
FINAL SUPPLEMENTAL
ENVIRONMENTAL IMPACT REPORT

*NORTH VINEYARD STATION SPECIFIC
PLAN ROADWAY IMPROVEMENTS*



Control Number: 06-PWE-0194
State Clearinghouse Number: 2006112105
September 2007

COUNTY OF SACRAMENTO
DEPARTMENT OF ENVIRONMENTAL
REVIEW AND ASSESMENT
827 7TH STREET, ROOM 220
SACRAMENTO, CALIFORNIA 95814



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PREPARED BY

Department of Environmental Review and Assessment

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This Supplemental Environmental Impact Report has been prepared pursuant to the California Environmental Quality Act of 1970 (Public Resources Code Division 13). An Environmental Impact Report is an informational document which, when this Department requires its preparation shall be considered by every public agency prior to its approval or disapproval of a project. The purpose of a Supplemental Environmental Impact Report is to provide public agencies with detailed information about the effect that a proposed project is likely to have on the environment; to list ways in which any adverse effects of such a project might be minimized; and to suggest alternatives to such a project.

Prepared by the
COUNTY OF SACRAMENTO
DEPARTMENT OF ENVIRONMENTAL
REVIEW AND ASSESMENT
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Municipal Services Agency

**Department of Environmental
Review and Assessment**

Joyce Horizumi, Director

Terry Schutten, County Executive
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County of Sacramento

September 19, 2007

TO: ALL INTERESTED PARTIES

**Subject: North Vineyard Station Roadway Improvements Final Supplemental Environmental
Impact Report (Control Number 06-PWE-0194)**

The subject Final Supplemental Environmental Impact Report (FSEIR) is attached for your review. The Final SEIR and proposed project will be heard before the Sacramento Board of Supervisors in the County Administration Building, 700 H Street, Sacramento, California. Please contact the Clerk of the Board at 874-7892 for specific date and time of the hearing.

Please contact Tim Hawkins of this office at 874-7914 if you have questions concerning this Final SEIR.

Sincerely,

[Original Signature on File]

Joyce Horizumi

Director

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1 PREFACE

The draft document (Supplement to the Final Environmental Impact Report for the North Vineyard Station Specific Plan) was intended to meet the regulatory requirements of CEQA. The SEIR serves as an informational document for decision makers and the general public regarding the environmental consequences of the project. This report provides information so the decision makers can determine whether this project should proceed and, if so, under what conditions.

This document contains individual chapters for specific categories that describe the potential environmental impacts of the proposed project. One of the basic purposes of CEQA is to inform state, regional, and local governmental decision makers and the public of impacts of proposed activities, and in particular, those impacts that are either significant or potentially significant. Determining and documenting whether an activity may result in a significant effect on the environment plays a critical role in the CEQA process.

On July 23, 2007, the Project Planning Commission held a public hearing on the Draft SEIR. Those concerns are reflected and addressed in the comments and responses contained in Chapter 15. Changes to the text are noted by ~~strike through~~ for deleted text and *underlined italics* for new text. An exception to this is Chapter 10, Climate Change. That chapter has been restructured but continues to conclude a less than significant impact.

Other changes to the document include clarification language, typographical error correction, and clarified plates and tables.

The Executive Summary Chapter provides a summary of the impacts, their significance under CEQA, and associated measures.

This document is a Supplement to the Final Environmental Impact Report for the North Vineyard Station Specific Plan (County Control Number: 93-SFB-0238) (FEIR). The FEIR was prepared as a Master EIR under the provision of CEQA (Section 15175) and is incorporated by reference in this Supplemental EIR (SEIR). The Sacramento County Board of Supervisors certified the FEIR on August 12, 1998 and approved the General Plan Amendment and subsequently approved the North Vineyard Station Specific Plan (NVSSP) on November 4, 1998. This environmental document assessed impacts at a master plan level for the development of the North Vineyard Station Specific Plan. Traffic and circulation, regional and local air quality, traffic noise impacts to existing receptors, cumulative loss of wildlife habitats and cumulative ground water decline (interim impact) were found to be significant effects that could not be avoided with the implementation of mitigation measures.

Also incorporated by reference in this SEIR is the Final Supplemental Environmental Impact Report for the NVSSP Specific Plan Amendments (County Control Number: 03-CPB-0082) (FSEIR). The Sacramento County Board of Supervisors certified the FSEIR

on November 10, 2004. This environmental document assessed the project-level impacts resulting from the development of two development plans, Vineyard Point and Vineyard Creek, as well as a specific plan amendment, financing plan and water treatment facilities. Construction-related particulate emissions were found to be a significant effect that could not be avoided with implementation of mitigation measures.

The information contained in this Supplemental EIR in conjunction with the Final EIR and Supplemental EIR for the North Vineyard Station Specific Plan will be used as the environmental documentation for the current project. A Notice of Preparation (NOP) for the Draft Supplemental EIR was issued to reviewing agencies and interested persons on November 15, 2006.

This Supplemental EIR addresses impacts associated with off-site roadway improvements that are a condition of the NVSSP development. This document addresses potential impacts associated with land use, public services, noise, biological resources, cultural resources, and hazardous materials.

Alternatives to the proposed roadway improvements are not discussed as the project elements were identified in the previous environmental documents as being necessary to mitigate traffic impacts due to the build out of the North Vineyard Station Specific Plan Area.

The air quality analysis conducted for the two previous environmental documents is consistent with roadway improvement plans. The nature of the project work is consistent with findings that regional and local air quality and construction-related particulate emissions would be a significant effect which cannot be avoided with the implementation of mitigation measures. Construction-related impacts due to typical roadway improvement activities proposed in this SEIR are consistent with the FEIR's assessment that with mitigation, construction-related air quality impacts are less than significant.

Traffic and circulation analysis conducted and discussed in the two previous environmental documents is consistent with roadway improvement plans. The prior EIR for the NVSSP analyzed the impact of development of the NVSSP on traffic volumes and levels of service within and around the Specific Plan Area. Recommendations for improvements to intersections and roadway segments were made in order to mitigate for potentially significant and significant impacts. The traffic study, prepared by Fehr and Peers Transportation Consultants, looked at the impact of development on traffic volumes and levels of service in the context of NVSSP Phasing. It was determined that implementation of the roadway improvements identified in the FSEIR would reduce impacts to traffic and circulation to less than significant.

2 EXECUTIVE SUMMARY AND MITIGATION MEASURES

The subject of this Supplemental Environmental Impact Report (SEIR) is a project known as North Vineyard Station Specific Plan Roadway Improvements. The project is located in the southern central section of Sacramento County and roughly bounded by Jackson Road to the north, Excelsior Road to the east, Calvine Road to the south and Elk Grove-Florin Road/South Watt Avenue to the west. The City of Sacramento borders and in some areas encompasses South Watt Avenue and the City of Elk Grove borders Calvine Road. The project roadways that extend east to west are Jackson Road, Elder Creek Road, Florin Road, Gerber Road and Calvine. Elk Grove-Florin Road/South Watt Avenue, Bradshaw Road, Vineyard Road and Excelsior Road extend north to south.

The following summary table (*Table 2-1 Executive Summary of Impacts and Mitigation on page 2-2*) briefly describes the project impacts and the mitigation measures recommended to eliminate or reduce the impacts. The residual impact after mitigation is also identified. Detailed discussions of each of the identified impacts and mitigation measures, including pertinent support data, can be found in the specific topic sections in the remainder of this report. Alternatives and traffic and circulation are not discussed in this SEIR as the project would construct identified traffic mitigation that was discussed and approved in the FEIR. Air quality is not analyzed in this SEIR as the findings have not changed. The mitigation measures from the FEIR and FSEIR pertinent to roadway widening activities have been carried through to this SEIR. The Preface discusses previous environmental documentation of these topics.

This report has identified project-related impacts associated with biological resources, construction air quality, cultural resources, and hazardous materials as potentially significant, which could be reduced to a less than significant level through inclusion of recommended mitigation measures.

This report identifies significant and unavoidable regional air quality impacts and noise impacts for existing sensitive receptors.

Impacts associated with land use, airport compatibility and public services are considered less than significant.

Table 2-1 Executive Summary of Impacts and Mitigation

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
LAND USE			
Conflict with Adopted Plans and Policies The proposed project is in compliance with the Sacramento County General Plan, City of Elk Grove General Plan, City of Sacramento General Pan, South Sacramento Community Plan, Cordova Community Plan, and applicable transportation plans. The proposed project is not in compliance with the transportation plan in the Vineyard Community Plan; however, the transportation plan is based on an outdated plan in the 1982 General Plan. This outdated plan identifies Bradshaw Road as a four lane roadway, which the current transportation plan and project plans identify as six lanes.	LS	None recommended.	LS
Right-of-Way Acquisition Property acquisition necessary to provide sufficient right-of-way to construct the proposed roadway improvements would affect a total of 484 parcels. Of those, ten would possibly require full acquisition and the remaining parcels would be subject to partial acquisition. The relocation program, as described previously in this section, is required to assist affected property owners. Financial compensation and assistance to find a replacement dwelling or property is provided under the program. Two industrial and one agricultural-residential property would have a portion of their parking acquired. All three of these properties	LS	None recommended.	LS

¹ PS = Potentially Significant S = Significant SU = Significant and Unavoidable LS = Less Than Significant

2 - EXECUTIVE SUMMARY AND MITIGATION MEASURES

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
have adequate remaining area where the parking for the affected parcels to relocate. Non-conforming uses may result from partial acquisition which, but the continued use of the parcel will not be impaired.			
PUBLIC SERVICES			
Electrical and Natural Gas Service	LS	None recommended.	LS
<p>The Pacific Gas & Electric (PG&E) Gold Hill – Eight Mile Road 230kV and the Rio Oso – Lockford 230kV transmission lines are located within the project limits. PG&E's concerns include:</p> <ul style="list-style-type: none">Continued access to the structures and lines with heavy equipment for maintenance and repair of the towers, insulators, and wires.Adequate ground clearance from the wires as set forth in California Public Utilities Commission General Order No. 95 for the proposed improvements on the plan. If an infraction should occur, the developer will be responsible for the costs of raising or the relocation of the facilities. <p>The following restrictions should ensure no project interference with PG&E's tower lines:</p> <ul style="list-style-type: none">All trees, shrubs, and plants within PG&E's easement area shall not exceed a height of 15 feet at maturity and no trees shall be planted within said area within 15 feet of any tower structure, or within a 15 foot horizontal distance from the conductor.			

2 - EXECUTIVE SUMMARY AND MITIGATION MEASURES

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
<ul style="list-style-type: none">Overhead lighting installed within said area shall not exceed 15 feet in height and be located a minimum horizontal distance of 15 feet from the conductors of PG&E's overhead electric transmission lines nor within 15 feet of any tower structure.No grading, cuts or fills are to be done within the tower line easement without written approval from PG&E.Place protection barriers such as bollards around the legs of the tower located where towers may be put in a vulnerable position due to traffic.The contractor is to be aware of and observe the minimum clearances for both workers and equipment operating near high voltage electric lines set out in the High-Voltage Electrical Safety Orders of the California Division of Industrial Safety, as well as any other safety regulations.			

Should PG&E's electrical transmission facilities be affected, PG&E requests to review proposed improvement plans to ensure consistent uses within their easement area and the safety of the public prior to construction. Should the project conflict with existing gas facilities, reimbursement for relocation of those facilities is the responsibility of the developer.

2 - EXECUTIVE SUMMARY AND MITIGATION MEASURES

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
Sanitation Service CSD-1 has several existing and proposed facilities within the project area. Coordination between the applicant and CSD-1 will be necessary to identify the exact locations of possible conflict with roadway construction.	LS	None recommended.	LS
State Highway Caltrans operates and maintains Jackson Highway (SR 16) within the project area. Coordination between the applicant and Caltrans will be necessary to avoid adverse impacts to SR 16 during construction of the proposed roadway improvements.	LS	None recommended.	LS
Railroad The Central California Traction Company (CCTC) railroad extends diagonally through the project, crossing Calvine Road, Gerber Road, Florin Road and Elder Creek Road at-grade. Coordination with the Public Utilities Commission will be necessary for roadway improvements that involve rail crossings.	LS	None recommended.	LS
Water Supply & Resources			
Sacramento County Water Agency The Sacramento County Water Agency noted that many of the project's roadway improvements coincide with proposed pipes within the project area. The projects are: <ul style="list-style-type: none"> Bradshaw Road- A 48 inch treated water supply pipeline and an 18 inch raw water 	LS	None recommended.	LS

2 - EXECUTIVE SUMMARY AND MITIGATION MEASURES

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
<p>supply pipeline are proposed from Gerber Road, north to Florin Road. A 24 inch treated water supply pipeline is proposed from Florin Road, north to Elder Creek Road.</p> <ul style="list-style-type: none">• Calvin Road- A 24 inch treated water supply pipeline is proposed from ¼ mile east of Bradshaw Road, east to Vineyard Road. A 12 inch treated water supply pipeline is proposed from Vineyard Road, east to Excelsior Road.• Elder Creek Road- A 16 inch treated water supply pipeline is proposed from South Watt Avenue, east to Excelsior Road.• Elk Grove-Florin Road- A 16 inch treated water supply pipeline is proposed from Gerber Road, north to Elder Creek Road.• Excelsior Road- A 16 inch treated water supply pipeline is proposed from Gerber Road, north to Elder Creek Road. This raw water supply pipeline increases in diameter as it heads north from 18 inches at Gerber Road, to 30 inches at Elder Creek Road.• Florin Road- A 24 inch treated water supply pipeline is proposed from Elk Grove-Florin Road, east to Bradshaw Road. A 60 inch treated water supply pipeline is proposed from Bradshaw Road, east to Vineyard Road. A 66 inch treated water supply pipeline is proposed from Vineyard Road, east to Excelsior Road. An 18 inch raw water supply pipeline is proposed from Bradshaw Road, east to			

