operations" refers to the peak hour level of service, as the table title states. Levels of service in the DEIR are for peak hours.

Page 4, comment 12B of the letter: Unfortunately, transit, bikes and walking would not reduce level of service impacts sufficiently to preclude the need for the improvements to Carmel Valley Road.

Page 4, comment 12C of the letter: Comment noted. The EIR recommends center turn lanes for driveway and side-street access.

Page 4, comment 12D of the letter: The fourth signal on Rio Road would be necessary to control traffic when Rio Road is extended to Carmel Valley Road. The four signals can be coordinated to allow smooth flow on Rio Road.

Page 4, comment 12E of the letter: Energy conservation measures are not within the scope of this EIR.

Page 4, comment 12F of the letter: As reported on page 5A-8 of the DEIR, there were 15 accidents at Rancho Canada over the six-year period ending in 1989.

Page 4, comment 12G of the letter: Comment regarding mitigation 3 on page 5A-19 of the DEIR is noted.

Pages 4 and 5, comment 13 of the letter, regarding Chapter 5D - Air Quality of the DEIR: The air quality impacts of the Highway One Improvement Project, whatever alternative is selected, will be analyzed in an EIR/EIS on that project. The Carmel Valley Road Improvement Plan EIR assesses air quality impacts due to existing and future development projects within Carmel Valley and the air basin as a whole. As stated in Impact 4 on page 5D-13:

Better pollution controls for motor vehicles operating in the year 2005 together with the higher vehicle speeds with the Hatton Canyon Freeway will more than offset the effects of the additional VMT from traffic generated by CVMP growth.

This is likely to be true with any Highway One improvement because traffic will move faster.

In response to the comment regarding Impact 6 on page 5D-14 of the DEIR, the EIR authors decline to speculate the potential benefits of personal energy conservation efforts of individuals. Points "a" through "f" on page 5 of the letter regarding operational mitigations are noted; no response is required. Also, the comments regarding congestion and highway capacity are noted.

Letter 8: Robert L. Hunsicker

The comments regarding the lack of safety for a portion of Carmel Valley Road located "east of the 13 mile marker" are noted. Potential remedies will be considered by the Dept. of Public Works. This location is beyond the study limits of this EIR. However, the comment has been forwarded to the Monterey County Public Works Department.

Letter 9: R. Alan Williams of Carmel Development Company

Page 2, comment 1 of letter, regarding Canada Woods: There are a number of changes that could be made to the land use projection tables. For example, Table 4, page 4-8 could

add the Canada Woods project and delete the Carmel del Sierra project. Canada Woods is assumed to develop in Phase 3 (1996 - 2000) while Carmel Del Sierra was assumed to develop in Phases 2 & 3. Canada Woods would have 44 single family units, 15 employee and inclusionary apartment units and five service center parcels. Carmel Del Sierra was assumed to have 102. This change means that some other project would have the opportunity to increase in size, subject to the growth constraints of the Carmel Valley Master Plan (CVMP).

As the commenter and Draft EIR note, the land use projections underlying the traffic impact assessment represent one of a number of possible development scenarios of how growth could occur under CVMP policies. For purposes of indicating the traffic impacts of existing development and future growth, the scenario analyzed in the EIR is adequate, as would be the case for a number of other possible scenarios.

The County has chosen to not update the list of proposed project because this would be a never-ending task. All development is subject to the limits of the CVMP. Within that constraint, projects will vary with respect to when and where they develop. Most projects planned for Carmel Valley are relatively small and the number of units falls within a fairly tight range. Consequently, the traffic impacts are not greatly affected by substitutions of one project for another, even though they might be in a different location.

The EIR cannot make changes in the list of projects or phasing without introducing major inconsistencies into the text. The traffic model was based on the land use projections as they appear in the EIR. If substitutions are made, the entire document would have to be reviewed and possibly revised. To be consistent, the traffic model would have to be recalibrated and rerun. Although small changes such as those noted above probably would not change the Level of Service analysis, the totality of potential changes might. As soon as the model has run, another batch of changes could come to the fore, causing the whole process to go through another iteration. The EIR authors are confident that the present analysis reasonably represents the growth that is likely to occur in Carmel Valley and the timing of improvements needed to handle that growth.

The CVMP includes an overall and annual growth limit. If a project does not get approved in one phase, it could in a latter phase. This has the effect of reducing near-term impacts while keeping long term impacts the same as projected in the DEIR, on an overall basis.

Page 2, comment 2A of the letter, regarding Channelization, Alternative E. A more detailed discussion of the three-laning alternative will be prepared for the four-laning EIR which is now being drafted by the Dept. of Public Works and the Dept. of Planning and Building Inspection, according to George Divine of the Traffic Division of the Department of Public Works. The four-laning EIR is a project EIR whereas the present EIR is a program EIR. The

former is required to go into the kind of site-specific analysis that the commenter is requesting. If three-laning is found to be a viable alternative, it will receive full and adequate environmental review of all relevant topics. The purpose of the present EIR is to analyze the adequacy of the roadway improvements of the Carmel Valley Master Plan, given existing and future development, and other policies of the CVMP. As the County chose to do this analysis within the context of an EIR, mitigations for the impacts of the roadway plans have been recommended. The Low Cost Alternative is essentially a mitigation measure. Because of public interest in three-laning, it will be more fully explored as an alternative to four-laning in the four-laning EIR.

Page 3, comment 2B of the letter: Comment noted regarding unbuilt housing allocation. The traffic analysis in this EIR assesses impacts for five year intervals from 1990 through 2005 corresponding to land use development phases 1 through 4 as described in Chapter 4, Section C. With respect to the EIR, the effect of this backlog is to push phase 1 and phase 2 traffic impacts into the future. Additionally, if phase 3 development were to occur in phase 2, the traffic impacts resulting from phase 3 development would occur sooner. As the overall growth limit remains constant, the ultimate build-out impacts will be as noted in the EIR for phase 4.

Page 3, comment 2C of the letter: The growth projections of the EIR have taken into consideration the fact that projects are approved at lower densities than allowed. Table 4: Future Residential Development by Phase, page 4-8 of the DEIR reflects this.

Page 3, comment 2D of the letter: It is the responsibility of the County Board of Supervisors to determine what is the preferred treatment of Carmel Valley Road. After their review of the details of the four-laning EIR, they will have environmental information to enable them to select three or four lanes or some other solution for Carmel Valley Road.

Page 3, comment 2E of the letter: Water supply is a very real constraint on development in Carmel Valley, and it is possible that the full housing allocation will not be built within the lifetime of the Carmel Valley Master Plan (CVMP), which is 20 years as measured from 1986 - 2006. However, no one can predict the weather. Several rainy years and/or the expiration of Ordinance 52 could enable growth to resume such that the entire allocation is built-out when the planning period ends. (Ordinance 52 was promulgated by the Monterey Peninsula Water Management District. It is a limit on development that could be lifted after a well in Seaside is completed.) Whether or not build-out occurs by 2006, the County will, by law, have to update the CVMP. The EIR should not speculate as to what the planning participants will decide to do: uphold the quota and allocation system, establish new limits or eliminate growth controls. To extend the projected time frames in which CVMP build-out will occur, as analyzed in the EIR, would be inappropriate as it presumes to know how future planning decisions will be made for the period following 2006.

Page 4, comment 3 of the letter, regarding Commercial Road Impact Fees: The EIR being prepared for the Carmel Valley Road four-laning project will address the channelization alternative in more detail. As a practical matter, all commercial land uses cause use of the roads. Neighborhood-serving commercial uses serve shorter trips than regional facilities, but it is very difficult to calibrate impact fees to the amount of travel engendered by a particular type of commercial facility. Further, even though neighborhood-serving commercial uses increase local traffic in the immediate vicinity, they sometimes generate a need for improvements such as signals and interchanges. Finally, who is attracted to a commercial site, a neighborhood person or an outsider, cannot be controlled. For example, an excellent restaurant or a BMW repair shop in Carmel Valley could attract patrons from Monterey. All of these factors, and more, make it a practical problem to decide who should and should not contribute to roadway improvements.

The statement is true that commercial businesses providing a service not currently available in Carmel Valley may reduce trip lengths and not add to congestion. For this reason, the County may wish to exempt those businesses from any traffic impact fees.

Letter 10: Carl Hooper Letter, Bestor Engineers, Inc.

Page 1, of letter, comments regarding Vacant Lots of Record: The County Planning staff reviewed the list of lots of record and field checked their status. The results of their investigation is presented in a list in Appendix A of this document.

As of June 1, 1991, the County found that there were 470 vacant lots of record. The EIR was based on 1989 data, and assumed that there were a total of 548 vacant lots. The difference, 78 lots, are those which developed between 1989 and 1991. The EIR assumed that 57 vacant lots were developed in Phase 1 (which does not include 1991). The magnitude of the difference between the EIR assumptions and reality has no bearing on the traffic impact analysis relative to the vacant lots of record. Some lots will indeed have constraints on their development, but most will have some buildable area. Lynne Mounday, Supervising Planner, states that only about 2% of the vacant lots of record would be completely unbuildable. To determine whether there is a buildable site on a constrained lot, the County follows one or more procedures, including the (1) 30% slope exception request, (2) the appeal for development in the floodway, and (3) the septic tank requirement appeal.

Page 1 of letter, comments regarding Location of Vacant Lots: A copy of the Traffic Zone Map is on file with the County and has been made available to the commenter.

Page 2 and 3 of letter, comments regarding the Errata are noted and can be regarded as changes to the EIR.

Comment regarding page 3-3 of the DEIR: The following text change is made to page 3-3 of the DEIR (change is underlined).

The CVMP also permits 108 units that were already approved at Carmel Valley Ranch, which this EIR counts among the vacant lots of record that have a right to develop at any time.

Comment regarding page 3-5 of the DEIR: The following text change is made to page 3-5 of the DEIR. (Change is underlined)

d) East of Esquiline Road (Segments 1 and 2A)

Comment regarding page 3-10 and 11 of the DEIR: See response to comments made by Alan Williams.

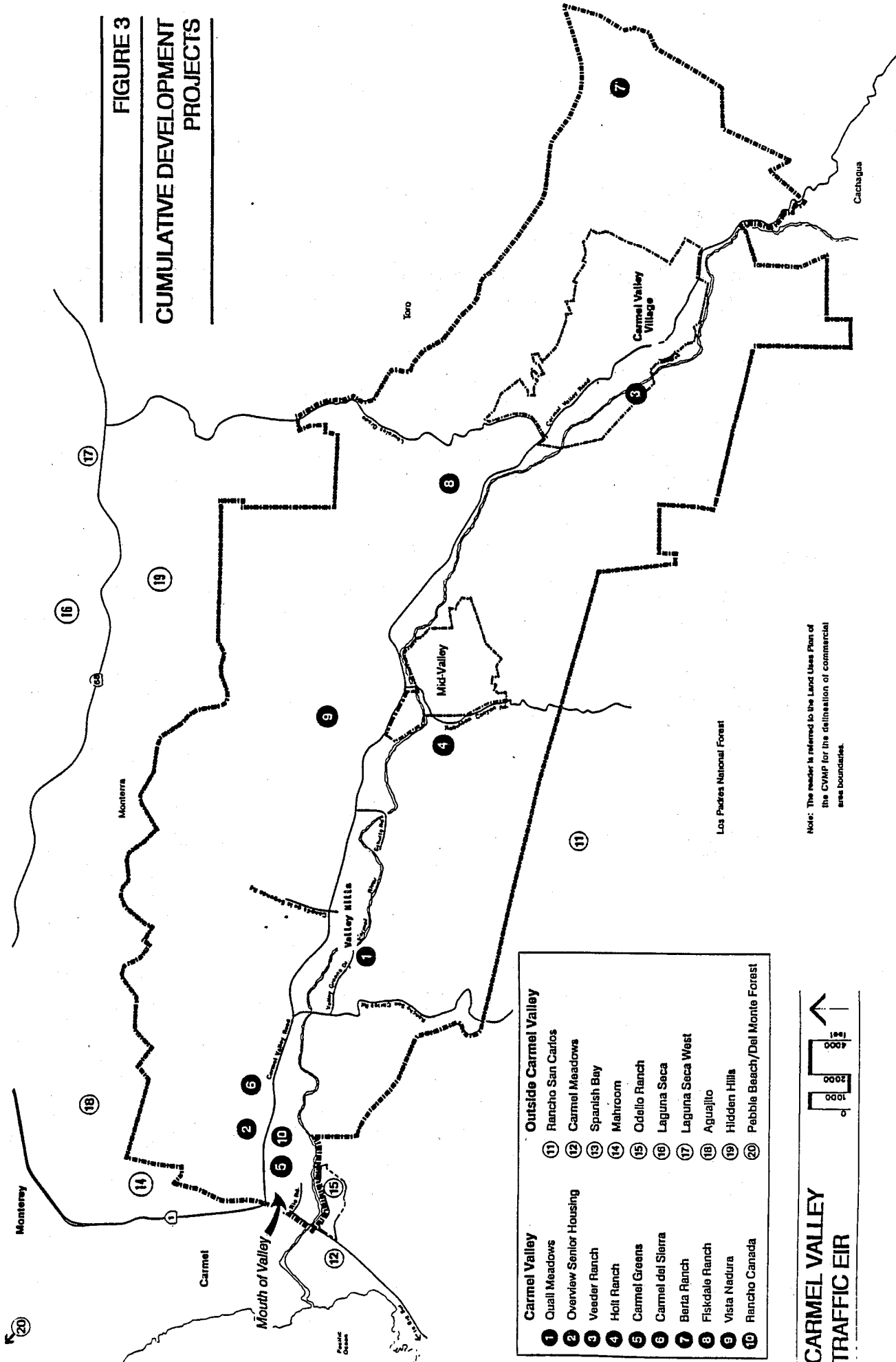
Comment regarding Figure 3 of the DEIR: Comment noted and may be regarded as a correction to the DEIR. The revised Figure 3 follows below.

Comments on Page 3-13, Table 1, of the DEIR: Nineteen commercial lots were given for Laguna Seca when the DEIR was being prepared; 25 lots will make no substantive difference to the traffic estimations. Table 1 does not say or imply that it is residential. Commercial traffic movements are not double-counted in the traffic model.

The comment gives testimony to the fact the number of proposed units in future projects are always changing. Further, the list of pending or reasonably foreseeable projects is also ever-changing. It is futile to keep revising the list and rerunning the traffic model to accommodate these changes. Not until a project is approved, built, and occupied will one actually know the traffic it will generate. In the meantime, land use projections and traffic modeling are among the best tools available to estimate impacts.

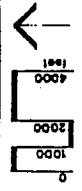
The EIR authors are confident that the traffic projections, expressed as level of service, reasonably represent the range of traffic impacts, regardless of the shifts in project size and location. This is because the range of sizes is fairly small and is subject to the quota and allocation system.

FIGURE 3
CUMULATIVE DEVELOPMENT
PROJECTS



- | Carmel Valley | | Outside Carmel Valley | |
|---------------|-------------------------|-----------------------|-------------------------------|
| 1 | Quail Meadows | 11 | Rancho San Carlos |
| 2 | Overview Senior Housing | 12 | Carmel Meadows |
| 3 | Veeder Ranch | 13 | Spanish Bay |
| 4 | Holt Ranch | 14 | Mahroom |
| 5 | Carmel Greens | 15 | Odello Ranch |
| 6 | Carmel del Sierra | 16 | Laguna Seca |
| 7 | Banta Ranch | 17 | Laguna Seca West |
| 8 | Fiskdale Ranch | 18 | Aguajillo |
| 9 | Vista Nadura | 19 | Hidden Hills |
| 10 | Rancho Canada | 20 | Pebble Beach/Del Monte Forest |

Note: The reader is referred to the Land Use Plan of the CVMP for the delineation of commercial area boundaries.



CARMEL VALLEY
TRAFFIC EIR

Traffic distribution in Carmel Valley is very predictable, and the trouble spots are known. For example, most projects will impact the mouth of the Valley because it is the gateway. If a future project were to be much larger than anticipated in this EIR, its impacts would show up in future project EIRs. This might necessitate additional mitigations beyond those noted in the present EIR, but it is not likely that the overall traffic program would need to be changed, or that the mitigations recommended in this EIR would have to be modified.

With respect to cumulative development outside the Valley, the traffic impacts of one project alone is swamped by the effects of existing development. Small percentage or absolute changes in development have virtually no effect on predictions for Carmel Valley traffic conditions in the future.

Comment regarding page 4-9 of the DEIR: Whether the shift of a project's traffic to later phases is "slight" or otherwise, the shift from phase 1 to phase 2 shifts impacts into the later period. Since the traffic analysis was done on a cumulative basis (i.e., adding the effect the preceding phase to each subsequent phase), it makes no difference to the ultimate assessment of Carmel Valley Master Plan build-out impacts when the project is built. The County was only interested in phasing so that it would know when various improvements would be needed and when funding would have to be available for the improvements. By shifting projects into the future, the mitigations that they engender can likewise be shifted into the future, as can their costs. The traffic generated by a senior housing project is of course substantially less than that of other 200 unit developments.

As noted in the DEIR, there are many possible development scenarios for Carmel Valley. One had to be chosen for analysis. The only potential problem with the projections would occur if a big project were built out sooner than expected, causing mitigations to be needed earlier than anticipated. It is extremely unlikely that a big project would get approved in Carmel Valley at any time. Even if it did, it would certainly be approved later rather than sooner, given traffic, water and political constraints. This has the effect of putting off traffic impacts of such a project to the later phases, where the amount of traffic approaches the build-out impacts of phase 4.

Comment regarding page 4-15 of the DEIR: Comment noted. The additional of six more commercial lots will not change the traffic analysis. Commercial traffic was not double-counted in the DEIR.

Comment regarding page 5A-11 of the DEIR: The County states that both the Rio Road extension and the Rancho Canada Hotel will be completed between 1995 - 2000. See above comments regarding traffic shifts to later phases.

Comment regarding page 5B-3 of the DEIR: The financial analysis did not assume fees to be paid by the owners of the vacant lots of record because they already have the right to develop and because Measure B funds provided a source of revenue that enabled impact fees to be lower across the board, compared to the assumptions made by the County when it first projected the fees. This change in assumptions was discussed with the County before the EIR was prepared. If the Supervisors so chose, they can apply the fee to the lots of record when the lot developers come in for a building permit. This would tend to lower the costs for other new development.

Regarding the comment that there is no discussion [on page 5B-3] about impact fees for inclusionary housing units: the County has not decided whether the traffic impact fee would be imposed on new affordable housing. This issue would be decided by the Board of Supervisors.

Comment regarding page 5B-13 of the DEIR, regarding Recommendation 2: The Supervisors can impose a fee on ministerial projects on lots of record if it is determined that such projects cause a traffic impact.

Comment regarding page 5B-13 of the DEIR, regarding Recommendation 3: The EIR recommends that impact fees be imposed at the time of lot creation. Although many lots are not actually built upon one or more years after the lot is created, the road improvements need to be built before the units are occupied and generating traffic. The time needed to plan and construct road improvements can take a year or more. Therefore, it is prudent to have the funds in hand as soon as possible. This is at the time of lot creation. The County will determine whether to assign the fee at the time of lot creating, at the time of occupancy, or split between the two.

Comment regarding page B-10 of the DEIR: There is no Page B-10 in the DEIR. Page 5B-10 is Table 25; it does not address trip generation per se, nor is it intended to. The trip rate of 11 trips per day per household is a person trip rate, whereas the counted rate 6 or 7 trips per household is a vehicle trip rate. A vehicle occupancy factor was applied to the person trip rate to yield an estimate of vehicle trips. For example, an occupancy factor of 1.2 would yield a vehicle trip rate of 9 trips per household. In addition, the traffic model was calibrated so that it matched the actual vehicle counts on Carmel Valley Road. The person trip rate was set at a level that would allow the model to accurately reflect the vehicle trips occurring on the major streets in northern Monterey County.

Letter 11: Carmel Valley Property Owners Association (CVPOA)

Page 1, comment 1 of the letter, regarding traffic count variations: The County has established a two-step procedure for evaluating existing traffic levels to ensure they have the most accurate information possible. A regular road tube count is used to indicate whether there is any possibility that a threshold has been exceeded. In the event of a possible exceedance, more detailed follow-up gap studies are performed. These are not recounts; they are more detailed assessments of existing conditions.

Page 1, comment 2 of letter, regarding page 3-3 of the DEIR: Carmel Valley Road should be changed to read Carmel Valley Ranch.

Page 1, comment 3 of letter, regarding pages 3-10 and 5B-3 of the DEIR: The fees on page 3-10 refer to the County's assessment program and thus should be consistent with the fee structure as presented on page 5B-3. The text on page 3-10 is changed as follows (change is underlined):

*\$20,000 fee for each new lot created,
\$15,000 for visitor accommodation,
\$10.00 per SF for Commercial, and
\$15,000 for each new lot of record (discretionary permit).*

Page 1, comment 4 of letter, regarding page 3-10 of the DEIR: Monterra was not given to the EIR consultants as an active project when the EIR was being prepared. If Table 2 were amended it would read as follows:

Monterra Subdivision: 283 lots, one of which will be further subdivided to 42 inclusionary housing units.

See response to comment 1 under Letter 9 regarding internal consistency of the EIR.

Page 1, comment 5 of letter, regarding page 5A-3 of the DEIR: Table note 3 on page 5A-3 of the EIR is correct as written.

Page 1, comment 6 of letter, regarding page 5A-19 of the DEIR: Whether or not the two-way left-turn lane would require widening depends on the cross-section that the County would want to provide. A minimum cross-section would require 32 feet, which is roughly equal to the existing pavement width through the Village.

Page 2, comment 7 of the letter, regarding page 5A-19 of the DEIR: Opposing left turns can only occur where cross-streets or driveways are directly opposite each other. Carmel

Valley Road has few such locations. The Institute of Transportation Engineers has prepared a study of two-way median left-turn lanes (Effectiveness of Median Storage and Acceleration Lanes for Left-Turning Vehicles). The report is 23 pages long, so it won't be reproduced here. Some of the conclusions are as follows: "The number of head-on accidents in the median is negligible. Head on accidents can be reduced by 45% [compared to conditions without a two-way median] . . . Concerns that the two-way operation will promote head-on collisions do not appear to be supported by accident statistics or observations of traffic movement."

Page 2, comment 8 of letter: Where several driveways occur in a short distance, continuous two-way left-turn lanes should be provided. (See Mitigation 2 on page 5A-19).

Page 2, comment 9 of letter regarding page 5A-19 of the DEIR: Comment noted.

Page 2, comment 10 of letter: Immediately west of Carmel Rancho Boulevard, Carmel Valley Road would be seven lanes wide.

Page 2, comment 11 of letter, regarding page 5A- 20, Mitigation 4 of the DEIR: Comment noted.

Page 2, comment 12 of letter: The County is not aware of any studies documenting the effectiveness of using headlights during daylight hours to reduce accidents. This could very well prove beneficial, but it should not be relied upon as the sole safety mitigation measure.

Page 2, comment 13 of letter, regarding page 5A-21 of the DEIR: Improvements to the Carmel Rancho Boulevard intersection with Carmel Valley Road will be included as part of the Highway One Improvement Project.

Page 2 of letter, general comment A: The focus of this EIR is the traffic improvement program of the Carmel Valley Master Plan. Clearly, other modes of transportation are an important part of the CVMP and need to be fostered to reduce vehicular trips. However, this EIR was intended to address the vehicular traffic projections given the growth permitted under the CVMP, and to examine the extent to which the planned roadway improvements would meet the challenge of providing reasonable traveling conditions for that growth. Therefore, bicycle paths and hiking trails are not addressed. Levels of service specified in the EIR are for peak hours.

The CVMP does not specifically call for bicycle paths along Carmel Valley Road. It states in Policy 39.2.2.3 that bicycle routes should be provided on the shoulders. Any revisions to Carmel Valley Road should be done in such a way that these shoulders are preserved.

Page 3 of letter, general comment B: Comments noted. Posting speed limit signs is a mitigation that the County can undertake. The other items recommended by the commenter have to do with driver behavior, over which the County has little control. The following mitigation is added to page 5A-20:

***Mitigation 5. Speed Signs:** The County shall post the speed limit on signs on Carmel Valley Road. The effect of this measure in reducing impacts is not known.*

Letter 12: Richard Rosenthal

Page 1, comment 1 of letter, regarding growth: The road improvements will not have a growth-inducing impact because the growth limits were established independently by the 1986 Carmel Valley Master Plan (CVMP). The CVMP is the determining factor regarding development levels in Carmel Valley. While establishing growth limits, the CVMP included a traffic improvement program to handle the permitted growth. To now state, as the commenter does, that the traffic improvements designed to accommodate that growth are in fact inducing that growth is to turn the whole planning paradigm on its head.

With respect to Policy 39.3.2.1, the CVMP notes that projects shall be deferred if their development would lower service levels in specific ways. The deferral is to remain in effect until such time as an "... EIR is prepared which includes mitigation measures necessary to raise the LOS to an acceptable level and appropriate findings as permitted by law are made which may include a statement of overriding considerations." This is not a categorical prohibition of project approvals when service levels fall below target standards. At the discretion of the Board of Supervisors, projects could be approved under the CVMP, even if the road improvement program is not implemented, given that this EIR has been prepared.

Page 2, comment 2 of letter, regarding Chapter 5A1-21 of the DEIR: Appendix B of the DEIR explains the traffic analysis methodology. Table 1, Comparison of Levels of Service Results indicates results of earlier studies in comparison with this EIR. Table 1 follows below.

Page 2, comment 2 of letter, regarding Chapter 5A of the DEIR: The EIR authors have not seen the commenters letter requesting information on the "Proposed Financing Plan." There is no further information on the plan aside from the information which appears in the Draft EIR.

**TABLE 1
COMPARISON OF LEVEL OF SERVICE RESULTS**

Segment	Level of Service		
	1986/a/	1988/b/	1990/c/
1	C	A	B
2A	B	B	B
2B	N/A	C	C
3	D	D	D
5	D	D	D
6	D	D	D
7	D	D	D
8	A	A	A
9	A	A	A
10	E	E	N/A

Table Notes:

/a/ Source: CVMP Traffic Analysis by Keith B. Higgins.

/b/ Source: Carmel Valley Road Traffic Analysis by Monterey County Public Works Department.

/c/ Source: Carmel Valley Road Improvement Plan EIR by PAD.]

Page 2, comment 3 of letter, regarding Noise: Opinion noted. The rationale for the approach taken is presented in the Noise Chapter of the EIR.

Page 2, comment 4 of letter, regarding Air Quality: The EIR authors and County staff believe the air quality section of the EIR to be adequate. It is the responsibility of the Monterey Bay Air Unified Air Pollution Control District to set up air quality monitoring stations where it believes that data will be most useful for air quality planning.

Page 2, comment 5 of letter, regarding Water: Water supply is clearly a constraint on development in Carmel Valley, and will continue to operate as such regardless of the traffic improvement program. In accordance with Carmel Valley Master Plan (CVMP) policy 39.3.2.1, however, this is not an EIR on the land use growth limits. Their impacts were covered in the CVMP EIR, which included water supply and water quality impact assessment. That EIR should be read in conjunction with this EIR for those interested in revisiting those issues.

Page 2, comment 6 of letter, regarding Alternatives: The traffic model indicates that traffic levels of service will decline to unacceptable levels at sometime in phase 2. The County has determined that the traffic trigger has not gone off in the past. The traffic model indicates that the trigger would go off sometime in phase 2 if the improvements are not made. Due to normal fluctuation in traffic volumes, one cannot predict exactly when the trigger would go off. However, until it does, development could be approved. Thus, the land use projections for phase 1 and part of phase 2 would be realized until such time as the trigger was found to go off.

Letter 13: Sierra Club, Ventana Chapter

Regarding the Final Environmental Impact Statement for the Highway Improvement Project. The EIR authors were given a copy of the above referenced EIS without being told that it was an administrative document. Since the cover read "Final Environmental Impact Statement," that's what PAD, Inc. assumed it was.

Subsequently, it was learned that Caltrans had withdrawn this document and was not making copies available for review until such time as a new document could be prepared. At the time of its use for the Carmel Valley Road Improvement Plan EIR, the Hatton Canyon Freeway was the preferred Caltrans alternative. Therefore, the Carmel Valley Road Improvement Plan EIR made use of some information in the Highway One EIS, incorporating it by reference. Specifically, the EIR used EIS information for purposes of describing cumulative impacts related to noise and biotic factors. The EIR presented the impacts of the Hatton Canyon Freeway, rather than other alternatives, because that was the preferred project at the time.

Now that the EIS has been withdrawn, all reference to its data is deleted from the Carmel Valley Road Improvement Plan EIR. Unless and until a Final EIS and a preferred project is decided upon, it would be futile to speculate on the cumulative biotic and noise impacts that any Highway One project would generate that would overlap with impacts due to Carmel Valley Road improvements.

With respect to the traffic impact assessment, an independent modeling effort was undertaken for this EIR. It did not depend on the traffic analysis of the withdrawn EIS. The County was specifically interested in the effects that the Hatton Canyon Freeway in combination with various alternatives for Carmel Valley Road. Therefore, the traffic analysis stands as written or otherwise modified by this Response to Comments document.

As the County wished to analyze the traffic impacts with the Hatton Canyon Freeway, the air quality analysis includes this assumption. None of the air quality data was taken from the withdrawn EIS; therefore, no references to the Hatton Canyon Freeway are deleted from the air quality chapter.

As a practical matter, deleting references to the Highway One EIS means that the following cumulative impact text is deleted from the Carmel Valley Road Improvement Plan EIR:

- Chapter 2: page 2-5, Impact 3: Cumulative Noise
- Chapter 2: page 2-7 and 2-8, Impacts 7 - 9, Cumulative Biotic Impacts
- Chapter 2: page 2-8, Mitigations for Cumulative Biotic Impacts, Mitigation 5 and 7
- Chapter 2: page 2-9 paragraph three is deleted.
- Chapter 5C: Noise, page 5C-5 through 5C-7, Cumulative Impacts. Delete text starting with "The Hatton Canyon Freeway . . . ", all of page 5C-6, and ending with the first paragraph on page 5C-7. Delete the Hatton Canyon Freeway column in Table 30. Delete reference to Hatton Canyon Freeway in Mitigation 2. Delete footnote 2 on page 5C-9.
- Chapter 5E: Natural Factors, page 5E-15 through 5E-24.
- Appendix C Noise, Tables C-3 is deleted.

The following text is substituted in Chapters 5C and 5E for cumulative impacts:

Cumulative Impacts

Build-out of the Carmel Valley Master Plan and the planned roadway improvements account for all of the cumulative impacts expected within Carmel Valley. The potential for development outside the Valley, particularly impacts due to any Highway One improvement project, cannot be estimated at this time. When and if a Highway One improvement project is analyzed in an EIR/EIS which is available for public review, it will be incumbent upon that document to present and analyze relevant cumulative impacts, including those due to implementation of the CVMP. The Carmel Valley Road Improvement Plan EIR cannot and should not speculate on the cumulative impacts of an unspecified Highway One improvement project which has not completed its own environmental review process.

Letter 14: W. V. Graham Matthews

Comment 1 of letter, regarding the Low Cost Alternative and the Transit Alternative: George Divine of the County Dept. of Public Works has informed the EIR consultants that the County intends to explore these alternative further in the four-laning EIR which is being prepared.

Comment 2 of letter: The EIR does include traffic due to new development in the Toro area. Page 5A-5 of the DEIR shows that the traffic from that area will account for about 4% of the total traffic on Carmel Valley Road.

Comment 3 of letter, regarding vacant lots of record in the flood zone: Under the direction of Lynne Mounday of the County's Dept. of Planning and Building Inspection, the list of vacant lots of record, by assessor's parcel number (APN) was prepared and submitted to the EIR consultants. An updated list of vacant lots of record was compiled in 1991. A copy of that list is attached to this Response to Comments document. To determine whether any are in the flood zone, the parcel numbers (APN) would have to be located on a flood plain map. Both APN maps and flood zone maps are available for inspection in the County office cited above.

The 548 vacant lots of record cited in the DEIR include 14 in the floodplain. If there were 14 fewer developable lots as a result of being in the floodplain, the effects on the traffic analysis would be nil because 14 units spread over 14 years (1991- 2005) averages one unit per year. This is not enough to affect service levels, which is how the traffic impacts are measured and reported.

Comment 4 of letter: This EIR represents further environmental analysis of the transportation policies in the Carmel Valley Master Plan. One of those policies is the four-laning of Carmel Valley Road (Policy 39.3.1.1).

Comment 5 of letter: Comment noted. The EIR does address the left-turn problem. Mitigation 2 on page 5A-19 recommends acceleration lanes, which would shorten delays and improve safety for left turns. The County may, after reviewing this EIR, decide to adopt a Carmel Valley Master Plan policy governing left turn LOS.

Comment 6 of letter: Page 5A-5 of the DEIR explains that the traffic profile is based on a survey conducted on Carmel Valley Road at Rio Vista. Three percent of the drivers surveyed stated that they were destined on Carmel Valley Road to 101 South beyond Monterey County.

Comment 7 of letter: This comment is correct. The comment regarding the first paragraph on page 5A-6 of the DEIR is noted, and the EIR is changed to read as follows:

The portion of the road west east of Los Laureles Grade. . .

Comment 8 of letter: This EIR recommends a continuous two-way left-turn lane along Carmel Valley Road in areas where driveways are too closely spaced to provide separate turn pockets (see Mitigation 2 on page 5A-19 of the DEIR). The EIR recommendations will not result in U-turns.

Comment 9 of letter: Regarding the relationship between noise increases and traffic volume, there are two location where 2006 traffic volumes would substantially increase over the levels predicted for 2006 in 1986. Rio Road to Rancho San Carlos Road would experience an increase in 2006 traffic volume of 32% over previously predicted levels. Carmel Valley Road between Highway One and Carmel Rancho Blvd. would have increases of 60% in predicted 2006 traffic volumes. This is a linear increase. The reason the noise levels don't increase as much is because noise is measured on a logarithmic scale. If the noise energy doubles, there will be a three decibel increase in noises. For example, if the noise energy of 59 dBA doubles, noise will increase to 62 dBA, not double to 118 dBA. (Note that the term 'decibel' means 10 bells. Thus, a noise energy of three decibel increase is an increase of 30 bells.)

Letter 15: Brian Finegan (March 1, 1991)

Page 1 and first paragraph on page 2 of letter: The commenters opinions are noted. The EIR authors and County planning staff respectfully disagree with the traffic consultants' assertion that the EIR is legally and practically inadequate. The EIR is not required to show detailed calculations. In point of fact, some of the calculations are internal to a computerized traffic model; others are available from George Divine at the County Department of Public Works.

Regarding the reliability of the analysis, the firm that prepared the traffic analysis, Barton-Aschman Associates, has impeccable qualifications to do the traffic analysis and modeling. They were hired because of their experience both with modeling and with traffic impact assessment in the Monterey Peninsula region. For information on the qualifications, the reader is referred to Barton-Aschman's Statement of Qualifications, which was submitted to the County before contracting with the firms who prepared the EIR.

Page 2, comment 1 of letter, regarding Final Traffic Volumes: The purpose of the traffic analysis was to determine when and where traffic thresholds of the CVMP would be reached. These thresholds are measured and reported in terms of Service Levels, which is what the DEIR presented. Tables 2 and 3 below show existing traffic volumes (at the time of the analysis) and traffic projections for each segment of Carmel Valley Road. Plots of these volumes are on file with the Monterey County Public Works Department, as are intersection turning movement estimates and level of service calculation sheets.

Page 2, comment 2 of letter regarding Traffic Zone Map: The map is on file with the County Department of Planning and Building Inspection. A copy is included in Appendix A of this document. Appendix B of the DEIR describes the modeling process, including trip generation rates. After the zone map are several pages listing the assumed dwelling units and employment by zone by year.

The text on page 4-4, second paragraph from the bottom of the DEIR is corrected to read:

Their distribution by Valley location is shown in Figure 4.

TABLE 2

AVERAGE DAILY TRAFFIC FORECASTS FOR CARMEL VALLEY ROAD/a/

Segment	Base/b/	1991	1995	2000	2005
1	3,700	3,800	4,100	4,500	4,900
2A	2,900	3,000	3,300	3,600	3,900
3	11,600	11,800	12,800	13,600	14,400
5	9,500	9,700	11,300	12,600	13,800
6	11,500	11,800	14,100	16,000	17,600
7	12,400	12,700	15,700	18,100	19,800
8	20,100	21,000	24,600	26,800	28,700
9	23,600	26,400	27,000	28,900	31,400
10	24,700	26,100	34,800	35,900	38,400

Table Notes:

/a/ Rounded to nearest 100 vehicles.

/b/ Existing as of 1989.

Source: Barton-Aschman and Associates.

TABLE 3

**PEAK-HOUR PEAK-DIRECTION TRAFFIC FORECASTS
FOR CARMEL VALLEY ROAD/a/**

Segment	Base/b/	1991	1995	2000	2005
1	220	220	240	280	300
2A	140	150	160	170	180
2B	530	540	570	590	610
3	660	670	720	770	820
5	580	600	690	770	840
6	740	760	880	980	1,060
7	800	820	970	1,090	1,180
8	840	890	1,050	1,160	1,240
9	990	1,100	1,130	1,210	1,320
10	740	830	980	1,780	1,910

Table Notes:

/a/ Rounded to nearest 10 vehicles.

/b/ Existing as of 1989.

Source: Barton-Aschman and Associates.

Page 2, comment 3 of the letter, regarding the nomograph: A portion of Appendix B, including the nomograph, was inadvertently omitted from the EIR. The complete version of Appendix B is reproduced in the Appendix of this document.

Page 2, comment 4 of the letter: The information requested can be determined through review of several tables and statements in the Traffic chapter of the EIR. To include all information on one table would result in a table much too large to reproduce. The request for conditions with "existing plus approved projects" and "existing plus approved plus cumulative" shows a misunderstanding on the part of this commenter relative to the purpose of this EIR. This is not an EIR on the CVMP land use plan. As stated on page 1-4, "This is a Program EIR as defined in the CEQA Guidelines as it addresses the impacts of the transportation improvement program in the Carmel Valley Master Plan." The land uses that generate the traffic impacts represent build-out of the Carmel Valley Master Plan, divided into five-year increments. To obtain a sense of where and when development would occur, County planning staff was consulted. Staff's input resulted in the information on pages 3-10 to 3-13, which describe cumulative development projects, and Tables 3 and 4 on page 4-8, which describe the projected land uses in Carmel Valley. These are "reasonably fore-

seeable future projects," but they do not necessarily fall into the category of projects that are "proposed, approved or under construction."

Page 2, comment 5 of the letter: The technical information requested is on file with the Monterey County Public Works Department and is available there for public review. It is much too voluminous to be reproduced in the EIR document. The average reader does not wish to be burdened with reviewing such extensive technical data.

There is no need to recirculate the EIR because the internal calculations of the traffic model would not add any new information on impacts or mitigations. The impacts of interest in this EIR relate to the level of service and traffic thresholds established in the Carmel Valley Master Plan. It is not practical, nor is it custom and practice to provide exhaustive raw data and calculations in an EIR.

Pages 2 and 3 of the letter, comment B1a, B1b, B1c, and B1d on Rancho San Carlos: Page 4-13 of the DEIR, first paragraph is revised to read as follows:

Rancho San Carlos /7/: Rancho San Carlos is comprised of 20,000 acres south of Carmel Valley, and is primarily used for grazing. One means of access is via Robinson Canyon Road. There is additional access via Rancho San Carlos Road which is a private road connecting to Carmel Valley Road. This private road is owned by Rancho San Carlos Partnership. The County is currently (10/91) preparing an EIR that addresses the impacts of a number of land use designations and densities for the ranch. The densities range from 160 to 10 acres per unit. A 200 room hotel and 5,000 square feet of commercial space use is also being considered. The current ranching operation generates no significant traffic in Carmel Valley. Depending on the density ultimately adopted for the ranch, traffic volumes could be substantially increased in the future.

Page 3, comment 2 of the letter, regarding Trip Generation for Rancho San Carlos: Table 1 on page 3-13 of the DEIR lists Rancho San Carlos as an out-of-Valley cumulative development project. It was not assumed to be a Carmel Valley development project, which is why it does not appear in Table A2 of Appendix A. The traffic analysis inadvertently omitted the Rancho San Carlos as an out-of-Valley project. The Final EIR has been updated to include Rancho San Carlos at 125 units and a 300-room hotel under year 2005 conditions. Using the Carmel Valley model, the project impact was found to be between 1 and 112 eastbound peak hour trips depending on the road segment considered. Table 4, Impact of Rancho San Carlos, which follows, shows that these trips would not result in a significant impact on any road segments in Carmel Valley.

**TABLE 4
IMPACT OF RANCHO SAN CARLOS**

Segment	2005 Peak Volume (EB)	Added by Project (EB)	Total	Platoon %	LOS
1	300	1	301	48	C
2A	180	1	181	42	B
2B	610	4	614	63	D
3	820	11	831	74	D
5	840	16	856	74	D
6	1,060	28	1,088	86	E
7	1,180	36	1,216	93	E
8	1,240	112	1,352	N/A	B
9	1,320	95	1,415	N/A	B

Source: Barton-Aschman and Associates

Page 3, comment C of letter, regarding Proposed Development Fee Program. The commenters' opinion on the fee structure is noted. As explained in Chapter 5-B, page 5B-5 of the DEIR, the economic consultant recommended a lower impact fee on development because Measure B had passed. That measure, if sustained by the courts, will make substantial funds available for the road improvement program evaluated in this EIR. The availability of these funds enables the County to reduce the impact fees while still funding the road improvements. It was the opinion of the financial consultant to the EIR that the high impact fees proposed in the County's scheme could discourage development, which would defeat the purpose of the impact fee. Therefore, lower fees on residences and business were recommended, provided the funds could be made up under Measure B. If they ultimately cannot, the County will need to reexamine the impact fee program.

If a parcel of land is zoned commercial and is not economically feasible to develop, that land will remain vacant or will, if a land owner or prospective commercial developer is so motivated, eventually sell with both parties adjusting their economic expectations. That is the land owner may end up getting less for his or her land and the cost of development may end up higher than other locations.

The relationship between fees for the various land uses can and should be reviewed for ability to pay and fairness. The fee study was conducted to determine the methodology and feasibility

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of self financing for traffic costs. It was not the EIR authors' intention or responsibility to provide a finalized fee program.

Page 4, comment D.1 of letter: This comment is correct. Impact 6 on page 2-2 should be renumbered "Impact 5" and should refer to left-turn levels of service only. The DEIR text is revised as follows (change is underlined):

Impact 5: *The left turn level of service on segments 8 and 9 is already F and will remain that way. (p.5A-13)*

Page 4, comment D.2 of letter: The traffic monitoring policy described on page 3-9 of the DEIR is what has been established by the Monterey County Board of Supervisors. This EIR recommends a change in procedure wherein LOS is evaluated by gap studies rather than traffic counts.

Page 4, comment D.3 of letter: The years 1986 - 1991 are shown in Table 21 of the DEIR because they represent the first five year period of the Carmel Valley Master Plan (CVMP), which is the base document controlling growth that is evaluated in the traffic model for this EIR. The values in the cells of the table indicate whether or not a fee contribution was assumed for each year. A zero indicates no fee was assumed. To our knowledge, no funds have actually been collected by the County. This table is simply a tool for examining how income and expenditures can be spread over the life of the CVMP. In reality, projects will come in when developers propose and built them, which cannot be precisely predicted. However, the County can begin to impose fees and set aside revenues to funds the improvements. The County is already collecting FAU, FAS and Measure B sales tax revenues.

Page 4, comment D.4 of letter: See response to comment 2 on trip generation, above.

Letter 16: Brian Finegan (March 6, 1991)

Page 1, comment of letter regarding page 2-3 of the DEIR: The traffic consultants for the EIR are recommending consideration of the acceleration lanes. The Institute of Transportation Engineers prepared an information report titled *Effectiveness of Median Storage and Acceleration Lanes for Left-Turning Vehicles*, 1986. That report reached the following conclusion: "*This design appears to promote efficient left turns onto major roadways as well as reduce accidents and traffic conflicts.*"

The specific design of acceleration lane intersections with Carmel Valley Road would be developed by the County if it wished to go in this direction in dealing with traffic problems. It is beyond the scope of this EIR to recommend roadway geometrics.

Letter 17 - Anthony Lombardo of Noland, Hamberly, Etienne & Hoss

Page 1 of letter, comment regarding Leonhoff vs. County of Monterey and Freeman Vs. County of Monterey: Comment noted. Interested readers may refer to the findings for these cases through the County's law library under the following citations: 222Cal.App.3d 1337; - Cal.Rptr. -[Aug. 1990] for Leonhoff case, and M20721, Statement of Decision on February 27, 1990 Superior Court of Monterey County, Judge John Anton for the Freeman case.

Page 2 of letter, comment regarding page 1-1 of the DEIR: Comment noted.

Page 2 of letter, comment regarding page 1-2 of the DEIR: The reader is referred to Mr. Lombardo's office for a discussion and copy of the referenced lawsuit. Mr. Lombardo can be reached at 408-424-1414 or 408-372-7525.

Page 2 of letter, comment regarding page 1-3 of the DEIR: Page 1-1, paragraphs one and two of the DEIR describe the conditions that gave rise to this EIR, and are consistent with the statements of the commenter. The text on page 1-3 refers to the fact that this EIR is a Subsequent EIR on the Carmel Valley Master Plan (CVMP), focusing on the traffic improvement program. All of the conditions cited in California Environmental Quality Act (CEQA) Section 15162 and on page 1-3 have in fact occurred, meeting the requirements for a Subsequent EIR. For example, the present EIR includes significant new traffic impacts not considered in the previous 1986 CVMP EIR. Likewise, there have been changes in environmental conditions, most notably the increase in traffic in Carmel Valley, compared to that predicted in the 1986 EIR. Finally, the traffic modeling as presented in the EIR contains new information of substantial importance to the CVMP as it identifies the status of the traffic thresholds and when they are expected to be exceeded in various locations.

These changes were anticipated in the CVMP under policy 39.3.2.1, which called for an EIR once if the thresholds are approached. The EIR is required by this policy to recommend mitigation measures necessary to raise the LOS to an acceptable level. This EIR makes several new recommendations to achieve acceptable LOS levels.

Page 3 of letter, comment regarding page 2-1 of the DEIR: Comment noted.

Page 3 of letter, comment regarding page 2-2 of the DEIR: Impact 12 is revised to read as follows (change is underlined):

The intersection of Carmel Valley Road at Carmel Rancho Blvd. will be improved in conjunction with the Hatton Canyon Freeway or some other Highway One improvement project . . . If the Rio Road extension were not built, an unaccept-

able level of service would occur at the intersection of Carmel Valley Road and Carmel Rancho Boulevard.

Page 3 of letter, comment regarding page 2-4 of the DEIR: Comment noted regarding traffic improvements which are not required by the CVMP. It is in the nature and overall purpose of an EIR to recommend additional mitigation measures beyond those that are already a part of the plan. That is what this EIR does.

Regarding noise impacts, the EIR notes that the expected noise increases by and large will not be significant. To the extent that projects are developed in later phases, compared to that projected in the EIR, these noise impacts would be put off to future time periods.

Page 4 of letter, comment regarding page 2-5 of the DEIR: The last statement on this page is an error and should be deleted from the summary. It does not apply to construction and there would not be a significant NO_x impact. Page 5D-14, first paragraph, discusses NO_x impacts and finds them to be insignificant.

Page 4 of letter, comment regarding page 2-7 of the DEIR: Comment noted. Page 2-7, Impact 5, is changed to read as follows (change is underlined):

Cutting, filling, earthmoving and blasting could adversely impact unstable slopes and could cause erosion and siltation which could in turn impact the water quality in the Carmel River.

Page 4 of letter, comment regarding page 2-8 of the DEIR: Impact 8 notes that there is the potential to add to the cumulative loss of trees in the area. The cumulative impact would be due to the Hatton Canyon Freeway or some other Highway One improvement project. The impact statement is correct as it stands.

Page 4 of letter, comment regarding page 2-8, Mitigation 3 of the DEIR: Replacement of rare and endangered plant habitat is not as strong a mitigation as the one cited in the EIR. The EIR text stands as written.

Page 4 of letter, comment regarding page 2-8, Mitigation 7 of the DEIR: It is not appropriate for this EIR to presume that a Negative Declaration is an appropriate form of environmental review when a rare or endangered or threatened plant species is involved. The same response applies to the comments on Mitigation 8 and 9 on page 2-9.

Page 5 of letter, comment regarding page 3-1, C of the DEIR: Project Objectives and Characteristics, a third bullet is added to the list on page 3-2, which reads:

- *Comply with policies of the Carmel Valley Master Plan.*

It serves no CEQA purpose to cite the Merz vs. County of Monterey lawsuit since that suit is not discussed in the EIR, nor is it germane to understanding the assessment of impacts.

Page 5 of letter, comment regarding page 3-3 of the DEIR: The typographical error in the second to the last paragraph regarding Carmel Valley Ranch stands corrected. The text of the DEIR is revised as follows:

The CVMP also permits 108 units that were already approved at Carmel Valley Road Ranch, which this EIR counts among the vacant lots of record that have a right to develop at any time.

Page 5 of letter, comment regarding page 3-4 of the DEIR: The last sentence under **Commercial Development** is revised to read as follows:

There are restrictions on where commercial development can occur and an overall limit is implicit in the development standards of the zoning code.

Page 5 of letter, comment regarding 3-9 of the DEIR: A benefit assessment district could be considered by the Board of Supervisors as a method to spread the costs of the improvements across the entire population that would benefit from the improvements. However, this would require that people vote for a tax increase to pay for road improvements. This may not be feasible or indeed necessary if the Measure B sales tax increase withstands legal challenge.

Page 6 of letter, comment regarding pages 3-10 to 3-12 of the DEIR: Comment noted. See response to letter 9, comment 1 regarding changes in proposed projects. The figures used for future commercial development in Carmel Valley were developed by Lynne Mounday of the Monterey County Dept. of Planning and Building Inspection and are deemed by him to accurately represent the development potential based on zoning and available land.

Page 6 of letter, comment regarding pages 3-13 of the DEIR: Comment noted. Table 10 on page 5A-5 of the DEIR shows that 13% of the traffic on Carmel Valley Road is generated by development outside the valley.

Page 6 of letter, comment regarding page 4-2 of the DEIR: In addition to projects in the Cachagua area, traffic on Carmel Valley Road is affected by development in the Toro area via Laureles Grade and also by development in all of northern Monterey County. As shown

in Table 10 on page 5A-5 of the DEIR, the total amount of this "through" traffic is 13% of the traffic on Carmel Valley Road near the mouth of the valley.

Pages 6 and 7 of letter, comment regarding pages 4-7 and 4-9 of the DEIR: See response to letter 9, comment 1 regarding the changes in proposed projects. The projection for annual development on lots of record was derived from historical data. That is, the past rate was assumed to apply to the future. Although there may well be annual variation in the number of lots developed, the annual average over the life of the CVMP will very likely approximate the past, because there were droughts in the past as well. Regarding commercial development in phase 2, the drought could be over in that period (1991 - 1995). If it is not, development could be slowed. In addition, most commercial uses are not water-intensive. Regarding Ordinance 52, see response to Letter 9.

Page 7 of letter, comment regarding pages 4-11 and 4-12 of the DEIR: Both pages state that traffic from Monterey Peninsula and the Highway 68 corridor would have a significant impact on traffic in Carmel Valley. The text on page 4-11 of the DEIR states:

Traffic in Carmel Valley is affected by sources outside the Valley.

Page 4-12 of the DEIR states:

Land use development in the Monterey Peninsula has a significant impact on Carmel Valley.

The EIR consultants were explicitly asked to consider the effects of out-of-Valley development on the Carmel Road system. This was done by counting future development in the background traffic projections for the future conditions. As noted above, 13% of Carmel Valley Road traffic is due to services outside the valley.

Page 7 of the letter, comment regarding pages 4-15 of the DEIR: The development projections for areas outside Carmel Valley were derived from the respective area plans, assuming build-out at the rate indicated in Table 7, page 4-14 of the DEIR. They may therefore be regarded as worst-case assumptions under CEQA, which is an appropriate approach because build-out is possible and no better information is available. Regarding individual projects, the list was developed in consultation with the County planning staff and was accurate when the land use projections and traffic modeling were undertaken.

Page 8 of letter, comment regarding pages 5A-4 of the DEIR: Appendix B of the DEIR contains precise definitions of levels of service taken from the Highway Capacity Manual.

Page 8 of letter, comment regarding pages 5A-12 of the DEIR: Comment noted.

Page 8 of letter, comment regarding pages 5A-13 of the DEIR: Comment noted.

Page 9 of letter, comment regarding pages 5A-17 of the DEIR: Comment noted. The amount of development that would cause the accident rate to increase is the cumulative total of all phases analyzed in the EIR, as 2005 represents the build-out stage of the Carmel Valley Master Plan.

Page 9 of letter, comment regarding pages 5A-18 of the DEIR: Mitigation 1 on page 5A-19 recommends an improvement for segment 2B.

Page 9 of letter, comment regarding pages 5A-20 of the DEIR: The following mitigation is added to page 5A-20 under Mitigation 4:

A sign should be posted at the exit to Hacienda Carmel reminding motorists to look both ways before pulling onto Carmel Valley Road.

Page 9 of letter, comment regarding pages 5B-5 of the DEIR: If a parcel of land is zoned commercial and is not economically feasible to develop, that land will remain vacant or will, if a land owner or prospective commercial developer is so motivated, eventually sell with both parties adjusting their economic expectations. That is the land owner may end up getting less for their land and the cost of development may end up higher than other locations.

The relationship between fees for the various land uses can and should be further investigated regarding ability to pay and fairness. The fee study was conducted to determine the methodology and feasibility of self financing for traffic costs. It was not the EIR authors' intention nor responsibility to provide a finalized fee program.

Page 10 of letter, comment regarding pages 5B-6 of the DEIR: Comment noted.

Page 10 of letter, comment regarding pages 5B-8 of the DEIR: The Board of Supervisors can decide upon the issue of whether vacant lots of record should pay impact fees.

Page 10 of letter, comment regarding pages 5B-13 of the DEIR: Comment noted. See response to letter 10, comment on page 5B-13 of the DEIR regarding when the County will need the impact fees.

Page 10 of letter, comment regarding pages 5A-14 of the DEIR: Instruments to finance the road improvements, such as bond issues and benefit assessment districts do not fall within the purview of CEQA. However, they are issues that can be addressed by the Board of Supervisors.

Page 10 of letter, comment regarding pages 5C-5 of the DEIR: 55 decibels at the roadway is not a noise level that needs to be mitigated for a golf course.

Page 10 of letter, comment regarding pages 5D-10 of the DEIR: Comment noted.

Page 10 of letter, comment regarding pages 5E-3 of the DEIR: The text is correct as stands, and was derived from the slope stability map of the Carmel Valley Master Plan EIR.

Page 11 of letter, comment regarding pages 5E-10 of the DEIR: Impact 13 notes the potential for adverse impacts on chaparral due to road widening and Impact 15 notes the potential for affecting oak and mixed hardwood trees. At the level of a program EIR, these are appropriate statements. In the project-specific EIR for four-laning of Carmel Valley Road, impacts will be specified in more detail and corresponding mitigations will be recommended. The following text is added to the end of both of these impact statements:

The loss of chaparral/oak and mixed-hardwood would be a significant impact.

Mitigations for these impacts can be found on page 5E-13 of the DEIR, which cited existing County policies for their protection. Other mitigations appear on page 5E-14. Whether these mitigations could reduce the impacts to a level of insignificance depends in site-specific investigations for alternative alignment. That is the province of the four-laning EIR.

Page 11 of letter, comment regarding pages 5E-12 of the DEIR: Impact 23 states:

***Impact 23:** To the extent that additional right-of-way and/or construction staging area is needed, the establishment of road connections could adversely impact biotic resources and geologic conditions. This is a potentially significant impact.*

What this means is that in areas where there are biotic resources near Carmel Valley Road, they have the potential to be impacted by road widening, road connections and/or construction staging. Environmental review for specific road improvement projects would delineate the potential impact area and recommend specific mitigation measures. General mitigation of the Carmel Valley Master Plan are cited on pages 5E-13 and 5E-14 of the DEIR.

Page 11 of letter, comment regarding pages 5E-14 of the DEIR: Comment noted. The following text is added to Mitigation 1:

If any trees must be removed and there is no other alternative, then new trees should be planted in the vicinity on a one for one basis.

The following text is added to the end of Mitigation 3:

If rare or endanger species absolutely cannot be avoided, they shall be removed by a qualified botanist and replanted in a suitable nearby habitat where the plants can re-establish themselves. The County shall periodically check the status of the plants to make sure they thrive.

Page 11 of letter, comment regarding page 5E-17 of the DEIR: The text referred to by the commenter is from the Highway One Improvement Program FEIS which has been withdrawn. Therefore, the text on page 5E-17 regarding the population of Hickman's onion in Hatton Canyon is deleted from this EIR. The impacts relative to this population of Hickman's onion would be evaluated in an EIS/EIR for Highway One improvements. Hickman's onion is not known to be present in the study area defined for this EIR, so this deletion has no effect on project impact assessment. Additionally, Monterra Ranch is outside the study area of this EIR.

Page 11 of letter, comment regarding page 5E-18 of the DEIR: See response to above comment.

Page 11 of letter, comment regarding page 6-1 of the DEIR: The relationship between residential development, commercial development and roadway capacity is complex and interactive. Each can feed on the other. The EIR frequently notes that the planned road improvements are intended to meet existing demand, which is primarily from residential development. The EIR also notes that commercial development in the Valley can reduce trip length because people would not have to travel out of the Valley to meet various needs. However, increased roadway capacity means less congestion. It is possible that reduced congestion would in time provide conditions that would help make more commercial development viable. Commercial development in Carmel Valley is constrained by land use controls, but there is no specific quantitative limit such as exists for residential. For these reasons, page 6-1 of the DEIR states that "*The improved access and circulation afforded by the road improvements might encourage further commercial development.*"

Page 12 of letter, comment regarding page 7-2 of the DEIR: The commenters' opinion is noted.

Page 12 of letter, comment regarding page 7-18 of the DEIR: Further research is needed to determine whether the Low Cost Alternative E is the environmentally superior alternative.

The County plans to do further study in the 4-Laning EIR. It is up to the Board of Supervisors to decide whether this is their preferred alternative.

Page 12 of letter, comment in the last paragraph of letter: Please refer to Table 1 in the response to Letter 12. Significant degradation to the levels of service on Carmel Valley Road since 1985 has not been documented.

Letter 18: Dick Heuer

Page 1 of letter, comment 1: See previous responses regarding the Low Cost Alternative E. The EIR for the Carmel Valley Road four-laning project will include a complete analysis of alternatives.

Page 1 of letter, comment a: If Measure B funds are not available, a combination of other sources would have to be used. The options are FUA funds, FAS funds, impact fees, the General Fund and possibly an assessment district. It is the County's responsibility to determine the priority of improvements; they are reflected in Policy 39.3.1.1 of the CVMP, which identifies four-laning as the number one project.

Page 1 of letter, comment b: In the absence of perfect knowledge, CEQA calls for a "worst case" analysis. That's what was done for this EIR, i.e., the greatest level of development was assumed to occur, spread out over the life of the Carmel Valley Master Plan (CVMP). How realistic this is, time will tell. Obviously, short term development projections have not been realized, putting off these impacts to future years. Regarding a reduction in the number of dwelling units, it is not the purpose of this EIR to revise the basic growth policies of the CVMP. That question was raised and addressed in the CVMP EIR, which documented the rationale for the residential limit. There is no comparable commercial growth policy in the CVMP, so that option was considered as a mitigation for traffic impacts. The traffic consultant has determined that a commercial growth limit per se would not be an effective traffic mitigation. Nonetheless, emphasis on neighborhood serving rather than regional commercial facilities would reduce trips to and from the Valley.

The reduction of residential development was not evaluated as an alternative for this EIR. The reduction of residential development could reduce traffic volumes, but it was not the EIR authors charge to determine the traffic impacts based on development levels other than those permitted by the Carmel Valley Master Plan. Additionally, the reader is referred to the purpose of the EIR on page 1-1 of the DEIR.

The commenters' opinion regarding the acceptability of LOS is noted. This is a policy decision for the Board and community to make.

Page 1 of letter, comment c: If the County wishes to investigate variations to the low-cost alternative, it should authorize further study, perhaps in the four-laning EIR. Three lanes the entire length of segments 6 and 7 might not be needed.

Page 2 (unnumbered) of letter, comment d: If improvements to segments 6 and 7 were limited to passing lanes and left turn channelization, this could be compatible with future four-laning if that became necessary. Channelization would have to be accomplished with striping, not raised curbs.

Page 2 (unnumbered) of letter, comment 2: Table 10 on page 5A-5 of the DEIR shows that through traffic accounts for 13% of the total traffic on Carmel Valley Road (as of 1987).

This commenter seems to be stating the opinion that traffic increases on Carmel Valley Road have been and will be due to tourism. Intensive study of traffic on Carmel Valley Road does not support this view. First, tourist traffic requires tourist destinations. If traffic has increased despite the moratorium, this cannot be attributed to increased tourism in the Valley, because no new tourist attractions have been built. If tourists come to Carmel Valley for any reason, their traffic impacts are counted in the commercial trip rates. A moratorium on future development in Carmel Valley means no more tourist attractions (hotels, resorts, golf courses, shopping centers), just as it means no more dwelling units. With this understanding, it is hard to make a case for increased traffic due to increased tourism. Second, the statement that traffic volumes have increased by 22% from 1984 to 1988 is simply not true. The count on one segment increased that much, but the counts on other segments have increased more modestly or not at all (some have even gone down). If traffic has increased in general on Carmel Valley Road, that increase would be reflected on all the segments, not just some. The problem with comparing counts from different years is that they were not all taken at the exact same location. A traffic count from one end of segment 7 will be very different from one taken at the other end of segment 7.

Even if one accepts the notion that traffic has increased on Carmel Valley Road (and by how much is not at all clear), the explanation would not be apparent. Increases could be due to the development of lots of record, the development of illegal second units, an overall increase in travel due to lower gasoline prices, the filling of residential and commercial vacancies, or other factors.

Page 2 (unnumbered) of letter, comment 3: See response to comments above. Traffic growth on Highway One will not necessarily correspond with traffic increase on Carmel Valley Road.

Page 3 (unnumbered) of letter, comment 4a and 4b: The commenters' opinion is noted. Refer to previous responses to comments regarding the rate of development.

Page 3 (unnumbered) of letter, comment 5: This comment is correct. Local-serving commercial development in the Valley will tend to reduce traffic, while regional commercial development will increase traffic volumes. The Board of Supervisors could consider commercial restrictions that preclude regional establishments while encouraging neighborhood-serving ones. This is a potential policy issue that could be addressed.

Page 3 (unnumbered) of letter, comment 6a: Rio Road is considered in the EIR. Please refer to Table 13 on page 5A-10 of the DEIR, which lists the Master Plan Improvements by Road Segment; Table 15 on page 5A-11 which describes the assumed geometric configuration for Rio Road; and the financial tables on pages 5B-7, 5B-10 and 5B-12.