2 - EXECUTIVE SUMMARY AND MITIGATION MEASURES

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
<p>Vineyard Road.</p> <ul style="list-style-type: none">Gerber Road- A 24 inch treated water supply pipeline is proposed from Elk Grove-Florin Road, east to Vineyard Road. A 16 inch treated water supply pipeline is proposed from Vineyard Road, east to Excelsior Road. An 84 inch raw water supply pipeline is proposed from Elk Grove-Florin Road, east to Vineyard Road. A 66 inch raw water supply pipeline is proposed from Vineyard Road to Excelsior Road.Vineyard Road- A 24 inch treated water supply pipeline is proposed from ¼ mile south of Gerber Road, north to Florin Road. A 60 inch raw water supply pipeline is proposed from Gerber Road, north to Florin Road.Waterman Road- A 24 inch treated water supply pipeline is proposed from Gerber Road, north to the North Vineyard Station Storage Tank site, north of Florin Road. (The tank site is located approximately halfway between Gerber Road and Florin Road). <p>The proposed North Vineyard Station Specific Plan Roadway Improvements project would coordinate with the Sacramento County Water Agency proposed projects to ensure disturbance is kept to a minimal level.</p>			
Sacramento County Department of Water Resources	LS	None recommended.	LS
The Sacramento County Department of Water Resources manages surface water and groundwater			

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
<p>resources via the powers of the County of Sacramento and the Sacramento County Water Agency. They also provide services including drainage, flood control and water supply to various areas in the unincorporated Sacramento County, as well as to the cities of Citrus Heights, Elk Grove and Rancho Cordova.</p> <p>The Sacramento County Department of Water Resources reviewed the project plans and identified the following areas of particular interest:</p> <ul style="list-style-type: none">• Jackson Road at Excelsior Road – here the flood water flows over the intersection about 3’ deep during the base flood event (100 year flood event).• Elder Creek Road approximately 1 mile east of Bradshaw – here Elder Creek flows over the road about 4’ deep during the base flood event.• South Watt Avenue 1200 to 2700 feet south of Fruitridge Road – There is a broad floodplain crossing over the road at this location during the base flood event. This is in the City of Sacramento so this office lacks specific data. <p>The roadway elevation would not be raised by the project. Should changes to the roadway plans occur, the applicant shall coordinate with the Sacramento County Department of Water Resources to address any conflicts.</p>			
Freeport Regional Water Authority (FRWA)	LS	None recommended.	LS
<p>The Freeport Regional Water Authority (FRWA) was formed by a joint powers agreement of Sacramento</p>			

2 - EXECUTIVE SUMMARY AND MITIGATION MEASURES

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
<p>Water Agency (SCWA) and East Bay Municipal Utility District of oakland (EBMUD) in February 2002 to provide surface water to customers in central Sacramento County and in the East Bay.</p> <p>FRWA is in the construction phase of the water intake facility portion of the Freeport Regional Water Project and is scheduled to begin construction on the pipeline facilities portion in May 2007. Coordination between the applicant and FRWA will be necessary to identify any areas of possible conflict</p>			
<p>City of Sacramento</p> <p>The City of Sacramento noted that the project needs to be constructed so that there is no increased impact to downstream drainage facilities which convey storm water runoff through the City of Sacramento and the treatment of storm water runoff must be treated as specified in the State's National Pollutant Discharge Elimination Permit (NPDES). Mitigation measures to protect water quality during construction are included in the Biological Resources chapter of this document. In addition, the applicant will be required to comply with the applicable NPDES permit.</p>	LS	None recommended.	LS
<p>Wells</p> <p>Well facilities are typically encountered at rural properties. The project roadways extend through urban, semi-rural and rural environments. Based on current project engineering, project acquisition of right-of-way along these semi-rural and rural properties will conflict with existing wells. Six properties subject to acquisition have possible well conflicts that will need to be resolved</p>	LS	None recommended.	LS

2 - EXECUTIVE SUMMARY AND MITIGATION MEASURES

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
prior to construction.			
NOISE			
Operational Impacts	S	None recommended.	LS
<p>Future plus project traffic noise levels would be <i>less</i> than future traffic noise levels without the project.</p> <p>While the impact on the majority of the roadways is not considered significant, many of these locations are above the 65 dB noise threshold established in the General Plan. The application of rubberized asphalt in these locations, <i>as required in the Climate Change chapter</i>, would reduce the noise level by 4 dB. While this may not bring these locations into compliance with the General Plan, it <i>will</i> have the effect of reducing noise levels along the project roadways.</p>			
Construction Impacts	LS	None recommended.	LS
<p>During the construction phases of the project, noise from construction activities would add to the noise environment in the immediate project vicinity. Construction activities would be temporary in nature and are anticipated to occur during normal daytime working hours.</p>			
BIOLOGICAL RESOURCES			
Waters of the United States	S	BR-1. To compensate for the permanent loss of wetlands, the applicant shall perform one of the following: 1. Where a Section 404 Permit has been issued by the Corps of Engineers, or an application has been made to obtain a Section 404 Permit, the Mitigation and	
<p>A total of 15.74 acres of Waters of the United States was delineated within the project boundaries. Roadway widening will fill Waters of the U.S. within the identified right-of-way. Roadside ditches may be re-located or replaced with curb and gutter. This would result in</p>			

2 - EXECUTIVE SUMMARY AND MITIGATION MEASURES

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
<p>permanent impacts to all Waters of the U.S. that are filled and temporary impacts to those ditches that can be relocated.</p>		<p>Management Plan required by that permit or proposed to satisfy the requirements of the Corps for granting a permit may be submitted for purposes of achieving a no net loss of wetlands. The required Plan shall be submitted to the Sacramento County Department of Environmental Review and Assessment, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service and California Department of Fish and Game for approval prior to its implementation.</p> <p>2. Pay to the County of Sacramento an amount based on a rate of \$35,000 per acre for the unmitigated/uncompensated wetlands, which shall constitute mitigation for purposes of implementing adopted no net loss policies and CEQA required mitigation. The payment shall be collected by the Department of Planning and Community Development, and deposited into the Wetlands Restoration Trust Fund.</p>	
<p>Special Status Plants</p> <p>Project construction could result in the disturbance or removal of freshwater marsh or vernal pools that provide habitat for the following species:</p> <ul style="list-style-type: none"> • Ahart's dwarf rush • Bogg's Lake hedge-hyssop • Dwarf downingia • Legenere • Sacramento orcutt grass • Slender orcutt grass • Sandford's arrowhead 	PS	BR-2 A qualified botanist shall conduct a special-status plant survey of all vernal pool and freshwater marsh habitat occurring along the project roadways. These surveys shall be conducted during the appropriate time of year for the blooming period of the potentially occurring species (April, May, and late June). Survey protocols outlined by the DFG shall be followed. If focused surveys are conducted for all special-status plants with potential to be affected by the proposed project and all of them are confirmed to be absent, no additional mitigation would be required. Populations of special-status plant species that are encountered and would be potentially affected by implementation of the proposed project shall be evaluated for their biological importance based on their known distribution and other pertinent data. If it is determined, based on this evaluation, that an impact on special-status	LS

2 - EXECUTIVE SUMMARY AND MITIGATION MEASURES

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
		plant populations would occur, then the applicant shall <u>obtain a "take" authorization and</u> mitigate for the impact by developing a mitigation plan in coordination with DFG and/or USFWS. Mitigation measures may include creation of offsite populations, through seed collection or transplanting, preserving and enhancing existing populations, or restoring or creating suitable habitat in sufficient quantities to compensate for the impact.	
Valley elderberry longhorn beetle No elderberry shrubs were identified within the Plan Area during the August 2006 surveys.	LS	None Recommended	LS
Vernal Pool Species and Critical Habitat The project area includes potential habitat for vernal pool fairy shrimp, vernal pool tadpole shrimp, and western spadefoot toad. The proposed roadway projects will impact vernal pools and seasonal wetlands along the corridors. The CNDDDB showed three occurrences of vernal pool fairy shrimp critical habitat, with Unit 11E as the closest occurrence within five miles of the Plan Area, near the northeastern portion of the Plan Area. The other two occurrences, Units 11F and 11G are located over five miles southeast of the Plan Area (USFWS 2006). Project construction near Unit 11E has the potential to indirectly affect vernal pool critical habitat.	S	BR-3 The applicant shall compensate for indirect effects to vernal pool species and critical habitat through consultation with the U.S. Fish and Wildlife Service as outlined in Section 7 of the Endangered Species Act. The applicant shall implement all measures included in the Biological Opinion issued as a result of this consultation.	LS
Fish There are no immediate fish issues associated with the Plan Area. Morrison, Elder, Laguna, Gerber, and florin creeks have not been designated as critical habitat for any federally and/or California listed fish species. However, impacts to Morrison, elder, Laguna, Gerber or	PS	BR-4 The applicant shall prepare and implement an erosion control and water quality protection plan that will be subject to the review and approval of the County Department of Water Resources. The Plan shall include, but not be limited to, the following measures to protect water quality during construction:	

2 - EXECUTIVE SUMMARY AND MITIGATION MEASURES

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
florin creeks or their tributaries via sediment runoff could potentially be viewed by regulatory agencies as affecting downstream conditions for federally and/or California listed fish species, Central Valley ESUs, anadromous salmonids, such as Central Valley steelhead, fall-run Chinook salmon, spring-run Chinook salmon. Other special-status fish that could be affected by sediment runoff include delta smelt and Sacramento perch.		<ol style="list-style-type: none">1. Construction activities within the area of the Ordinary High Water (OHW) line shall be limited to the period from May 30th to October 1st of each construction year.2. Construction activities that occur between October 15 and May 15 within the floodplain, but above the OHW line, shall be limited to those actions that can adequately withstand high river flows without resulting in the inundation of and entrainment of materials in floodflows.3. Stockpiling of construction materials, including portable equipment, vehicles and supplies, including chemicals, will be restricted to the designated construction staging areas and exclusive of the wetlands avoidance areas.4. Erosion control measures that prevent soil or sediment from entering the creeks shall be emplaced, monitored for effectiveness, and maintained throughout the construction operations.5. Refueling of construction equipment and vehicles within the floodplain shall only occur within designated, paved, bermed areas where possible spills will be readily contained.6. Between October 15 and May 15, truck and cement equipment wash-down will not occur within the floodplain.7. Equipment and vehicles operated within the floodplain shall be checked and maintained daily to prevent leaks of fuels, lubricant or other fluids to the creeks.	

2 - EXECUTIVE SUMMARY AND MITIGATION MEASURES

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
		<p>8. Litter and construction debris shall be removed from below the OHW line daily, and disposed of at an appropriate site. All litter, debris and unused materials, equipment or supplies shall be removed from construction staging areas above OHW at the end of each summer construction season.</p> <p>9. No on-site harvesting of in-situ gravels shall occur for temporary landings and ramps. Where additional earth material is required below the OHW line, clean washed gravels (from an off-site commercial/permitted source) will be the preferred material. If another type of engineered fill is required, it will likewise be obtained from an off-site permitted source, and all excess earth material will be properly disposed of outside the floodplain upon completion of the construction phase. If it is determined by DFG that the clean washed gravels used for fill would benefit fisheries, these clean washed gravels may be left on-site consistent with the DFG Streambed Alteration Agreement.</p>	
<p>Northwestern pond turtle</p> <p>The proposed roadway projects will impact marsh, ponds, and slow moving streams along the corridors. While surveys did not detect northwestern pond turtle, these areas are considered potential habitat for the species.</p>	PS	<p>BR-5 A qualified biologist shall inform all construction personnel that protected turtles may occur in the area. A description of their natural history and identifying characteristics shall be provided. The personnel shall be further instructed as the proper techniques for handling and relocating turtles, should relocation be required.</p> <p>BR-6 If a turtle of any species enters an active construction area, or is imminent danger, construction personnel (or the on-call wildlife biologist) shall carefully remove the turtle to a point at least 300 feet downstream of the project limits and within similar habitat.</p>	LS

2 - EXECUTIVE SUMMARY AND MITIGATION MEASURES

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
<p>Giant garter snake</p> <p>The proposed roadway projects will impact marsh, ponds, and slow moving streams along the corridors. While surveys did not detect giant garter snake, these areas are considered potential habitat for the species.</p>	PS	<p>BR-7 All construction activity within giant garter snake habitat (aquatic habitat and adjacent upland habitat within 200 feet of aquatic habitat) should be conducted between May 1 and October 1.</p> <p>BR-8 Construction and maintenance personnel should participate in a USFWS approved worker environmental awareness training program. Under the guidelines of this program, workers should be informed about the presence of GGS and habitat associated with this species.</p> <p>BR-9 Any dewatered habitat must remain dry for at least 15 days after April 15 and prior to excavating or filling of the dewatered habitat.</p> <p>BR-10 The site will be inspected by a Service-approved biologist within 24-hours of commencement of construction activities. The monitoring biologist will be available thereafter; if a snake is encountered during construction activities, the monitoring biologist shall have the authority to stop construction activities until appropriate corrective measures have been completed or it is determined that the snake will not be harmed. Giant garter snakes encountered during construction activities should be allowed to move away on their own. The biologist shall report within one working day to the Service any incidental take. The project area shall be re-inspected whenever a lapse in construction activity of two weeks or greater has occurred.</p> <p>BR-11 <u>The Department of Fish and Game shall be included in any consultation with the Service regarding the dual listed GGS. If the Service issues a Biological Opinion related to the GGS and proposed project, then under section 2080.1 of the Fish and Game Code, the Department of Fish and</u></p>	LS

2 - EXECUTIVE SUMMARY AND MITIGATION MEASURES

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
		<u>Game shall be notified and a take authorization obtained.</u>	
		BR-12	Clearing of wetland vegetation will be confined to the minimal area necessary to excavate toe of bank for riprap or fill placement. Excavation of channel for removal of accumulated sediments will be accomplished by equipment located on and operated from the top of the bank, with the least interference practical for emergent vegetation.
		BR-13	Minimize habitat disturbance by restricting movement of heavy equipment to and from the project site to established roadways and areas designated for construction and staging.
		BR-14	During project activities, properly contain or remove all trash that may attract predators to the worksite. Following construction, all trash and construction debris shall be removed from work areas.
		BR-15	No plastic, monofilament, jute, or similar erosion control matting that could entangle snakes shall be placed on the project site when working within 200 feet of snake aquatic habitat. Possible substitutes include coconut coir matting, tackified hydroseeding compounds, or other materials approved by the Service.
		BR-16	After completion of construction activities, remove any temporary fill and construction debris and, wherever feasible, restore disturbed areas to pre-project conditions. Restoration work may include such activities as replanting species removed from banks or replanting emergent vegetation in the active channel.