Page 4 (unnumbered) of letter, comment 6b: According to George Divine, Monterey County Public Works, Measure B funds can not be used for improvements to Rio Road. Measure B specifies the roadways for which the funds are to be used. Measure B specifies Carmel Valley Road not Rio Road.

Page 4 (unnumbered) of letter, comment 6c: The proportion of FAS funds that are assumed to be allocated to Carmel Valley Road improvements is 100% for eight years, as shown in Table 27, page 5B-12 of the DEIR. This could be modified by the Board of Supervisors if they so desire.

Page 4 (unnumbered) of letter, comment 7: The main text of the EIR describes the "preferred project" which is implementation of the CVMP road improvements. It assumes the completion of the Hatton Canyon Freeway or some other Highway One project by the year 2000 as noted in Table 14, page 5A-11 of the DEIR. It is not logical to combine alternatives A and B because the both include 'no project' followed by a moratorium, but A assumes the Hatton Canyon Freeway while B assumes no Hatton Canyon Freeway. It's not clear what would be combined if references to the Hatton Canyon Freeway were deleted because both would be left with 'no project' followed by a moratorium. As noted previously, any reference to the Hatton Canyon Freeway would also be germane to other likely Highway One improvement projects.

Page 4 (unnumbered) of letter, comment 8: The point of the mitigation is to establish as a matter of policy the encouragement of small vehicle transit.

Page 4 (unnumbered) of letter, comment 9: The Monterra project could be considered to be part of the cumulative impact list in Table 1. Because of the approach taken in the traffic model, this addition would not change the overall traffic model results.

Letter 19: R.S. Mumford

The reduction of school trips, alone, would not be enough to preclude the need for road improvements. However, the idea of increasing carpooling or providing buses does have merit. A mitigation measure will be added to the DEIR to require a study of this issue.

The following mitigation measure is added to page 5A-20 of the DEIR:

Mitigation 5: *The Board of Supervisors shall assign representatives to meet with school district personnel to develop and encourage a carpooling program to reduce vehicular traffic and congestion on Carmel Valley Road during school convening and dismissal hours. This measure would reduce impacts by an unknown amount.*

Alternatively,

Mitigation 6: The Board of Supervisors shall evaluate a school bus program as a means of reducing traffic and congestion during morning drop off and afternoon pick-up at schools in Carmel Valley.

Letter 20: Fran Farina

A portion of Measure B funds are restricted for use on Carmel Valley Road Improvements. Measure B did not specify what improvements the funds can be used for. See response to letter 18, page 4, comment 6b.

Letter 21: James Clark

Comments regarding channelization noted.

Letter 22 - Richard Rosenthal (April 3, 1991)

Comment 2 of letter: The County response is as follows: The EIR will not end the "trigger mechanism" unless and until the mitigation measures securing levels of service on Carmel Valley Road are implemented and working. The County would have to formally amend the

CVMP to delete this or any other policy, which would involve public hearings according to Lynne Mounday, Supervising Planner.

Comment 3 of letter: This Response to Comments document incorporates all comments on the DEIR, as required under CEQA. Every effort was made to include in the DEIR information that reflects the concerns of the public expressed at the scoping session, subject to the constraints and purposes of an EIR.

Comment 4 of letter: It is not the purpose of this EIR to go over the issues covered in the Carmel Valley Master Plan EIR or the Monterey Peninsula Area Plan EIR. This school impact issues raised by the commenter were more properly addressed in those documents.

Comment 5 of letter: It is not the purpose of this EIR to speculate on the outcome of legal proceedings.

Letter 23: Alexander Henson

Page 1, paragraphs 1, 2, and 4 of letter: Please see response to Letter 22, comment 2, above.

Page 1, paragraph 3 of letter: The Carmel Valley Road Improvement Plan EIR is a program EIR which addresses all of the roadway improvements called for by the CVMP. The four-laning EIR addresses one of those projects - the four-laning of Carmel Valley Road - in more detail, as it is in a project EIR.

Page 1, paragraph 5 of letter: The alternative recommended by the commenter is the same as the project analyzed in the EIR.

Page 2, paragraph 1 of letter: Please refer to Table 1 in response to the Letter 12.

Page 2, paragraph 2 of letter: If LOS were found to drop after certification of this EIR, policy 39.3.2.1 would come into operation. That is, development would be deferred until improvements are made to increase the LOS to acceptable levels.

Page 2, paragraph 3 of letter: The first new mitigation recommended on page 5C-8 of the DEIR applies to existing as well as new development which could be impacted by the construction or operation of road improvements.

Page 2, paragraph 4 of letter: There are no significant noise impacts that cannot be reduced in the identified mitigation measures.

Page 2, paragraph 5 of letter: Please see response to Letter 7: Paola Berthoin, page 1, comment 4. The traffic analysis for this EIR is based on the build-out for the Carmel Valley Master Plan. Roadway improvement projects that are in the CVMP or in this EIR would accommodate the CVMP build-out only and would not create excess capacity overall along Carmel Valley Road. Therefore, the road system could not accommodate any more development than allowed in the CVMP.

Letter 24: Sierra Club (April 3, 1991)

Page 1, paragraph 1 of letter: Regarding the Hatton Canyon Freeway, please refer to the response to Caltrans. Regarding bicycling, the EIR is intended to analyze the road improvement policies of the CVMP. Bicycling is not an alternative to these improvements. Regarding a supplement in this Subsequent EIR, that is not warranted at this time because public comments on the DEIR are being addressed in this Response to Comments document, which will be part of the Final EIR.

Page 2, paragraph 1 of letter: The commenter is referred to Policy 39.1.6 of the CVMP regarding the County's position if the Hatton Canyon Freeway is not built. That policy is reproduced below.

39.1.6 (CV) Every effort should be made to obtain the funding and proceed with construction of the Hatton Canyon Freeway at the earliest possible date. This should be a two-lane (each direction) non-access scenic route with every effort made to minimize the necessary cuts.

After five years of allocation the Board shall review local level of service and the status of the Hatton Canyon Freeway. If the Freeway has not been built, the Board shall limit further development until the freeway is under construction.

This policy speaks for itself. It stands until the supervisors decide to modify it.

Page 2, paragraph 2 of letter, regarding page 2-2, Impacts 7 and 8 of the DEIR: The impact statement would apply to any Highway One improvement project. Many alternative interchange designs are possible at the Highway One/Carmel Valley Road junction. The text of the statements are modified as follows (change is underlined):

Impact 7: One new signalized intersection will be created on Carmel Valley Road in conjunction with the Highway One Improvement Project. The level of service at this location is projected to be D for 2000 and level of service E for 2005. (p. 5A-18)

Impact 8: The planned new interchange of the Highway One Improvement Project with Carmel Valley Road will operate at LOS E in the year 2005. This is counter to the CVMP policy to maintain Level of Service C. (p. 5A-18)

Also, for the purposes of this EIR, "outbound" means left turns from cross-streets or drive-ways onto Carmel Valley Road.

Page 2, paragraph 4 of letter, regarding page 2-4, Mitigation 4 of the DEIR: This EIR recommends that segment 10 be treated differently than other segments of Carmel Valley Road. Rather than referring to the LOS of the segment, the EIR refers to the LOS of the two intersections at either end: Highway One/Carmel Valley Road and Carmel Valley Road/Carmel Rancho Boulevard. The EIR does address the design of the Carmel Valley Road/Carmel Rancho Boulevard intersection (see page 5A-8). The design of the Highway One and Carmel Valley Road intersection is not part of the scope of this EIR. That will be a part of the Highway One Improvement Project EIR/EIS. Several alternative designs are possible.

Page 2, paragraph 5 of letter, regarding noise levels described in Impact 1 on pages 2-4 of the DEIR: Segment 5 noise levels are not considered unacceptable; they are considered "conditionally acceptable." That means that acceptable noise levels can be achieved with mitigation. Segment 5 is between Robinson Canyon Road and Los Laureles Grade. The impacts are not expected to occur until 2005. To determine the actual incidence of these noise impacts, the County may wish to monitor noise in 2005 and mitigate in a manner recommended under Mitigation 1, pages 2-5. The same applies to segments 1 and 6, which are discussed under Impacts 2, pages 2-4 of the DEIR.

It should be noted that the noise values in the EIR represents noise levels as they are experienced on public property near Carmel Valley Road, not at specific residences. Consequently, the noise levels are more typical of locations close to the road, not residential areas. Most residences are set back 50 or more feet from Carmel Valley Road. This distance would have an attenuating effect on perceived noise levels.

As noted previously, any reference to the Hatton Canyon Freeway in the impacts and mitigation section is deleted. It is Caltran's responsibility to determine appropriate noise mitigations when it publishes the EIS/EIR for the Highway One Improvement Project.

Page 2, paragraph 6 of letter, regarding page 2-5, Impact 1 of the DEIR: The term "project area" in the context of Impact 1 on pages 2-5 of the DEIR refers to any areas in which road improvements could occur. For specific locations in which improvement would occur refer to Table 13: Master Plan Improvements by road segment on page 5A-10 of the DEIR. "Temporary" refers to the period of construction. There would be violation of air quality standards throughout this period; however, this impact can be mitigated, as noted on page 5D-16 and 5D-17.

Page 3, paragraph 1 of letter, regarding page 2-8 of the DEIR: It is not clear what mitigation the commenter is referring to. There is no information available regarding the number of trees that will die if planted by the side of a road. Perhaps Caltrans keeps such records. If the commenter is referring to Mitigation 6 on pages 2-8, a mitigating policy can be added for Carmel Valley, as follows:

The County Dept. of Public Works shall periodically monitor the health and vigor of trees, and replace those that fail to thrive.

At this point, it is not clear what the tree impacts of specific road construction projects will be, so further details on impacts and mitigation would be speculative.

Page 3, paragraph 4 of letter, regarding page 2-8, Mitigation 7 in the DEIR: This mitigation includes the cumulative impacts of the Hatton Canyon Freeway, which was expected to impact the Hickman's Onion. As the freeway EIR/EIS has been withdrawn, this mitigation is modified as follows (change is underlined):

Mitigation 7. *When site-specific EIRs are prepared for the road improvements, a qualified professional should investigate the sites to assure that rare and endangered species will not be impacted. If they are found, a mitigation plan to transplant the species at suitable nearby locations should be developed. (p. 5E-23) This could reduce the impact to a level of insignificance.*

Page 3, paragraph 5 of letter, regarding page 3-3, Annual Allocation in the DEIR: The text is quite clear regarding the residential quote and allocation system: It is not the intent nor does the EIR imply that the yield would be greater than 1310 new lots. Lots of record, of course, add to the total. As stated on page 3-4 of the DEIR, low and moderate income units and senior housing can increase the annual allocation above 37 units per year, but they are subject to the overall quota.

Page 3, paragraph 6 of letter, regarding page 3-11, Figure 3 in the DEIR: Figure 3 is in error. Carmel Greens should be deleted from the Village area.

Page 3, paragraph 7 of letter, regarding Page 4-7 of the DEIR: The 37 service establishments figure was developed using the most current land use and parcel information available from the Monterey County Assessors Office, field checks, telephone contacts with individuals, and the use of aerial photographs. These figures represent service establishments, not retail establishments, in shopping areas and construction centers. The 37 service establishments include establishments such as hair salons, dog grooming and construction related services. These figures do not include businesses in private homes. No data is available on the amount or percentage of businesses in private homes. All of the land use data was used to calibrate the traffic model.

The name "Overview" can be changed to "Pacific Meadows" throughout the EIR.

Page 3, paragraph 9 of letter, regarding page 4-15, under phase 3, of the DEIR: The Rancho San Carlos development potential was derived from the land use designation of the Greater Monterey Peninsula Area Plan, which would have allowed 125 units based on a density of 160-acre minimum lot size. This is at the low end of the densities that were considered for the ranch in the past, i.e., 10-acre and 40-acre minimums. The hotel was included because a similar facility was also considered in the past.

It is not appropriate for this EIR to speculate on development rights transfers involving Rancho San Carlos and the Odello property. If this is a viable alternative, it should be addressed in the project EIR on Rancho San Carlos when and if one is done.

Page 4, paragraph 1 of letter, regarding page 5A-6, Table 11 in the DEIR: This comment is correct, the segment descriptions are reversed. Text is revised as follows:

(2A) Carmel Valley Road between Esquiline to east of Holman

(2B) Carmel Valley Road between Ford and Esquiline

A stub end of the future Rio Road extension does intersect Carmel Valley Road.

Page 4, paragraphs 3 and 4 of letter, regarding page 5A-7, paragraph 1 of the DEIR: Addressing the problems along Highway One, of which the intersection with Carmel Valley Road is one, is not within the scope of this EIR. The Highway One Improvement Project EIR/EIS will address this issue.

Page 4, paragraph 5 of letter, regarding page 5A-7 under "Areas of Concern" in the DEIR: The mitigations in the EIR are designed to maintain LOS D on segments 3 and 5, not to

achieve LOS C. The CVMP policy is to maintain LOS C unless the existing LOS (as of 1985) is worse, in which case the policy is to maintain the existing LOS.

Page 4, paragraph 6 of letter, regarding channelization: The effectiveness of "channelization" is described in Mitigations 1 and 2 on page 5A-19 of the DEIR. According to Caltrans statistics (*1990 Accident Data on California State Highways*), four-lane divided highways have less than half the fatality rate of two-lane undivided highways (2.54 versus 5.83 fatalities per 100 million vehicle miles).

Page 4, paragraph 7 of letter, regarding page 5A-9, Master Plan Improvements: The CVMP will be in effect no later than 2006, as state law requires plans to have a life of no more than 20 years. Because comparable traffic projection data are available for the year 2005 (not 2006), 2005 was assumed to be the planning horizon. Most if not all planned Carmel Valley development would occur by the end of 2005.

Page 4, paragraphs 8 and 9 of letter, regarding page 5A-17, Impact 23-25 of the DEIR: The mainline level of service for segment 3 would remain D with or without the trees. The reason for widening segment 3 was to make enough room for left-turn pockets, thereby increasing the safety of left-turns.

Page 4, paragraph 10 of letter, regarding page 5B-3, paragraph 1 of the DEIR: This question indicates that the commenter misread the paragraph. The 100 discretionary permits were an estimate, based upon planners experience, for the 1989-1990 period. During this period, most vacant lots required discretionary permits pursuant to ordinance 3336. The interim ordinance requiring special permits to be sure development was consistent with the Carmel Valley Master Plan until pre-use zoning could be applied. (It will occur in 1992-93.) The basic rate of vacant lot development is 32 to 50 units per year, as shown in Table 3, page 4-8 "Composite Land Use Projections."

Regarding the collection of fees for CV Road impairments, the County has been entitled to \$760,000 per year in FAS funds and \$50,000 per year in FAU funds. These funds have been earmarked for Carmel Valley Road improvements. In future, the two funds will be combined into the Combined Road Fund, the use of which will be determined in consultation with Monterey County cities. All of these funds would not necessarily be allocated to Carmel Valley Road in the future.

Page 5, paragraph 1 of letter, regarding page 5B-4 of the DEIR: The cash flow projections were done in nominal dollars. The value of construction of four-laning in 1985 dollars at \$14.5 was inflated annually, so that by the year 1995 the cost for construction would cost \$21.46. The use of 1/2 cent in sales revenues shifts the burden of road cost from being totally dependent upon new development to a mix of new development fees and all taxable

sales tax transactions in the County. Since Carmel Valley Road is a public right-of-way and is used by a combination of local residents, County residents and tourists, the use of 1/2 cent revenues is justifiable.

Page 5, paragraph 4 of letter, regarding page 5B-5 to 5B-12 of the DEIR: The commenter's opinion is noted. The EIR authors were asked to evaluate the County's proposed financing plan and recommend improvements. This was done. It remains the responsibility of the County to further refine the plan.

Page 5, paragraph 5 of letter, regarding page 5B-13, Recommendation 2 in the DEIR: As noted previously, the availability of Measure B funds means less of the road improvement fees need to be derived from existing lots of record. The supervisors may modify this recommendation, or reject it, as they see fit.

Page 5, paragraphs 6 and 7 of letter, regarding page 5B-13, Recommendation 3 in the DEIR: The Board of Supervisors can decide when to impose impact fees. The EIR recommends doing this at the time of lot creation for new residential lots to obtain the funds well before the improvements that they will pay for are needed. If the supervisors decide to place an impact fee on existing lots of record, an appropriate time would be when a certificate of occupancy is issued.

Page 5, paragraph 6 and 7 of letter, regarding page 5C-1 and 2 of the DEIR: In general, noise levels in Carmel Valley are in the "normally acceptable" range. Near Carmel Valley Road, noise of course increases. The DEIR on page 5C-1 cites the 1986 Carmel Valley Master Plan (CVMP) EIR as giving roadway noise levels of 60-66 dBA. Houses near the road may indeed have had "conditionally acceptable" noise levels in 1986 as well as today (1991). The EIR projects noise increases based on traffic increases (see Chapter 5C). This projection updates those 1986 figures. The County has chosen not to authorize new field measurements at this time. The commenter should bear in mind that even though measurements were made in 1986, the projections for the future were just that: projections. The same methodology has been applied in this EIR to provide the update.

The General Plan noise policies which are also applicable to the CVMP, if implemented, protect most new development. The additional mitigations recommended on page 5C-8 call for noise abatement action to accompany the road improvement projects.

Page 6, paragraph 1 of letter, regarding Table 28 of the DEIR: The EIR does not say the noise increases in Carmel Valley Road would be minor. It quantifies the increase in decibels expected along various roadway segments. It should be kept in mind that the growth permitted by the CVMP is not the subject of the EIR: the road improvements are. It is their

impacts that are addressed. Please refer to the response to Letter 14, comment 9 for a discussion of the relationship between traffic levels and noise levels.

Page 6, paragraph 4 of letter, regarding page 5C-7 and 8 of the DEIR: To reduce noise to the "normally acceptable" range, one would have to know where higher noise levels are occurring or will occur. Then, one would have to identify the receptors, i.e., who is affected or will be affected, by the noise. Next, one would have to determine the composition of the affected building(s) and the location of usable outdoor spaces to determine noise level at those places. Fences, windows and construction materials affect the incidence of noise as well as distance from the source. Once this is known, noise levels at specific residential locations can be predicted. A noise wall along Carmel Valley Road could be laid out and designed to mitigate the impact. This can most effectively be analyzed in the context of project EIRs.

Page 6, paragraph 5 of letter, regarding page 5D-7 of the DEIR: The Air Quality Management Plan and the Transportation Control Measures were consulted in the preparation of this EIR.

Page 6, paragraph 6 of letter, regarding page 5D-9, paragraph 2 of the DEIR: The EIR does not mention or reflect air quality monitoring. Perhaps the commenter is confusing "sensitive receptor," which is mentioned, with a monitor. Sensitive receptors are people or spaces and buildings used by people which are close to the source of pollution. The construction impacts can be readily mitigated by monitoring the construction site. (Note that any reference to the Hatton Canyon Freeway should be changed to read "any Highway One Improvement project.")

Page 6, paragraph 7 of letter, regarding page 5D-10 of the DEIR: The commenter does not identify the text being commented on. The DEIR does not assume vehicle speeds would remain constant. Page 5D-10, second paragraph, second to last sentence states:

... the presence of the Hatton Canyon Freeway [or any other Highway One Improvement project] would greatly reverse the average speed. . .

The commenter is correct in stating that speeds on the planned 4-lane portion of Carmel Valley Road will be increased over 2-lane segments.

Page 7, paragraphs 1 and 2 of letter, regarding goals of the CVMP: This EIR is on the roadway improvement policies of the Carmel Valley Master Plan (CVMP). This EIR was not intended to be a comprehensive analysis of all transportation modes, but an analysis of the impact of the transportation improvements specified in the CVMP. The CVMP does not specify a walking or bicycling path along Carmel Valley Road, so this was not analyzed.

The County may wish to consider improvements to the bicycle and pedestrian trails.

Page 7, paragraph 3 of letter, regarding a mitigation monitoring plan: This EIR recommends policies which, if adopted, will mitigate the significant impacts identified. It is the responsibility of the County to oversee the implementation of the policies it adopts. The main vehicle for this is the monitoring authorized under policy 39.3.2.1 of the Carmel Valley Master Plan (CVMP). The County, particularly the Dept. of Public Works is responsible for monitoring the effects of the recommendations in this EIR with respect to the goals of policy 39.3.2.1.

Letter 25: Noel Mapstead

Comment 1 of letter: The County Board of Supervisors has established LOS C as the standard for Monterey County. It is beyond the scope of this EIR to analyze the impact of adopting a different standard.

Comment 2 of letter: On Carmel Valley Road, LOS D does not have a significantly lower speed than LOS C. The mitigations included in the EIR will both improve safety and reduce delay, which reduces emissions. This can be accomplished through the provision of left-turn pockets for both inbound and outbound left turns, and by removing left turns from the traffic stream, which also reduces mainline delay. Acceleration lanes will reduce delay for left turns from cross-streets and driveways by allowing them to cross only one traffic stream at a time rather than both simultaneously. The EIR authors do not believe emission reduction and safety are mutually exclusive.

Comment 3 of letter: The current situation on Carmel Valley Road does involve a mix of LOS at different segments. The four-laning EIR should address alternatives to four-laning.

Comment 4 of letter: Congestion is opposed to the goal of traffic management. One can easily get congestion by doing nothing. Congestion does not effectively or efficiently limit vehicle miles traveled (VMT), it merely delays the completion of trips. These delays increase pollution, which is contrary to the goal of reducing VMT.

Comment 5 of letter: All units in the Carmel area LUP were included in the analysis in this EIR.

Letter 26: Ellen Pendleton

A bicycle and pedestrian path along the valley would not noticeably change traffic volumes on Carmel Valley Road. In reality, most trips will not be made by bicycle or on foot regardless of how fine the facilities are made. Nevertheless, such a path may make a positive contribution to the quality of life in the Valley by providing a travel option to those who desire to walk or bicycle. Persons desiring such a facility should contact the Board of Supervisors and request that it be added to the CVMP.

Letter 27: Captain George H. Whisler

Page 1, paragraph 2 of letter: Please refer to the response to Letter 13. The EIR deletes reference to the Hatton Canyon Freeway and "any Highway One Improvement Project" is substituted.

Page 1, paragraph 3 of letter, regarding Mitigation 3, page 5A-19 of the DEIR: The EIR authors respectfully disagree about the impracticality of Mitigation 3 on page 5A-19. While triple left-turn lanes at a single-point interchange may be unusual, triple left-turn lanes have been built at many signalized intersections. The traffic consultants for the EIR are confident a workable design could be achieved.

Page 2 comments: Opinion noted.

Letter 28: Carl Hopper, Bestor Engineers, Inc. (March 25, 1991)

Page 1 of letter, comment 1 and 2: Table A-1 of the DEIR shows zeros for TAZ (Traffic Analysis Zone) 1-10 and 38 because they are not in the study area for this EIR, that is they are outside the Carmel Valley Master Plan area.

Page 1 of letter, comment 3: TAZ 30 is included in the CVMP while TAZ 29 is not.

Page 1 of letter, comment 4: TAZ 39 is shown on the Traffic Analysis Zones (TAZ) Map which is on file with the County. TAZ 39 includes Los Tulares.

Page 1 of letter, comment 5: TAZ 26 is shown on the TAZ map on file with the County. The majority of TAZ 26 is outside of the CVMP area and includes a portion of Rancho San Carlos.

Page 1 of letter, comment 6: TAZ 17 is outside the CVMP area, please refer to the TAZ map on file with the County.

Page 1 of letter, comment 7: The statement made by the commenter is correct.

Page 1 of letter, comment 8, 9, 10, 11, and 12: The references in these comments question the figures used for vacant lots of record. As stated in response to Letter 10: The County Planning staff reviewed the list of lots of record and field checked their status. The results of their investigation is presented in a list in Appendix A of this document.

CHAPTER RTC - 3
COMMENT LETTERS RECEIVED

Chapter 3 contains copies of the comment letters received by the County Planning Department regarding the Draft Environmental Impact Report for the Carmel Valley Road Improvement Plan. The letters are numbered as follows and appear in the following order:

Letter 1:	Monterey Unified Air Pollution Control District	January 15, 1991
Letter 2:	Association of Monterey Bay Area Governments	February 13, 1991
Letter 3:	Association of Monterey Bay Area Governments	February 20, 1991
Letter 4:	Monterey County Water Resources Agency	February 22, 1991
Letter 5:	State Lands Commission	February 25, 1991
Letter 6:	Department of Transportation (Caltrans)	February 25, 1991
Letter 7:	Paola Berthoin	February 26, 1991
Letter 8:	Robert L. Hunsicker	February 27, 1991
Letter 9:	R. Alan Williams of Carmel Development Company	February 28, 1991
Letter 10:	Carl Hooper, Bestor Engineers, Inc.	February 28, 1991
Letter 11:	Carmel Valley Property Association	February 28, 1991
Letter 12:	Richard Rosenthal	February 28, 1991
Letter 13:	Sierra Club, Ventana Chapter	March 1, 1991
Letter 14:	W. V. Graham Matthews	March 1, 1991
Letter 15:	Brian Finegan	March 1, 1991
Letter 16:	Brian Finegan	March 6, 1991
Letter 17:	Anthony Lombardo (Noland, Hamberly, Etienne & Hoss)	March 8, 1991
Letter 18:	Dick Heuer	March 24, 1991
Letter 19:	R.S. Mumford	March 25, 1991
Letter 20:	Fran Farina	March 25, 1991
Letter 21:	James Clark	March 30, 1991
Letter 22:	Richard Rosenthal	April 3, 1991
Letter 23:	Alexander Henson	April 3, 1991
Letter 24:	Sierra Club	April 3, 1991
Letter 25:	Noel Mapstead	April 5, 1991
Letter 26:	Ellen Pendleton	No Date
Letter 27:	Captain George H. Whisler	April 5, 1991
Letter 28:	Carl Hopper, Bestor Engineers, Inc.	March 25, 1991





**MONTEREY BAY
UNIFIED AIR POLLUTION
CONTROL DISTRICT**

1164 Monroe Street, Suite #10
Salinas, California 93906-3596
(408) 443-1135
FAX (408) 443-1064

January 15, 1991

District Board Members
Supervisor Mike Graves, Chair
San Benito County
Supervisor Marc Del Piero, Vice Chair
Monterey County
Supervisor Robley Levy
Santa Cruz County
Supervisor Gary Patton
Santa Cruz County
Supervisor Barbara Shipnuck
Monterey County
Supervisor Sam Karas
Monterey County
Supervisor Karin Strasser Kauffman
Monterey County
Supervisor Ruth Kester, Alternate
San Benito County

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

SUBJECT: DEIR FOR CARMEL VALLEY ROAD IMPROVEMENT PLAN

Dear Mr. Slimmon:

Staff has reviewed the draft environmental impact report for the Carmel Valley Road Improvement Plan and has the following comments:

1. The DEIR does not include an evaluation of project consistency with the 1989 Air Quality Management Plan as required by the California Environmental Quality Act Guidelines.
2. Project consistency should be addressed in accordance with Chapter 14 (page 14-4) of the Plan:

Evaluation of transportation projects involves consideration of (1) project consistency with AQMP transportation control measures, (2) consistency of land use development adjacent to the proposed project with population projections, and (3) consistency of project population forecasts with AQMP forecasts.

3. If the project is inconsistent with the AQMP, the project would have an adverse impact on air quality.
4. Mitigation measures should be identified if the project would have a significant impact on air quality. Emission reduction effectiveness of these measures should be quantified, their feasibility addressed, and agencies responsible for implementation and monitoring identified. Finally, the degree to which mitigation measures reduce air quality impacts should be evaluated and described.

R. Slimmon
January 15, 1991
Page 2

Thank you for the opportunity to review the document. If you have any questions, do not hesitate to call Janet Brennan of our planning staff.

Sincerely,



Douglas Quetin
Chief, Planning and Air
Monitoring Division

cc: N. Papadakis, AMBAG
File: 3442
PAM/jb



ASSOCIATION OF MONTEREY BAY AREA GOVERNMENTS

MAIL ADDRESS: P.O. BOX 190, MONTEREY, CALIFORNIA 93942 • TELEPHONE (408) 373-6116
OFFICE LOCATION: 977 PACIFIC STREET

February 13, 1991

Robert Slimmon
Planning Department
County of Monterey
P. O. Box 1208
Salinas, CA 93902

RE: MCH#029109 - Draft EIR for Carmel Valley Road Improvement Plan

Dear Mr. Slimmon:

AMBAG staff has had the opportunity to review the Draft Environmental Impact Report for Carmel Valley Road Improvement Plan and has the following comments:

Chapter 5, Section A - Traffic:

In order to mitigate the cumulative impact caused at the intersection of Rio Road, Carmel Valley Road and Highway 1, the County should consider the following mitigations:

1. Fiscal support of some percentage of the Monterey Peninsula tourist shuttle (which would serve the Barnyard area).
2. The development of a Transportation Management Association (TMA) for businesses in the Barnyard/Rio Road area and along Carmel Valley Road to Carmel Valley Village for the purpose of promoting Transportation Demand Management should be promoted by the County.

Thank you for the opportunity to review the Draft EIR. Questions concerning this letter should be addressed to Frank Barron of the AMBAG staff.

Sincerely,

A handwritten signature in black ink, appearing to read "Nicolas Papadakis", written over a horizontal line.

Nicolas Papadakis
Executive Director



ASSOCIATION OF MONTEREY BAY AREA GOVERNMENTS

MAIL ADDRESS P O BOX 190, MONTEREY CALIFORNIA 93942 • TELEPHONE (408) 373-6116
OFFICE LOCATION 977 PACIFIC STREET

February 20, 1991

Robert Slimmon
Planning Department
County of Monterey
P. O. Box 1208
Salinas, CA 93902

Re: MCH #029109 - Draft EIR for Carmel Valley Road Improvement Plan

Dear Mr. Slimmon:

AMBAG's Regional Clearinghouse circulated a summary notice of your environmental document to our member agencies and interested parties for review and comment.

AMBAG Board of Directors considered the project on February 13, 1991 and we are forwarding the enclosed comments at this time.

Thank you for complying with the Clearinghouse process.

Sincerely,

A handwritten signature in black ink, appearing to read "Nicolas Papadakis", written over a horizontal line.

Nicolas Papadakis
Executive Director

NP:ds
EIR-C

Enclosures

MONTEREY COUNTY WATER RESOURCES AGENCY

M E M O R A N D U M

County of Monterey

DATE: 2-22-91

TO: Lynne Mounday, Supervising Planner
Planning & Building Inspection Dept.

FROM: Owen Stewart, Assoc. Water Resources Engineer

SUBJECT: Carmel Valley Road Improvement Plan,
Draft EIR

We noted that the EIR is devoid of specific discussion of drainage improvements. It is assumed that the appropriate place for this will be in the "project-specific" EIR's mentioned on Page 5E-14, that will be prepared in the future. At such time we will want to ensure that the County Master Drainage Plans are used as a basis for those improvements.

Specific comments:

Page 5E-6, Impact 6 - "north side" of Carmel Valley Road should read "south side".

Page 5E-9 - The number "Impact 6" was also used to number an impact on page 5E-6. The impacts should be re-numbered.

Page 5E-12, Emergency Access - The proposed dry weather fords would be subject to requirements that no fill be imported into the floodway and that crossings would not impede or divert flood flows or increase flood elevations.

Page 5E-15, Mitigation 4 - The reference to "flood plain" should be revised to read "designated 100 year flood plain", as the 500 year flood is also defined on our flood maps.

STATE OF CALIFORNIA

STATE LANDS COMMISSION

LEO T. MCGARTHY, *Lieutenant Governor*
GRAY DAVIS, *Controller*
THOMAS W. HAYES, *Director of Finance*

EXECUTIVE
1807 - 13th Street
Sacramento, CA 95811

CHARLES WARREN
Executive Officer

February 25, 1991

State Projects Coordinator
The Resources Agency
1416 Ninth Street, Room 215-11
Sacramento, California 95814

Mr. Lynne H. Mounday
County of Monterey
Department of Public Works and
Planning Department
P. O. Box 1208
Monterey, California 93901

Gentlemen:

Staff of the State Lands Commission (SLC) has reviewed the Draft Environmental Impact Report for the Carmel Valley Road Improvement Plan (SCH 90030234) within the County of Monterey. Under the California Environmental Quality Act (CEQA), the County of Monterey is the Lead Agency, and the SLC is a Responsible and a Trustee Agency.

The State acquired sovereign ownership of all tidal and navigable waterways upon its admission to the United States in 1850. The State holds these lands for the benefit of all the people of the State for the statewide Public Trust purposes of waterborne commerce, navigation, fisheries, water-related recreation, habitat preservation, and open space. The landward boundaries of the State's sovereign interests are generally based upon the ordinary high water marks of these waterways as they last naturally existed. The State's sovereign interests are under the jurisdiction of the State Lands Commission.

The State claims sovereign ownership interests in the bed of the Carmel River within all or a portion of the Odello property. In addition, the State may have sovereign ownership interests within the bed of the river in the vicinity of the other segments of the project. These sovereign interests consist of a fee interest or a Public Trust Easement. The precise nature, extent and location of the State's sovereign interests have not yet been defined by settlement or court judgment.

To the extent the road improvement projects involve portions of the Carmel River owned in fee by the State, a permit from the SLC will be required. Please contact Judy Ludlow, Land Agent, at 916-445-7134, for information about our permitting requirements.

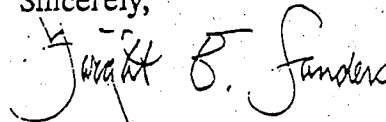
State Projects Coordinator
Mr. Lynne H. Mounday
February 25, 1991
Page 2

At the present time, the SLC does not require permits for use of its Easement lands, but does review proposals to ensure that proposed uses are not inconsistent with Public Trust needs in the area.

The SLC has a legal responsibility for, and a strong interest in, protecting the ecological and Public Trust values associated with the State's sovereign lands, including the use of these lands for habitat preservation, open space and recreation. We are particularly concerned about protecting the Public Trust values in and adjacent to the bed of the river, including preservation, enhancement and restoration of the riparian habitat. Please continue to inform us of proposed site specific actions for the Carmel Valley Road Improvement Project, so that we may monitor protection of the trust values in the river area.

If you have any questions, please contact Diane Jones at 916-327-2920.

Sincerely,



DWIGHT E. SANDERS, Chief
Division of Environmental
Planning and Management

cc: Charles Warren, Executive Officer
Jane Sekelsky, Senior Staff Counsel
Judy Ludlow, Land Agent
OPR

File Ref.: PRC 6549.9, W 24089

DEPARTMENT OF TRANSPORTATION

P.O. BOX 8114
SAN LUIS OBISPO, CA 93403-8114
TELEPHONE: (805) 549-3111
TDD (805) 549-3259



February 25, 1991

5-MON-1-72.9
Carmel Valley Road
Improvement Plan
DEIR, SCH# 90030234

Lynne H. Mounday
County of Monterey
P. O. Box 1208
Salinas, CA 93901

Dear Mr. Mounday:

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

page

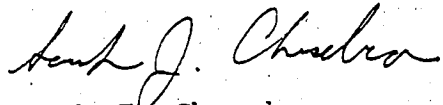
- 2-4 The Hatton Canyon/Carmel Valley Road Interchange, as proposed by Caltrans, includes dual left-turn channelization from the southbound to eastbound Carmel Valley Road exit-ramp. If and when traffic volumes warrant, a third left-turn lane could be added with minor widening, geometric, and traffic signal modifications. However, we have concerns about this additional lane: The beginning would be restricted to the gore area at the split of the eastbound and westbound moves, thereby reducing the storage length. The concept of a triple left-turn channelization at a single point interchange is an unknown and could cause unforeseen operational problems.
- 4-4 The DEIR lists the Hatton Canyon Freeway as a contributor to traffic growth in the Carmel area. Like the Carmel Valley Road improvements, the Hatton Canyon Freeway proposal is in response to existing traffic congestion and is designed to facilitate future growth over the next twenty years based on existing land use plans of the County of Monterey and its Cities. However, the Carmel Valley Road improvements proposed in this document have not been listed as a contributor to cumulative traffic impacts.

Mr. Lynne Mounday
February 25, 1991
Page Two

- 5E-12 The concept of "minor interchange" as an alternative to signalizing the Carmel Valley Road intersection with the Hatton Canyon Freeway and Rio Road needs clarification.
- 5E-15 The need for the construction of four lanes between Carmel Valley Road and Rio Road in conjunction with the Hatton Canyon Freeway project is not supported by this document nor by our staff. However, after construction of the Hatton Canyon Freeway, this portion of Route 1 will be relinquished to the County of Monterey, in a "state of good repair", at which time the County may make what ever improvements it believes are necessary.
- 5E-20 The proposed mitigation measures for the Hatton Canyon Freeway also include construction of a twelve by eleven foot reinforced concrete box to enable wildlife to cross underneath the freeway. This box will be approximately located to the east of Whitman Circle and to the west of the northern terminus of Carmel Knolls Drive and will be lined with class 2 aggregate base.
- 5E-15/23 The analysis of the Hatton Canyon Freeway project in this document does not include "Alternate 1C Modified", the preferred alternate. Therefore many inaccuracies occur within the analysis. For example, on page 5E-22, the document states that 2.8 acres of prime farmland will be lost. Only 0.25 acre will be taken with "Alternate 1C Modified." Please contact Michael Giuliano at (805) 549-3357 for an up-to-date design.

Please send us a copy of the Final Environmental Impact Report when it is available. Thank you for the opportunity to comment.

If you have any questions, please contact me at (805) 549-3640.


Sarah J. Chesebro
District 5
Intergovernmental Review Coordinator

February 26, 1991

Monterey County Planning & Building Dept.
P.O. Box 1208
Salinas, CA 93902

Re: Comments on the DEIR for the Carmel Valley Road Improvement Plan

These comments will first begin with generalities then specifics.

- 1) In Chapter 5C-Noise, page 5C - 6, "The reader is referred to that document for more detail." The document referred to is the FEIS on the Highway One Improvement Project. As this document is not available for public review, this DEIR should be rejected. Furthermore, when the new document is written, wherever there is reference to the Hatton Canyon Freeway impacts, there should be a study done for the other Highway One Project alternatives 3, 4, 4-m and 6. These alternatives have not been eliminated from the document. They are feasible and reasonable alternatives to the Hatton Canyon Freeway. 1
- 2) It is mentioned on page 3-10 and 3-15 that Federal Money is available for road improvements. This means that there is also the need for the preparation of an EIS as well as an EIR. 2
- 3) It is acknowledged that the chief planning goals of the CVMP are to retain rural quality, scenic resources and open space. However, the document focuses on the "benefits" of widening the road without acknowledging the drawbacks. From the CVMP it states: "These improvements would alter the rural character of the area. Four-laning Carmel Valley Road would require substantial grading and alignment changes, resulting in a major thoroughfare carrying traffic at higher speeds than currently encountered." "A four lane road traversing the westerly half of the Valley would detract from the rural quality of the area and would permit much higher traveling speeds on Carmel Valley Road, further detracting from the rural ambience. " 3
- 4) In the "Objectives of this EIR" section, one of the goals is to "explain methods of traffic analysis commonly used today". These commonly used traffic analyses are out-dated if one is keeping up with the rapid population growth of California. This population growth translates into 4

rapid car growth. It is no longer 1 car per family, but 3 or 4 cars per family. According to a recent report by the Sierra Club Legal Defense Fund and Citizens for a Better Environment (August 1990), "New roads and/or added highway capacity will not eliminate traffic congestion. They fill up with cars almost as soon as the ribbon is cut. This should come as no surprise, for new roads improve accessibility, and greater accessibility increases the value of the land. Higher land values, in turn, dictate a more intensive use of land, which generates more traffic, which fills up the-highways."

"Such increased volumes mean that added capacity will bring with it growth in total vehicle miles travelled and often a growth in total numbers of trips made in the urban areas. The common-sense idea that increases in capacity result in people making more trips and longer trips is indeed widely held in the transportation profession." Given those facts, creating new capacity is a self defeating purpose.

- 5) With regards to CEQA, changes in environmental conditions that are not mentioned 5
in the document are the Greenhouse Effect, non-point source pollution, oil dependancy vs. oil drilling vs. conservation. In the booklet Blueprint For our Future: Safeguarding California's Environment (CA Senate Office of Research, January 1991) global warming and ozone delpetion are definitely issues to be addressed. "Non-point source pollution is the second most damaging source of pollution to affect the coastal environment as it continues day and night, 365 days a year. All over America development is moving to the sea. Throughout the remaining estuaries we maintain an unimaginably large network of highways, causeways, pipelines and canals. Each one destroys." "Our priority attention needs to be directed landward towards the sources... Industries and farms, our homes and our roads - in other words ourselves." (from the Oversight Report of the Committee on Merchant Marine and Fisheries, 1989) If the Monterey Bay is to be a real sanctuary, we must move to clean, efficient and less damaging forms of transportation. Additionally, the Gulf War dictates that we must conserve energy. Congressman Panetta is currently addressing this crisis through the National Security Act of 1991.

Specific points addressed:

Chapter 2. Summary:

Mitigation 2: Acceleration lanes destroy last bit of rural quality that is provided by the planted median. 6

Mitigation 4: What would the LOS be in the year 2010, which is supposed to be 7

the life of the freeway?

Mitigation 5: Reduced speed is a more viable option as it does not detract from the rural quality. The reason for high speeds at this area is because it is a four lane road and the end of that section is near and drivers always want to be first. 8

Mitigation 6: Other less damaging solutions to the accident rate at Dorris DR. would be to reduce speed and simply flatten out the road. A wider road = more cars= faster speed= more accidents. As the four-laning will be ending shortly thereafter, the situation that exists at Via Mallorca will exist here. 9

Natural Factors Impacts

 10

On the map there is no acknowledgement of the oaks along the roadway between Brookdale Drive and Schulte Road. The agricultural land just west of the Valley Hills Center is not acknowledged.

Slope analysis: The section between Canada de la Segunda and the top of the hill is a 30+% slope. Policy 26.1,10 of the MCGP states "The County shall prohibit development on slopes greater than 30%. It is the general policy of the County to require dedication of scenic easement on slope greater than 30%. Exception may be made for development which can maximize the goals, objectives and policies of the Plan." The slope just east of Loma Del Rey is also 30+%. 10

Biotic Mitigations: If tree removal is to be minimized, then do not widen the road. As has been pointed out earlier, we will not benefit from wider roads.

Chapter Four: Methodology and Research Design

 11

Talk of future growth and timetables: Where is the water?

Toll Roads etc. are considered to be a feasible and effective way to deal with congestion, air pollution according to the CA Senate Office of Research booklet.

When "weighing the relative merits of mitigations in terms of the impacts they generate", the factors put forth by the Sierra Club Legal Defense Fund in their report mentioned earlier must be taken into account.

- a) Foregone trips will now be made.
- b) Chained trips will now be "unchained", thus increasing the VMT.
- c) Destination changes: with new capacity, people are quite likely to drive to more-desired locations leading to an increase in trip length.

- d) Mode changes: People who have chosen to use transit or carpools will now return to using solo drive.
- e) New Development: In the longer term, if congestion levels are lowered for sufficient time, developers can be expected to seek additional development that will increase the number of residents and jobs in the area of the expanded facility. (This factor applies to the CWP even though it is a "restricted" plan. Amendments are not an uncommon occurrence when there is a "need" for new development.)

Chapter 5A - Traffic

Existing traffic operations: LOS at Highway 1 and C.V. Road and Rio Road states LOS F - It neglects to mention this is the LOS for the peak hours - Is that implied? 12A

The poor LOS acknowledged in the DEIR should be corrected by increasing transit facilities, bike & walk facilities, toll roads etc.; not by increasing road capacity. 12B

With regards to widening, how will those who live along CV Road with their own driveway enter or exit CV road once widened? Will they have to make U turns at major streets thus increasing the VMT and accidents? 12C

It is incorrect to assume that a fourth stop light along Rio Road will be of benefit. Earlier, this DEIR acknowledged the poor LOS at the other intersections along Rio Road. A fourth stop light will only aggravate the situation. 12D

Impact 11: An increase in traffic by 40% hardly shows a concerted effort to conserve energy, one of the goals of the Monterey County General Plan. This is a goal of the CWP which this DEIR states very clearly on page 5D - 16. 12E

Impact 22: There is no mention of accidents that occur at Rancho Canada of which there have been several. We can count on more accidents all along CV Road if it is widened. 12F

Mitigation Measures:

Mitigation 3: A third lane and a third level interchange at the junction of the proposed HCF and CV Road and Carmel Rancho? What happened to the "rural" quality? 12C

Chapter 5D - Air Quality

It is incomplete to state that there would be decreased emissions as cars will be travelling faster. What about the intersections...especially when 13

they are expected to reach design capacity 5 years after completion?
Are emissions really decreased on an incline of 7%? This is the
proposed incline for the Hatton Canyon Freeway.

Impact 6: What would the emissions be if we actually conserved energy
rather than relying on the auto companies and bureaucracy to bring down
emissions?

Operational Mitigations: It is highly questionable that "significant progress"
has been made to implement the TCM's as approved by the ARB and EPA in the
Carmel Valley area.

- a) Improved public transit? Bus stations do not have times and fares listed.
- b) Carpool? Hardly enforced or encouraged.
- c) Bicycle lanes not marked as such. At present, these "lanes" do not encourage bicycle riding as the cars travel at excessive speeds and the fumes are not enjoyable. Recently, there have been several cars that have run off the road. It is lucky there were no cyclists in the way. If policies 37.4.2, 39.2.2.1, 39.2.2.2, 39.2.2.3, 39.2.2.4 and 39.2.6.1 were carried out, we might be getting somewhere.
- d) Park and Ride? There is no marked facility for this.
- e) Traffic Flow improvements? Signals have yet to be synchronized at the Rio Road stop lights.
- f) To my knowledge, there is no aggressive plan to encourage ridesharing on this side of the hill.

The key to reducing congestion is not to increase capacity, but to increase alternative forms of transportation, toll roads, ridesharing, flex time, tax gasoline... 'California cannot afford the additional highway capacity as the number of VMT is increasing more quickly than the budget for new roads.' 'Caltrans projects that the VMT will increase by 50% over the next 20 years. This increase promises to bring more highway congestion and air pollution.'
(Safeguarding California's Future)

Let's get on with a positive future rather than continuing to implement dead "solutions".

Sincerely,

Paola Berthoin
25440 Toland Way
San Jose, CA 95131

Paola Berthoin

Robert L. Hunsicker
15407 Via La Gitana
Carmel Valley, Ca 93924
408-659-2307

February 27, 1991

Monterey County
Planning & Building Inspection Dept.
P.O. Box 1370
Salinas, Ca 93902

Re. Environmental Impact Report Carmel Valley Road Improvement Plan

As noted in Table 1, Cumulative Development Outside Carmel Valley, page 3-13 projects 275 dwelling units for Cachagua.

This along with full development of Sleepy Hollow and greater use of Stonepine will add significant traffic to one very hazardous location on Carmel Valley Road.

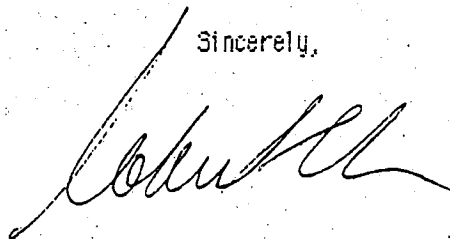
This location is just east of the 13 mile marker. It consists of a blind curve with part of the road being less than a normal 2 lanes in width. There is no dividing line down the middle of the road because of this. Driving east there is a short wall protecting against a shear drop of 50 feet plus or minus. This causes some drivers to avoid staying to the far right. Driving west, if you keep to the far right as one should, you are along the base of a shear rise. Slight deviations can result in accidents when traffic meets.

I am writing as a resident and homeowner of Los Tulares which is located just beyond the hazardous location mentioned above. It seems to me that to add any amount of traffic to this blind curve, and especially if there is any increase in truck traffic for any reason, will only increase the potential for more accidents and probably more serious ones.

I strongly urge that the Plan include some remedies to this hazard.

Thank you.

Sincerely,



Carmel Development Company

Post Office Box 4627
California 93921
License # 484304

Carmel by the Sea
Telephone 408 625 1090

28 February 1991

To: Lynne Mounday
County of Monterey
Department of Planning,
240 Church St.
Salinas, Ca. 93901

Re: CARMEL VALLEY ROAD IMPROVEMENT PLAN
Draft Environmental Impact Report

Public comments

Dear Lynne,

We appreciate the opportunity to comment on this EIR, and for these comments to get forwarded to and incorporated into the Final EIR that will be prepared. In general we find this EIR to be very well thought out and to have developed a quite sound methodology from which to draw conclusions.

As residents of the general area for many years, and having attended and been fully involved in the Carmel Valley Master Plan (CVMP) process during its decade of development, we have several comments that we believe are pertinent to this EIR.

Additionally, as planners for the proposed Cañada Woods project, which was submitted formally to the County of Monterey Planning Department in January of 1991, we have several comments that will, if incorporated, update and improve the accuracy of the EIR.

COMMENTS:

1. CAÑADA WOODS PROJECT

1

The CAÑADA WOODS project should be listed as a proposed project throughout the EIR, with its location identified and its salient features incorporated. These changes seem to us that they would have little impact on the EIR's conclusions or mitigations, since the listed projects seem to be there primarily to model a distribution schematic. It is well recognized within the EIR that the actual total buildout of Carmel Valley is inherently limited by the CVMP.

Since Cañada Woods is actually submitted and viable, the list of proposed projects should be updated. Other projects listed in the EIR may be antiquated and/or no longer represent what may be proposed.

Some of the primary features of the Cañada Woods project that would most affect this EIR are:

- 44 new single family dwelling lots (plus one existing)
- 15 employee and inclusionary apartment units
- 5 commercially zoned or service center parcels

As can be referenced on the enclosed vicinity map, the proposed Cañada Woods project is in the area between the mouth of the Valley and Mid-Valley.

The commercial square footage that is proposed has been incorporated into the EIR. The location for all of the commercial square footage is in the identified Valley Hills commercial area. The intent of the commercial uses is to provide needed services within the Valley for existing and future residents.

2. CHANNELIZATION, ALTERNATIVE "E"

2 A

The improvements to the Carmel Valley Road system correctly incorporate a series of alternatives. The channelization alternative seems to provide exciting benefits that might have far fewer environmental constraints than the "preferred alternative" project. A more detailed discussion of this alternative would be useful.

Specifically, if the channelization improvements were done in the near future, what benefits could those yield? What is the difference in timing for when, or how soon, channelization could occur versus the preferred project (four-laning)? Is it not probable that the environmental constraints of 4-laning would create delays in project construction versus the much more benign channelization alternative?

The trees and terrain in several areas, especially Segment 7, are quite significant. The potential environmental improvement of Alternative "E"'s channelization and road widening should be evaluated in Chapter 7. Currently a paragraph on page 7-22 simply acknowledges the fact that "The Low-Cost Alternative would have less of an impact on natural features compared to the preferred alternative."

Are not some of the environmental constraints so significant that they would steer the decision as to what would be in the best interests of the public for a preferred project?

Given the past several years of data since the CVMP was finally approved, there have been only a fraction of new projects that have been either proposed or finalized. There is a significant amount of remaining residential allocation just from the past few years.

2B

Furthermore, most of the projects that have been received by the Planning Department are proposed with only a fraction of their allowed density. Two examples are the approved Quail Meadows Subdivision, and our own proposed Cañada Woods project: We are proposing only one-third of our allowed density. It seems likely that any actual development is much slower to develop than originally anticipated.

2C

Because of the slow rate of development and the reduced density, Alternative "E" should therefore be considered as the preferred project.

2D

Due to other constraints to development, such as the Monterey Peninsula Water Management District's Ordinance #52, effective as of January 1, 1991, which places strict limitations on any type of development that has the potential to intensify water use beyond existing levels, the buildout potential as originally stated in the CVMP is probably unrealistically high. Therefore we recommend a readjustment to the possible impacts of development so that, at a minimum, the projected time frames are extended into the future.

2E

This alternative, which would model reality a little closer, would probably show that the channelization alternative ("E") would perhaps give sufficient benefits through the planning period of time that it would warrant being chosen as the preferred project.

3. COMMERCIAL ROAD IMPACT FEES

3

The fee programs that are discussed in the EIR are most appropriate for those businesses that are going to generate new traffic. The EIR needs to acknowledge, however, that there are those businesses (such as those we're proposing at Cañada Woods) that will actually reduce traffic movements, or at a minimum, shorten trip lengths.

If the purpose of the commercial development is to provide needed services and uses for residents, then they are actually not negatively impacting the road, and should not be subject to the fee structure. For example, most valley residents must commute out of the Valley to the Peninsula for auto repair. This has consequences both on the Carmel Valley Road and on other significant arteries and highways, such as Highways 1 and 68.

Two of the commercial uses we are proposing as part of the Cañada Woods project are an auto repair facility and a day care operation. Other service oriented uses are relocations of existing businesses in the community, such as providing a space for a brickmason, plasterer, plumber, or welder.

SUMMARY

In summary we feel there are three primary areas that require response or revision in the EIR.

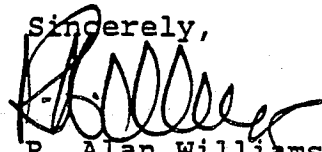
The first is that the Cañada Woods project, data and location, be modeled into the EIR, and that the projects that are listed be reevaluated for their current status or probability.

Secondly, we believe that channelization, Alternative "E", might turn out to be the most environmentally sensitive alternative that meets the primary policies of the CVMP. Furthermore, by reexamining the extremely limited residential growth which has occurred since the CVMP was adopted, this channelization alternative might become even more desirable.

Lastly we are concerned that commercial development all got put into one category. In regards to traffic there should be two commercial components: Those that basically do increase traffic, and those that basically are neutral or could reduce traffic. The uses we are proposing in the Cañada Woods project are service oriented and should not negatively impact traffic.

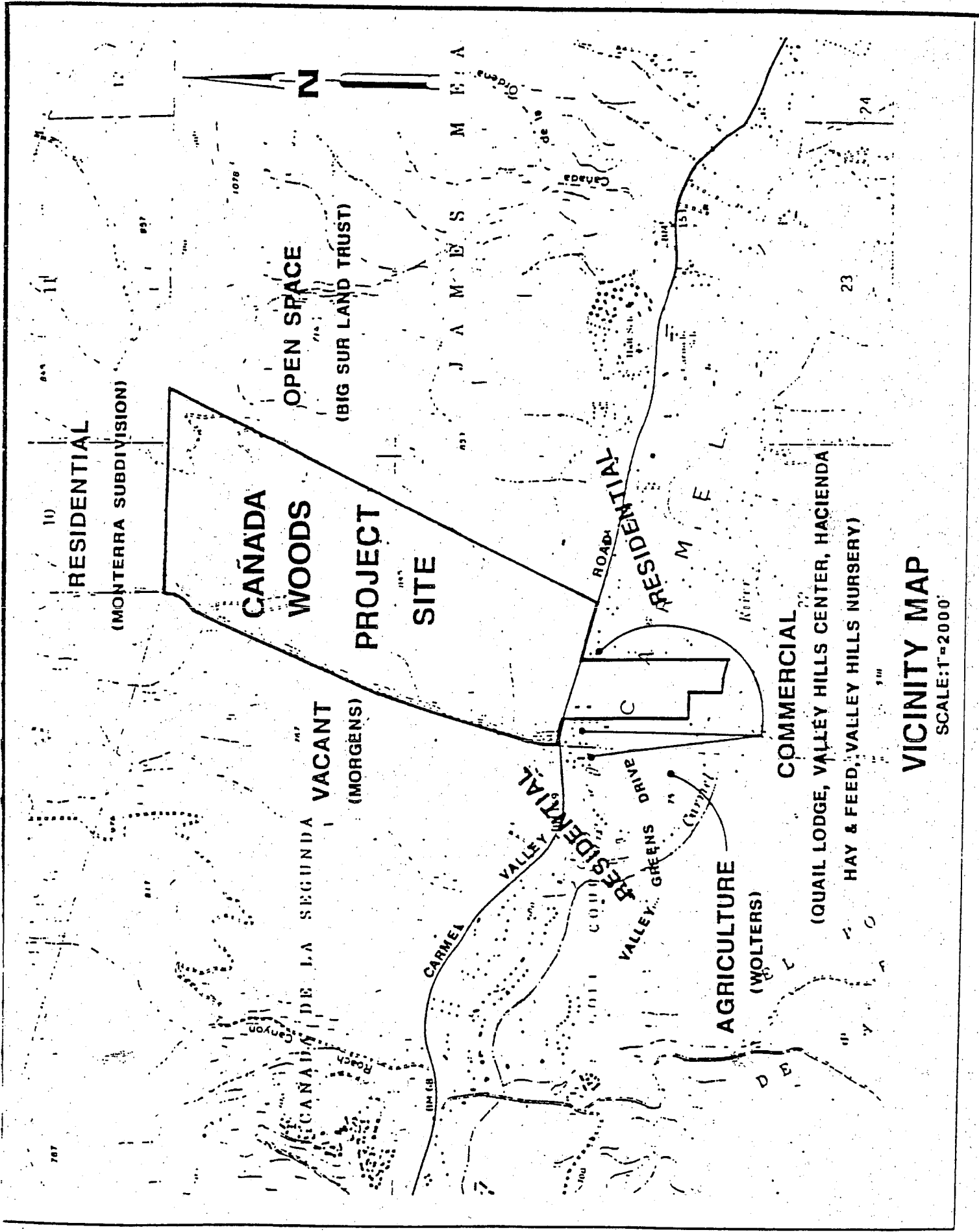
Thank you for the opportunity to comment on this very well done EIR. We must commend the preparation team in having completed this finely authored draft document.

Sincerely,



R. Alan Williams
President

RAW/rc
Enclosure



RESIDENTIAL
(MONTERRA SUBDIVISION)

CANADA
WOODS
PROJECT
SITE

OPEN SPACE
(BIG SUR LAND TRUST)

VACANT
(MORGENS)

J A M E S M E A

RESIDENTIAL

COMMERCIAL
(QUAIL LODGE, VALLEY HILLS CENTER, HACIENDA
HAY & FEED, VALLEY HILLS NURSERY)

AGRICULTURE
(WOLTERS)

VICINITY MAP

SCALE: 1"=2000'

CARL I. HOOPER, P.E.

JOHN M. VAN ZANDER, R.C.E., L.S.

RAMON M. NIERYA, R.C.E.

H. PATRICK WARD, R.C.E., L.S.

**BESTOR ENGINEERS, INC.**

CIVIL ENGINEERING - SURVEYING - LAND PLANNING
 9701 BLUE LARKSPUR LANE, MONTEREY, CALIFORNIA 93940
 (408) 373-2941 • SALINAS 424-7681 • FAX 649-4118

28 February 1991

MONTEREY COUNTY PLANNING DEPT.
 P.O. Box 1208
 Salinas, California 93902

Attn: Lynne Mounday

RE: EIR - Carmel Valley Road Improvement Plan

Dear Lynne:

I have reviewed the Draft EIR for Carmel Valley Road Improvement Plan, and offer the following comments:

First, this is a very well written report and appears to partially justify the length of time it took in preparation. Unfortunately, that extended period has tended to make certain data virtually obsolete.

My principal problem is in the data provided to the consultant on land use, much of which is questionable. Please note the consultants highly pertinent caveat on Page B-18 which states: "Limitation of Modeling - Despite the success of the Carmel Valley model validation, it must be remembered that a model will only predict future traffic volumes with the accuracy that the future land use data has been estimated. The models' projections are highly sensitive to land use variations. If development occurs at a different rate or of a different type than expected, the traffic projections could be significantly higher or lower than actual counts". Most of my comments will relate to the accuracy of land use data.

Vacant Lots of Record - (Page 3 - 10 and numerous places elsewhere). The number 548 is repeatedly used for vacant lots of record. This is a higher number than existed in 1986, even allowing for the reported additional 108 lots in Carmel Valley Ranch. You will no doubt recall my voluminous correspondence in 1986 in which I pointed out that your tabulation of 611 assessor's parcels included, by actual count, 183 parcels that were not valid, available single family home building sites. I also stated at that time that there were 194 tabulated parcels that I had not viewed and hence could not qualify as either valid building sites or bogus numbers.

That was in 1986. The highest possible number of buildable residential lots then was less than 350. I have not kept track of new homes constructed in the Valley in the interim four years, but I am sure that at least 150 to 200 permits have been issued (that would be less than one per week) so that the true number cannot now exceed 200 sites, plus some portion of the 108 Carmel Valley Ranch sites reportedly created since 1986.

I have, on several occasions, volunteered to check the Tabulation that was prepared for this EIR, and I now repeat that offer. Until an independent check is made, the number that you provided to the Consultant is just that - a number.

Location of Vacant Lots - Table A-1, Appendix A, lists 48 "Traffic Allocation Zones", shows the 548 lots that allegedly exist by Zone, and then assigns an assumed time frame for construction of these 548 homes. Of those 48 zones, 21 supposedly have no vacant lots. No map has been presented to tell us where those zones are located. I reported this fact to you early in January and asked that the map be made available. Two months later, it is still unavailable. Without that map, it is impossible for anyone to even guess whether the numbers are reasonable. And even more impossible to conclude

whether or not the traffic assumed to be generated has any relationship to fact.

I ask again that the map showing Traffic Allocation Zones (TAZ) be made available for review.

Specific Corrections and Errata

Page 3-3, next to last paragraph - Carmel Valley Ranch, not Road.

Page 3-5, Policy 39.3.1.1 (d) - Segment 2A, not 2.

Page 3-10, and 11 - Tabulation of probable future development is seriously obsolete. Changes have been made by numerous land owners in the proposed developments.

Figure 3 - Cumulative Development Projects - Number 5, Carmel Greens, is shown in two locations. The village location is incorrect.

Page 3-13 - Table 1 - number for "Laguna Seca West" is 19, not 25 lots. This is actually Laguna Seca Office Park, and should it be so identified. It is not residential. Traffic overments assigned to it are probably double counted. Also number for Del Monte Forest has been substantially changed from the 1067 dwelling units shown. Pebble Beach Company representatives should be consulted for correct number. "Laguna Seca" is shown for 100 dwelling units. GMPAP showed 151 plus a hotel. Current application is for 256 units and a golf course.

Page 4-9 - Paragraph 1 - The shift of 200 units from Phase 1 to Phase 2 is characterized as "slightly overstates Phase 1 impacts." 200 units is nearly 20% of the total 20 year program - considerable more than a "slight" effect.

Next paragraph also characterizes shift at Quail Meadow's 65 dwellings and 40 hotel rooms from Phase 1 to Phase 2 as "slightly overstates Phase 1 impacts." Again, this is 6 or 8% of total 20 year program - more than a "slight" effect.

Page 4-15 - Phase 3, Item 5, states "Laguna Seca West is expected to have 25 commercial lots subdivided in this period." There is no Laguna Seca West, there is a Laguna Seca Office Park. It was subdivided in 1988, and contains 19 professional office lots, not 25 commercial lots. This is only slipped 8 years out of schedule. Again, traffic assigned to this property could be double counts.

Page 5A-11 - Table 14 shows Rio Road Extension for probable year 2000 completion. table 3 showed Rancho Canada Hotel for 1991-95 construction. I believe those will be concurrent.