2 - EXECUTIVE SUMMARY AND MITIGATION MEASURES

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
<p>Burrowing owl</p> <p>No burrowing owls were observed during the field surveys. However, suitable habitat does exist along the project corridors, and burrowing owls could inhabit these areas at the time of construction.</p>	PS	<p>BR-17 A qualified biologist will perform burrowing owl surveys in order to determine burrow locations within 30 days of site disturbance. Surveys and the survey report shall be performed according to California Department of Fish and Game (CDFG) guidelines. The survey report will be submitted to the CDFG and to the Department of Environmental Review and Assessment for approval prior to construction.</p> <p>BR-18 All project construction within 160 feet of occupied burrows during the non-breeding season of September 1 through January 31 or within 250 feet during the breeding season of February 1 through August 31 of the project area shall be clearly marked with flags to identify burrow locations.</p> <p>BR-19 Construction equipment and personnel shall remain on paved and previously disturbed areas except where necessary to install the new pavement.</p> <p>BR-20 If project areas off of the access road are within 160 feet of occupied burrows, passive relocation methods shall be applied per CDFG guidelines. Passive relocation requires the use of one-way exclusion doors which must remain in place 48 hours prior to site disturbance to insure owls have left the burrow prior to construction.</p>	LS
<p>Nesting Swallows</p> <p>Bridge construction activities could affect nesting colonies of swallows.</p>	PS	<p>BR-21 Weekly inspection of the bridge and pier structures for nesting activity by a qualified biologist shall begin prior to March 1st. If cliff swallows begin colonizing the existing or new bridge prior to the beginning construction work, all nest precursors (mud placed by the swallows for the construction of nests) shall be washed down at least once daily until swallows cease trying to construct nests. However, under no circumstances can this activity result in the harm or death to any adult swallows or their eggs.</p>	LS

2 - EXECUTIVE SUMMARY AND MITIGATION MEASURES

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
		Completed nests cannot be removed without a permit from the USFWS.	
Swainson's Hawk and Other Raptors There are 25 occurrences of Swainson's hawk within five miles or less of the project area. While no Swainson's hawks were observed during field surveys, construction activities have the potential to disturb Swainson's hawks that may nest in this area. Other raptors include red-tailed hawk (<i>Buteo jamaicensis</i>), red-shouldered hawk (<i>B. lineatus</i>), American kestrel (<i>Falco sparverius</i>), great horned owl (<i>Bubo virginianus</i>), Cooper's hawk (<i>Accipiter cooperii</i>), ferruginous hawk (<i>Buteo regalis</i>), white-tailed kite (<i>Elanus leucurus</i>), and golden eagle. Construction activities have the potential to disturb raptors that may nest in this area.	PS	BR-22 If construction, grading, or project-related improvements are to occur between March 1 and September 15, a focused survey for raptor nests on the site and on nearby trees (within ½ mile of the site) shall be conducted by a qualified biologist within 14 days prior to the start of construction work (including clearing and grubbing). If active nests are found, the California Department of Fish and Game (CDFG) shall be contacted to determine appropriate protective measures. If no active nests are found during the focused survey, no further mitigation will be required.	LS
Tricolored Blackbird One documented nesting tricolored blackbird occurrence within the Plan area was identified (CNDDDB occurrence No. 305). This population was documented near Bradshaw Road and Morrison Creek (CDFG 2003). However, full improvements have already been constructed on this bridge as a part of the Bradshaw Road Widening Project (01-PWE-0471), and the identified population of the species will not be affected by the construction activities proposed in this document. Other creek crossings have potentially suitable habitat, and construction activities have the potential to affect tri-colored blackbird in those locations.	PS	BR-23 In order to mitigate potential impacts to tricolored blackbird (TBB), two pre-construction surveys of the project impact area and areas of appropriate habitat within 100 yards of the site shall be performed by a qualified biologist. The surveys shall be done during the months of March and April (one each month) the year of project construction. If tricolored blackbirds are found nesting within the survey area, project construction shall be postponed until fledging of all nestlings (about July 15). If no tricolored blackbirds are found during the pre-construction survey, no further mitigation would be required. BR-24 If breeding or nesting tricolored black birds are found the following will need to be performed. Prior to construction, the project proponent will need to submit a TBB Mitigation Plan to the CDFG for review and approval. The plan should include the following measures: 1 Perform preconstruction surveys to determine the	LS

2 - EXECUTIVE SUMMARY AND MITIGATION MEASURES

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
		<p>number of nesting or breeding TBB and amount of nesting habitat onsite.</p> <p>2 Avoidance of active nesting colonies should be practiced through establishment of temporary setbacks and fencing. A qualified biologist shall verifies that the setbacks and fencing are adequate and will determine when the colonies are no longer dependent on the nesting habitat (i.e. nestling have fledged and are no longer using habitat). Breeding season typically last from April to July.</p> <p>BR-25. If existing TBB habitat is to be permanently destroyed it will be necessary to recreate nesting habitat on or adjacent to the site in wetland or riparian habitat by planting tules, cattails, native blackberries, etc, at an appropriate location. Open accessible water, foraging habitat with adequate insect prey nearby (0-2 km from nests) and nesting substrate protected from predators should be present and adequately preserved and protected from future destruction. Habitat needs to be of adequate size (according to CDFG biologist) to support a breeding colony of similar or greater size to the one destroyed by construction.</p>	
<p>Native Trees</p> <p>The tree survey revealed potential project impacts to a total of 333 native oaks with dbh 6 or greater, resulting in a 5,096 dbh impact, a total of 153 Northern California black walnuts with dbh 6 or greater, resulting in a 2,858 dbh impact, and a total of 17 California sycamores with dbh 19 or greater, resulting in a 576 dbh impact. 20% of the oaks proposed for removal are of heritage size (19-inches dbh or greater, 51% of the walnuts proposed for removal are of potential landmark size (19-inches dbh or greater), and all of the sycamore trees are of</p>	S	<p>BR-26. As roadway projects within the project area are developed, the project proponent(s) shall submit an arborist report for the section of roadway proposed for development. The report shall include the species, diameter, dripline, and health of the trees, and shall be prepared by an ISA certified arborist.</p> <p>BR-27. All native oak and California black walnut trees that are 6 inches dbh or larger (10 inches aggregate for multi trunk trees) and California sycamore trees that are 19 inches dbh or larger on the project site are protected from</p>	S

2 - EXECUTIVE SUMMARY AND MITIGATION MEASURES

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
potential landmark size.		<p>possible impact. All portions of adjacent off-site native oak, California Black walnut, and California sycamore trees identified as being protected and have driplines that extend onto the project site or may be impacted by utility relocation and/or improvements associated with this project, shall be preserved and protected as follows:</p> <ol style="list-style-type: none">1 A circle with a radius measurement from the trunk of the tree to the tip of its longest limb shall constitute the dripline protection area of each tree. Limbs must not be cut back in order to change the dripline. The area beneath the dripline is a critical portion of the root zone and defines the minimum protected area of each tree. Removing limbs that make up the dripline does not change the protected area.2 Any protected trees on the site that require pruning shall be pruned by a certified arborist prior to the start of construction work. All pruning shall be in accordance with the American National Standards Institute (ANSI) A300 pruning standards and the International Society of Arboriculture (ISA) "Tree Pruning Guidelines."3 Prior to initiating construction, temporary protective fencing shall be installed at least one foot outside the driplines of the protected trees within 100-feet of construction related activities, in order to avoid damage to the tree canopies and root systems.4 Any removal of paving or structures (i.e. demolition) that occurs within the dripline of a protected oak tree shall be done under the direct supervision of a certified arborist. To the maximum extent feasible, demolition work within the dripline protection area of the oak tree shall be performed by hand. If the	

2 - EXECUTIVE SUMMARY AND MITIGATION MEASURES

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
		certified arborist determines that it is not feasible to perform some portion(s) of this work by hand, then the smallest/lightest weight equipment that will adequately perform the demolition work shall be used.	
		5 No signs, ropes, cables (except those which may be installed by a certified arborist to provide limb support) or any other items shall be attached to the protected trees. Small metallic numbering tags for the purpose of preparing tree reports and inventories shall be allowed.	
		6 No vehicles, construction equipment, mobile home/office, supplies, materials or facilities shall be driven, parked, stockpiled or located within the driplines of protected trees.	
		7 No grading (grade cuts or fills) shall be allowed within the driplines of protected trees.	
		8 Drainage patterns on the site shall not be modified so that water collects or stands within, or is diverted across, the dripline of any protected tree.	
		9 No trenching shall be allowed within the driplines of protected trees. If it is absolutely necessary to install underground utilities within the dripline of a protected tree, the utility line shall be bored and jacked under the supervision of a certified arborist.	
		10 The construction of impervious surfaces within the driplines of protected trees shall be stringently minimized. When it is absolutely necessary, a piped aeration system per County standard detail shall be installed under the supervision of a certified arborist.	

2 - EXECUTIVE SUMMARY AND MITIGATION MEASURES

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
		<p>11 Trunk protection measures, per Sacramento County standards, shall be used for all protected trees where development/construction activity occurs within 10 feet of the trunk of a tree.</p> <p>BR-28. The removal of native oak Trees and California Black walnut, 6-inch dbh or larger, and the removal of California sycamore, 19-inches dbh or larger shall be compensated by planting native oak trees (valley oak/<i>Quercus lobata</i>, interior live oak/<i>Quercus wislizenii</i>, and blue oak/<i>Quercus douglasii</i>), native black walnuts (<i>Juglans hindsii</i>), and native sycamore (<i>Platanus racemosa</i>) equivalent to the dbh inches lost, based on the ratios listed below, at locations that are authorized by the Department of Environmental Review and Assessment.</p> <p>Equivalent compensation based on the following ratio is required:</p> <ul style="list-style-type: none">• one deepot seedling (40 cubic inches or larger) = 1 inch dbh• one 15-gallon tree = 1 inch dbh• one 24-inch box tree = 2 inches dbh• one 36-inch box tree = 3 inches dbh <p>Prior to the approval of Improvement Plans or building permits, a Replacement oak/black walnut Tree Planting Plan shall be prepared by a certified arborist or licensed landscape architect and shall be submitted to the Environmental Coordinator for approval. The Replacement oak/black walnut Tree Planting Plan(s) shall include the following minimum elements:</p>	

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Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
		<div><div>1</div><div>Species, size and locations of all replacement plantings;</div></div> <div><div>2</div><div>Method of irrigation;</div></div> <div><div>3</div><div>The Sacramento County Standard Tree Planting Detail L-1, including the 10-foot deep boring hole to provide for adequate drainage;</div></div> <div><div>4</div><div>Planting, irrigation, and maintenance schedules;</div></div> <div><div>5</div><div>Identification of the maintenance entity and a written agreement with that entity to provide care and irrigation of the trees for a 3-year establishment period, and to replace any of the replacement oak trees which do not survive during that period.</div></div> <div><div></div><div>No replacement tree shall be planted within 15 feet of the driplines of existing oak trees, black walnuts or landmark size trees that are retained on-site, or within 15 feet of a building foundation or swimming pool excavation. The minimum spacing for replacement trees shall be 20 feet on-center. Examples of acceptable planting locations are publicly owned lands, common areas, and landscaped frontages (with adequate spacing). Generally unacceptable locations are utility easements (PUE, sewer, storm drains), under overhead utility lines, private yards of single family lots (including front yards), and roadway medians.</div></div> <div><div></div><div>If tree replacement plantings are demonstrated to the satisfaction of the Environmental Coordinator to be infeasible for any or all trees removed, then compensation shall be through payment into the County Tree Preservation Fund. Payment shall be made at a rate of</div></div>	

2 - EXECUTIVE SUMMARY AND MITIGATION MEASURES

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
		<p>\$325.00 per dbh inch removed but not otherwise compensated, or at the prevailing rate at the time payment into the fund is made.</p> <p>BR-29. <u>Include Southgate Recreation and Park District in the coordination and identification of possible locations for tree replacement plantings.</u></p>	