The above incorrect items are not individually significant in the long range picture, but they do lend a shadow of skepticism to the resultant traffic projections.

Page 5B-3 - New development fee structure is strangely lacking in the imposition of any fee on development on Vacant Lots of Record. A strong precedent has been set by the Water Management Districts fees which apply to all new construction, not merely to newly created lots. It seems to me that the same general principle should apply here. If we assume that the true number of new homes to be constructed in the future (i.e.: after mid-1991, which is the earliest any fee ordinance could be adopted) is 250, then the funds that could be collected are quite substantial - either that, or the extremely high figure of \$20,000 per new lot could be reduced. I see no difference between the several daily traffic movements from a new home on an old lot and those from a new home on a new lot.

There is no discussion here about the fee structure for inclusionary housing units. Surely it is not anticipated that a \$20,000 fee is to be paid for these subsidized units. Our wounds are already sore enough without such an application of coarse grain salt.

Page 5B-13 - Recommendation 2 - again I ask - Why are no fees considered for discretionary permits for existing lots of record? I carry that one step further, I believe that fees should be imposed even on ministerial permits on lots of record which result in additional traffic.

Page 5B-13 - Recommendation 3. I strongly disagree that the fee should be imposed on lot creation. It is home construction and occupancy that generate traffic movements not lot creation. Many lots will remain vacant for years, even decades, after their creation. For proof of this, where do you think the stock of several hundred existing vacant lots came from? They are the resultant of land divisions in the 1940's through 1980's, and some have remained vacant for as long as 40 or 50 years. There is no validity to imposing a fee that far in advance of the start of the traffic that a home will generate. The fee should be on homes, not on lots. The net effect of charging the fee to lot developer is that lot prices must be raised to cover:

- a. Cost of fee.
- b. Cost of financing fee through lot sale date.
- c. Cost of added and valorem tax through lot sale date.
- d. A reasonable profit on a, b, and c.
- e. Real estate commission added for a, b, c and d.
- f. Builder's carrying cost and profit on all of the above through home sale data.
- g. Another real estate commission on all of the above.

The end user may readily be seen to pay 50 or 75%, or even 100% more than the County receives, as the result of these add-ons, all of which are reasonable and predictable. Why not let him pay the fee direct to the County and avoid these add-ons?

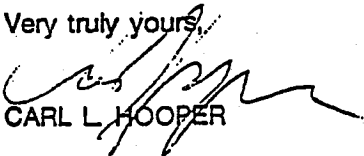
Page B-10 - Trip generation is assumed on the basis of 11 trips per day per household. I do not believe this is a reasonable number. A study of the magnitude of this should warrant specific trip generation checking. Traffic counts that we have made in the past have shown rates as low as 6 or 7 for several developed Carmel Valley areas. Was the figure of 11 tested to see if the current traffic bears out such a high assumption? I think not. Also, several of the proposed projects are not normal single family home subdivisions, but are, instead, senior citizen projects which will include shuttle buses and other traffic reducing features. This is not commented upon, and I doubt that it has been considered.

Summary

Without a clear picture of many missing factors, it is not possible to determine whether or not the projected traffic volumes for individual road segments is or is not realistic. Therefore, the Levels of Service and recommended improvements cannot be clearly related. These missing factors, as stated above, are:

1. Number of buildable vacant lots of record.
2. Locations of these lots.
3. Correction of probable future projects, both in the valley and in outside areas.
4. Trip generation rates more realistically related to the type of development.

Very truly yours,


CARL L. HOOPER

77
W.O. 3788/CLH/cb.1750

Carmel Valley Property Owners Association

P.O. Box 157—Carmel Valley, California 93924

February 28, 1991

TO: Planning & Building Inspection Dept.
 County of Monterey
 Salinas Courthouse
 Salinas, California 93901

SUBJECT: Comments on Draft EIR (Dec. 1990)

C.V. Road Improvement Plan concerning traffic impacts and mitigations within the framework of the C.V. Master Plan (1986).

The Master Plan set certain growth limits which have to date stayed within the plan, however, traffic increases exceed plan expectations.

C.V.M.P. Policy states, in regard to traffic, that if increases occur in excess of plan standards in any of the 12 segments of C.V. Road then growth and development would be stopped until mitigating measures are adopted.

The subject Draft EIR states that because C.V. Road traffic threshold conditions were approached in certain areas the Monterey County Board of Supervisors in 1988 ordered that EIR to address traffic impacts and mitigations.

C.V.P.O.A.'s COMMENTS ARE:

1) The Draft EIR was authorized because of the annual traffic count in 1988 showed at least one road segment to either have approached or exceeded the threshold trigger level. Subsequently a recount brought the count down within an acceptable level. This need for recounts has occurred also in '89 and '90, it is expensive and not very reassuring that the County procedure is seemingly so unreliable.

2) Pg. 3-3: "108 units ---- at C.V. Road, should this read C.V. Ranch?"

3) Pg. 3-10: Why do level of assessments differ from those on pg. 5B-3?

4) Pg. 3-13: "Cumulative Development Outside Carmel Valley" -- why is Monterra excluded?

5) Pg. 5A-3: "table note /3/ should it be LOS=A for westbound to northbound right turn?

6) Pg. 5A-19: Mitigation 1 "---- continuous two-way left-turn lane in the median from Pilot to Esquiline".
 Does this "widen" C.V. Road through the Village - eliminating street parking and/or reducing building set-backs?

Pg. 5A-19: Mitigation 2 "--- Acceleration lanes should be created in the median for outbound left-turns." Isn't there danger of head-on collisions between opposing left turners? 7

Will there be openings in the median strip to facilitate left turns from every street and driveway? (There are 60 in the 1.8 miles from Meadows Road to Robinson Canyon). 8

Pg. 5A-19: Mitigation 3 "Hatton Canyon/C.V. Road interchange ---- will operate at LOS E due to heavy traffic volumes making southbound to east-bound left turns. The present design (CalTrans) includes two left-turn lanes The design should provide for three left turns. Three east-bound lanes will also be required from the signal to Carmel Rancho." 9

As far as we know at this time CalTrans does not plan a four-lane southbound Highway off ramp (3 turning left (East) and one turning right (West)).

The EIR statement emphasizes the lack of concern the CalTrans design has for C.V. motorists. C.V.P.O.A. has previously pointed out to CalTrans that over 80% of Highway 1 traffic will enter or exit (in their preferred design) at C.V. Road. CalTrans' response was that 80+% figure was "not entirely untrue."

In the EIR concept of the mitigation would not C.V. Road at Carmel Rancho be 4-lanes eastbound (1 left turn, 2 straight through to the east and 1 right turn?) Westbound there will be 3 straight through and 1 left turn. If so on the west side of the intersection C.V. Road would be 7 lanes and the median wide. 10

Pg. 5A-20 Mitigation: Accidents at Via Mallorca 11

Some of the drivers entering or leaving C.V. Road at Via Mallorca might benefit from special defensive driving classes, which may be available from a public agency such as the Highway patrol.

If C.V. drivers were to use headlights even in daylight its possible collisions caused by entering cars would be reduced. The County could evaluate the experience of the State in the "headlights on" highway segments we have seen in recent years. We believe all new cars in Canada are now equipped so that headlights are always on when the car's engine is running. 12

Pg. 5A-21: "Cost Estimates ----" Where's the cost of three lanes at Carmel Rancho? 13

General: The EIR should cover:

A. A plan to provide bicycle paths along C.V. Road. The paths should be safe and of a nature to encourage people to use bicycles (or walk) in lieu of driving their cars for many errands and as exercise. A

B. Better driving habits and signalling generally would make the present 2-lane road more efficient and improve the safety of its users:

- 1) Drive at a speed that does not hinder those following. If you wish to drive slower than the traffic flow, pull over and let others pass.
- 2) The County should post the speed limits i.e. in 55 MPH zones there should be appropriate signs not just hard to read numerals painted on the roadway.
- 3) Drivers should always use their turning indicators as soon as reasonable so that others may proceed without useless and annoying delay.
- 4) Would driving always with lights on improve safety? See comments about Pg. 5A-20.
- 5) Any road widening that requires the removal of trees, especially oaks, will meet major objections by most residents. Roadside trees are cherished and constitute an important part of the community's perception of our rural environment and lifestyle!



Rod Mills
Chairman, Roads & Trails Committee
C.V.P.O.A.

RM/var
cc:

LAW OFFICES
RICHARD H. ROSENTHAL
A PROFESSIONAL CORPORATION

OF COUNSEL
PETER A. BLACKMAN
DAVID M. BLACKMAN

25 EAST CARMEL VALLEY ROAD
P.O. BOX 1021
CARMEL VALLEY, CALIFORNIA 93924
(408) 659-5193
FAX: (408) 659-0470

000912.L28

28 February 1991

Lynn Mounday
Monterey County Planning Dept.
Post Office Box 1208
Salinas, California 93901

Re: Carmel Valley Road Improvement Plan EIR

Dear Lynn:

As I understand the above referred to Environmental Impact Report, it is to develop economic and project scenarios required in the Carmel Valley Master Plan as necessary to maintain an adequate level of service (L.O.S.) as defined by the Highway Capacity Manual and the 1986 Carmel Valley Master Plan, subsequent EIR, and Policy 39.3.21 of the Carmel Valley Master Plan. Further, I understand that the contents of the EIR supplement the traffic, noise and air quality sections of the Subsequent Carmel Valley Master Plan EIR. As is stated in Section I-4:

"The present EIR evaluates these impacts anew, based on existing conditions as well as new land use and traffic projections."

My responses to the Environmental Impact Report are:

1. The conclusion reached on 6-2 that, "... the road improvements are not expected to have a significant growth inducing impact. The improvements will accommodate the pre-established growth levels of the Carmel Valley Master Plan.", is absurd. Without the road improvements there will be no further creation of lots of record and the majority of the legal lots of record will not be built out due to Plan Policy No. 39.3.2.1. Therefore it is clear that but for the expansion of Carmel Valley Road and the development of an alternative water source there will be little, if any, growth in the Valley. Therefore the road improvements contemplated by the EIR will be growth-inducing. This is consistent with the notion that there has to be continued growth to finance the

2. Traffic data found in Chapter 5AI-21 dealing with the "Traffic Forecasting Methodology" are incomprehensible to me. I requested under separate cover a further explanation of the methodology but never received one. I would like a further explanation of the methodology and how the L.O.S. calculation compared with those L.O.S. calculations prepared by Higgins for the 1986 Subsequent Carmel Valley Master Plan EIR and those prepared in March of 1988 for the Planning Commission. Without some type of correlation it is impossible to determine the impact associated with the proposed levels of service with those analyzed in the 1986 Subsequent EIR.

Also, in regards to Chapter 5A, I requested information concerning the "Proposed Financial Plan" in a January 21, 1991, letter to the Planning Department and never received a response. (Please see letter enclosed herein) Further details of said plan should be incorporated into the EIR.

3. Noise: Section 5(C) is inadequate and should contain actual studies undertaken to determine current noise readings. As the EIR states traffic has increased dramatically and unexpectedly since the adoption of the subsequent EIR

4. Air Quality: I incorporate Mr. Read's comments concerning air quality contained in his January 27, 1991 letter to the Board of Supervisors. In addition to Mr. Read's comments, there should be a testing program undertaken to determine the current air quality in the Valley and what impacts increased traffic at the mouth of the Valley will have throughout the Plan area.

5. The failure to address water quality and supply is a major deficiency of the draft EIR. The draught has caused impairment of the aquifer due to nitrate concentrations from septic tanks. The lack of rain and subsequent draw down of the aquifer has required the Monterey Peninsula Water Management District to impose twenty (20) percent rationing which will be increased to thirty-five to forty (35-40) percent in April. The feasibility or lack thereof of an ample and clean water supply to support the anticipated growth that will be required to finance these improvements must be analyzed in their entirety.

6. Alternatives to Project: How is it determined under alternative A that Phase 1 and 2 development could be permitted prior to triggering the restraints imposed by Plan Policy 39.3.2.1.2? We have been told previously that numerous segments are at maximum capacity and these previous readings didn't include the 200 plus units at Carmel Valley Ranch that have approvals but have not been built out and/or occupied.

If you have any questions or would further like to discuss the matter, please feel free to call.

Sincerely,

LAW OFFICES RICHARD H. ROSENTHAL
A PROFESSIONAL CORPORATION

BY: RHR

RICHARD H. ROSENTHAL

RHR/kdm

Enclosure as noted

cc: Karin Strasser Kaufman

SIERRA CLUB

VENTANA CHAPTER



P.O. BOX 5667, CARMEL, CALIFORNIA 93921

CHAPTER OFFICE - ENVIRONMENTAL CENTER (408) 624-8032

March 1, 1991

Monterey County Planning and Public Works Department
 Box 1208
 Salinas, Ca 93902

Att: Mr. Lynn Mounday, Senior Planner

Greetings:

Thank you for agreeing to extend the due date for our comments on the Subsequent DEIR to the Carmel Valley Master Plan (aka the DEIR, Carmel Valley Road Improvement Plan, Dec. 1990). Hereafter, we shall refer to it as "CV-DEIR."

Our reason for requesting this delay is to obtain a copy of the FEIS for the Highway One Improvement Project ("Hwy 1 FEIS") that we believe was used to prepare and cited as source throughout the CV-DEIR. Although this document has never been released to the public -- we've learned that administrative finals of it have been released in many versions -- the latest version referred to in the CV-DEIR is presumably in the mail to us. Consequently, we expect to send you our comments by March 8.

Our need for the Hwy 1 FEIS is essential. Throughout, this CV-DEIR draws conclusions and makes recommendations based on the utterly false premise that the Hatton Canyon Freeway (only one of several alternatives that is discussed) will be permitted and constructed. Footnote 4 (p.5A-21) belies this assertion by admitting "(no date)" for the release of the FEIS. This is certainly inconsistent with the statement, "The reader is referred to that document for more detail." (p.5C-6)

Sincerely,
 VENTANA CHAPTER, SIERRA CLUB

Scott Hennessey,
 AM

Scott Hennessey, Chair
 SH/RD/NM/AM

Note: Further information may be obtained from or sent to:
 Richard Dalsemer, Carmel Valley Chair, 28 Aliso Rd
 Carmel Valley, CA 93924

Noel Mapstead, Transportation Chair, Box 968, Carmel, CA 93921

W.V. Graham Matthews III
P.O. Box 1439
Carmel Valley CA 93924

March 1, 1991

Monterey County Planning and Building Dept.
Courthouse
Salinas, CA 93901

Dear Sirs:

The following are my comments concerning the Draft Environmental Impact Report for the Carmel Valley Road Improvement Plan.

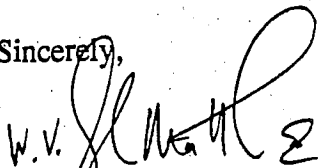
1. Unfortunately, the alternatives considered do not include the most reasonable and environmentally sensitive alternative which would include a combination of Alternative E: Low Cost Alternative and Alternative F: Transit Alternative. A "non-structural" combination should be addressed in the document.
2. A major portion (over 50%) of the out-of-valley development is expected to occur in the Toro area. It seems unlikely that this development will have much impact on Carmel Valley. What is the destination? Evidence should be presented to show that traffic from this location will impact C.V., otherwise this brings into question the magnitude of the traffic projections.
3. In 1985, the Flood Control District determined that at least 14 existing lots of record were located completely within the floodway portion of the Carmel River Floodplain and would thereby be unbuildable. Were these lots included in the 548?
4. LOS should be evaluated on a 24-hour cycle, with weekdays/weekends broken out, and different seasons, not just at Peak-Hour. This would enable the reader to consider whether the proposed improvements are necessary or whether the utilization of Traffic Demand Management to shift work hours and encourage carpooling would be effective.
5. The general concept for improving traffic flow along Carmel Valley Road involves construction of four traffic lanes for through traffic. This approach suffers from the same flaw that many have levelled at the Hatton Canyon Freeway proposal: improve through traffic flow, but do nothing for or worsen conditions for side traffic. It is obvious that left turn LOS should have been included in the CVMP, as this is the single most important factor in road safety. If left turn LOS degrades, then more serious accidents will occur as people get tired of waiting and take foolish risks. Currently, the overwhelming reason for traffic accidents on C.V. Road is right-of-way violations. Any project that increases main road traffic volumes and speed will increase the number of accidents due to right-of-

way violations.

6. On page 5A-5, the idea that 3% of the traffic on Carmel Valley Road has a Southern California destination via upper Carmel Valley Road seems absurd. 3% of what? 3% of 20,000 ADT at the mouth of the valley is 600 trips, which is 25% of the traffic measured east of Carmel Valley Village.
7. On page 5A-6, the portion of the road east of Laureles Grade has more accidents than average, not west.
8. If one factors out the unusually high accident rates at Via Mallorca and Dorris, Carmel Valley Road between Robinson Canyon and Rio Road has a lower than expected accident rate. It would also be useful to adjust traffic accidents at the various intersections to the traffic volumes. There is no evidence presented to indicate that the proposed improvements to Carmel Valley Road would improve traffic safety. Caltrans records indicate that a four lane divided highway has about the same accident rate as a two lane undivided road. However, one must take into account the number of cross streets. On the existing four lane stretch, there are 11 cross street or driveway intersections, while an inspection of aerial photographs shows that the stretch from Via Petra to Robinson Canyon has 98 side street and driveway entrances. The four lanes and increased speeds will make in much more dangerous for these residents to turn onto Carmel Valley Road. The preliminary proposal for the four laning of C.V. Road indicated that there would only be about 15 openings in the median divider. This would imply that most of these residents would have to make u-turns at these openings to reach or leave their properties. Using the 11 trips per parcel used in the traffic model, this would clearly add up to a tremendous number of u-turns each day, and since u-turns are considered the most dangerous traffic maneuver, it seems likely that the traffic accident rate would increase substantially not decrease. The accident impacts section is clearly inadequate, and needs substantial revision.
9. I question the noise analysis; it seems unlikely that a 30-50% increase in traffic volume and the higher speeds associated with four lanes will only result in an increase of up to 3 dBA in noise. Why does Caltrans build sound walls along its highways then?

Thank you for the opportunity to review the draft EIR. I would appreciate receiving a copy of the final EIR when available.

Sincerely,



W.V. Graham Matthews III

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AND
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March 1, 1991

Lynne Mounday
Senior Supervising Planner
Monterey County Department of
Planning and Building Inspection
P. O. Box 1208
Salinas, California 93902

Re: Draft Environmental Impact Report
Carmel Valley Road Improvement Plan

Dear Mr. Mounday:

The following comments on the Carmel Valley Road Input Plan DEIR are submitted on behalf of the Rancho San Carlos Partnership. The Partnership's objective is an EIR that will withstand any legal challenge and will support the County's program for the improvement of Carmel Valley Road.

These comments were based upon review of the DEIR by the Partnership's consultant team. The technical traffic-related comments are taken from written evaluations of the DEIR made by two recognized experts in transportation planning: Mr. Robert Conradt, Traffic Engineer and Transportation Planning Consultant of San Rafael, California; and John Dowden of Dowling Associates, Transportation Engineers and Planners, Oakland, California.

A. INADEQUATE DATA AND ANALYSIS FOR PROGRAM EIR. This document is intended to be a "Program EIR." (DEIR p. 1-4). It is intended to be used, among other things, as a basis for "recommending a circulation improvement program" for Carmel Valley Road, as well as providing "a basis for approvals of future development considering traffic thresholds and environmental issues." (DEIR p. 1-2)

The CEQA Guidelines state:

"A program EIR will be most helpful in dealing with subsequent activities if it deals with the effects of the program as specifically and comprehensively as possible. With good and detailed analysis of the program, many subsequent activities could be found to be within the scope of the project described in the program EIR, and no further environmental documents would be required." (CEQA Guidelines Section 15163(c)(5) emphasis added.)

The most serious concern expressed by our traffic consultants is that this

DEIR lacks sufficient technical data and analysis to serve as an adequate or useful program EIR. They have recommended the addition of certain specific components which they believe would make the EIR both legally adequate and practically useful for future decisions in the program. Without these components, they are unable to assess the accuracy of the DEIR. More importantly, it is the opinion of both Conratt and Dowden that the EIR without this information is legally and practically inadequate, as the basis for environmental analysis of future activities. They recommend addition of the following:

1. Final traffic volumes - both existing and at build out - for all road segments and traffic movements where LOS calculations or impacts are shown in the DEIR.

2. A traffic model zone and model area map showing all of the 49 traffic zones, and an accompanying table disclosing the land use and trip generation rates used to calculate daily and peak hour trips by development and/or zones. The text states on page 4-4 that "distribution of lots by Traffic Analysis Zone is shown in Figure 4", but in fact the zones are not indicated in Figure 4, or elsewhere. Table A-1 in appendix "A" is useless for impact analysis purposes without this information in the EIR.

3. Several references are made in the text to a "specially developed monograph" for analyzing two-lane segments on Carmel Valley Road. (See, for example, p. 5A-12, and Table B-2.) But the monograph is neither presented nor described in the EIR, and is therefore useless to the readers of the EIR for purposes of analysis. Nor is it explained whether the monograph was applied at intersection approaches or only between intersections.

4. A table showing LOS with and without mitigation for each segment, intersection, approach and linkage, under existing conditions, existing plus approved projects, and existing plus approved plus cumulative for each of the forecasts.

5. A technical appendix that includes all calculation sheets used to determine LOS for both existing and future conditions, as well as cost estimates.

In order to have an EIR that can be used by the County and the public to analyze existing and future impacts of traffic on Carmel Valley Road, the above components must be added to the DEIR, and the document re-circulated.

B. COMMENTS SPECIFIC TO RANCHO SAN CARLOS.

1. Page 4-13. Rancho San Carlos. This paragraph contains several significant inaccuracies:

a) The ranch is not "20,000 acres of grazing land." In fact, less than 50% of the ranch is grazing land.

b) Rancho San Carlos Road is not "an easement across private

properties." The road is owned by the ranch in fee. It is others (for example, Quail Meadows and Carmel Valley Golf and Country Club) who have an easement to use the Partnership's road.

c) The ranch's access over Rancho San Carlos Road is not limited in any way. The road is owned outright by the ranch.

d) The last sentence needs to be clarified. The antecedent for the word "this" is unclear. Conditions could be substantially changed by future land use decisions, but there is no presumption that they "would" be.

2. Trip Generation for Rancho San Carlos. Our consultants noted that while Table 1 on Page 3-13 and Table 7 on Page 4-14 show the anticipated future development of Rancho San Carlos to be 125 dwelling units and 300 visitor rooms, Table A-2 in Appendix "A" shows no future development for the Rancho San Carlos. John Dowden contacted Gary Black of Barton-Aschman & Associates, and learned that, due to an oversight, no traffic from Rancho San Carlos was included in the modeling for this EIR. This defect must be corrected, using "worst case" trip generation rates, (e.g. eleven trip ends per dwelling unit for all types of residential development) for the ranch and the EIR with correct figures recirculated.

C. PROPOSED DEVELOPMENT FEE PROGRAM (CHAPTER 5-B). One of the identified objectives of this EIR is "recommending a circulation improvement program including cost allocation principles regarding who should pay for them." (DEIR p. 1-2.) The Implementation Process disclosed in the DEIR includes the adoption of a traffic impact fee to provide partial funding for certain improvements addressed in the document. (DEIR. p. 3-14).

The County has proposed a development fee structure that includes \$20,000 per lot, \$15,000 per visitor accommodation unit, and \$10 per square foot of commercial development. (DEIR p. 5B-3). This program is estimated to generate almost \$36 million. The consultant, on the other hand, is recommending a greatly reduced fee program (DEIR p. 5B-5) that would generate only about one-third the funds.

The Rancho San Carlos Partnership is opposed to reducing the fee program, because of their concern that there will be inadequate money available when it is needed to construct the required improvements. To begin with, there is inadequate data presented in the DEIR to evaluate the accuracy of the County's cost estimate. The cost estimate is already almost three years old. (DEIR p. 5A-20.) Furthermore, the ultimate availability of Measure "B" funds is still uncertain.

To assure the availability of adequate funds, the Partnership urges the adoption of the County's proposed fee proposal. In the unlikely event that there is money left over, AB 1600 provides for mandatory refunds to the owners of the parcels which are assessed the fees.

Page 4.

D. MISCELLANEOUS COMMENTS.

1. Page 2-2, Impact 6. Revise to make clear that the left turn LOS is at F level. The EIR suggests that Segments 8 and 9 are at level of Service F, while the traffic discussion refers to only the left turn movements (Pg. 5A-13, Impact #5). In general, the DEIR is very confusing because it does not clearly distinguish among the various types of LOS being reported.

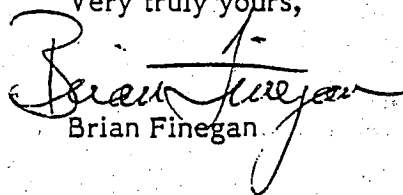
2. Page 3-9. Traffic Monitoring Policy. The suggested monitoring is insufficient. More frequent hourly counts are needed in combination with one or more continuous permanent counting stations to pick up hourly, daily and seasonal variations. Also, 100 vehicles daily is probably too narrow a margin to the next lower LOS. It would be preferable to use hourly volumes, define the peak hour to be used as the standard, and set a margin appropriate for those terms.

3. Page 5B-2, Table 21. Why does the table show income in years 1986-1990? Have these funds in fact been collected?

4. Appendix A. Table 7 on page 4-14 shows Rancho San Carlos for 125 dwelling units and 300 units of commercial, while Table A-2 in this Appendix shows no future development for Rancho San Carlos. (See Comment B.2 above.)

Thank you for considering these comments. We look forward to reviewing a revised and recirculated DEIR.

Very truly yours,


Brian Finegan

BF/mmb

cc: Rancho San Carlos Partnership

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March 6, 1991

Mr. Lynne Mounday, Senior Supervising Planner
Monterey County Department of Planning and Building
Inspection
Post Office Box 1208
Salinas, California 93902

Re: Draft Environmental Impact Report
Carmel Valley Road Improvement Plan

Dear Mr. Mounday:

The purpose of this letter is to make a correction to my comment letter of March 1, 1991, and to add an additional comment from Robert Conradt, traffic engineer.

The correction is to Comment No. 3 on page 2 of my March 1, 1991, letter. There are three references in that paragraph to "monograph". The word should be "nomograph" in each case.

Robert Conradt makes the following additional comment:

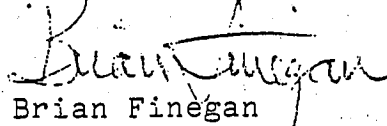
"Page 2-3, Mitigation 2 states that 'the recommended solution' to the added difficulty of outbound left turns after four-laning on Carmel Valley Road 'is to create acceleration lanes in the median for outbound left turns'. Apparently the Carmel Valley Road Improvement Plan does not include acceleration lanes in the median, and it is not clear from the DEIR who has recommended them. Although acceleration lanes in the median could reduce delay for vehicles turning left from a side road by encouraging the drivers to enter Carmel Valley Road when only one direction is clear, the lanes also could increase the likelihood of rearend and sideswipe collisions with vehicles in the westbound fast lane on Carmel Valley Road. The degree of

Mr. Lynne Mounday, Senior Supervising Planner
Page Two

March 6, 1991

potential for such accidents would depend on the geometric design of the intersection and Carmel Valley Road in the intersection area, but the design is not shown or described in the DEIR. It is not possible to evaluate the recommendation without a plan or more detailed description of the design.

Very truly yours,



Brian Finegan

BF:pml

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OUR FILE NO. ~~13815.000~~
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 08396.000
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HARRY L. NOLAND
 MARK J. DREVER
 OF COUNSEL

March 8, 1991

Mr. Lynne Mounday
 Monterey County Planning Dept.
 240 Church Street
 Salinas, CA 93901

Re: draft environmental impact report for
 Carmel Valley Road improvement plan

Dear Lynne:

Our firm represents several land owners in Carmel Valley, including the Cañada Woods Trust, the Morgens Ranch, Tim Condon, Rancho Cañada, Carmel Valley Ranch and Quail Meadows.

We are pleased to have the ability to review such a well written environmental impact report which gives such thorough analysis and discussion of the impacts and issues associated with road improvements for Carmel Valley.

I am not certain whether the EIR's author was aware of the decision of the California Court of Appeals in Leonoff vs. County of Monterey or the decision of the Monterey County Superior Court in the case of Freeman vs. County of Monterey. I have attached copies of those two decisions for easy reference. Both the California Court of Appeals and Monterey County Superior Court validated the improved method of measuring traffic impacts on Carmel Valley Road that are utilized in this environmental impact report. It would be helpful, I believe, to have the EIR consultant attach these decisions or at least comment on them in the environmental impact report so that those persons who expressed confusion and concern about the County's methodology of analysis of traffic impacts will have the benefit of the analysis made by the Courts and the knowledge that this analysis was deemed

Mr. Lynne Mounday
March 8, 1991
Page Two

by the Courts to be a rational and acceptable method of measuring traffic impacts on the Carmel Valley Road.

Our comments on specific sections of the draft environmental impact report are as follows:

Page Number:	Comment:
1-1	In the third paragraph the author intimates that traffic thresholds were established as a method of controlling growth in Carmel Valley. In reality these were established as a method of compliance with the terms of the Monterey County General Plan which state that it is the goal of County land use policy to have all County roads operating at a level of Service C or better.
1-2	The controversy over the method of traffic impact analysis in Carmel Valley as mentioned in paragraph 2 of page 1-2 was resolved by the Superior and Courts of Appeal and the discussion of those decisions would help the reader understand the validity of the method of analysis contained in this environmental impact report.
1-3	The author indicates the conditions in 14 California Administrative Code section 15162 have occurred which require the preparation of this environmental impact report. I believe a more correct statement was that made by the Board of Supervisors approximately a year ago when they requested the preparation of this EIR the Board found the Master Plan required the preparation of an EIR when certain traffic threshold levels are reached and this EIR was prepared to comply with that requirement in light of the fact that questions had arisen about whether that threshold level had indeed been reached. The statement that "traffic increases have exceeded expectations" I do not believe is correct and may confuse the reader of the environmental impact report. I also do not believe there is any evidence that the conditions under 14 Cal. Adm. Code section 15162 have occurred in this case, if they have they should be explained.

Mr. Lynne Mounday
March 8, 1991
Page Three

2-1 The traffic impacts, enumerated on this page are probably overstated. Based on the limited availability of resources for development it is unlikely that the predicted impacts will occur by a date certain. It is unlikely that large scale development will take place during the next three years due to water supply constraint. In fact, the only major projects which have been filed with the County and have a chance of being approved are the Cañada Woods and Condon projects which total only approximately 75 residential units. The left turn impacts described as Impacts 3, 4 and 5 are not subject to the policies in the Master Plan and any improvement in service of these turning movements by the County would be additional environmental benefits of the road improvement project beyond those required in the Master Plan.

2-2 The discussion of Impact 12 seems incomplete. The final sentence states: "if Rio Road extension were not built it would cause a significant impact", (but it does not describe what impact would occur).

2-4 The description of Mitigation 5 which is a road improvement to try and reduce accidents at Via Mallorca is described as a significant "condition" which would not be mitigated. I am unaware of any CEQA definition involving a significant "condition". The cause of the high accident rate which is thoroughly described in the EIR, is not an environmental impact, so the discussion of possible improvements in the accident rate, like discussion of the improved left turn level of service is an additional possible benefit of traffic improvements not related to the Master Plan policy requirements.

As previously discussed, the figures given for the increase in decibel levels by a certain year under Noise Impact #1 is probably also unrealistic because of the limited amount of development which has, and is likely to take place.

Mr. Lynne Mounday
March 8, 1991
Page Four

2-5 Discussion of Impact 3 states cumulative increase in nitrogen oxide emission would be 3%. The EIR does not specify whether this is a temporary impact due to construction. Since later discussions indicate that emission should be reduced due to smoother traffic flow and better emissions control, this conclusion seems to be inconsistent with other conclusions reached in this EIR or at least needs to be clarified.

2-7 The potential impacts discussed in paragraphs 4, 5, and 6 can be easily mitigated through proper engineering techniques and the statement in Impact 5 should state "could impact water quality" to indicate as with paragraphs 4 and 6 that this impact is a possibility if proper methods were not followed but not a probability as the result of the project.

2-8 The paragraph discussing Impact 8 contains a statement that there is a cumulative impact from loss of trees in the area. In fact the County has adopted an ordinance requiring the replacement of trees removed from properties and I do not think there is any evidence that the area is suffering a cumulative loss of trees or riparian habitat as inferred in the paragraphs discussing Impacts 8 and 9.

Mitigation 3 discussed on this page should include the alternative of replacing rare or endangered plant habitat in the event road improvements cannot be designated to avoid them. The discussion about Mitigation 7 should state that this information can be used not only when site specific EIRs are prepared for road improvements, but also that these analyses can be made at the initial study stage to determine whether it is possible to impose mitigations that might lead to the preparation of the negative declaration in lieu of an environmental impact report. The same goes for Mitigations 8 and 9 on page 2-9.

Mr. Lynne Mounday
March 8, 1991
Page Five

- 3-1 The statement regarding "Project Objectives and Characteristics", labelled paragraph "C", should include a statement that the purpose of this EIR is to comply with the policies of the Carmel Valley Master Plan and the order of the Superior Court in Merz vs. County of Monterey.
- 3-3 There is a typographical error in the second to the last paragraph which should state "Carmel Valley Ranch" rather than "Carmel Valley Road". The final paragraph should state in its final sentence that "No more than 25 market rate units can be, "allocated to one project annually", instead of, "permitted in any one project annually".
- 3-4 The second to the last paragraph regarding commercial development contains a statement which might tend to mislead readers of the environmental impact report. The paragraph states that there are no limits on how much commercial development can occur, however other resource constraints such as water supply as well as the County zoning ordinance do provide for quite specific limits on the size and amount of commercial development that can take place as well as its timing.
- 3-9 The fiscal policies discussed on this page should include an analysis of the possibility of creating an assessment district within the area of benefit so that the portion of the improvements could be paid for by all of those who would benefit from them, which would include existing residents of the Valley and vacant lot owners.
- 3-10 thru
3-12 The description of pending projects does not include the Cañada Woods project which is more fully described in a letter addressed to you from Alan Williams of Carmel Development. This project has been submitted for a preliminary subdivision map approval.
- The Morgens property (Carmel del Sierra), which is currently in the project design stage, may propose 123 market rate and 19 inclusionary/low-moderate income units.

Mr. Lynne Mounday
March 8, 1991
Page Six

As suggested in Alan Williams' letter commenting on this EIR, it might be worthwhile to mention that many of the projects contained in your compilation cannot proceed due to other issues such as water availability.

The amount of potential future commercial development also seems high in relation to the amount of vacant commercial land available at the mouth of the Valley. It might be worthwhile checking with the Planning Department again to determine whether that figure of 200,000 square feet is realistic in light of current development and water availability constraints.

3-13

The EIR mentions development in areas outside of Carmel Valley and states that this has an effect on Carmel Valley Road traffic, however that impact is not quantified. My experience as a lifelong resident of the Monterey Peninsula and a long time employee of a family owned business in Carmel Valley is that the development described on Page 3-13 will have basically no impact on Carmel Valley Road.

4-2

The conclusion contained in the second paragraph of page 4-2 does not contain any data to substantiate it. It would seem that only projects from Rancho San Carlos or the Cachagua Area could possibly have any measurable impact on Carmel Valley Road traffic. Although the EIR does refer the reader to technical appendixes on file with the County's Public Works Department, I think it is crucial to give some quantification of what impacts the author feels these developments outside the Valley would have on Carmel Valley Road traffic.

4-7

The description of projects occurring in Phase 1 should state that the Quail Meadows final map will be filed in 1991 not 1990.

Mr. Lynne Mounday
March 8, 1991
Page Seven

4-9

The description of projects occurring in Phase 2 should include the Cañada Woods project and the Condon (Veeder Ranch) project which have been filed and are currently pending before the County and should probably not include the Holt Ranch or Carmel Greens project since they have recently received recommendations for denial.

The EIR predicts that 163 lots of record would be developed in phase 2, but based on the current development moratorium enacted by the Monterey Peninsula Water Management District (Ordinance 52) all new water connections are suspended (§3A). This ordinance contains no sunset provision (§7) so the number of lots of record to be developed will probably be far fewer. Even if water resources were available for the development of lots of record the number given is probably too high. It is my recollection that over the past decade the Carmel Valley area has averaged about 25 building permits a year except during the recent frenzy which occurred just prior to the enactment of the water connection moratorium. It is also unrealistic to expect the large amount of commercial development postulated in Phase 2 based on water availability constraints. The commercial development contained in the Cañada Woods project is probably all that will occur during phase 2.

4-11

The final paragraph on this page once again contains the conclusion that traffic from the Monterey Peninsula area and the Highway 68 corridor would have a "significant impact on Carmel Valley" (first paragraph of page 4-12). The following pages contain some projections for growth and development in the Toro area which are completely unrealistic based on current land use development patterns and resource constraints in that area.

4-15

The conclusion that there would be 1,300 new homes built in the Toro area is greatly overstated. The development at Spanish Bay has already taken place and the Mahroom property development is currently in litigation. The description of development in "Phase

Mr. Lynne Mounday
March 8, 1991
Page Eight

3 of a large commercial development in Cachagua, an additional 550 homes in Toro, 300 hotel rooms and golf courses at Rancho San Carlos are, again I think, overstated. The development of homes on Laguna Seca Ranch under the current zoning would exceed 100 units and I do not believe that the property in the Aguajito area is zoned for 100 single family residences or that there is adequate water supplies to permit that type of development.

This section in its entirety appears to over-estimate the amount of development which will be able to take place on the Monterey Peninsula and fails to indicate to what degree the author believes it would have an impact on Carmel Valley Road. At worst that impact would be minuscule and probably imperceptible.

5A-4

In the final paragraph of this page, level of service is defined as "waiting a long time in gaps for traffic" or "moderate waits". These turning movements are not those required to be monitored as a part of the Carmel Valley Master Plan and the language used to describe the determination of the level of service seems imprecise. If the Highway Capacity Manual gives a more specific method of measuring that level of service for turning movements perhaps the EIR could describe that.

5A-12

The final paragraph on this page concludes that traffic levels on Carmel Valley Road will be 35% greater than today by the year 2005. As previously discussed, based on the limited resource availability and the extremely slow project approval rate in Carmel Valley, this figure is probably unrealistically high.

5A-13

Some of the conclusions stated on this page may also be unnecessarily pessimistic. The conclusion of Impact 3, that the level of service will degrade to LOS D by 1995, may be unrealistic as previously discussed. The left turn level of service on Segments 8 and 9 are not those which require monitoring in the Carmel Valley Master Plan. Our clients that own property on these road segments have not experienced an F level of service in their turning movements. This is also true with the turning movement impacts postulated for Segments 6 and 7 on the last paragraph of this page.

Mr. Lynne Mounday
March 8, 1991
Page Nine

- 5A-17 The first paragraph of this page contains the conclusion that accidents on Segments 6 and 7 would increase 40% by the year 2005, once again there should be a quantification of the amount of development that would have to take place to increase accident volume to that degree because the amount of development that will take place in those intervening years will probably be much less than estimated.
- 5A-18 Impact 19 described on this page states that there is no improvement proposed. Are there any possible?
- 5A-20 One possible mitigation for the accidents in Via Mallorca which is not mentioned in the EIR is additional signage reminding drivers leaving the Hacienda Carmel to look both ways before pulling onto Carmel Valley Road. This may be quite effective method which should be instituted by the County immediately.
- 5B-5 The fee structure proposed by the EIR author needs to be analyzed for its financial feasibility. For example, new commercial development being proposed in other areas of Carmel Valley is projecting a cost of approximately \$4.50 a square foot for improvements and for infrastructure. This figure is the maximum which has been determined to be feasible to keep these projects competitive in the market place. Placing an additional \$3.00 per square foot cost for road improvement fees will have the effect of precluding any commercial development since it will not be economically feasible, the opposite of the intended result. Also, the figure of \$10,000 per visitor serving unit is unrealistically high in relation to the economics of operating a hotel. Adding a \$10,000 fee would add at least 20% to the cost of the construction of a visitor serving unit which, once again, goes beyond the ability of the business to absorb and remain competitive. As a matter of economics this would be like proposing that the residential fee would be \$100,000 per unit. Experts in this field should be consulted for economic feasibility before the County adopts a final fee structure.

Mr. Lynne Mounday
March 8, 1991
Page Ten

- 5B-6 Unfortunately the conclusion contained on this page, that visitor serving accommodations in Carmel Valley are capable of bearing a dis-proportionately high impact fee, is simply not correct.
- 5B-8 The discussion in paragraph 3 could also apply to existing vacant lots of record and the EIR author does not discuss the possible economics of including vacant lots of record in such a fee structure.
- 5B-13 Because no traffic impact is generated by the creation of lots, but only by the construction of homes we disagree with Recommendation 3 and feel that these fees should be charged at the time at which they are most easily absorbed, which is at the time that building permits are issued and those fees can be included in the permanent financing for a home.
- 5B-14 The concern raised in the first paragraph of this page regarding the timing of improvement could be addressed by the County issuing Bonds to pay for improvements.
- 5C-5 This discussion fails to mention the impact of noise on probably one of the most sensitive receptors in the area, which is the golf course adjacent to Rio Road. The EIR should contain a statement that necessary mitigations must be incorporated into the Rio Road design to preclude significant impacts from noise on Rancho Cañada Golf Club and the school.
- 5D-10 Air pollution in Carmel Valley should also be reduced by the increased level of service due to proposed traffic improvements. The increase vehicle speeds as a result of these improvements should reduce emissions.
- 5E-3 Sub-paragraph 2 on this page contains a typographical error. The heading should state "Generally Stable" and not "unstable". The legend for the illustration contained on page 5E-7 also contains the identical typographical error.

Mr. Lynne Mounday
March 8, 1991
Page Eleven

- 5E-10 Impact 13 on this page regarding the chapparal community should probably be phrased so as to require an analysis of the impact on the chapparal community before any widening takes place. It is possible that the amount of disturbance could be minimized so as to make this an insignificant impact. The same is true for Impact 15 regarding tree removal. There is no statement as to whether the potential removal of trees is a significant impact or one which can be mitigated.
- 5E-12 From reading the discussion regarding Impact 23 it is not possible to determine how biotic resources could be adversely affected. A condition could be placed on the approval of these projects requiring these be mitigated impacts.
- 5E-14 Mitigations 1 and 3 on this page should include an alternative mitigation, the replacement of trees or rare or endangered plant species and habitat.
- 5E-17 I do not believe the statement that the Hickman's Onion only occurs in several areas of the Monterey Peninsula is correct. My understanding is that there are large areas of the Hickman Onion occurring in southern Monterey County. Perhaps it would be advantageous to check with a biologist such as Jud Vandevere to confirm this fact.
- 5E-18 There is no explanation given for the statement that "Nearly all of the other populations of Hickman's onion in Monterey County are threatened by development pressures". The onion population existent on the Monterra Ranch project, is being preserved through transplantation.
- 6-1 The last paragraph on this page contains a statement that road improvements could encourage further commercial development. The statement is contained in other areas of the EIR that commercial activity is created as a result of demand generated by residents of Carmel Valley and therefore this demand is independent of road improvements and road improvements should not create an additional impetus for future commercial development.

Mr. Lynne Mounday
March 8, 1991
Page Twelve

7-2 In discussing alternatives the County's obligation under its housing element and State law is to provide housing for all segments of the community and in all areas of Monterey County cannot be ignored. A complete moratorium on new development probably violates state law and would subject the County to legal challenge.

7-18 The author may wish to elevate Alternative E to the preferred project alternative because of the extremely slow pace of development or in the event that Measure B funding tax is overturned in court. An alternative is to begin construction immediately on certain improvements pending the eventual four laning of Carmel Valley Road pursuant to Measure B funding.

In a personal communication I had with Gary Black from Barton Aschman Associates, Inc. he made some observations which I think could be incorporated into the EIR as they give important frame of reference to the members of the public who will be reviewing this EIR and to the County Board of Supervisors who will be using it as a decision making tool. Based on my conversations with Mr. Black, it is my understanding that Barton Aschman Associates, Inc. has not seen a significant degradation of the level of service on Carmel Valley Road since 1985. The measurements done in 1985 did not incorporate the complete methodology used in the current analysis taken from the Highway Capacity Manual. On this basis the County cannot really compare the analysis done in 1985 with that done last year by Barton Aschman Associates. Based on the limited development which has taken place since 1985 Barton Aschman has rendered their opinion that no significant decrease in the level of service could have occurred since that date.

Mr. Lynne Mounday
March 8, 1991
Page Thirteen

Thank you again for the opportunity to comment on this comprehensive and well written document.

Sincerely,

NOLAND, HAMERLY, ETIENNE & HOSS
A Professional Corporation



ANTHONY L. LOMBARDO

ALL:or
Enclosures

cc: Cañada Woods c/o Michael Waxer and Alan Williams
Mr. Jim Morgens c/o Mr. Skip Marquard
Mr. Tim Condon c/o Mr. Skip Marquard
Rancho Cañada Golf Club, attention Don Boston
Carmel Valley Ranch, attention Mr. Harry Turner
Quail Meadows, attention Ed Haber and Lawson Little

Dick Heuer
27585 Via Sereno, Carmel CA 93923

March 24, 1991

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

Dear Mr. Slimmon,

The following comments on the draft EIR on the Carmel Valley Road Improvement Plan are submitted for your consideration:

1. The EIR presents a very good and useful analysis, but I would like to see it focused more sharply on information that helps the supervisors and the public make the decision that will have to be made. Realistically, the decision is between four-laning and some less expensive alternative that is also less intrusive on the environment and on the rural qualities of the Valley. The less expensive alternative needs to be analyzed at an equal level of detail as the four-lane alternative. In order to be able to analyze these alternatives and make the choice, the supervisors and the public will need to have the following information not presented in the EIR:

a. What happens if Measure B funds are not available? Is it possible to develop a credible funding mechanism for all the needed road improvements, including extending Rio Road which is one of the most essential improvements but is not discussed in the funding section of this EIR? If Measure B funds are not available, and improvements need to be phased as funds become available, which improvements should be given the highest priority? The Rio Road extension should be included in this priority listing, as it will also compete for funds.

b. Assuming a less expensive alternative, can levels of service be improved by scaling back how much development can be approved (or just making a more realistic estimate of what will actually get approved)? You looked at a reduced commercial alternative, but not at the alternative of changing the plan to reduce how much residential development can be approved. A "realistic" estimate of future development may be quite different from a "theoretical" estimate of what is possible under the CVMP. One should also look at amending the master plan to redefine the acceptable LOS; I suspect this will be done in many areas of the County as a result of the requirement to develop a realistic congestion management plan. To me, LOS D for mainline traffic on Carmel Valley Road would be acceptable.

c. Are there some sub-alternatives under the low cost alternative? For example, do you really need a three-lane cross-section the entire length of segments 6 and 7? Just one passing area in each direction might be sufficient.

d. If improvements to segments 6 and 7 were limited to passing lanes and left-turn channelization, could this be done in a manner that would be consistent with future four-laning should that ever become necessary?

2. I need to know more about your projections for future traffic increases. What percentage of projected traffic increases comes from growth in the CVMP area, from growth in other nearby areas, and from general growth in the entire region and in tourism over which the County has no control? I have the impression that the EIR writers see the growth in background traffic over which the County has no control as a relatively minor portion of the projected traffic increases. I have heard Supervisor Strasser Kauffman say just the opposite on several occasions, that she anticipates most of the traffic increases will come from increased tourism. I share the supervisor's impression, as we have over the past decade seen dramatic increases in traffic in Carmel Valley at the same time as development in Carmel Valley was limited first by a moratorium while the master plan was being litigated and then by lack of water. For example, the County traffic counts show that traffic as measured at Rio Vista increased about 22% from 1984 to 1988. That's double the rate of future increases projected in this EIR. A better understanding of what is causing the traffic increase is required for two reasons. First, in order to know how much might be gained by reducing the development permitted in the master plan; if most of the increase comes from development in the Valley, a lot would be gained by amending the plan, but if most of it comes from tourism, little would be gained. Second, to know who should be paying for the road improvements; to the extent that traffic growth is coming from tourism, money should come from the transit occupancy tax. The EIR needs to describe the methodology for estimating how much traffic increase will come from regional growth and tourism; it also needs to describe the consequences of alternative assumptions about the amount of this increase. The validity of the estimate needs to be checked by comparing it with historical experience over the past ten years. We know how much growth occurred in Carmel Valley during the past ten years, and you can calculate what that would mean in increased traffic according to the models you are using. You also have figures on actual traffic increases during this period. The difference can be used to calculate the percentage of traffic increase caused factors that are not controlled by the CVMP. I suspect you will find that this figure is significantly different from the assumptions you have used in the draft EIR.

3. Page 5A-12 states that by the year 2005, traffic on Carmel Valley Road will be about 35% higher than today. That's an average increase (not compounded) of 2.3% per year. Our historical experience since 1970 has been an increase of 3.5% per year. How do you justify the sharp reduction in the rate of increase? On page 7-8, quoting from the Caltrans Hatton Canyon Freeway EIR, it states that traffic will have increased 70% by the year 2010. That's a 3.5% per year (not compounded) increase. There should be some consistency in these figures, or a comment to explain why they are not consistent.

4. The projections on the timing of growth are very unrealistic. Most of the growth projected to occur in Phase 2 (1991-1996) will not occur before Phase 3. There are two reasons for this:

a. The EIR projections do not take into account the consequences of the Water Management District's recent decisions on water allocation. Water available for allocation to new growth will be limited to about 1/4 to 1/3 of historic levels until a desalination project or dam can be built. The County will not have water for much growth other than lots of record and projects that bring their own water with them (Quail Meadows and Odello).

b. The County is pursuing a policy of limiting growth at the mouth of the Valley pending solution of traffic problems on Highway 1. About 100,000 sq. ft. of commercial development in five projects at the mouth of the Valley has been on hold for over a year pending solution of Highway 1 traffic problems. You estimate this will not occur until 2000. If that is accurate, and if the County maintains its current policy, there will be no commercial development at the mouth of the Valley until Phase 4. You also estimate that the single point diamond interchange for the Hatton Canyon Freeway will be at LOS E by the year 2005. If that is true, very little additional commercial development at the mouth of the Valley should ever be approved.

5. Regarding Alternative G, reduced commercial development: The EIR states that cutting planned commercial development in half would not improve the traffic, as trip reduction due to less development would be offset by more residents leaving the Valley for jobs and services. I believe this analysis is deceptive, as it fails to take into account the different traffic patterns caused by different types of commercial development. The problem is that the mouth of the Valley has become a regional commercial center, serving the region as a whole. It has, for example, become the financial center for the Peninsula, with banks, title companies, and stock brokerages that serve the entire Peninsula. The development that will occur there will attract more people from throughout the Peninsula while providing very few additional services not already available to Valley residents. This development should be discouraged, as it brings more traffic and other problems than benefits. By contrast, commercial development at Valley Hills, mid-Valley and in the Village should be encouraged, as the only commercial development that is economically feasible in these areas is development that serves the needs of Valley residents, and this will help take traffic off Carmel Valley Road. For example, the service center planned at Valley Hills is planned to have auto repair facilities which don't now exist in the Valley and which will reduce travel from Carmel Valley to Seaside. From a traffic perspective, the best solution would be to stop further commercial development at the mouth of the Valley, but let it take its natural course elsewhere in the Valley.

6. The cost projections and financing plans should not be considered in isolation from other highway needs elsewhere in the County and even other projects in Carmel Valley. Specifically:

a. Even though this EIR deals only with Carmel Valley Road, the financing plan has to recognize that the Rio Road extension will also have to be built, so money needs to be available for that.

b. One needs to determine if Measure B funds can be used only to improve Carmel Valley Road itself, or if they can also be used on a project like the Rio Road extension that is planned to relieve congestion on Carmel Valley Road.

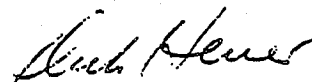
c. The County financing plan projected committing FAS funds in the amount of \$760,000 per year for ten years to Carmel Valley Road improvements. Is my impression correct that this would be the County's entire FAS allotment for that ten year period? If so, that seems very unrealistic. In order that the reader may judge the likelihood of any such plan actually being implemented, I believe the EIR should reveal what percentage of the County's total FAS and FAU funds are being committed to Carmel Valley.

7. In looking at the page 1-5 list of alternatives considered in this EIR, I note the absence of any alternative called Preferred Project with Hatton Canyon Freeway. This is a curious omission. I don't suggest that you add it. Rather, I suggest that you combine alternatives A and B and delete all reference to Hatton Canyon Freeway in describing any of the alternatives. The presence or absence of the freeway doesn't make that much difference in considering the alternatives. If the freeway isn't built, some other improvements to Highway 1 will probably be made. Any impact that the Highway 1 situation may have on the analysis of Carmel Valley Road can be handled by discussion under each alternative rather than by creating separate alternatives.

8. Re discussion on page 7-24, Traffic Mitigation 1 for the transit alternative. The EIR recommends something that already exists. Hacienda Carmel, Del Mesa Carmel and Carmel Valley Manor already operate their own vans to provide shuttle transportation for their residents, and I believe this is also planned at Carmel Valley Overview.

9. Note that Monterra should perhaps be included in the Table 1 list of cumulative development planned outside the CVMP area.

Sincerely yours,



cc: Sup. Strasser Kauffman

RICHARDSON S. MUMFORD
REAL ESTATE APPRAISAL & CONSULTING

LETTER 19

P.O. BOX 221279
CARMEL, CA 93922
408-625-9630

26555 CARMEL RANCHO BLVD. #6
CARMEL, CA 93923
FAX 408-625-6948

March 25, 1991

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

RE: EIR Carmel Valley Road Improvement Plan

Dear Sir,

In reference to the public meeting held at the Mid-Valley Fire Station on March 21, 1991 concerning the Carmel Valley Road Improvement Plan, I wish to make the following comments.

I am a real estate appraiser on the Monterey Peninsula, and drive the Carmel Valley Road a various times of the day. I also live at 8562 Carmel Valley Road, which is almost directly across the road from the Mid-Valley Fire Station, and commute to the mouth of the valley daily.

It is my observance that the greatest times of traffic congestion on the Carmel Valley Road, and also at the Highway 1 junction, is during the period twice a day when the schools on Carmel Valley road either convene or let out classes.

These schools include the Carmel Middle School, All Saints Day School, and the Tularicitos Grade School in the Village.

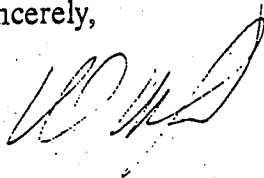
At this time there are large numbers of parents driving children to or from the schools. Most of the cars appear to have one child and one driver. Carpooling does not appear to be greatly utilized.

I suggest that some study be given to various methods of relieving this type traffic. This could be done by mandatory bussing or carpooling, or at least improving the bus service available to the students. The amount of money spent to four lane the roadway would buy a lot of busses, and also help relieve air pollution and conserve fuel.

It is my opinion that during other periods of the day, the traffic levels are not to the point that four laneing the road is necessary.

If I can provide any further information, please feel free to contact me.

Sincerely,



R.S. Mumford

FRANCES M. FARINA
7532 FAWN COURT
CARMEL, CALIFORNIA 93923

March 25, 1991

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

Attention: Lynne Mounday, Supervising Planner

RE: CARMEL VALLEY MASTER PLAN TRAFFIC ENVIRONMENTAL IMPACT
REPORT (CARMEL VALLEY ROAD IMPROVEMENT PLAN)

Dear Mr. Mounday:

During the public meeting held at the Mid-Valley Fire Station on Thursday, March 21, 1991, I raised a question about funding for Carmel Valley Road improvements that could not be answered without additional research.

I would appreciate a response to my question which is:

Assuming Measure B funds become available, are there any restrictions on the types and locations of improvements that can be made to Carmel Valley Road from these monies? For example, can they be spent for left turn lanes in lieu of 4-laning Carmel Valley Road? Can they be spent east of Robinson Canyon Road?

Thank you for your attention directed to this inquiry.

Very truly yours,



FRAN FARINA

cc: Hon. Karin Strasser Kauffman

JAMES V. CLARK, D.B.A.
7023 Carmel Valley Road
Carmel, California, 93922
Telephone and Fax: (408) 625-3533

March 30, 1991

Lynne Mounday
Supervising Planner, Monterey
Monterey County Courthouse
1200 Aguajito Road
Monterey, CA 93940

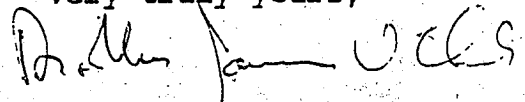
Dear Ms. Mounday:

Although we were unable to attend the Town Meeting to discuss the traffic issues we wanted to communicate ;pir opinion, as effected residents.

We are in favor of channelization but completely opposed to a four lane highway. We are of the opinion that the 4-lane stretch is the most dangerous part of Carmel Valley Road and also of the opinion that in other parts of the country where they have built freeways or widened highways that traffic invariably increases more than the increased capacity.

We hope our opinion is of some use to you.

Very truly yours,


Dr. and Mrs. James V. Clark

ALEXANDER T. HENSON
ATTORNEY AND COUNSELOR AT LAW

April 3, 1991

Monterey County Planning Department
Post Office Box 1208
Salinas, California 93901

COMMENTS ON DRAFT EIR
FOR CARMEL VALLEY ROAD IMPROVEMENT PLAN

The Draft Environmental Impact Report (EIR) is vague and inaccurate in describing the use of this EIR. While this draft claims that this is the EIR referred to in Policy 39.3.2.1, the draft never acknowledges that, with certification of this EIR, Carmel Valley will no longer have a traffic triggering mechanism. Instead we are told traffic "improvements will be made as needs and funding becomes available and after due consideration by the Board of Supervisors." Draft EIR, p. 5B-1.

Thus the EIR overlooks one of its basic functions. Upon its certification the policy in the Carmel Valley Master Plan (CVMP) requiring deferred of development if a roadway segment drops in LOS will no longer apply.

It should be noted the foregoing takes at face value the Draft EIR's assumption that this is the EIR referenced in Policy 39.3.2.1. In fact, this does not appear to be so, since the issue of four-laning Carmel Valley Road is addressed in a different EIR.

However the environmental impacts of this function of the EIR as a de facto amendment of the CVMP by ending the triggering mechanism must be addressed.

This being so the Alternatives Section should analyze the feasibility of an alternative traffic triggering mechanism. For example, if LOS on a roadway section were to drop, then development would be deferred until such a time as roadway improvements are under construction to bring the LOS back up to C.

April 3, 1991
Page Two (2)

Another curious omission concerns the data in the Draft EIR as contrasted with that in the 1986 EIR which this EIR is to supplement. This writer could not find any correlation nor discussion of how the 1986 data is being used to determine LOS and whether there has been a drop in LOS for any segment or alternatively how close is the drop of LOS for any segment.

In that regard, what will happen if LOS drops for any roadway segment after this EIR is certified?

Under noise impacts it is noted several roadway segments would have noise increases that while not a "significant" change, would be a change sufficient to put the roadway noise into the "conditionally acceptable" range. The Draft EIR suggest as a mitigation measure that new development would require noise abatement. See e.g. p. 5C-4. This begs the question of impact upon existing residences and businesses. There must be some sort of action that could be implemented to prevent "conditionally acceptable" conditions for residence along effected roadway segments.

Under "Unavoidable Adverse Impacts" there is the statement that there are no unavoidable noise impacts due to traffic generated noise. Id., p. 6-1. Upon what basis is that statement made?

The Growth-Inducing Impacts Section is inadequate. Will the proposed roadway improvements, including four-laning Carmel Valley Road to Robinson Canyon provide capacity for more cars than presently contemplated under the CVMP at the same or higher LOS? If so, isn't this excess capacity growth-inducing to the extent it allows more cars to use the roadway than provided in the CVMP? Without data on vehicle capacities for the improvements, how can it be said, "The improvements will accommodate the pre-established growth levels of the CVMP", p. 6-2?

Thank you for your attention to these comments. I look forward to learning of the response.

Sincerely,

Alexander T. Henson

ALEXANDER T. HENSON

(Kdm)

ATH/kdm



SIERRA CLUB - MOUNTAIN CHAPTER

LETTER 24

P. O. BOX 5667, CARMEL, CALIFORNIA 93921

CHAPTER OFFICE · ENVIRONMENTAL CENTER (408) 624-8032

April 3, 1991

Monterey County Planning and Public Works Department
Box 1208
Salinas, Ca 93902

Att: Mr. Lynn Mounday, Senior Planner
Ref: DEIR Carmel Valley Road Improvement Plan

Greetings:

Please consider this a supplement to my letter dated March 1, 1991.
Our further comments follow the Summary and Conclusions.

SUMMARY AND CONCLUSIONS

Many figures, charts, tables and mitigation measures in this DEIR assume that a Hatton Canyon Freeway will be built in the foreseeable future. This may be a false assumption. Polls taken within the community have consistently and overwhelmingly opposed the Freeway. Several governmental agencies have gone on record stating that a Freeway is "not the only practicable alternative." A number of court cases contesting the Freeway have been filed against Caltrans. In the circumstances, before a final EIR is issued, we think it is incumbent upon you, the lead agency, to prepare and submit for public comment a Supplemental (or Subsequent) DEIR. In that document a section devoted to bicycling as an alternative to driving should also be addressed.

Numbers below refer to specific pages:

1-1: Starting here and throughout the document, reference is made to the FEIS for the Highway One Improvement Plan (HIIP). This document assumes the existence of a Hatton Canyon Freeway. That a) a Freeway will be built in the foreseeable future is a dubious if not fallacious assumption; b) even if the Freeway is constructed the proposed highly controversial interchange with signal may not be part of the design; c) there are no "practicable alternatives" being considered to the Freeway.

But most important is the fact that the FEIS for the HIIP does not legally exist. Apparently, you have received a copy of what may be considered an Administrative Draft. We understand that it is but one of several versions that have been distributed as "trial balloons" to various agencies over the past year or two. Until the final FEIS is distributed to the public and certified by Caltrans, should the present document, the CVRIP, base its recommendations and conclusions on an "Administrative Draft?" Your comments please.

Monterey County Planning Department

April 3, 1991

Another significant and related deficiency in the DEIR of the CVRIP is its frequent reference to the Carmel Valley Master Plan (CVMP). When this was certified in November 1986, the DEIS on the HIIP had been available. The DEIS on the HIIP concluded that the Hatton Canyon Freeway was the preferred alternative. Accordingly, the CVMP based much of its decisions on the presumed existence of the Freeway. Should -- as we believe likely -- the plans for the Freeway be abandoned, the CVMP would have to be extensively revised. Please comment on this point.

2-2 Impacts 7 and 8:

Please revise all of the appropriate impact data in this section and throughout the DEIR, relating them to alternatives to the Freeway (such as widening Highway One to four lanes with a raised interchange at Carmel Valley Road).

Would any alternative interchange design potentially maintain an LOS at least equal to the one proposed? For the benefit of interested members of the general public, please clarify the meaning of "outbound."

2-4

Mitigation 4: Please address how the LOS on segment 10 could best be mitigated and what the resulting LOS would be in the very possible event that a Hatton Canyon Freeway is not constructed within the foreseeable future.