CULTURAL RESOURCES

<p>The cultural resource surveys indicated no evidence of significant surface archaeological remains or historic resources. However, subsurface cultural remains could be present due to the natural burial of prehistoric or historic sites by alluviation through periodic flooding or other natural phenomena. The possibility exists for potentially significant unidentified cultural materials to be encountered on or below the surface during the course of future development or construction activities</p> <p>Additionally, given the fact that the proposed project will be built out in a gradual manner, additional significant resources that have not been previously evaluated, due to the fact that they were not 50 years or older at the time of this project's evaluation, could be altered or demolished.</p>	PS	<p>CR-1 Should any cultural resources, such as structural features, unusual amounts of bone or shell, artifacts, human remains, or architectural remains be encountered during any development activities, work shall be suspended and the Department of Environmental Review and Assessment (DERA) shall be immediately notified at (916) 874-7914.</p> <p>At that time, the DERA will coordinate any necessary investigation of the find with appropriate specialists as needed. The project applicant shall be required to implement any mitigation deemed necessary for the protection of the cultural resources. In addition, pursuant to Section 5097.97 of the State Public Resources Code and Section 7050.5 of the State Health and Safety Code, in the event of the discovery of human remains, all work is to stop and the County Coroner shall be immediately notified. If the remains are determined to be Native American, guidelines of the Native American Heritage Commission shall be adhered to in the treatment and disposition of the remains.</p> <p>CR-2 Prior to project right-of-way acquisition or demolition, whichever occurs first, conduct an evaluation of structures affected by right-of-way acquisition that meet the 50 year age requirement and have not previously been evaluated,</p>	LS
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2 - EXECUTIVE SUMMARY AND MITIGATION MEASURES

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
to determine possible eligibility for inclusion in the California Register of Historical Resources. Prepare necessary documentation of such an evaluation.			
HAZARDOUS MATERIALS			
Right of Way Acquisition Right-of-way identified for acquisition to construct the project improvements may contain hazardous materials or underground storage tanks. Acquisition and acceptance of properties with hazardous materials creates risk for the County and construction workers.	PS	<div> HM-1 Prior to acquiring additional right-of-way or construction of the proposed project, if the area of acquisition on the property is identified to have possible contamination, as shown in Table HM-1, the applicant shall perform all necessary work indicated in the table to the satisfaction of Sacramento County Environmental Management Department. If contamination is identified within the acquisition area, responsibility of the clean up shall be identified and remediation and disposal procedures shall be undertaken by qualified personnel in accordance with all applicable regulations, and in coordination with all applicable agencies. </div> <div> HM-2 The applicant shall develop a contingency plan in the event that construction activities uncover unforeseen contamination that may hinder the progress of the project. This plan should include steps to contain any contamination, consultation with regulatory agencies and a work plan to evaluate and characterize any contaminations. In addition, Sacramento County Department of Transportation shall consult with the County Counsel's Office regarding potential liabilities if contamination is encountered during construction activities. </div>	LS
Removal of Structures Containing Asbestos or Lead-Based Paint Based on current project design plans, 11 parcels to be acquired contain structures pre-dating 1979, and	PS	HM-3 Prior to structure demolition, a survey for potential asbestos-containing materials by a Certified Asbestos Consultant shall be conducted. Removal and disposition of asbestos-containing materials shall be carried out in accordance with the U.S. Environmental Protection	LS

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Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
contain lead-based paint and/or asbestos. One of these properties is subject to structure removal; while the remaining parcels don't appear to require removal of structures. Demolition activities can cause lead-based paint and asbestos to become friable, thereby more easily inhaled, causing respiratory problems.		<p>Agency (EPA) and National Emissions Standard for Asbestos (NESHAP) Standard, 40 CFR 61, Subpart M.</p> <p>HM-4 The applicant shall prepare a Lead Paint Containment Plan to safely remove, contain and dispose of lead paint during the demolition phase of the project. The plan shall contain, at a minimum, the following elements:</p> <p>a. Work practices and worker health and safety shall conform to Section 1532.1, "Lead" of Construction Safety Orders Title 8, of the California Code of Regulations.</p> <p>b. The Contractor shall furnish to the Engineer a written Code of Safe Practices and have an Injury and Illness Prevention Program and Hazards Communication Program in accordance with the provisions of the Construction Safety Orders 1509 and 1510.</p> <p>c. Temporary storage on the ground for the debris produced when the existing paint system is distributed will not be permitted. The debris shall be stored in approved leak proof containers and shall be handled in such a manner that no spillage will occur.</p> <p>d. Disposal of debris produced when the existing paint system is disturbed shall be performed in accordance with all applicable federal, state and local hazardous waste laws. Laws that govern this work include:</p> <ul style="list-style-type: none">• Health and Safety Code, Division 20, Chapter 6.5 (California Hazardous Waste Control Act)• Title 22, California Code of Regulations, Chapter 30 (Minimum Standard for Management of	

2 - EXECUTIVE SUMMARY AND MITIGATION MEASURES

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
		Hazardous and Extremely Hazardous Materials)	
		<ul style="list-style-type: none"> Title 8, California Code of Regulations 	
		e All debris produced when the existing paint system is disturbed shall be disposed of by the Contractor at an approved Class 1 disposal facility in accordance with the requirement of the disposal operator. A transporter currently registered with the California Department of Toxic Substances Control using correct manifesting procedures and vehicles displaying current certification of compliance shall haul the debris. The Contractor shall make arrangements with the operator of the disposal facility and perform any testing of the debris required.	

CLIMATE CHANGE

<u>The reduction of greenhouse gases through the mitigation measures addressing climate change cannot be quantified at this time. However, every effort to reduce project-induced greenhouse gas emissions is being made. Application of roadway mitigation and the Specific Plan policy AQ-15 components aid in the reduction of greenhouse gas emissions.</u>	<u>LS</u>	<u>CC-1.</u>	<u>Synchronize traffic lights at signalized project intersections where feasible to limit vehicle idling time and allow traffic to pass more efficiently through congested areas.</u>	<u>LS</u>
		<u>CC-2.</u>	<u>Replace traffic signal lighting with light emitting diodes (LED) at signalized project intersections.</u>	
		<u>CC-3.</u>	<u>Construction vehicles shall be equipped with retrofit emission control devices, such as diesel oxidation catalysts and diesel particulate filters, verified by the California Air Resources Board (CARB).</u>	
		<u>CC-4.</u>	<u>All project landscaping, including median and property frontage landscaping, shall be designed to minimize water usage and runoff through the use of drought-tolerant plantings and irrigation systems designed and maintained to reduce water evaporation and water loss;</u>	

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Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
		<i>thereby reducing the amount of water sent to the sewer system.</i>	
		<i>CC-5. Construction and demolition waste shall be reused or recycled to the greatest extent practicable.</i>	
		<i>CC-6. Project roadways shall be surfaced with rubberized asphalt in order to offset global warming impacts through the use of recycled materials.</i>	

AIR QUALITY

<u>Construction-Related Emissions</u>	<u>S</u>	AQ-1. <i>The project shall provide a plan for approval by the County of Sacramento and SMAQMD demonstrating that the heavy-duty (>50 horsepower) off-road vehicles to be used in the construction project, including owned, leased and subcontractor vehicles, will achieve a project wide fleet-average 20 percent NOx reduction and 45 percent particulate reduction compared to the most recent CARB fleet average; and</i>	<u>LS</u>
<i>Construction-related air quality impacts are considered potentially significant for certain levels of construction activity. Impacts can be reduced to a less than significant level by applying mitigation measures to reduce dust and exhaust emissions.</i>		AQ-2. <i>The project representative shall submit to the County of Sacramento and SMAQMD a comprehensive inventory of all off-road construction equipment, equal to or greater than 50 horsepower, that will be used an aggregate of 40 or more hours during any portion of the construction project. The inventory shall include the horsepower rating, engine production year, and hours of use or fuel throughput for each piece of equipment. The inventory shall be updated and submitted monthly throughout the duration of the project, except that an inventory shall not be required for any 30-day period in which no construction activity occurs. At least 48 hours prior to the use of subject heavy-duty off-road equipment, the project representative shall provide SMAQMD with the anticipated construction timeline including start date, and name and phone number of the project manager and on-site</i>	

2 - EXECUTIVE SUMMARY AND MITIGATION MEASURES

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
		<u>foreman.</u>	
		AQ-3. <u>The project shall ensure that emissions from all off-road diesel powered equipment used on the project site do not exceed 40 percent opacity for more than three minutes in any one hour. Any equipment found to exceed 40 percent opacity shall be repaired immediately, and the County of Sacramento and SMAQMD shall be notified within 48 hours of identification of non-compliant equipment. A visual survey of all in-operation equipment shall be made at least weekly, and a monthly summary of the visual survey results shall be submitted throughout the duration of the project, except that the monthly summary shall not be required for any 30-day period in which no construction activity occurs. The monthly summary shall include the quantity and type of vehicles surveyed as well as the dates of each survey. The SMAQMD and/or other officials may conduct periodic site inspections to determine compliance. Nothing in this section shall supercede other SMAQMD or state rules or regulations.</u>	
		AQ-4. <u>The following construction-related measures apply to construction activities within the Specific Plan area:</u>	
		a. <u>Water exposed, graded surfaces at least two times per day and if possible, keep soil moist at all times.</u>	
		b. <u>Properly maintain diesel and/or gas fueled construction equipment.</u>	
		c. <u>Water haul roads at least two times per day</u>	
		d. <u>Use low VOC architectural coatings</u>	
<u>Operation-Related Emissions</u>	<u>S</u>	<u>None recommended.</u>	<u>SU</u>
<u>Mobile source generation of NOx, ROG, and PM₁₀ greatly exceed standards and would be considered a significant impact.</u>			

TERMINOLOGY USED IN THIS EIR

This Draft EIR uses the following terminology to describe environmental effects of the project.

- **Significance Criteria.** A set of criteria used by the lead agency to determine at what level, or “threshold,” an impact would be considered significant. Significance criteria used in this EIR include those that are set forth in the CEQA Guidelines, or can be discerned from the CEQA Guidelines; criteria based on factual or scientific information; criteria based on regulatory standards of local, state, and federal agencies; and criteria based on goals and policies identified in the Sacramento County General Plan.
- **Less-than-Significant Impact.** A project impact is considered less than significant when it does not reach the standard of significance and would therefore cause no substantial change in the environment. No mitigation is required for less-than-significant impacts.
- **Potentially Significant Impact.** A potentially significant impact is a substantial, or potentially substantial, adverse change in the environment. Physical conditions which exist within the area will be directly or indirectly affected by the proposed project. Impacts may also be short-term or long-term. A project impact is considered significant if it reaches the threshold of significance identified in the EIR. Mitigation measures may reduce a potentially significant impact to less than significant.
- **Significant Unavoidable Impact.** A project impact is considered significant and unavoidable if it is significant and cannot be avoided or mitigated to a less-than-significant level once the project is implemented.
- **Cumulative Significant Impact.** A cumulative impact can result when a change in the environment results from the incremental impact of a project when added to other related past, present or reasonably foreseeable future projects. Significant cumulative impacts may result from individually minor but collectively significant projects.
- **Mitigation.** Mitigation measures are revisions to the project that would minimize, avoid, or reduce a significant effect on the environment. CEQA Guidelines §15370 identifies 5 types of mitigation:
 - a) Avoiding the impact altogether by not taking a certain action or parts of an action.
 - b) Minimizing impacts by limiting the degree or magnitude of the action and its implementation.
 - c) Rectifying the impact by repairing, rehabilitating, or restoring the impacted environment.

2 - EXECUTIVE SUMMARY AND MITIGATION MEASURES

- d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
- e) Compensating for the impact by replacing or providing substitute resources or environments.

3 PROJECT CHARACTERISTICS

INTRODUCTION

This chapter discusses the project location, project proponents, environmental setting, and project proposal.

PROJECT LOCATION

The proposed project is located in the southern central section of Sacramento County and roughly bounded by Jackson Road to the north, Excelsior Road to the east, Calvine Road to the south and Elk Grove-Florin Road/South Watt Avenue to the west. The City of Sacramento borders and in some areas encompasses South Watt Avenue and the City of Elk Grove borders Calvine Road. The project roadways that extend east to west include Jackson Road, Elder Creek Road, Florin Road, Gerber Road and Calvine Road. Elk Grove-Florin Road/South Watt Avenue, Bradshaw Road, Vineyard Road and Excelsior Road extend north to south. Plate PD -1 presents a regional view of the project location and Plate PD -2 presents the affected project roadways.

PROJECT PROPONENTS

APPLICANT

Sacramento County
Municipal Services Agency
Department of Transportation (SacDOT)
906 G Street, Suite 510
Sacramento, CA 95814

ENGINEER

MacKay & Somps Civil Engineers, Inc.
1771 Tribute Road, Suite E
Sacramento, CA 95815

Project Location

SACRAMENTO COUNTY, CALIFORNIA

Trigger Legend



* Symbols are color coded by trigger



CIVIL ENGINEERS, INC.
CIVIL ENGINEERING LAND PLANNING LAND SURVEYING
SACRAMENTO, CALIFORNIA (916) 929-6092
Job Number: 7536-10 Date: 06/18/03
Revised: 11/07/06

ENVIRONMENTAL SETTING

The project is located in the south central section of Sacramento County and within the Carmichael, Florin and Elk Grove USGS quad maps. The project roadways are Jackson Road (State Route 16), Elder Creek Road, Florin Road, Gerber Road, Calvine Road, South Watt Avenue/Elk Grove-Florin Road, Bradshaw Road, Vineyard Road and Excelsior Road. These roads are the regional transportation routes for the North Vineyard Station Specific Plan area, extending through industrial, residential, commercial and rural areas. The project area is made up of roughly equal distribution of urbanized and rural areas. The urban areas consist of residential, commercial and industrial uses, while the rural areas consist of agricultural and farming uses. Rural areas are mainly south of Jackson Road and east of South Watt Avenue/Elk Grove-Florin Road with urban uses interspersed.

The project roadways are designated as thoroughfares and arterials, on the 1993 Sacramento County Transportation Plan. Thoroughfares have an ultimate total width of six lanes plus a median island, while arterials have a total ultimate width of four lanes plus turning lanes. The project roadways are currently not at their ultimate width.

The hydrological features in the project area include Elder, Gerber, and Laguna Creeks, in addition to vernal pools, seasonal wetlands, freshwater marshes and drainage swales. Biological features include roadside landscaping (comprised of native and non-native vegetation), annual grassland, riparian communities, active and fallow agricultural land, and a golf course.

Several utilities are within the project area, including Sacramento Municipal Utility District, Pacific Gas and Electric Company, Sacramento Regional County Sanitation District, Sacramento County Water Maintenance District and Sacramento County Water Agency.

Transportation in the project area includes the Central California Traction Railroad that extends diagonally through the project area and the Southern Pacific Railroad that extends to the west of the project boundary. State Route 16 (Jackson Road) is the only state facility in the project area.

PROJECT DESCRIPTION

PROJECT FEATURES

The roadway improvements are a result of the traffic mitigation measures identified in the previously approved North Vineyard Station Specific Plan (NVSSP) Environmental Impact Report (EIR) and additional traffic analysis based on the proposed phasing of

3 - PROJECT CHARACTERISTICS

project development conducted since the approval of the EIR. These measures are in addition to the standard conditions applied to individual parcels within the North Vineyard Station Specific Plan area.

A summary of the roadway configuration at project completion is provided for each of the project roadways with the phasing of each improvement specified below. Construction timing of the project improvements is organized into recorded lot triggers, and frontage improvements are organized by geographic triggers. These recorded lot triggers are set at intervals that are determined by the number of recorded residential building lots. Improvements at each trigger are to commence construction prior to the recordation of that particular trigger. For example, improvements under trigger 901 would need to commence construction prior to the recordation of the 901st residential building lot. Frontage roadway improvements are phased based on geographic conditions, when the first residential lot is constructed in a given section of roadway; frontage improvements along that section of roadway are triggered. The phasing of project improvements may vary from planned phasing if deemed necessary by the Sacramento County Department of Transportation. The following comprise the proposed project roadway improvements.

*BRADSHAW ROAD*ROADWAY CONFIGURATION UPON COMPLETION OF PROJECT:

- Six lanes from Calvine Road to Jackson Road
- Curb, gutter, and sidewalk on Bradshaw Road from Calvine Road to Jackson Road
- Box culverts with headwalls on Bradshaw Road at the Gerber Creek Crossing
- Improved bridge/culvert on Bradshaw Road from Tributary Road to Elder Creek Crossing and on Bradshaw Road at Morrison Creek Crossing
- Pedestrian signal and crossing on Bradshaw Road at Gerber Creek
- Traffic signal at Bradshaw Road and '9' Street, '10' Street and '11' Street
- Three through lanes on north and south legs of the intersection of Elder Creek Road at Bradshaw Road
- Upgraded signalized intersection at Bradshaw Road and Jackson Road

PROJECT PHASING:*TRIGGER 1501*

- Install two box culverts with headwalls on Bradshaw Road at the Gerber Creek Crossing based on a 108' standard thoroughfare.
- Install bridge/culvert improvements on Bradshaw Road at Elder Creek Crossing based on a 108-foot standard thoroughfare.
- Install bridge/culvert improvements on Bradshaw Road from Tributary Road to Elder Creek Crossing based on a 108-foot standard thoroughfare.

3 - PROJECT CHARACTERISTICS

- Install bridge/culvert improvements on Bradshaw Road at Morrison Creek Crossing based on a 108-foot standard thoroughfare.

TRIGGER 2501

- Install a pedestrian signal and crossing on Bradshaw Road at Gerber Creek.

TRIGGER 3101

- Upgrade the signalized intersection of Bradshaw Road and Jackson Road to a four-way six by six signalized intersection.

TRIGGER 5701 (OR WHEN TRAFFIC VOLUMES REACH 90% CAPACITY FOR A FOUR-LANE FACILITY OR 32,400 DAILY VEHICLES)

- Widen Bradshaw Road from Florin Road (project boundary) to Elder Creek Road from four lanes to six lanes including the outside lane and frontage improvements based on a 96-foot modified thoroughfare (the six foot meandering sidewalk shall be installed in an adjacent pedestrian/landscape easement).

TRIGGER 5701

- Install third through lane on north and south legs of the intersection of Elder Creek Road at Bradshaw Road (no signal).

PRIOR TO EXTENSION OF '9' STREET

- Install a signal at Bradshaw Road and '9' Street (collector) based a four-way six by two intersection.

PRIOR TO EXTENSION OF '10' STREET

- Install a signal at Bradshaw Road and 10 Street (collector) based on a four-way six by two intersection.

PRIOR TO EXTENSION OF '11' STREET

- Install a signal at Bradshaw Road and '11' Street (collector) based on a four-way six by two intersection.

FRONTAGE IMPROVEMENTS

- Thoroughfare frontage improvements along the west side of Bradshaw Road between Gerber Road and Gerber Creek and on both sides of Bradshaw between Gerber Creek to Florin Road.

*CALVINE ROAD*ROADWAY CONFIGURATION UPON COMPLETION OF PROJECT:

- Six lanes with median from Short Road to Vineyard Road
- Two lanes from Vineyard Road to Excelsior Road
- Shoulders on Calvin Road from Vineyard to Excelsior Road
- Widen the at-grade railroad crossing on Calvin Road at the CCTC Railroad
- Bridge/culvert improvements on Calvin Road at the CCTC railroad
- Bridge/culvert improvements on Calvin Road at the Laguna Creek Crossing west of Bradshaw Road
- Bridge/culvert improvements at Tributary No.1 to Laguna Creek Crossing just west of Excelsior Road

PROJECT PHASING:

TRIGGER 2501 (OR WHEN TRAFFIC VOLUMES REACH 90 PERCENT CAPACITY FOR A FOUR-LANE FACILITY, OR 32,400 DAILY VEHICLES)

- Widen Calvin Road from four to six lanes with median from Short Road to Elk Grove-Florin Road based on a 96-foot modified thoroughfare (the six foot meandering sidewalk shall be installed in an adjacent pedestrian/landscape easement).

TRIGGER 2501

- Install shoulders on Calvin Road from 1,300 feet east of Waterman Road to Vineyard Road to provide a minimum pavement width.
- Install shoulders on Calvin Road from Bradshaw Road to Vineyard Road to provide a minimum pavement width.

TRIGGER 4101 (OR WHEN TRAFFIC VOLUMES REACH 90% OF CAPACITY OF A TWO-LANE FACILITY OR 16,200 DAILY VEHICLES)

- Widen Calvin Road from two to four lanes from 1,300 feet east of Waterman Road to Bradshaw Road based on a 96-foot modified thoroughfare (the six foot meandering sidewalk shall be installed in an adjacent pedestrian/landscape easement).
- Widen Calvin Road from Bradshaw Road to Vineyard Road based on a 96-foot modified thoroughfare (the six foot meandering sidewalk shall be installed in an adjacent pedestrian/landscape easement).

3 - PROJECT CHARACTERISTICS

TRIGGER 4101

- Install bridge/culvert improvements on Calvine Road at the Laguna Creek Crossing west of Bradshaw Road based on a 108-foot standard thoroughfare.
- Reconstruct and widen the at-grade railroad crossing bridge/culvert improvements on Calvine Road at the CCTC railroad based on a 108-foot standard thoroughfare.
- Reconstruct and widen Calvine Road (four lanes with median) from 1,300' east of Waterman Road to Bradshaw Road based on a 96-foot modified thoroughfare (the six foot meandering sidewalk shall be installed in an adjacent pedestrian/landscape easement).
- Reconstruct and widen the at-grade crossing on Calvine Road at the CCTC Railroad crossing based on a 108-foot standard thoroughfare.
- Install shoulders on Calvine Road from Vineyard Road to Excelsior Road to provide minimum pavement width.

TRIGGER 4501

- Install bridge/culvert improvements on Calvine Road at Tributary No. 1 to Laguna Creek Crossing just west of Excelsior Road based on a 108-foot standard thoroughfare.

TRIGGER 5701

- Reconstruct and widen Calvine Road from 1,300 feet east of Waterman Road to Vineyard Road from four lanes to six lanes including the outside lane and frontage improvements based on a 96-foot modified thoroughfare (the six foot meandering sidewalk shall be installed in an adjacent pedestrian/landscape easement).

*ELDER CREEK ROAD*ROADWAY CONFIGURATION UPON COMPLETION OF PROJECT:

- Shoulders on Elder Creek Road from South Watt Avenue to Excelsior Road
- Two through, two left turns, one right turn lane in the east and west direction (leg improvements) at Elder Creek Road and Bradshaw Road intersection
- ~~Four~~ Two lanes from South Watt Avenue to Excelsior Road

PROJECT PHASING:*TRIGGER 5701*

- Install shoulders on Elder Creek Road from South Watt Avenue to Bradshaw Road to provide minimum pavement width.
- Install east and west legs of the intersection of Elder Creek Road and Bradshaw Road (no signal).
- Install shoulders on Elder Creek Road from Bradshaw Road to Excelsior Road to provide minimum pavement width.

*ELK GROVE-FLORIN ROAD*ROADWAY CONFIGURATION UPON COMPLETION OF PROJECT:

- Six lanes from Calvine Road to Elder Creek Road
- New bridge on Elk Grove-Florin at the Elder Creek Crossing

PROJECT PHASING:

TRIGGER 2501 (OR WHEN TRAFFIC VOLUMES REACH 90 PERCENT CAPACITY FOR A FOUR-LANE FACILITY, OR 32,400 DAILY VEHICLES)

- Widen Elk Grove-Florin Road from four to six lanes with median from Calvine Road to Gerber Road based on a 96-foot modified thoroughfare (the six foot meandering sidewalk shall be installed in an adjacent pedestrian/landscape easement).

TRIGGER 2501

- Widen Elk Grove-Florin Road from two to four lanes with median from Gerber Road to Elder Creek Road based on a 96-foot modified thoroughfare (the six foot meandering sidewalk shall be installed in an adjacent pedestrian/landscape easement).
- Install a new bridge on Elk Grove-Florin Road at the Elder Creek Crossing based on a 108-foot standard thoroughfare.

TRIGGER 5701

- Reconstruct and widen Elk Grove-Florin Road from Gerber Road to Florin Road from four lanes to six lanes including the outside lane and frontage improvements based on a 96-foot modified thoroughfare (the six foot meandering sidewalk shall be installed in an adjacent pedestrian/landscape easement).

*EXCELSIOR ROAD*ROADWAY CONFIGURATION UPON COMPLETION OF PROJECT:

- Two lanes and shoulders on Excelsior Road from Calvine Road to Jackson Road
- Three-way widened intersection at Excelsior Road and Elder Creek Road
- Improved bridge/culvert on Excelsior Road at the tributary to the Elder Creek Crossing between Florin Road and Elder Creek Road
- North and south bound standard six by four intersection at Excelsior Road and Jackson Road with two left turns, one right turn and two through lanes (intersection leg improvements) extending 450 feet from the intersection

PROJECT PHASING:*TRIGGER 1801*

- Reconstruct and widen shoulders on Excelsior Road from Gerber Road to Florin Road to provide minimum pavement width.
- Install shoulders on Excelsior Road from Florin Road to Elder Creek Road to provide minimum pavement width.
- Install bridge/culvert improvements on Excelsior Road at the tributary to the Elder Creek Crossing between Florin Road and Elder Creek Road and widen for an upgraded two lane road.
- Install shoulders on Excelsior Road from Elder Creek Road to Jackson Road to provide minimum pavement width.
- Install shoulder improvements for a three-way, widened intersection at Excelsior Road and Elder Creek Road.

TRIGGER 2501

- Install shoulders on Excelsior Road from Calvine Road to Gerber Road to provide a minimum pavement width.

TRIGGER 5701

- Construct a north and south bound standard six by four intersection at Jackson Road and Excelsior Road including 450-foot intersection leg improvements.

*FLORIN ROAD*ROADWAY CONFIGURATION UPON COMPLETION OF PROJECT:

- Four lanes with median from Elk Grove-Florin Road/South Watt Avenue to Bradshaw Road
- Four lanes from Bradshaw Road to Vineyard Road
- Three through lanes on north and south legs at the intersection of Florin Road and Elk Grove-Florin Road/South Watt Avenue
- Shoulders on the north side of Florin Road from Elk Grove-Florin Road/South Watt Avenue to Vineyard Road
- Shoulders on Florin Road from Vineyard Road to Excelsior Road
- Widen the at-grade railroad crossing and bridge/culvert on Florin Road at the CCTC Railroad crossing
- Curb, gutter and sidewalks on Florin Road (south side) from Elk Grove-Florin Road/South Watt Avenue to Excelsior Road
- New bridge on Florin Road at the Elder Creek crossing
- Improved bridge/culvert on Florin Road from Tributary No. 1 to Gerber Creek Crossing
- Four-way six by six intersection with three through lanes, two left turn lanes and one right turn lane (intersection leg improvements) extending 450 feet at the intersection of Florin Road and Bradshaw Road
- Widened intersection of Florin Road and Vineyard Road including pavement and curb return (public street improvements) for a three-way six by two-plus intersection signal and two through lanes, two left turn lanes and one right turn lane (intersection leg improvements) extending 450 feet at the intersection
- New pavement and curb return (public street improvements) for a four-way intersection with two through lanes, two left turn lanes and one right turn lane (intersection leg improvements) extending 450 feet at the intersection of Florin Road and Excelsior Road
- Three-way six by four intersection with signal at Florin Road and Waterman Road
- Improved intersection and signals at Florin Road and '8' Street
- Improved intersection and signals at Florin Road and '9' Street
- Improved intersection and signals at Florin Road and '12' Street
- Modified signalization at the intersection of Florin Road and the Elk Grove-Florin Road/South Watt Avenue

PROJECT PHASING:*TRIGGER 901*

- Install shoulders on Florin Road from Elk Grove-Florin Road to the CCTC Railroad crossing to provide minimum pavement width.
- Install a three-way six by four intersection with signal at Florin Road and Waterman Road.