2-4, 2-5

Impacts 1, 2, 3/Mitigation 1: Since the current noise level of 67 dBA on segment 5 is already unacceptable for an area supposed to maintain its rural ambience, please describe what would be necessary to mitigate the existing noise level to an "acceptable" level (below 55 dBA) rather than rise to 69 dBA in 2005. Please address what steps will be necessary to reduce noise on segments 1, 5 and 6 where it presently exceeds "acceptable" levels. Please also address what measures would be necessary to mitigate a 4-8 dBA increase for nearby residents should a Freeway be built -- measures other than those which would unfairly impose the mitigation burden on homeowners.

2-5

Impact 1: Please describe exactly what "the project area" and "temporarily" refer to in this context. Can it be assumed that if Carmel Valley Road is widened to four lanes from Via Petra to Robinson Canyon Road as one ongoing project until completion, "temporarily" would mean there could be violations of Federal and State air-quality standards somewhere on Carmel Valley Road every work day during the many months required to finish the job?

Monterey County Planning Department

April 3, 1991

2-8

Please comment on the possibility that this mitigation may be inadequate. In your response, address among other factors the following ideas:

a) If trees are replaced on a one-to-one basis a significant percentage will die before maturity. Please estimate the percentage that will survive in view of the anticipated traffic?

b) Many years will pass before surviving planted trees gain the stature of those replaced. To compensate for this loss, can we assume that "revegetation" shall mean restoring the ecology to as natural a state as pre-existed, that enough native plants shall be replanted to make this possible? Can we further assume that an agency of Monterey County shall accept full responsibility for monitoring this for as many years as are required to restore or, better, improve the ecological community destroyed by the project?

Mitigation 7: Explain why you feel it necessary to protect only the Hickman's onion. Shouldn't other rare or endangered species -- including but not limited to the Carmel Valley Bush Mallow and the Carmel Valley Malacothrix -- be protected as well?

3-3

Annual Allocation: Explain how the number 37 [new dwellings per year] will decrease annually as the Carmel Valley Master Plan approaches the year 2006. We believe that this section could be read to imply that more than 1310 units could legally be developed by 2006. Is this its intent?

3-11

Fig. 3: Why is Carmel Greens (#5) shown both in Carmel Valley Village and at the Valley mouth?

4-7

Thirty-seven service establishments are referred to. This appears to underestimate such businesses substantially. On what is that figure based? Does it include service businesses operated from private homes? Do businesses in private homes constitute a high percentage in the Valley? Does 37 include the large number of unlicensed service businesses? Assuming that the figure 37 represents only *licensed* businesses, please address the impact when they are included in your calculations.

In several instances, the DEIR refers to the "Overview" project. In the FEIR this should be changed to its current name, "Pacific Meadows."

4-15

Phase 3: Please explain how you arrived at the Rancho San Carlos figures of 125 single family dwellings and 300 visitor-serving units. We believe the County is most likely to maintain present zoning permitting one unit/160 acres which could be distributed among both visitor-serving and private homes. It has also been said that the San Carlos owners, Pacific Union, may be planning to purchase other potential developments (Point Lobos Ranch, Odello property, etc.) intending to transfer development credits to San Carlos.

Please address the potential impact of such a scenario on Carmel Valley Road traffic. This would, of course, assume that access to San Carlos Ranch would be from Carmel Valley Road.

Monterey County Planning Department

April 3, 1991

5A-6

Table II: Segments 2A and 2B are reversed. Please make the correction to show that 2A is between CV Road between Esquiline to east of Holman; 2B, CV Road between Ford and Esquiline.

Please change Segments 8 and 9 and Fig. 2 which incorrectly depict an intersection of CV and Rio Roads.

5A-7

Par. 1: We question whether the high traffic volume at the intersection of Hwy. 1 and CV Road is responsible for the high accident rate. Even so, however, this is no reason for not expanding on this.

Please address this problem further assuming a Hatton Canyon Freeway will not be built in the foreseeable future. Your discussion should be as comprehensive as that given other intersections of CV Road where there are an excessive number of accidents.

Areas of concern and Recommendations for Improvement (Subpar. 2): Since "4-laning of CV Road from Robinson Canyon Road to Ford Road would be highly controversial and is unlikely to be funded in the near future, please describe what steps could realistically be taken to meet the LOS C standard in the Master Plan for Segments 3 and 5. Will mitigations described in the DEIR attain this level? If not, what else will be required?

Please address in particular the effectiveness of "channelization" in combination with any other realistic mitigations in adequately improving existing and predicted problems. In addition, please address the perception held by many Carmel Valley residents that, while "4-laning" Carmel Valley Road can be expected to decrease the number of accidents between Via Petra and Robinson Canyon Road, it can also be expected to increase the number of fatalities.

5A-9

Master Plan Improvements: Please clarify and justify the statement that, "Build out will occur by the year 2005."

5A-17

Impacts 23 and 25: The County Public Works Department has made numerous attempts to remove ancient specimen trees along Segment 3, especially in the region near Boronda Road. So far, public outcries have prevented these intrusions.

Please address the likely impact on the LOS in the event these trees are not removed.

5B-3

Par. 1: Please explain why the County anticipates issuing only 100 discretionary permits by the year 2006 for existing legal lots of record, this in view of the fact that there were 572 undeveloped lots when the CV Master Plan became effective. We assume that discretionary permits would legally have to be granted to develop all of these lots. Yet you assume only 17-18% of these would be developed. Why? Please also clarify whether, as the County projected, a majority of these 100 lots were indeed granted discretionary permits by 1990 and, if it can then be assumed that relatively few additional such permits can be expected to be granted for legal lots of record over the next 15 years. Is it fair to assume that the County has collected over \$750,000 for road improvement on CV Road in addition to monies from the half-cent sales tax?

Monterey County Planning Department

April 3, 1991

5B-4

Please explain why "4-laning of Carmel Valley Road...\$14.5 million" and, "As shown in Table 21, widening the Carmel Valley Road to four lanes was assumed to take place in 1995 (year 10) and would cost \$21.46 Million at that time" are not contradictory statements.

Exclusive of the half-cent sales tax, which is being challenged in the courts, please describe how close to County's plans for revenue to improve CV Road are on schedule. By how much (if at all) is there a shortfall (or excess) of revenue?

If the half-cent sales tax is ultimately upheld, please state whether this will be tantamount to switching the burden for improving CV Road from developers, new businesses and new residents to taxpayers. Since that would prove to result in a grave injustice, we hope that we have misunderstood the DEIR on this point.

5B-5 to 5B-12

We resent and oppose the conclusions reached in this portion of the DEIR in which its authors attempt to set or influence policy. Because it oversteps the authority of the authors, this section is entirely inappropriate. In our democracy, policies are set by elected officials not agencies. In our opinion, the financial burden for making the needed road improvements should be borne solely by those dependent upon such improvements in order to be granted building permits. Current taxpayers are not the beneficiaries and should therefore not be penalized.

5B-13

Recommendation 2: Explain why the authors of the DEIR find it inappropriate for new homeowners to bear a fair share of the fiscal burden created by new development. Please also explain why the DEIR -- supposedly a factual, neutral document -- is attempting to change earlier political decisions made by the Board of Supervisors.

Recommendation 3: Clearly, this would exempt owners of existing legal lots of record from financially supporting improvements along CV Road. We propose that this recommendation be amended to state that appropriate fees be levied upon issuance of a building permit for existing legal lots of record.

Please comment on this and suggest any other possible scheme that would more equitably distribute the financial burden among those who are most responsible for the need to widen or improve Carmel Valley Road.

5C-1 and 2

The DEIR states, "...normally acceptable' exterior noise levels for residential land uses...is 50-55 dBA for low density housing." Later, it states, "...adding this to the existing 60-66 dBA would approach 'conditionally acceptable' noise levels...for residences in close proximity to Carmel Valley Road...."

Please explain this apparent contradiction. It would seem that noise levels exceeding "normally acceptable" levels by 5-11 dBA five years ago must even then have reached "conditionally acceptable" levels or worse without inflicting additional dBAs.

Given that traffic since 1986 has increased significantly along CV Road, noise levels have increased commensurably. In fact they are probably already beyond 60-66 dBA. Please update these figures.

Monterey County Planning Department

April 3, 1991

The need for actual hard figures and the inaccuracy of estimating 1990 noise levels are easily seen in Table 28. Estimates of 1990 levels already equal or exceed the estimates of noise levels for 2005 over 70% of the time using the same 1986 figures. We are concerned that in the absence of hard figures, the noise and traffic levels will be substantially underestimated. The County Public Works Department itself admits that its traffic figures are probably erroneous.

Please also explain why the DEIR states that the CVMP policies are adequate for mitigating increased traffic noise levels when the level of noise for years has exceeded normally acceptable levels.

Please also explain how the DEIR reached the conclusion that the increase in noise along CV Road would be minor in view of the fact that 300 new visitor serving units are projected along with (even by the DEIR's own conservative estimate) 840 new homes. This presumably will add by 2006 at least 9000 additional trips per day excluding any traffic generated from surrounding areas or commercial development.

5C-7 and 8

All suggested noise mitigations deal with construction problems. Keeping in mind the mandate for a rural ambience, please suggest what mitigations would most effectively reduce noise levels to "normally acceptable" levels (50-55 dBA) and confine them within this range as traffic levels continue to grow during the next 15 years.

5D-7

Environmental Impacts, Subpar. 4: The DEIR states that additional hydrocarbon emissions in Carmel Valley and elsewhere in the planning area would not violate ozone standards. Please explain this in the context of pertinent sections of the Air Quality Management Plan of the Monterey Bay Unified Air Pollution Control District and the Technical Report entitled "Transportation Control Measures" recently issued by AMBAG.

5D-9

Construction of Hatton Canyon Freeway, Par. 2: This implies that, since monitors would be placed too far from the construction site to accurately assess the increased air pollution, there will be no way of determining whether Federal or State standards are violated. You seem to imply thereby that there is no need to worry about it. Please clarify the intent of this section of the DEIR. If construction of the Freeway could conceivably result in non-conforming levels of air pollution, could sensors be so placed as to monitor this? During such periods (e.g., atmospheric inversion) would construction be suspended?

5D-10

The DEIR assumes vehicle speeds would remain constant. Please address the impact of increased speeds after CV Road is four-laned to Robinson Canyon Road. It is apparent that speeds increase as vehicles reach the present four lane section. Isn't it thus reasonable to assume that they will be faster on the extended four-lane section?

Monterey County Planning Department

April 3, 1991

We note two omissions in the DEIR. The first is a lack of information on bicycle and pedestrian traffic.

One of the goals of the Carmel Valley Master Plan is to encourage alternatives to driving. Although there are some people and bikers along Carmel Valley Road, many people are reluctant to do so because they feel it is too dangerous. The bicycle strip along the road is marginal at best along some stretches. Please recommend what realistic measures could be taken to assure safe biking and walking from the mouth of the valley to the Village.

Finally, we note that the DEIR does not contain a Mitigation Monitoring Plan (MMP) as required since January 1, 1989 by the California Environmental Quality Act. Since an EIR is legally incomplete and thus cannot be certified without such a plan, a suitable place for it would be in the Supp. DEIR that we are proposing. Please tell us where the MMP will be inserted.

Sincerely,
VENTANA CHAPTER, SIERRA CLUB

Scott Hennessy
AM

Scott Hennessy, Chair
SH/RD/NM/AM

Note: Further information may be obtained from or sent to:
Richard Dalsemer, Carmel Valley Chair, 28 Aliso Rd.,
Carmel Valley, CA 93924
Noel Mapstead, Transportation Chair, Box 1962,
Carmel, CA 93921
Arthur Mitteldorf, Conservation Committee Co-chair, 942 Coral Dr.,
Pebble Beach, CA 93953

Hlyn Marmey: - 4/5/1991
 Comments for: Carmel Valley Road Improvement
 Plan. EIR. December 1990

From Noel MAPSTEAD -

1. Please detail a discussion of the environmental impacts that each level of service would have on the environment. For example, LOS A, B, C, F, all have different impacts. we should not be subject to (LOS C) as the only alternative, since LOS C has significantly more damage than ~~B~~ LOS D.
2. Since (LOS D) has a lower speed than (LOS C) Death and injury accidents will be less, because speed kills and injures. At the same time, higher (LOS) decreases air emissions. what is the trade-off in lowering emissions versus the increase in death and injury.
3. please include alternatives that mix LOS, i.e. one C.V. Road segment C; one D. This would have the effect of having Road widening 2 lanes, 3 lanes, 4 lanes, in order to protect the environment.
4. Please use traffic congestion as a management tool, to improve C.V. Road. Congestion limits V.R.
5. Please include all units of the Carmel area bus.

Ellen Pendleton

P.O. Box 221238
Carmel CA 93922
(408) 626-1936

On March 21, 1991 I attended the meeting at the Mid-Valley Fire Station concerning the EIR draft for the Carmel Valley Road traffic issue. I would like to go on record as proposing a bicycle/pedestrian path from Carmel Rancho Center area to the Carmel Valley Village. I ride my bicycle for business-related purposes as well as for pleasure. I talk to many people daily and the attitude that comes to me is positive in favor of a bicycle/pedestrian path. Most people say they would rather bike, run or walk instead of drive an automobile, but that they consider the Carmel ~~V~~^V Valley Road far too dangerous to bike, run or walk.

My children, ages 8 & 15, are afraid to walk the $\frac{1}{2}$ mile from Meadows Road to the Hacienda Hay & Feed at Valley Hills Shopping Center.

I believe a bicycle/pedestrian path would lessen traffic~~s~~ on CV Road. I believe such a path could not only retain, but enhance the country-style living atmosphere which makes Carmel Valley so attractive.

CAPT GEORGE H. WHISLER, JR, USN (RET)
3850 Rio Road #80
Carmel, California 93923

5 April 1991

Director, Monterey County
Planning and Building Inspection Department
Post Office Box 1208
Salinas, CA 93902

✓ Attention: Mr. Lynne Mounday.

Dear Sir:

The following paragraphs contain comments and recommendations regarding the Draft EIR on the Carmel Valley Road Improvement Plan dated December 1990, in accordance with the Planning and Building Inspection Notice of Public Review (undated).

The above Draft EIR is found to be inadequate in that it includes no description or consideration of the interchange at Highway One and Carmel Valley Road mentioned in CVMP Policy 39.3.1.8 in event the State does not build the Hatton Canyon Freeway. That Freeway probably will not be built in view of the extensive controversy and litigation surrounding it. Therefore, an alternative to the Freeway must must planned in order to provide an adequate LOS at the intersection of Highway One and Carmel Valley Road. The present LOS F cannot be permitted to continue at that location any longer than absolutely necessary. Both the State and County have been irresponsible for not correcting that outrageous traffic problem long ago.

Another important reason to include a specific practical alternative interchange at Highway One and Carmel Valley Road is that this EIR correctly states in Chapter 5A, Impacts 18 and 21, that the proposed Freeway single-point diamond interchange with Carmel Valley Road would not be up to the minimum service standard of LOS C as required by CVMP Policy 39.3.2.1. Both Impacts indicate an unsatisfactory projected interchange LOS E in the year 2005. The mitigation measure addressing this problem (Mitigation 3, page 5A-19) is not a practical solution and should be deleted.

Lynne Mounday/Capt George H. Whisler
April 5, 1991
Page 2

The most logical, cost effective and least environmentally damaging solution to the local traffic problems at the mouth of the valley is a modification of CALTRANS designed Alternative 4-1A to the Hatton Canyon Freeway. Alternative 4-1A is described in the "Final EIS on the Highway Improvement Project for State Route Number 1 in Monterey County Near Carmel". It includes the widening of Highway One to four lanes from Ocean Avenue to Rio Road and constructing a Carmel Valley Road (CVR) interchange which would have both the southbound Highway One to eastbound CVR movement and the westbound CVR to southbound Highway One movement passing under Highway One. These two movements would be separated by a traffic signal. Alternative 4-1A (Modified) eliminates this unsatisfactory at-grade signalization by providing a short, single-lane west-to-south tunnel beneath the south-to-east underpass, thus enabling unimpeded flow of traffic from Highway One South to Carmel Valley Road as well as from Carmel Valley Road to Highway One South. Excerpts of the FEIS describing Alternative 4-1A, and a modified CALTRANS drawing showing Alternative 4-1A (Modified) is enclosed.

A significant by-product of Alternative 4-1A (Modified) would be the elimination of the present "detour" from Carmel Valley to Carmel and Highway One South via the already congested route along Carmel Rancho Boulevard and Rio Road with its two delaying traffic signals.

Alternative 4-1A (Modified) costs would be less than \$10 million (State and Federal) and about \$100,000 (County). Construction time should be less than 12 months.

It is hereby urgently requested that the above comments and recommendations be approved and incorporated into the Final EIR.

Sincerely yours,



Enclosures

cc: Supervisor Sam Karas
Supervisor Karin Strasser-Kauffman

2.2.3.2 Design Features Incorporated Into Alternative 4 To Reduce Environmental Impacts (For Impact Analysis See Environmental Consequences)

Widening is primarily on the east side of the existing highway between Rio Road and Atherton Drive. North of Atherton Drive widening shifts primarily to the west side. The number of trees removed by this alternative is reduced by the shifting of the widening area.

2.2.3.3 Mitigation Measures

A number of mitigation measures are proposed as part of Alternative 4 to reduce significant adverse impacts. See Chapter 4, "Environmental Consequences" for discussions of specific mitigation measures.

2.2.3A Alternative 4 Modified (Interchange at Carmel Valley Road)

As a result of comments from the public review of the DEIS and comments received at the project Public Hearing, a modification of Alternative 4 was developed which included an interchange at Carmel Valley Road. (See Project Map, Alternative 4 Modified - Appendix).

Four design variations of the interchange were considered:

- Alternative 4-1A would include an interchange which would have both the southbound Highway 1 to eastbound Carmel Valley Road (CVR) movement and the westbound CVR to southbound Highway 1 movement passing under Highway 1. The two movements would be separated by a traffic signal. The interchange would also provide northbound Highway 1 on and off ramps.
- Alternative 4-1B does not provide for the westbound CVR to southbound Highway 1 movement at the proposed interchange. The westbound/southbound move would be via Carmel Rancho Blvd. and Rio Road, as is required under present conditions.
- Alternative 4-2A would be the same as Alternative 4-1A except that the proposed four lane section of Highway 1 would end at Carmel Valley Road. Between Carmel Valley Road and Rio Road, only two lanes would be provided on Highway 1.
- Alternative 4-2B would be the same as Alternative 4-1B except that the proposed four lane section of Highway 1 would end at Carmel Valley Road. Between Carmel Valley Road and Rio Road, only two lanes would be provided on Highway 1.

2.2.3A.1 Major Project Features

In addition to those features described for the original Alternative 4, the following major project features would be included in Alternative 4 Modified:

New Roadway Features

Alternative's 4-1A and 4-1B:

- Construct a new 68-foot wide undercrossing structure at Carmel Valley Road.
- Signalize the proposed intersection of the southbound on and off ramps (for Alternative 4-1A only).

Alternative's 4-2A and 4-2B:

- Construct a new 44-foot wide undercrossing structure at Carmel Valley Road.
- Signalize the proposed intersection of the southbound on and off ramps (for Alternative 4-2A only).

Replacement of Existing Facilities

The existing sewer line between Carmel Valley Road and Rio Road would have to be relocated.

Material Sites

Alternative 4 Modified would require a material excavation site to provide sufficient fill material. Fill materials would be obtained from a commercial materials excavation site.

Pedestrian and Bicycle Facilities

North of Carmel Valley Road pedestrian and bicycle traffic would have to use the paved highway shoulder until they reach the existing footpath that parallels the highway.

Right of Way Requirements

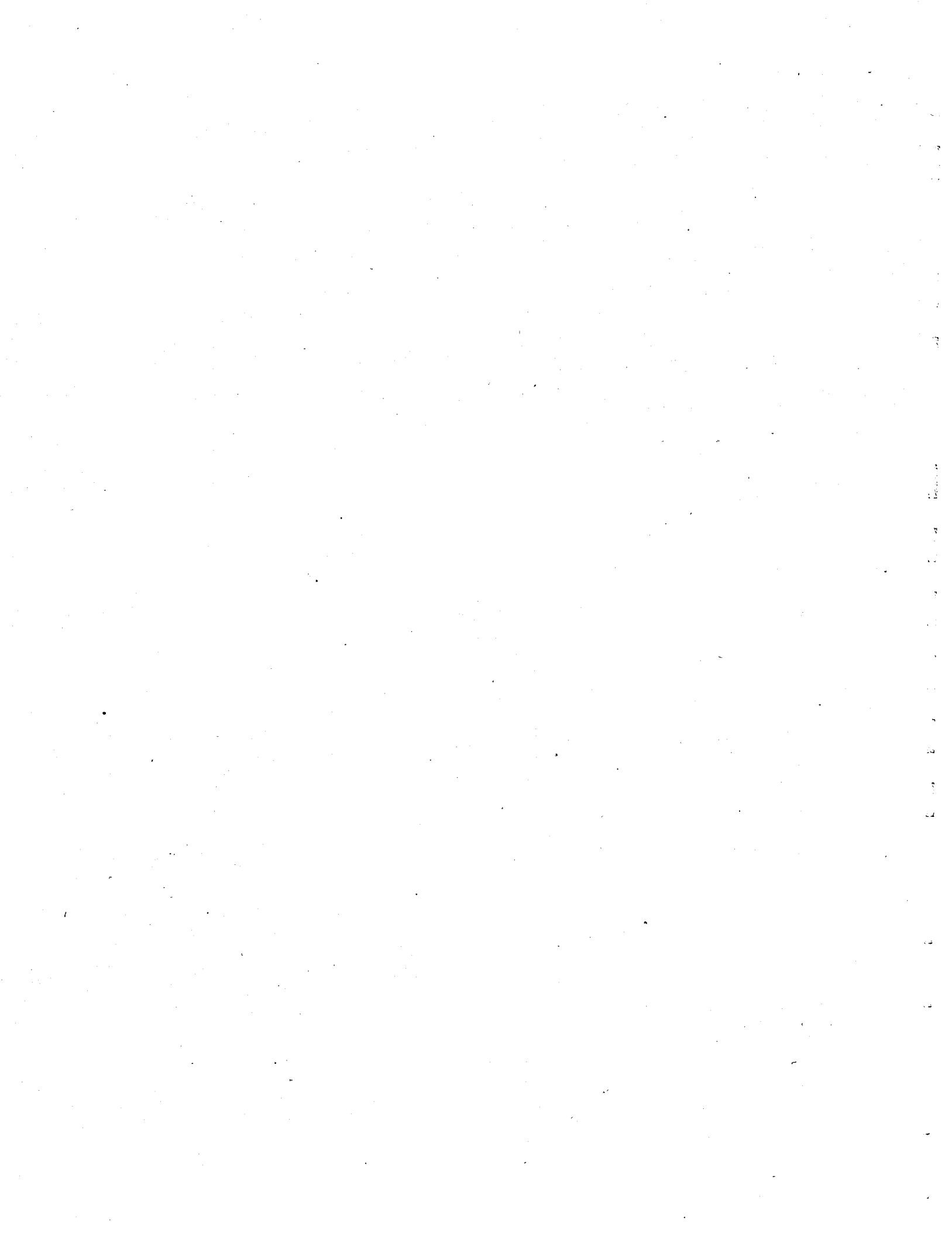
In addition to the right of way requirements identified for the original Alternative 4, the following right of way would be required by each of the design variations of Alternative 4 Modified:

Alternative's 4-1A and 4-1B	0.18 acres
Alternative's 4-2A and 4-2B	0.10 acres

The additional right of way would come from sliver taking east of the existing highway and north of Carmel Valley Road. Alternative's 4-1A and 4-1B may result in the displacement of two residences.

Construction Time

It is estimated that Alternative 4 Modified would take 250 (Alt. 4-2A, 2B) to 320 (Alt. 4-1A, 1B) days.



APPENDIX RTC - A
INFORMATION SUPPLIED WITH THE
RESPONSE TO COMMENTS ON THE DRAFT EIR

Appendix A includes the following supplemental information to the DEIR prepared for the Carmel Valley Road Improvement Plan:

- I. Revised Methodologies and Level of Service Measures. This was Appendix B in the DEIR. Also, a nomograph that was missing from the DEIR appendix has been added. It is entitled "Four Locations Combined."
- II. Additional information regarding the vacant lots of record.
- III. A revised copy of Table 24 of the DEIR.
- IV. List of dwelling units and Employment by zone by year.



I. Traffic Appendix

Revised Methodologies and Level of Service Measures

(Appendix B in the DEIR)

plus

Four Locations Combined

(nomograph missing from the DEIR)

Different parts of the Carmel Valley street system are analyzed with different techniques. Table 1-A shows which methodology applies to each road segment. The following sections describe each methodology and the level of service measures that apply to them.

Signalized Intersections

These are analyzed using the planning methodology described in TRB Circular 212, Interim Materials on Highway Capacity, 1980. This methodology is simple and straight forward, using as inputs peak-hour turning movements, signal phasings (not timing), and lane configurations. The methodology calculates a volume-to-capacity ratio (V/C) for the intersection as a whole based on critical movements. The saturation flow rate is assumed to be 1,500 vehicles per hour per lane. The level of service designations are based on the V/C ratios (see Table 2-A).

Unsignalized Intersections

These are analyzed using the methodology described in TRB Special Report 209 Highway Capacity Manual, 1985. The input data are peak-hour turning movement counts, lane configurations, and major street speeds. The methodology calculates the number of gaps in mainline flow, which is translated into turning-movement capacities. The capacities are related to delay, which in turn is related to a level of service (see Table 3-A). Levels of service are calculated for each turning movement separately: outbound left turns require gaps in both directions simultaneously; inbound left turns and outbound right turns require a gap in only one direction, but their required gap lengths are different (right turns require more time). Levels of service are not calculated for mainline traffic flow, just for cross-traffic and turning vehicles.

Four-Lane Road Segments

Two segments (8 and 9) of Carmel Valley Road have four lanes. Levels of service can be defined for both mainline traffic and for cross-street turning movements. In the past, the county has analyzed mainline level of service only. This does not describe, however, the experience of getting on or off Carmel Valley Road at cross-streets or driveways. Therefore, this analysis introduces a measure of cross-street level of service as an additional measure to evaluate traffic conditions. Mainline traffic flow on these segments is analyzed using the Multilane Highways methodology described in TRB Special Report 209, Highway Capacity Manual, 1985. This methodology relates levels of service to the traffic density, expressed in vehicles per mile (see Table 4-A). The methodology calculates vehicles per mile using data on peak-hour traffic flow, terrain, and percentage of heavy vehicles.

For cross-street (or driveway) turning movements, the levels of service are calculated using the Unsignalized Intersection methodology described earlier. As an accuracy and applicability test on that methodology relative to Carmel Valley Road, gaps were measured directly in the field and compared to calculated values. The correspondence was very close, so the judgment was made that the published methodology is applicable to Carmel Valley Road.

**TABLE1-A
ANALYSIS METHODOLOGIES**

Street System Component	Methodology
<p>Signalized Intersections:</p> <p>Carmel Rancho Boulevard/Carmel Valley Road Highway 1/Rio Road Crossroads/Rio Road Carmel Center Place/Rio Road</p>	<p>Circular 212 Planning for Signalized Intersections</p>
<p>Unsignalized Intersections:</p> <p>Highway 1/Carmel Valley Road Carmel Rancho Boulevard/Rio Road Laureles Grade/Carmel Valley Road</p>	<p>1985 <u>Highway Capacity Manual</u> for Unsignalized Intersections</p>
<p>Four-Lane Road Segments:*</p> <p>9--Carmel Rancho to Rio 8--Rio to Rancho San Carlos</p>	<p>1985 <u>Highway Capacity Manual</u> for Unsignalized (cross-streets) and Multilane Highways (mainline)</p>
<p>Two-Lane Road Segments:</p> <p>7--Rancho San Carlos to Schulte 6--Schulte to Robinson Canyon 5--Robinson Canyon to Laureles 3--Laureles to Ford 2B-Ford to Esquiline 2A-Esquiline to Holman 1--East of Holman</p>	<p>Specially-developed nomograph for Carmel Valley Road (mainline) and 1985 <u>Highway Capacity Manual</u> for Unsignalized Intersections (cross-streets)</p>

*Segment 10 is not analyzed. Its level of service is represented by the intersections at either end.

**TABLE 2-A
INTERSECTION LEVEL OF SERVICE DEFINITIONS**

Level of Service	Description	V/C Ratio
A	Uncongested operations; all queues clear in a single signal cycle.	Less than 0.60
B	Very light congestion; an occasional approach phase is fully utilized.	0.60 - 0.69
C	Light congestion; occasional backups on critical approaches.	0.70 - 0.79
D	Significant congestion on critical approaches but intersection functional. Cars required to wait through more than one cycle during short peaks. No long-standing queues formed.	0.80 - 0.89
E	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).	0.90 - 0.99
F	Total breakdown, stop-and-go operation	1.00 and Greater

**TABLE 3-A
LEVEL OF SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS**

Level of Service	Expected Delay to Minor Street Traffic	Reserve Capacity (PCPH) ^a
A	Little or no delay	Greater than 400
B	Short traffic delays	300-399
C	Average traffic delays	200-299
D	Long traffic delays	100-199
E	Very long traffic delays	0-99
F	Demand exceeds capacity resulting in extreme delays and queuing.	Less than 0

a. PCPH--Passenger cars per hour

Source: Transportation Research Board, Highway Capacity Manual, Special Report 209, Washington, D.C., 1985)pp10-9.

TABLE 4-A
LEVEL OF SERVICE DEFINITIONS FOR MAINLINE FLOW ON MULTILANE HIGHWAYS

Level of Service	Definition
A	Describes completely free-flow conditions. The operation of vehicles is virtually unaffected by the presence of other vehicles, and operations are constrained only by the geometric features of the highway and driver preferences. Vehicles are spaced at an average of 440 ft. or 22 car-lengths, at a maximum density of 12 pc/mi/ln. The ability to maneuver within the traffic stream is high. Minor disruptions to flow are easily absorbed at this level without causing significant delays or queuing.
B	Indicative of free flow, although the presence of other vehicles begins to be noticeable. Average travel speeds are somewhat diminished from LOS A, but are still generally over 53 mph on sections with 70-mph design speed. Vehicles are spaced at an average of approximately 264 ft., or 13 car-lengths, at a maximum density of 20 pc/mi/ln. Minor disruptions are still easily absorbed at this level, although local deterioration in LOS will be more obvious.
C	Represents a range in which the influence of traffic density on operations becomes marked. The ability to maneuver within the traffic stream, and to select an operating speed, is now clearly affected by the presence of other vehicles. Average travel speeds are reduced to about 50 mph on 70-mph design speed sections, and the average spacing of vehicles is reduced to approximately 175 ft., or 9 car-lengths, at a maximum density of 30 pc/mi/ln. Minor disruptions may be expected to cause serious local deterioration in service, and queues may form behind any significant traffic disruption. Severe or long-term disruptions may cause the facility to operate at LOS F.
D	Borders on unstable flow. Speeds and ability to maneuver are severely restricted because of traffic congestion. Average travel speeds are approximately 40 mph on 70-mph design speed sections, while the average spacing of vehicles is 125 ft., or 6 car-lengths, at a maximum density of 42 pc/mi/ln. Only the most minor of disruptions can be absorbed without the formation of extensive queues and the deterioration of service to LOS F.