TRIGGER 1801

- Reconstruct and widen the at-grade railroad crossing on Florin Road at the CCTC Railroad crossing based on a 108-foot standard thoroughfare.
- Install a new bridge on Florin Road at the Elder Creek crossing based on a 108-foot standard thoroughfare.
- Reconstruct and widen Florin Road to four lanes plus median from 1,350 feet east of Waterman Road to Bradshaw Road based on a 96-foot modified thoroughfare (the six foot meandering sidewalk shall be installed in an adjacent pedestrian/landscape easement).
- Install shoulders on Florin Road from Vineyard Road to Excelsior Road to provide minimum pavement width.
- Install bridge/culvert improvements on Florin Road from Tributary No. 1 to Gerber Creek Crossing based on a 108' standard thoroughfare.
- Install public street improvements for a four-way intersection including 450 feet of intersection leg improvements at the intersection of Florin Road and Excelsior Road.

TRIGGER 2501

- Install shoulders on Florin Road from Bradshaw Road to Vineyard Road to provide minimum pavement width.
- Modify the existing signalization at the intersection of Florin Road and the Elk Grove-Florin Road.

TRIGGER 4070

- Construct a four-way six by six intersection including 450 feet of intersection leg improvements at the intersection of Florin Road and Bradshaw Road.
- Reconstruct and widen Florin Road from Bradshaw Road to 3,320 feet east of Bradshaw Road based on 96-foot modified thoroughfare (the six foot meandering sidewalk shall be installed in an adjacent pedestrian/landscape easement) including a half section of public street improvements on the south side excluding median, outside lane and frontage improvements.

TRIGGER 4071

- Reconstruct and widen the intersection of Florin Road and Vineyard Road including public street improvements for a three-way six by two-plus intersection, signal and 450 feet of intersection leg improvements.

3 - PROJECT CHARACTERISTICS

TRIGGER 4501 (OR EXTENSION OF THE FLORIN ROAD TRUNK SEWER)

- Reconstruct and widen Florin Road (four lanes with median) from the CCTC railroad (project boundary) to Waterman Road based on a 96-foot modified thoroughfare (the six foot meandering sidewalk shall be installed in an adjacent pedestrian/landscape easement).
- Reconstruct and widen Florin Road (four lanes with median) from Waterman Road to 1,350 feet east of Waterman Road based on a 96-foot modified thoroughfare (the six foot meandering sidewalk shall be installed in an adjacent pedestrian/landscape easement).

TRIGGER 4501 (OR WHEN TRAFFIC VOLUMES REACH 90% CAPACITY FOR A TWO-LANE FACILITY OR 16,200 DAILY VEHICLES)

- Reconstruct and widen Florin Road (four lanes with median) from Elk Grove-Florin Road to the CCTC Railroad (project boundary) based on a 96-foot modified thoroughfare (the six foot meandering sidewalk shall be installed in an adjacent pedestrian/landscape easement).

TRIGGER 4501

- Reconstruct and widen the at-grade railroad crossing bridge/culvert improvements on Florin Road at the CCTC railroad crossing based on a 108-foot standard thoroughfare.
- Reconstruct and widen Florin Road from 3,320 feet east of Bradshaw Road to Vineyard Road based on a 96-foot modified thoroughfare (the six foot meandering sidewalk shall be installed in an adjacent pedestrian/landscape easement) including a half section of public street improvements on the south side excluding median, outside land and frontage improvements.
- Reconstruct and install third through lane, north & south legs and eastbound left-turn lane at the intersection of Florin Road and Bradshaw Road.

TRIGGER 5701

- Install third through lane on north and south legs of the intersection of Florin Road at Elk Grove-Florin Road (no signal).

PRIOR TO EXTENSION OF '8' STREET

- Install intersection and signal improvements at Florin Road and '8' Street (collector) based on a three-way six by two intersection.

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PRIOR TO EXTENSION OF '9' STREET

- Install intersection and signal improvements at Florin Road and '9' Street (collector) based on a three-way two by two intersection.

PRIOR TO EXTENSION OF '12' STREET

- Install intersection and signal improvements at Florin Road and '12' Street (collector) based on a three-way two by two intersection.

FRONTAGE IMPROVEMENTS

- Thoroughfare frontage improvements along the south side of Florin Road between the CCTC crossing and Vineyard Road.

*GERBER ROAD*ROADWAY CONFIGURATION UPON COMPLETION OF PROJECT:

- Four lanes with median on Gerber Road from Elk Grove-Florin Road to Vineyard Road
- Curb, gutter and sidewalks on Gerber Road (north side) from Gerber Creek Crossing #3 to Vineyard Road
- Shoulders on Gerber Road from Vineyard Road to Excelsior Road
- Improved bridge/culvert on Gerber Road at the Gerber Creek Crossing No. 1 just east of the Vineyard Road
- Two new box culverts with headwalls on Gerber Road at Gerber Creek Crossing #2 (just east of Bradshaw Road)
- Two new box culverts with headwalls on Gerber Road at Gerber Creek Crossing #3 (just west of Bradshaw Road)
- Four-way four by six intersection with two left turn and one right turn lane for each intersection leg and two through lanes on Gerber Road and three through lanes on Elk Grove-Florin Road in each direction (intersection leg improvements) extending 450 feet from the intersection
- Four by six intersection with two left turn and one right turn lane for each intersection leg and two through lanes on Gerber Road and three through lanes on Bradshaw Road in each direction (intersection leg improvements) extending 450 feet from the intersection
- New intersection at Gerber Road and Vineyard Road with pavement and curb returns (public street improvements) for a four-way four by two-plus intersection with two left turn and one right turn for each intersection leg and two through lanes on Gerber Road and one through lane on Vineyard Road (intersection leg improvements) extending 450 feet from the intersection
- New pavement and curb returns (public street improvements) at the four-way intersection of Gerber Road and Excelsior Road with two left turns, one right turn

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and two through lanes (intersection leg improvements) extending 450 feet from the intersection

- Three-way four by two intersection with signal at Gerber Road and existing Passallis Lane ('1' Street),
- Three-way four by four intersection with signal at Gerber Road and Waterman Road
- Signal at Gerber Road and '2' Street based on a three-way four by two intersection

PROJECT PHASING:*TRIGGER 901*

- Reconstruct and widen Gerber Road (two lanes with median) from Gerber Creek Crossing #3 to Bradshaw Road based on a 72-foot modified arterial (the six foot meandering sidewalk shall be installed in an adjacent pedestrian/landscape easement).
- Install a three-way four by two intersection with signal at Gerber Road and existing Passallis Lane ('1' Street).
- Install two box culverts with headwalls on Gerber Road at Gerber Creek Crossing #3 (just west of Bradshaw Road) based on an 84-foot standard arterial.
- Install a three-way four by four intersection with signal at Gerber Road and Waterman Road.

TRIGGER 1201

- Install a 12-foot median on Gerber Road from Elk Grove-Florin Road to Project boundary.
- Install a south side center lane on Gerber Road from Elk Grove-Florin to Project boundary.
- Install a 12-foot median on Gerber Road from project boundary to Waterman Road.
- Install a south side center lane on Gerber Road from project boundary to Waterman Road.
- Install a 12-foot median on Gerber Road from Waterman Road to Gerber Creek Crossing #3 (just west of Bradshaw Road).
- Install a south side center lane on Gerber Road from Waterman Road to Gerber Creek Crossing #3 (just west of Bradshaw Road).

TRIGGER 1501

- Reconstruct and widen existing four-way four by four signalized intersection to four by six intersection including 450 feet of intersection leg improvements at Gerber Road and Bradshaw Road.

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TRIGGER 2201

- Install public street improvements for a four-way intersection including 450 feet of intersection leg improvements at the intersection of Gerber Road and Excelsior Road.
- Construct a four-way four by six intersection including 450 feet of intersection leg improvements at Gerber Road and Elk Grove-Florin Road.

TRIGGER 2501

- Install shoulders on Gerber Road from Vineyard Road to Excelsior Road to provide minimum pavement width.
- Install bridge/culvert improvements on Gerber Road at the Gerber Creek Crossing No. 1 just east of the Vineyard Road and widen for upgraded two lane road.

TRIGGER 4070 (OR WHEN TRAFFIC VOLUMES REACH 90 PERCENT CAPACITY FOR A TWO-LANE FACILITY, OR 16,200 DAILY VEHICLES)

- Widen Gerber Road from two to four lanes plus median from Bradshaw Road to Vineyard Road (project boundary) based on 72-foot modified arterial (the six foot meandering sidewalk shall be installed in an adjacent pedestrian/landscape easement).

TRIGGER 4070

- Install two box culverts with headwalls on Gerber Road at Gerber Creek Crossing #2 (just east of Bradshaw Road) based on an 84-foot standard arterial.

TRIGGER 4990

- Construct the intersection of Gerber Road and Vineyard Road and install public street improvements for a four-way four by two-plus intersection including 450-foot intersection leg improvements.

PRIOR TO EXTENSION OF '2' STREET

- Install a signal at Gerber Road and '2' Street (collector) based on a three-way four by two intersection.

FRONTAGE IMPROVEMENTS

- Arterial frontage improvements along the north side of Gerber Road between Gerber Creek Crossing #3 to Vineyard Road.

*JACKSON ROAD*ROADWAY CONFIGURATION UPON COMPLETION OF PROJECT:

- Four lanes with median from South Watt Avenue to Excelsior Road
- Four-way four by six intersection and signal at the intersection of Jackson Road and South Watt Avenue with two left turns and one right turn lanes for each intersection leg, three through lanes on South Watt Avenue and two through lanes on Jackson Road (intersection leg improvements) extending 450 feet from the intersection
- Two left-turns, one right turn lane and two through lanes in the eastbound direction on Jackson Road at Bradshaw Road
- Improved bridge/culvert on Jackson Road at the Morrison Creek Crossing just east of Bradshaw Road

PROJECT PHASING:*TRIGGER 2201*

- Construct a four-way four by six intersection and signal including 450 feet of intersection leg improvements at the intersection of Jackson Road and South Watt Avenue.

TRIGGER 5701 (OR WHEN TRAFFIC VOLUMES REACH 90% CAPACITY FOR A TWO-LANE FACILITY OR 16,200 DAILY VEHICLES)

- Widen Jackson Road from two to four lanes from South Watt Avenue to Bradshaw Road based on a 96-foot modified thoroughfare (the six foot meandering sidewalk shall be installed in an adjacent pedestrian/landscape easement).
- Widen Jackson Road from two to four lanes from Bradshaw Road to Excelsior Road based on a 96-foot modified thoroughfare (the six foot meandering sidewalk shall be installed in an adjacent pedestrian/landscape easement).

TRIGGER 5701

- Install an eastbound left-turn lane on Jackson Road at Bradshaw Road.
- Install bridge/culvert improvements on Jackson Road at the Morrison Creek Crossing just east of Bradshaw Road based on a 108-foot standard thoroughfare.

*SOUTH WATT AVENUE*ROADWAY CONFIGURATION UPON COMPLETION OF PROJECT:

- Six lanes with median from Florin Road to Folsom Boulevard
- Four-way four by six intersection and signal including a turn lane at South Watt Avenue and Elder Creek Road

PROJECT PHASING:

TRIGGER 1201 (OR WHEN TRAFFIC VOLUMES REACH 90 PERCENT CAPACITY FOR A TWO-LANE FACILITY, OR 16,200 DAILY VEHICLES)

- Widen South Watt (four lanes with median) from Jackson Road to Folsom Boulevard based on a 96-foot modified thoroughfare (the six foot meandering sidewalk shall be installed in an adjacent pedestrian/landscape easement).

TRIGGER 1201

- Construct a four-way four by six intersection and signal at South Watt Avenue and Elder Creek Road.
- Install a four-way signalized intersection including a turn lane at the intersection of South Watt Avenue and Elder Creek Road.

TRIGGER 2501 (OR WHEN TRAFFIC VOLUMES REACH 90 PERCENT CAPACITY FOR A FOUR-LANE FACILITY, OR 32,400 DAILY VEHICLES)

- Widen South Watt Avenue from four to six lanes with median from Jackson Road to Folsom Boulevard based on a 96-foot modified thoroughfare (the six foot meandering sidewalk shall be installed in an adjacent pedestrian/landscape easement).

TRIGGER 2501

- Reconstruct and widen South Watt Avenue from Florin Road to Elder Creek Road based on a 96-foot modified thoroughfare (the six foot meandering sidewalk shall be installed in an adjacent pedestrian/landscape easement).

TRIGGER 4501 (OR WHEN TRAFFIC VOLUMES REACH 90% CAPACITY FOR A TWO-LANE FACILITY OR 16,200 DAILY VEHICLES)

- Widen South Watt Avenue from Elder Creek Road to Fruitridge Road based on a 96-foot modified thoroughfare (the six foot meandering sidewalk shall be installed in an adjacent pedestrian/landscape easement).
- Widen South Watt Avenue from Fruitridge Road to Jackson Road based on a 96-foot modified thoroughfare (the six foot meandering sidewalk shall be installed in an adjacent pedestrian/landscape easement).

TRIGGER 5701

- Reconstruct and widen South Watt Avenue from Florin Road to Elder Creek Road from four lanes to six lanes including the outside lane and frontage improvements based on a 96-foot modified thoroughfare (the six foot meandering sidewalk shall be installed in an adjacent pedestrian/landscape easement).

3 - PROJECT CHARACTERISTICS

- Reconstruct and widen South Watt Avenue from Elder Creek Road to Fruitridge Road from four lanes to six lanes including the outside lane and frontage improvements based on a 96-foot modified thoroughfare (the six foot meandering sidewalk shall be installed in an adjacent pedestrian/landscape easement).
- Reconstruct and widen South Watt Avenue from Fruitridge Road to Jackson Road from four lanes to six lanes including the outside lane and frontage improvements based on a 96-foot modified thoroughfare (the six foot meandering sidewalk shall be installed in an adjacent pedestrian/landscape easement).

*VINEYARD ROAD*ROADWAY CONFIGURATION UPON COMPLETION OF PROJECT:

- Two lanes with shoulders from Calvine Road to Gerber Road
- Two lanes, a center two-way turn lane, and curb, gutter, and sidewalks from Gerber Road to Florin Road
- Improved intersection and signals at Vineyard Road and '15' Street

PROJECT PHASING:*TRIGGER 2501*

- Install shoulders on Vineyard Road from Calvine Road to Gerber Road to provide minimum pavement width.

TRIGGER 4070

- Construct Vineyard Road from Gerber Road (project boundary) to 2,640 feet north of Gerber Road based on an 84-foot standard collector including a center two-way turn lane and frontage improvements.

TRIGGER 4071

- Construct Vineyard Road from 2,640 feet north of Gerber Road to Florin Road (project boundary) based on an 84-foot standard collector including a center two-way turn lane and frontage improvements.

PRIOR TO EXTENSION OF '15' STREET

- Install intersection and signal improvements at Vineyard Road and '15' Street (collector) based on a three-way two by two intersection.

PROJECT OBJECTIVE

The project objective is to improve transportation and circulation in the North Vineyard Station Specific Plan area resulting from land development, thus improving mobility for motorists, bicyclists, pedestrians and transit riders.

INTENDED USE OF THE SEIR

The SEIR will be used as an informational document for the public and by the Sacramento County Board of Supervisors in evaluating the proposed project and rendering a decision to approve or deny the proposed project. In addition, the SEIR will be used as by responsible agencies including but not limited to, the California Department of Fish and Game, Regional Water Quality Control Board, U.S. Army Corps of Engineers and the U.S. Fish and Wildlife Service.

PERMITS AND APPROVALS

The public policies, laws and regulations related to the proposed project include, but are not limited to:

- The Sacramento County General Plan
- The City of Elk Grove General Plan
- The City of Sacramento General Plan
- The Cordova Community Plan
- The Vineyard Community Plan
- The federal and state Endangered Species Acts
- The federal Clean Water Act
- The National Historic Preservation Act
- The State Public Resources Code
- The State Health and Safety Code
- State and federal Clean Air Acts

The proposed project may require the following permits:

- Army Corps Section 404 Permit
- Fish and Game Section 1600 Streambed Alteration Agreement
- Section 401 Water Quality Certification
- State Water Resources Control Board General Permit

4 LAND USE

INTRODUCTION

The project is within Sacramento County, City of Elk Grove and the City of Sacramento. South Watt Avenue is within the jurisdiction of Sacramento County and the City of Sacramento and Calvine Road is within the jurisdiction of Sacramento County and the City of Elk Grove. The policy plans for each jurisdiction provide a framework for the development of that area, both current and future. The project is analyzed for conflicts with adopted plans and policies. The project will acquire right-of-way from 484 properties. All but ten properties will be subject to partial acquisition. Nine of the ten properties will potentially need to be fully acquired as the project encroaches into a structure. The remaining property is subject to full acquisition since it is located completely within the project boundaries.

REGULATORY SETTING

SACRAMENTO COUNTY GENERAL PLAN CIRCULATION ELEMENT

This element provides a transportation plan that emphasizes air quality, a balance between various modes of transportation, coordination of land use and the transportation system, and funding constraints. The Transportation Plan shows road improvements for Sacramento County for the next 20 years and beyond. Future transportation facilities are categorized as occurring pre-2010 and post-2010 and include roadways, transportation corridors, and related facilities.

Roadways included on the Transportation Plan are state freeways, thoroughfares, arterials, and rural collectors. Roads with community-wide significance are shown on the map. Freeways designated on the map are state operated limited access facilities providing inter-regional travel and inter-urban access. Thoroughfares are six lane high volume roadways, while arterials are major four lane streets. Rural collectors are two lanes but are intended to have sufficient right-of-way for four lanes to accommodate capacity increases post-2010.

Transportation corridors link areas with high quality transportation facilities in areas with high intensity land uses. This regional approach to land use and transportation planning focuses high intensity land development along a corridor with the provision of high service and good linkage regionally. The two types of transportation corridors on the Transportation Plan are the trunk line network and the feeder line network. The trunk line network consists of express regional transit systems, such as the light rail train and

high quality bus service with a 15 minute frequency, while the feeder line network consists of a high quality street bus system that stops more frequently.

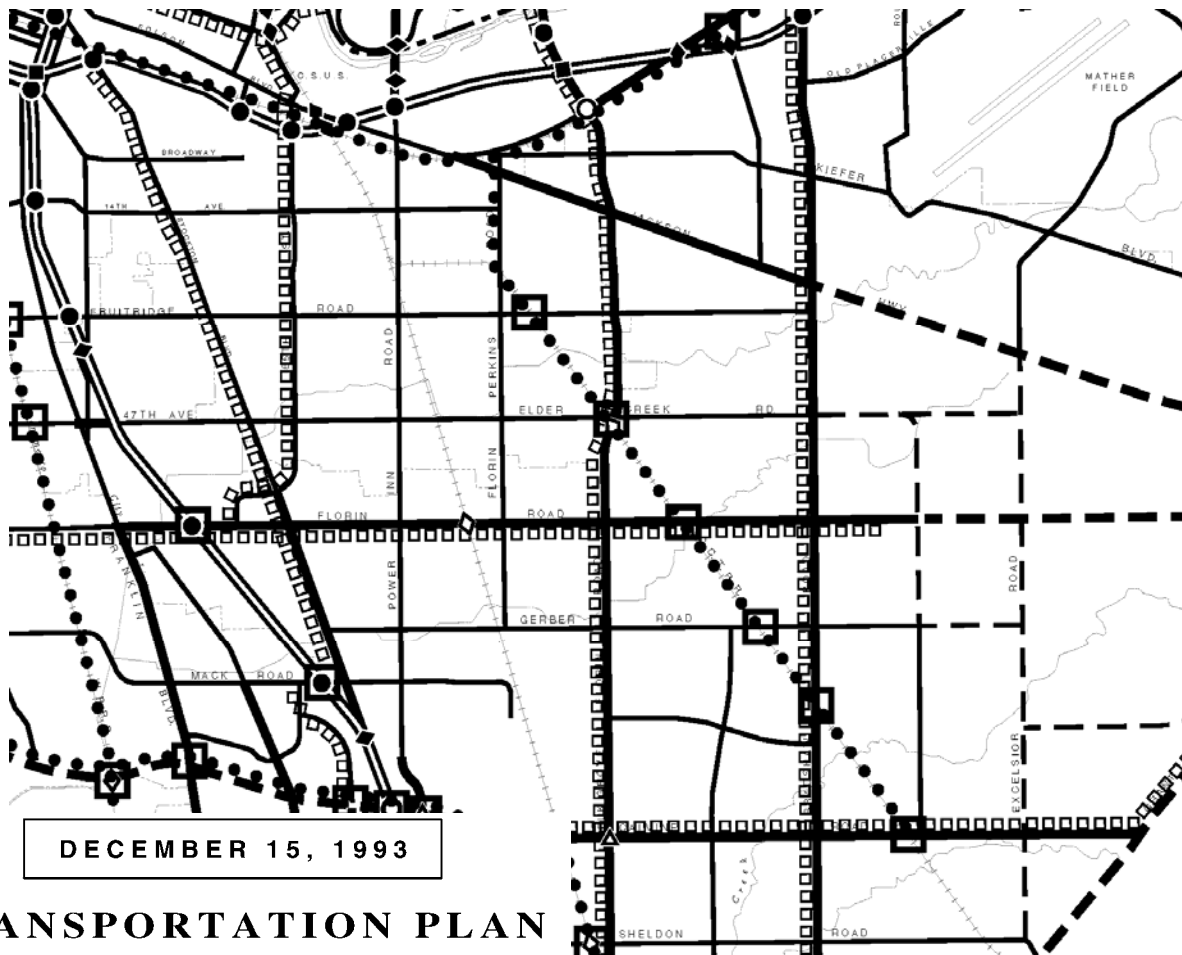
Other transportation-related facilities shown on the Transportation Plan include interchanges, existing and future grade separations, park and ride lots, urban interchanges, and off-street (Class I) bikeways.

The project roadways shown on the Transportation Plan are presented below with their associated designations within the project limits and shown on Plate LU -1:

- Bradshaw Road – thoroughfare pre-2010 from south of Calvine Road to north of Jackson Road.
- Calvine Road – thoroughfare pre-2010 from west of Elk Grove-Florin Road to east of Excelsior Road.
- Elder Creek Road – arterial pre-2010 from west of South Watt Avenue to Bradshaw Road, and post-2010 from Bradshaw Road to east of Excelsior Road.
- Excelsior Road – arterial post-2010 from south of Calvine Road to Jackson Road.
- Florin Road – thoroughfare pre-2010 from west of Elk Grove-Florin Road to Vineyard Road, and post-2010 from Vineyard Road to east of Excelsior Road.
- Gerber Road – arterial pre-2010 from Elk Grove-Florin Road to Vineyard Road, and post-2010 from Vineyard Road to Excelsior Road.
- Jackson Road – thoroughfare pre-2010 from west of South Watt Avenue to Bradshaw Road and post-2010 from Bradshaw Road to east of Excelsior Road.
- South Watt Avenue/Elk Grove-Florin Road – thoroughfare pre-2010 from south of Calvine Road to north of Folsom Boulevard.
- Vineyard Road – arterial pre-2010 from Calvine Road to Gerber Road and post-2010 to Elder Creek Road.

Table LU-1 presents a comparison between the existing travel lanes on the project roadways, the designated number of lanes according to the Sacramento County Transportation Plan map, and the number of lanes added to the roadways by the proposed project. Sections of project roadways not described under the proposed project configuration column do not have additional travel lanes proposed.

Plate LU -1 Sacramento County Transportation Plan



DECEMBER 15, 1993

TRANSPORTATION PLAN

SACRAMENTO COUNTY, CALIFORNIA

TRANSPORTATION CORRIDORS (HOV, LRT, BUS EMPHASIS)

TRUNK LINE NETWORK High-Frequency Services within Urban Area
FEEDER LINE NETWORK Express Services to Trunk Lines

ROAD SYSTEM	PRE-2010	POST-2010
FREEWAYS Limited Access	=====	=====
THOROUGHFARES Normal Width 108', Normally 6 Lanes	=====	=====
ARTERIALS Normal Width 84', Normally 4 Lanes	=====	=====
URBAN AND RURAL COLLECTORS 2 Lanes	=====	=====

- EXISTING INTERCHANGE
- FUTURE INTERCHANGE
- FREEWAY TO FREEWAY INTERCHANGE
- ◆ EXISTING GRADE SEPARATION
- ◇ FUTURE GRADE SEPARATION
- EXISTING GRADE SEPARATION AND FUTURE INTERCHANGE
- △ FUTURE URBAN INTERCHANGE
- ⊠ FUTURE 8 LANES X 8 LANES INTERSECTION
- PARK & RIDE
(Exact location may vary within TOD areas. See Land Use Element for details)
- OFF-STREET BIKEWAY LANE

This map primarily shows roads with commercially-viable transportation. Roads with more than two lanes full function as collectors for giving large development projects better access to the transportation network may not be shown on this Transportation Plan.

Transportation network facilities outside Sacramento County to within the cities of Folsom, Yuba City, and Sacramento are shown for informational purposes only, and their designation on this Transportation Plan does not represent the adopted policies or decision making authority of the governing jurisdictions.

① Indicates special circumstances right lane throughflow. The specific segments of right lane closures on the map are a 1/4 mile Medianway from Highway 99 to Highway 99.

② The south area trunk lines are alternatives. North of line crossing only one of the segments will be constructed. South of line crossing one or both segments may be constructed.