(continued on following page)

TABLE 4-A (Continued)
LEVEL OF SERVICE DEFINITIONS FOR MAINLINE FLOW ON MULTILANE HIGHWAYS

Level of Service	Definition
E	Represents operations at or near capacity, and is quite unstable. At capacity, vehicles are spaced at only 80 ft., or 4 car-lengths, at a maximum density of 67 pc/mi/ln. This is the minimum spacing at which uniform flow can be maintained, and effectively defines a traffic stream with no usable gaps. Thus disruptions cannot be damped or dissipated, and any disruption, no matter how minor, will cause queues to form and service to deteriorate to LOS F. Average travel speeds at capacity are approximately 30 mph.
F	Represents forced or breakdown flow. It occurs at a point where vehicles arrive either at a rate greater than that at which they are discharged or at a point on a planned facility where forecasted demand exceeds the computed capacity. While operations at such points (and on immediately downstream sections) will appear to be at capacity or better, queues will form behind these breakdowns. Operations within queues are highly unstable, with vehicles experiencing short spurts of movement followed by stoppages. Average travel speeds within queues are generally under 30 mph, with densities higher than 67 pc/mi/ln.

Two-Lane Road Segments

As with the four-lane road segments, there are separate analysis techniques for the mainline traffic versus the cross-street (and driveway) turning movements. In the past, the county has analyzed only mainline levels of service and has used the Rural Highway methodology in the Highway Capacity Manual. The methodology has been found to be inaccurate for Carmel Valley Road, however, so a special nomograph was prepared for this EIR study. The nomograph uses the same methodological approach as the Highway Capacity Manual, i.e., that level of service is indicated by the percentage of vehicles traveling in platoons (see Table 5-A). A platoon is a group of cars traveling together. Cars in platoons are constrained from setting their own speeds, so the more vehicles in platoons, the worse the level of service. The Highway Capacity Manual uses an equation to translate traffic volume into platoon percentage; traffic volume is also the independent variable in the nomograph prepared for this study, but the relationship between volume and platoon percentage has been customized for Carmel Valley based on the field data. Technicians measured actual platoon percentages along Carmel Valley Road to develop the relationship between volume and platooning (See Figure 1). Interestingly, the Highway Capacity Manual adjusts the equation for factors such as terrain, lane width, and shoulder width, but the field measurements showed no difference among the six road segments studies. That is, platooning was found to be correlated to volume alone and not to other factors. This is probably because the different segments of Carmel Valley Road do not differ widely in geometrics, although there is some variation.

Using the nomograph, mainline levels of service can be determined from peak-hour traffic volume data for either direction. The report lists the level of service for the highest volume direction, which is eastbound during the PM peak hour.

The level of service for cross-traffic and turning vehicles is analyzed using the unsignalized intersection methodology, as described for the four-lane segments. Level of service is based on delay, which is a function of the availability of gaps in mainline traffic. In an attempt to customize this methodology for Carmel Valley, gaps were measured in the field and compared to calculated values from the Highway Capacity Manual. The results were virtually identical, so the HCM methodology was judged applicable to Carmel Valley.

TABLE 5-A
LEVEL OF SERVICE DEFINITIONS FOR RURAL HIGHWAYS

Level of Service A occurs when motorists are able to drive at their desired speed. Passing demand is well below passing capacity, and almost no platoons of three or more vehicles are observed. Less than 30 percent of vehicles are in platoons.

Level of Service B occurs when passing demand becomes significant and approaches passing capacity. Up to 45 percent of vehicles are in platoons.

Level of Service C results in noticeable increases in platoon formation, platoon size, and frequency of passing impediment. Average speed still exceeds 52 mph on level terrain, even though unrestricted passing demand exceeds passing capacity. Up to 60 percent of vehicles are in platoons.

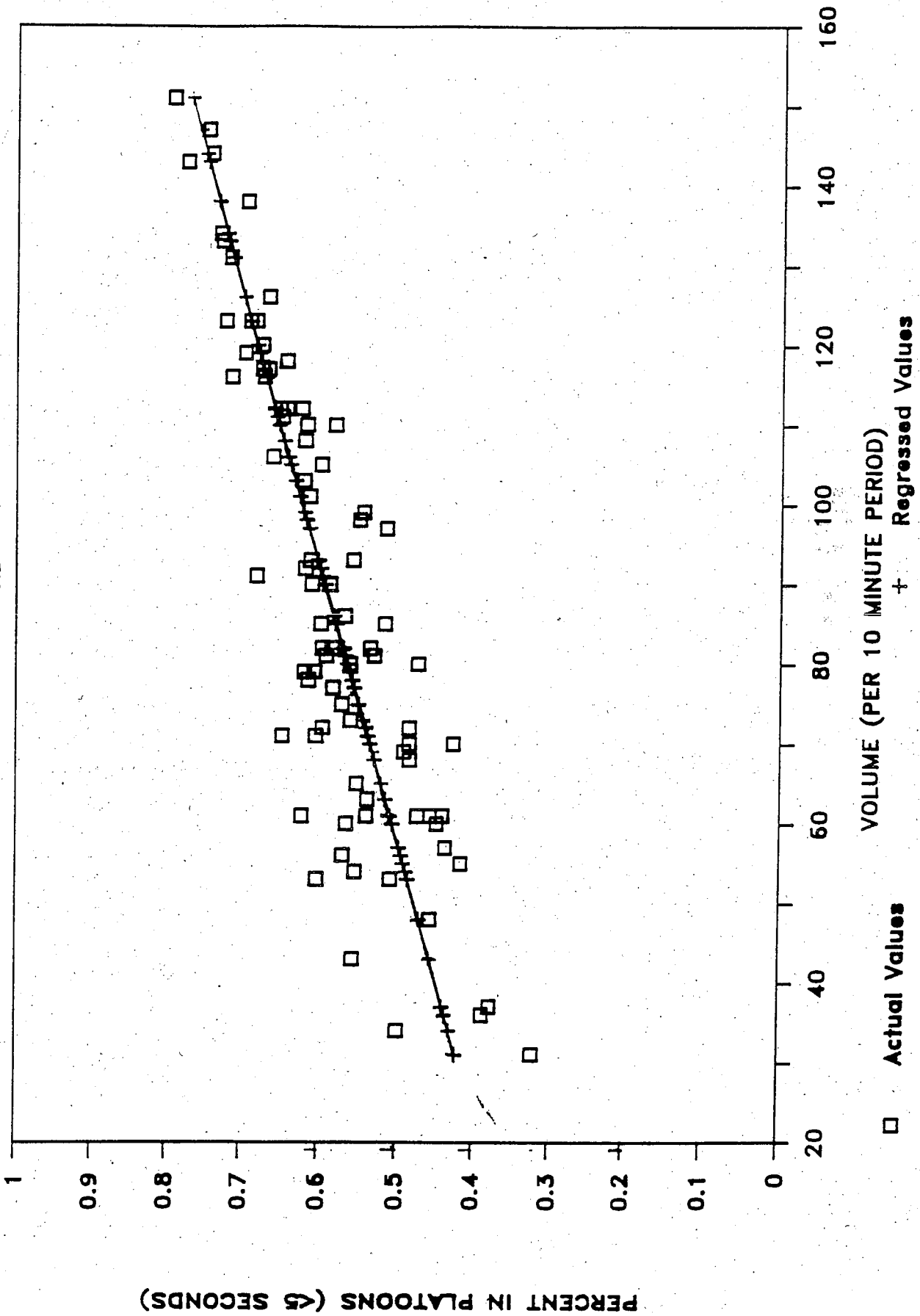
Level of Service D occurs as passing becomes extremely difficult. Passing demand is very high, while passing capacity approaches zero. Mean platoon sizes of 5 to 10 vehicles are common, although speeds of 50 mph can still be maintained under ideal conditions. Up to 75 percent of vehicles are in platoons.

Level of Service E occurs when volume approaches capacity. Speeds drop below 50 mph, and passing is nearly impossible. More than 75 percent of vehicles are in platoons.

Level of Service F is stop-and-go operation with traffic demand exceeding capacity.

FOUR LOCATIONS COMBINED

EASTBOUND



II. Carmel Valley Master Plan Vacant Lots of Record

The following is a listing of the vacant parcels of record prepared in August 1991 by the Monterey County Planning and Building Inspection Department. The zone numbers refer to traffic zones encompassing parcel based areas as shown on maps contained in the Monterey County Department of Planning and Building Inspection and contained in the EIR File 89-005 for this document. The numbers to the right of the zone numbers refer to assessors parcel numbers.

C.V.M.P. VACANT PARCELS BY ZONE

NOTE: PARCELS THAT HAVE BEEN ISSUED BUILDING PERMITS ARE NO LONGER CONSIDERED VACANT.

ZONE	
153	OUTSIDE C.V.M.P.
154	A09-291-26 3 VACANT A09-302-10 A09-302-11
155	13 VACANT A09-031-05 A09-031-53 A09-031-56 A09-032-04 A09-032-09 A09-043-09 A09-044-02 A09-052-26 A09-052-31 A09-521-08 A09-522-10 A09-522-32
157	NONE VACANT
158	OUTSIDE CVMP
159	1 VACANT 009-562-02
160	NONE VACANT
161	NONE VACANT
162	NONE VACANT
163	7 VACANT A09-021-03 A09-021-15 A09-021-18 A09-021-35 A09-021-36 A09-021-43 A09-021-46
164	3 VACANT A09-021-04 A09-021-05 A09-021-29
165	OUTSIDE CVMP

ZONE

166 3 VACANT
 A09-171-09 & 10 (1 LEGAL LOT)
 A09-361-09
 A09-361-13 & 14 (1 LEGAL LOT)

167 7 VACANT
 169-011-13 & 16 (LEGAL LOT STATUS UNCERTAIN)
 169-011-14
 169-031-15
 169-031-19
 169-031-21
 169-031-22
 169-031-23

168 4 VACANT
 A09-162-20
 A09-251-23
 A09-251-24
 A09-251-33

169 4 VACANT
 157-041-08
 157-051-12
 157-101-01
 157-172-07

170 2 VACANT
 A09-192-12
 A09-211-06

171 5 VACANT WITHIN CVMP
 157-121-03
 157-121-06
 157-121-07
 157-131-01 (LEGAL LOT STATUS UNCERTAIN)
 157-131-03 (LEGAL LOT STATUS UNCERTAIN)

172 OUTSIDE CVMP

173 27 VACANT
 169-171-08
 169-171-37
 169-171-52
 416-021-04 (LEGAL LOT STATUS UNCERTAIN)
 416-021-06 (LEGAL LOT STATUS UNCERTAIN)
 416-021-08 (LEGAL LOT STATUS UNCERTAIN)
 416-021-11 & 27 (LEGAL LOT STATUS UNCERTAIN)
 416-021-25 (LEGAL LOT STATUS UNCERTAIN)
 416-021-26 (LEGAL LOT STATUS UNCERTAIN)

ZONE

ZONE 173 CONTINUED

416-022-11, 13 & 21 (1 LEGAL LOT)
416-022-12 (1 LEGAL LOT)
416-022-15
416-022-19 & 20 (1 LEGAL LOT)
416-022-25
416-023-31 (LEGAL LOT STATUS UNCERTAIN)
416-023-32 (LEGAL LOT STATUS UNCERTAIN)
416-023-33 (LEGAL LOT STATUS UNCERTAIN)
416-023-36 (LEGAL LOT STATUS UNCERTAIN)
416-023-37 (LEGAL LOT STATUS UNCERTAIN)
416-023-46 (LEGAL LOT STATUS UNCERTAIN)
416-023-49 (LEGAL LOT STATUS UNCERTAIN)
416-023-50 (LEGAL LOT STATUS UNCERTAIN)
416-023-53 (LEGAL LOT STATUS UNCERTAIN)
416-025-03 (LEGAL LOT STATUS UNCERTAIN)
416-025-04 (LEGAL LOT STATUS UNCERTAIN)
416-025-05 (LEGAL LOT STATUS UNCERTAIN)
416-025-18 (LEGAL LOT STATUS UNCERTAIN)

174

29 VACANT
169-021-09
169-021-17
169-021-14 & 18 (1 LEGAL LOT)
169-071-17
169-081-08
169-081-12
169-081-17
169-081-22
169-081-27
169-081-28
169-081-29
169-081-30
169-091-30
169-091-48
169-261-05
169-321-03
169-331-07
169-332-02
169-341-07
169-353-03
169-363-01
169-371-05
169-381-02
169-391-01
169-391-05
416-041-01 (LEGAL LOT STATUS UNCERTAIN)
416-041-02 (LEGAL LOT STATUS UNCERTAIN)
416-041-03 (LEGAL LOT STATUS UNCERTAIN)
416-041-04 (LEGAL LOT STATUS UNCERTAIN)

ZONE	
175	3 VACANT 169-201-06 169-221-08 169-221-11
176	8 VACANT 169-151-07 169-151-08 169-161-04 169-161-14 169-161-25 169-161-26 169-161-35 169-161-36
177	NONE VACANT
178	OUTSIDE CVMP
179	14 VACANT 151-011-01 (LEGAL LOT STATUS UNCERTAIN) 151-011-05 (LEGAL LOT STATUS UNCERTAIN) 151-011-32 (LEGAL LOT STATUS UNCERTAIN) 151-011-33 (LEGAL LOT STATUS UNCERTAIN) 151-011-36 (LEGAL LOT STATUS UNCERTAIN) 151-011-37 (LEGAL LOT STATUS UNCERTAIN) 151-011-38 (LEGAL LOT STATUS UNCERTAIN) 151-011-39 (LEGAL LOT STATUS UNCERTAIN) 151-011-40 (LEGAL LOT STATUS UNCERTAIN) 151-011-41 (LEGAL LOT STATUS UNCERTAIN) 151-011-42 (LEGAL LOT STATUS UNCERTAIN) 151-071-02 (LEGAL LOT STATUS UNCERTAIN) 151-071-03 (LEGAL LOT STATUS UNCERTAIN) 151-071-04 (LEGAL LOT STATUS UNCERTAIN)
180	18 VACANT 187-031-10 (LEGAL LOT STATUS UNCERTAIN) 187-031-21 (LEGAL LOT STATUS UNCERTAIN) 187-031-23 (LEGAL LOT STATUS UNCERTAIN) 187-031-25 (LEGAL LOT STATUS UNCERTAIN) 187-031-28 (LEGAL LOT STATUS UNCERTAIN) 187-031-38 (LEGAL LOT STATUS UNCERTAIN) 187-041-34 187-041-51 187-041-52 187-041-59 (LEGAL LOT STATUS UNCERTAIN) 187-041-63 187-042-03 187-061-09 187-071-17 187-071-19 187-071-20

ZONE	ZONE 180 CONTINUED
	187-071-20
	187-091-16
	187-091-27
181	3 VACANT
	185-011-02, 03 & 04 (1 LEGAL LOT)
	416-027-02 (LEGAL LOT STATUS UNCERTAIN)
	416-027-38
182	5 VACANT
	169-111-25
	169-121-12
	185-031-06
	185-031-07
	185-041-18
183	127 VACANT
	416-021-24
	416-024-01
	416-027-38
	416-511-03 (LEGAL LOT STATUS UNCERTAIN)
	416-511-04 (LEGAL LOT STATUS UNCERTAIN)
	416-522-11
	416-542-03 (OAKSHIRE) (22)
	416-542-04
	416-542-06
	416-542-08
	416-542-09
	416-542-10
	416-542-11
	416-542-12
	416-542-13
	416-542-15
	416-542-16
	416-542-17
	416-542-18
	416-542-23
	416-542-24
	416-542-25
	416-542-26
	416-542-27
	416-542-28
	416-542-31
	416-542-32
	416-542-33
	416-543-01 (AREA 'E') (10)
	416-543-02
	416-543-07
	416-543-08
	416-543-09

ZONE

ZONE 183 CONTINUED (AREA 'E' CON'T.)

416-543-10

416-543-11

416-543-12

416-543-13

416-543-14

416-591 (AREA 'F' CARMEL VALLEY RANCH -

89 VACANT TOTAL)

416-592

184

15 VACANT

187-021-07 (LEGAL LOT STATUS UNCERTAIN)

187-021-16 (LEGAL LOT STATUS UNCERTAIN)

187-021-25 (LEGAL LOT STATUS UNCERTAIN)

187-021-28 (LEGAL LOT STATUS UNCERTAIN)

187-021-31 (LEGAL LOT STATUS UNCERTAIN)

187-021-32 (LEGAL LOT STATUS UNCERTAIN)

187-101-02 (LEGAL LOT STATUS UNCERTAIN)

187-111-01 (LEGAL LOT STATUS UNCERTAIN)

187-111-03 (LEGAL LOT STATUS UNCERTAIN)

187-111-05

187-111-26 (LEGAL LOT STATUS UNCERTAIN)

187-111-28 (LEGAL LOT STATUS UNCERTAIN)

187-111-29 (LEGAL LOT STATUS UNCERTAIN)

187-121-32

187-131-07 (LEGAL LOT STATUS UNCERTAIN)

185

23 VACANT

187-141-06 (LEGAL LOT STATUS UNCERTAIN)

187-141-10 (LEGAL LOT STATUS UNCERTAIN)

187-141-17 (LEGAL LOT STATUS UNCERTAIN)

187-151-04 (LEGAL LOT STATUS UNCERTAIN)

187-211-16 (LEGAL LOT STATUS UNCERTAIN)

187-221-17 (LEGAL LOT STATUS UNCERTAIN)

187-241-13 (LEGAL LOT STATUS UNCERTAIN)

187-261-05 (LEGAL LOT STATUS UNCERTAIN)

187-261-07 (LEGAL LOT STATUS UNCERTAIN)

187-271-04 (LEGAL LOT STATUS UNCERTAIN)

187-321-01 (LEGAL LOT STATUS UNCERTAIN)

187-331-06

187-361-08

187-631-03 (LEGAL LOT STATUS UNCERTAIN)

187-641-05 (LEGAL LOT STATUS UNCERTAIN)

187-661-07 (LEGAL LOT STATUS UNCERTAIN)

187-181-04 (LEGAL LOT STATUS UNCERTAIN)

187-181-05 (LEGAL LOT STATUS UNCERTAIN)

187-181-06 (LEGAL LOT STATUS UNCERTAIN)

187-181-07 (LEGAL LOT STATUS UNCERTAIN)

187-181-26 (LEGAL LOT STATUS UNCERTAIN)

187-181-32 (LEGAL LOT STATUS UNCERTAIN)

187-272-19

ZONE
186

35 VACANT

187-011-03 (LEGAL LOT STATUS UNCERTAIN)
187-011-04 (LEGAL LOT STATUS UNCERTAIN)
187-011-06 (LEGAL LOT STATUS UNCERTAIN)
187-401-08 (LEGAL LOT STATUS UNCERTAIN)
187-411-07
187-481-01 (LEGAL LOT STATUS UNCERTAIN)
187-502-01
187-503-27
187-521-13
187-541-11
187-551-11
187-551-26
187-561-14
187-591-03 (3 LEGAL LOTS - 1 PERMIT
THUS FAR)
187-591-05
187-591-13 & 16 (1 LEGAL LOT)
187-591-19
187-591-34
187-591-49
187-601-03
187-601-15
187-601-19
187-611-04
187-611-06
187-611-26
187-611-28
187-611-36
187-611-38
187-681-05
187-681-07
187-681-10
187-701-04
187-701-10
187-701-13

187

14 VACANT

189-011-40
189-011-41
189-011-43
189-011-44
189-011-49
189-021-05
189-041-06 (LEGAL LOT STATUS UNCERTAIN)
189-051-02 (LEGAL LOT STATUS UNCERTAIN)
189-061-03 (LEGAL LOT STATUS UNCERTAIN)
189-061-08 (LEGAL LOT STATUS UNCERTAIN)
189-061-10 (LEGAL LOT STATUS UNCERTAIN)

ZONE ZONE 187 CONTINUED
189-061-11 (LEGAL LOT STATUS UNCERTAIN)
189-071-05 (LEGAL LOT STATUS UNCERTAIN)
189-561-32

188 13 VACANT
189-201-17
189-211-03
189-211-08
189-231-08
189-241-15 (LEGAL LOT STATUS UNCERTAIN)
189-252-01
189-261-06
189-261-12
189-261-13
189-261-16
189-272-12
189-311-15

189 17 VACANT
189-111-07 (LEGAL LOT STATUS UNCERTAIN)
189-111-17 (LEGAL LOT STATUS UNCERTAIN)
189-111-18 (LEGAL LOT STATUS UNCERTAIN)
189-111-19 (LEGAL LOT STATUS UNCERTAIN)
189-111-20
189-111-21
189-131-04 (LEGAL LOT STATUS UNCERTAIN)
189-141-11 (LEGAL LOT STATUS UNCERTAIN)
189-141-17 (LEGAL LOT STATUS UNCERTAIN)
189-151-12 (LEGAL LOT STATUS UNCERTAIN)
189-151-13 (LEGAL LOT STATUS UNCERTAIN)
189-151-14 (LEGAL LOT STATUS UNCERTAIN)
189-151-20 (LEGAL LOT STATUS UNCERTAIN)
189-161-11 (LEGAL LOT STATUS UNCERTAIN)
189-171-13 (LEGAL LOT STATUS UNCERTAIN)
189-191-16 (LEGAL LOT STATUS UNCERTAIN)

190 38 VACANT
(INCLUDES ONLY AREA WITHIN CVMP)
189-341-16
189-363-07
189-391-05
189-401-07
189-411-02 (LEGAL LOT STATUS UNCERTAIN)
189-411-04 (LEGAL LOT STATUS UNCERTAIN)
189-421-05
189-441-03
189-441-04
189-452-10
189-472-10
189-473-03

ZONE

ZONE 190 CONTINUED

189-491-06 (LEGAL LOT STATUS UNCERTAIN)
189-491-08
189-501-19 & 21 (1 LEGAL LOT)
189-511-05
189-531-02 (LEGAL LOT STATUS UNCERTAIN)
189-532-06 (LEGAL LOT STATUS UNCERTAIN)
197-151-08
197-151-13
197-151-16
417-031-01 (LEGAL LOT STATUS UNCERTAIN)
417-031-02 (LEGAL LOT STATUS UNCERTAIN)
417-031-03 (LEGAL LOT STATUS UNCERTAIN)
417-031-04 (LEGAL LOT STATUS UNCERTAIN)
417-031-05 (LEGAL LOT STATUS UNCERTAIN)
417-031-15 (LEGAL LOT STATUS UNCERTAIN)
417-031-16 (LEGAL LOT STATUS UNCERTAIN)
417-031-17 (LEGAL LOT STATUS UNCERTAIN)
417-031-19 (LEGAL LOT STATUS UNCERTAIN)
417-031-20 (LEGAL LOT STATUS UNCERTAIN)
417-032-01 (LEGAL LOT STATUS UNCERTAIN)
417-032-17 (LEGAL LOT STATUS UNCERTAIN)
417-032-18 (LEGAL LOT STATUS UNCERTAIN)
417-032-22 (LEGAL LOT STATUS UNCERTAIN)
417-032-24 (LEGAL LOT STATUS UNCERTAIN)

191

1 VACANT (INCLUDES ONLY AREA WITHIN CVMP)
197-081-14 (LEGAL LOT STATUS UNCERTAIN)

192

25 VACANT
187-461-05 (LEGAL LOT STATUS UNCERTAIN)
197-011-04 (LEGAL LOT STATUS UNCERTAIN)
197-011-08 (LEGAL LOT STATUS UNCERTAIN)
197-011-09 (LEGAL LOT STATUS UNCERTAIN)
197-011-13 (LEGAL LOT STATUS UNCERTAIN)
197-011-14 (LEGAL LOT STATUS UNCERTAIN)
197-031-02 (LEGAL LOT STATUS UNCERTAIN)
197-031-03 (LEGAL LOT STATUS UNCERTAIN)
197-031-04 (LEGAL LOT STATUS UNCERTAIN)
197-031-07 (LEGAL LOT STATUS UNCERTAIN)
197-091-02 (LEGAL LOT STATUS UNCERTAIN)
197-091-06 (LEGAL LOT STATUS UNCERTAIN)
197-091-23 (LEGAL LOT STATUS UNCERTAIN)
197-091-28 (LEGAL LOT STATUS UNCERTAIN)
197-091-29 (LEGAL LOT STATUS UNCERTAIN)
197-091-30 (LEGAL LOT STATUS UNCERTAIN)
197-091-31 (LEGAL LOT STATUS UNCERTAIN)
197-101-13 (LEGAL LOT STATUS UNCERTAIN)
197-101-14 (LEGAL LOT STATUS UNCERTAIN)
197-131-04
197-171-01
197-174-07
197-175-03

ZONE

ZONE 192 CONTINUED

197-181-03

197-181-06

193

2 VACANT (ONLY INCLUDES AREA WITHIN CVMP)

197-231-03 (LEGAL LOT STATUS UNCERTAIN)

197-231-04 (LEGAL LOT STATUS UNCERTAIN)

470 TOTAL VACANT CVMP AS OF
JUNE 1, 1991

Revised Table 24
COMPARISON OF COUNTY AND CONSULTANT FINANCING PLAN
WITH ADDITIONAL \$3,740,000 MITIGATION COSTS
(High Cost Traffic Mitigation*)

	Without Mitigation Cost			With Mitigation Cost			Difference	
	No. of Units	Per Unit	(\$000)	No. of Units	Per Unit	(\$000)	(\$000)	Percentage
FAS (1)	5	\$760,000	\$3,800	8	\$760,000	\$6,800	\$2,280	60%
FAU (1)	10	50,000	500	13	50,000	650	150	30%
NEW LOTS	435	10,000	4,350	435	15,000	6,525	2,175	50%
VISITOR ACCOM	325	10,000	3,250	325	10,000	3,250	0	0%
COMMERCIAL	394	3,000	1,182	394	3,000	1,182	0	0%
DISCRETIONARY	92	0	0	92	0	0	0	0%
TOTAL			\$13,082			\$17,687	4,605	35%

(1) No. of units is years

* Includes a signal at Via Mallorca

Source: Strong Associates, Inc.

**IV. Dwelling Units and Employment
by Zone by Year**

Dwelling Unit Growth

Zone	89-90	90-95	95-00	00-05	1989	1990	1995	2000	2005	
1	142				351	351	351	351	351	
3	143				161	161	161	161	161	
4	144					0	0	0	0	
5	145				189	189	189	189	189	
6	146				316	316	316	316	316	
8	147				151	151	151	151	151	
9	148				143	143	143	143	143	
7	149				444	444	444	444	444	
2	153					0	0	0	0	
14	154	0	1	1	2	118	118	119	120	122
15	155	2	4	5	4	299	301	305	310	314
16a	156	200	0	0	0		200	200	200	200
16b	157	0	0	0	1	3	3	3	3	4
10	158					0	0	0	0	0
11a	159					0	0	0	0	0
11b	160					0	0	0	0	0
11c	161				179	179	179	179	179	179
12a	162					0	0	0	0	0
12b	163					0	0	0	0	0
13	164	1	71	22	7	6	7	79	100	107
17	165					1	1	1	1	1
19	166	0	59	40	6	280	280	339	379	385
24	167	1	2	2	3	48	49	51	53	56
18	168	0	1	1	0	341	341	342	343	343
20b	169					176	176	176	176	176
20a	170	1	2	2	2	89	90	92	94	96
21	171	66	2	1	1	1	67	69	70	71
25	172						0	0	0	0
23a	173	2	104	50	10	102	104	208	258	268
25	174	3	8	8	8	272	275	283	291	299
22	175	1	3	3	2	71	72	75	78	80
23b	176	1	5	5	5	50	51	56	61	66
23c	177					63	63	63	63	63
29	178					78	78	78	78	78
30	179	1	3	3	4		1	4	7	11
31	180	2	5	5	5	91	93	98	104	109
28	181	1	2	2	1	17	18	20	22	23
27b	182					71	71	71	71	71
27a	183	18	55	55	55	191	209	264	320	375
32	184	2	4	4	4	69	71	75	79	83
35	185	3	39	8	9	313	316	355	363	372
36	186	5	14	14	13	376	381	395	409	422
33	187	2	6	7	6	88	90	96	103	109
34a	188	2	4	5	4	102	104	108	113	117
34b	189	1	5	4	5	248	249	254	258	263
37	190	5	14	14	13	462	467	481	495	508
38	191	0	0	0	1	19	19	19	19	20
39	192	2	6	7	6	76	78	84	91	97
49	193					1	1	1	1	1
144	322	419	270	177	6056	6379	6797	7067	7244	

197-199

Non-Retail Employment Growth

tax cvzone	89-90	90-95	95-00	00-05	1989	1990	1995	2000	2005	
1	142					0	0	0	0	
3	143					0	0	0	0	
4	144					0	0	0	0	
5	145					0	0	0	0	
6	146					0	0	0	0	
8	147				40	40	40	40	40	
9	148					0	0	0	0	
7	149					0	0	0	0	
2	153					0	0	0	0	
14	154					0	0	0	0	
15	155					0	0	0	0	
16a	156					0	0	0	0	
16b	157				83	83	83	83	83	
10	158					0	0	0	0	
11a	159	158				0	158	158	158	
11b	160				106	106	106	106	106	
11c	161				180	180	180	180	180	
12a	162	106			1373	1373	1479	1479	1479	
12b	163				390	390	390	390	390	
13	164	158	106	317		0	158	264	581	
17	165					0	0	0	0	
19	166					0	0	0	0	
24	167				10	10	10	10	10	
18	168					0	0	0	0	
20b	169				132	132	132	132	132	
20a	170					0	0	0	0	
21	171					0	0	0	0	
26	172					0	0	0	0	
23a	173				29	29	29	29	29	
25	174					0	0	0	0	
22	175				24	24	24	24	24	
23b	176				56	56	56	56	56	
23c	177	53	53		55	55	108	161	161	
29	178					0	0	0	0	
36	179					0	0	0	0	
31	180					0	0	0	0	
28	181					0	0	0	0	
27b	182					0	0	0	0	
27a	183				132	132	132	132	132	
32	184				42	42	42	42	42	
35	185				77	77	77	77	77	
36	186			10	82	82	82	82	82	
33	187					0	0	0	0	
34a	188	21	37		128	149	186	186	186	
34b	189				24	24	24	24	24	
37	190				32	32	32	32	32	
38	191					0	0	0	0	
39	192					0	0	0	0	
40	193					0	0	0	0	
		21	512	159	327	2995	3016	3528	3687	4014

Retail Employment Growth

Zone	1989-90	90-95	95-00	00-05	1989	1990	1995	2000	2005
1	142					0	0	0	0
3	143					0	0	0	0
4	144				58	58	58	58	58
5	145					0	0	0	0
6	146					0	0	0	0
8	147				30	30	30	30	30
9	148					0	0	0	0
7	149				34	34	34	34	34
2	153					0	0	0	0
14	154					0	0	0	0
15	155					0	0	0	0
16a	156					0	0	0	0
16b	157	88			37	37	125	125	125
10	158					0	0	0	0
11a	159					0	0	0	0
11b	160				418	418	418	418	418
11c	161					0	0	0	0
12a	162				310	310	310	310	310
12b	163				44	44	44	44	44
13	164			98		0	0	0	98
17	165					0	0	0	0
19	166					0	0	0	0
24	167					0	0	0	0
18	168					0	0	0	0
20b	169					0	0	0	0
20a	170					0	0	0	0
21	171	20			5	25	25	25	25
26	172					0	0	0	0
23a	173				13	13	13	13	13
25	174					0	0	0	0
22	175	40	147		29	29	69	216	216
23b	176					0	0	0	0
23c	177				171	171	171	171	171
29	178					0	0	0	0
30	179					0	0	0	0
31	180					0	0	0	0
28	181					0	0	0	3
27b	182					0	0	0	0
27a	183					0	0	0	0
32	184					0	0	0	0
35	185	5		10		5	5	5	15
36	186		32	25	194	194	226	251	251
23	187					0	0	0	0
34a	188					0	0	0	0
34b	189				131	131	131	131	131
37	190	20				0	20	20	20
38	191					0	0	0	0
39	192			20		0	0	20	20
40	193					0	0	0	0
		25	180	172	108	1474	1499	1679	1851