Table LU-1 Lane Comparison between Approved and Proposed Plans

Roadway	Existing	General Plan Designation		Proposed Project Configuration ¹
		Pre 2010	Post 2010	
South Watt Ave/Elk Grove-Florin Road	Varies from two to six lanes	Thoroughfare ²		Six lanes and a median from Calvin Road to Folsom Boulevard
Bradshaw Road	Varies from two to four lanes	Thoroughfare		Six lanes and a median from Florin Road to Elder Creek Road
Vineyard Road	Two lanes	Arterial ³ from Calvin Road to Gerber Road	Arterial from Gerber Road to Elder Creek Road	Shoulder widening from Calvin Road to Gerber Road Two lanes with two-way left-turn lane from Gerber Road to Florin Road
Excelsior Road	Two lanes		Arterial from south of Calvin Road to Jackson Road	Shoulder widening from Calvin Road to Jackson Road
Jackson Road	Two lanes	Thoroughfare from west of South Watt Avenue to Bradshaw Road	Thoroughfare from Bradshaw Road to east of Excelsior Road	Four lanes with median from South Watt Avenue to Excelsior Road
Elder Creek Road	Two lanes	Arterial from west of South Watt Avenue to Bradshaw Road	Arterial from Bradshaw Road to east of Excelsior Road	Shoulder widening from South Watt Avenue to Excelsior Road
Florin Road	Two lanes	Thoroughfare from west of Elk Grove-Florin Road to Vineyard Road	Thoroughfare from Vineyard Road to east of Excelsior Road	Four lanes and a median from the Elk Grove-Florin Road to Vineyard Road Shoulders from Vineyard Road to Excelsior Road

		General Plan Designation		
Gerber Road	Two lanes	Arterial from Elk Grove-Florin Road to Vineyard Road	Arterial from Vineyard Road to Excelsior Road	Two lanes from Gerber Creek Crossing #3 to Bradshaw Road One lane in eastbound direction from Elk Grove-Florin to Gerber Creek Crossing #3 (just west of Bradshaw Road) Four lanes from Bradshaw Road to Vineyard Road
Calvine Road	Varies from four to six lanes	Thoroughfare		Six lanes from Short Road to Elk Grove-Florin Road. Six lanes from 1,300 feet east of Waterman Road to Vineyard Road
Notes: ¹ Proposed project configuration listed in this table only includes roadway widening plans. ² Thoroughfare has six lanes. ³ Arterial has four lanes. Source: Sacramento County 1993b; Municipal Services Agency 2007.				

POLICIES

The pertinent General Plan policies that relate to the project are:

- CI-18 Sacramento County shall develop a broad range of demand reduction measures designed to induce efficient use of existing roads, bridges, and parking facilities. Implementation measures may include congestion pricing for roads, bridge tolls, revised parking fees, and other user charges.
- CI-21 Incorporate preferential consideration for buses and private HOVs at strategic congestion points (such as bridges and on-ramps) directed at discouraging drive-alone commuting.
- CI-22 Sacramento County shall apply the following Level of Service (LOS) standards for planning roads in the unincorporated area:
1. Rural collectors: LOS D

2. Urban area roads: LOS E

and may proceed with additional capacity projects within the scope of the adopted Transportation Plan when the Board of Supervisors has determined that the implementation of all feasible measures which will reduce travel demand in the affected corridor will not provide the target level of service.

CITY OF ELK GROVE GENERAL PLAN CIRCULATION ELEMENT

Calvine Road is a project roadway partially within the City of Elk Grove, forming the northern boundary of the city. The circulation element is based on the following concepts:

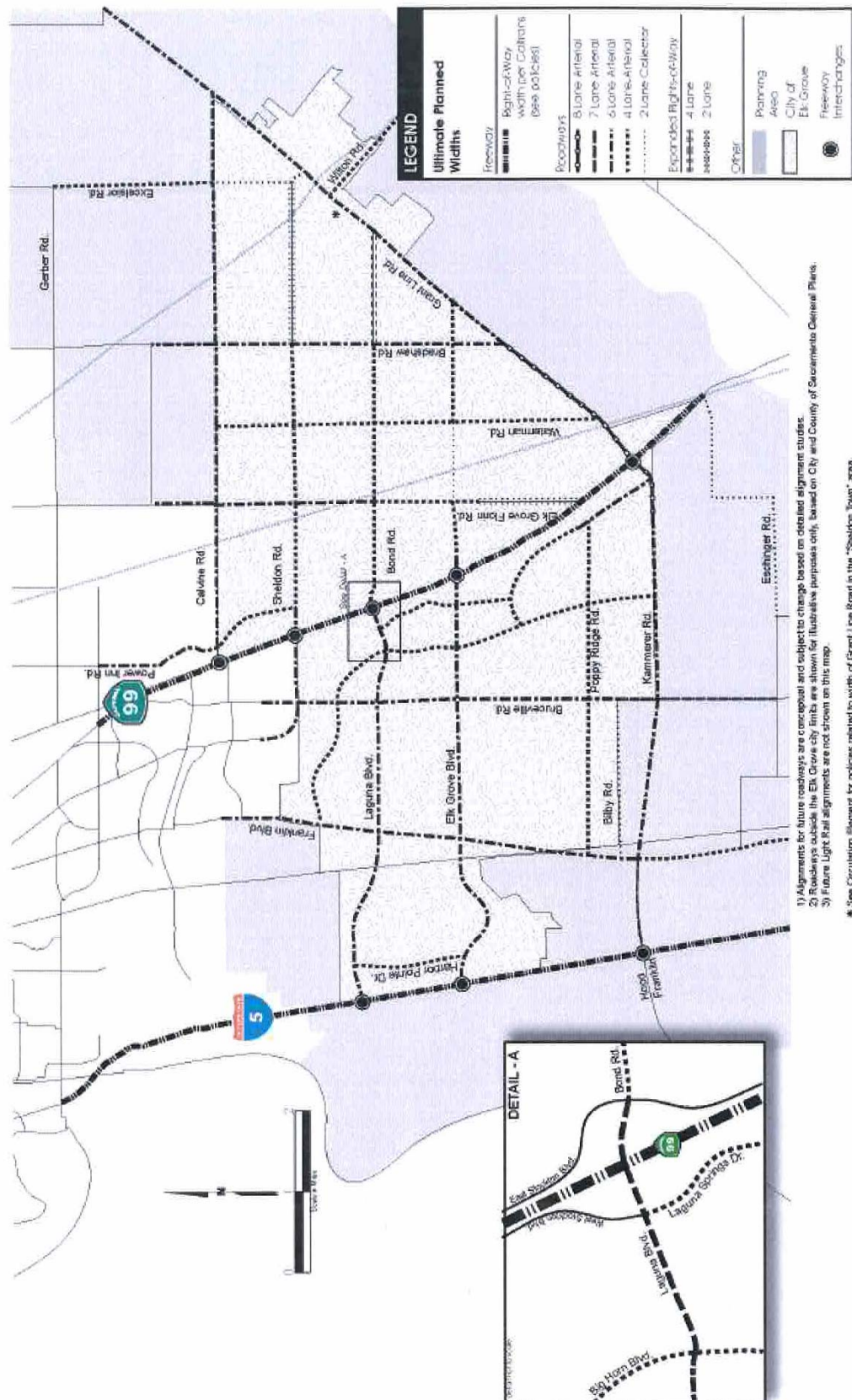
- Although alternative modes of transportation are encouraged, the majority of travel is assumed to be via automobiles and trucks.
- Efficient and convenient vehicular transportation is an important part of the success of the retail and office areas in the city.
- The roadway system is a major component of the “feel” of a community.
- Roadway improvements due to land development are to be carried out in a single phase whereby roadways are to be constructed to their full planned width.
- Focus on alternative transportation plans that can reasonably expect to be achieved.

Within the circulation element, the City has prepared a Master Plan of Roadways. This Plan classifies Calvine Road as a six lane roadway from west of Elk Grove-Florin Road to east of Excelsior Road. Plate LU -2 presents the Master Plan of Roadways for the City.

POLICIES:

- | | |
|-------|--|
| CI-2 | The City shall coordinate and participate with the City of Sacramento, Sacramento County and Caltrans on roadway improvements that are shared by the jurisdictions in order to improve operations. |
| CI-4 | Specific Plans, Special Planning Areas, and development projects shall be designed to promote pedestrian movement through direct, safe, and pleasant routes that connect destinations inside and outside the plan or project area. |
| CI-13 | The City shall require that all roadways and intersections in Elk Grove operate at a minimum Level of Service “D” at all times. |

Plate LU -2 City of Elk Grove Master Plan of Roadways



- CI-14 The City recognizes that Level of Service D may not be achieved on some roadway segments, and may also not be achieved at some intersections. Roadways on which LOS D is projected to be exceeded are shown in the General Plan Background Report, based on the latest traffic modeling conducted by the City. On these roadways, the City shall ensure that improvements to construct the ultimate roadway system as shown in this Circulation Element are completed, with the recognition that maintenance of the desired level of service may not be achievable.
- CI-16 Where a development project is required to perform new roadway construction or road widening, the entire roadway shall be completed to its planned width from curb-to-curb prior to the operation of the project for which the improvements were constructed, unless otherwise approved by the City Engineer. Such roadway construction shall also provide facilities adequate to ensure pedestrian safety as determined by the City Engineer.
- CI-23 All public streets should have sufficient width to provide for parking on both sides of the street and enough remaining pavement width to provide for fire emergency vehicle access.

CITY OF SACRAMENTO GENERAL PLAN CIRCULATION ELEMENT

South Watt Avenue is a project roadway partially within the City of Sacramento, forming the south-eastern boundary of the city. The General Plan is currently being updated. The Major Streets Plan designates the roadways in the Plan area as freeways, expressways, arterials, or minor arterials. South Watt Avenue is classified as an arterial, and by definition accommodates relatively high amounts of traffic and high speeds along a facility with six or fewer lanes. An arterial provides service through the region and connects sub-areas. Plate LU -3 presents the Major Streets Plan for the City. The goals and accompanying policies below detail the City's overall transportation policy of promoting a safe, efficient and balanced transportation system.

STREETS AND ROADS

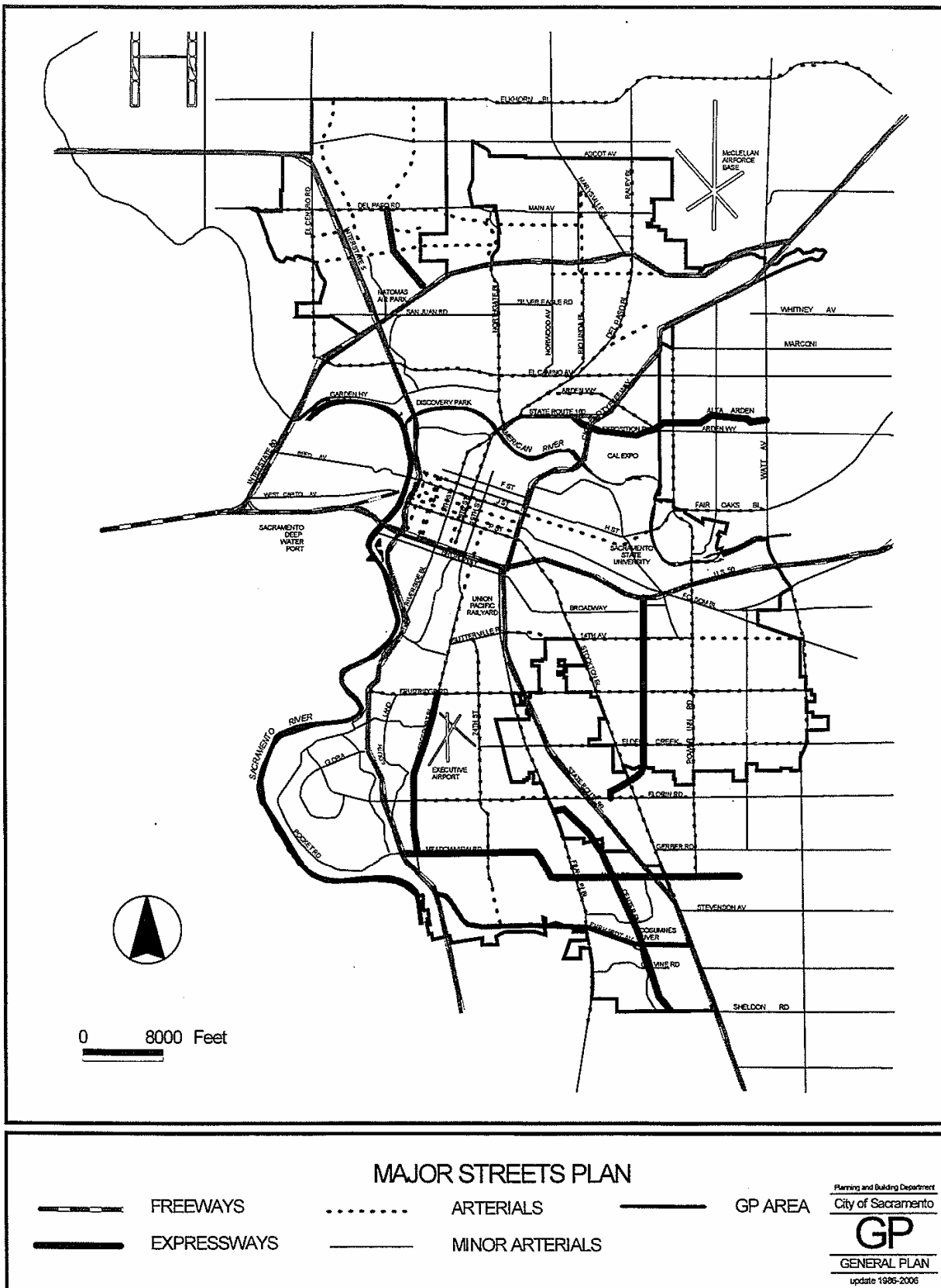
GOAL B

Maintain the quality of the City's street system.

POLICIES:

- 1 Continue to identify streets that are in need of major upgrading, and develop a priority listing for their inclusion in the Capital Improvements Program.

Plate LU -3 City of Sacramento Major Streets Plan



GOAL D

Work towards achieving an overall Level of Service C on the City's local and major street systems.

POLICIES:

- 1 Assess the impacts of land use decisions on the surrounding City street system.
- 2 Work towards the more efficient use of the City's existing street system.
- 3 Explore alternative transportation modes that will lead to a decrease in demand of the City's surface street system.

*TRANSPORTATION SYSTEMS MANAGEMENT***GOAL A**

Increase the commute vehicle occupancy rate by fifty percent.

POLICIES:

- 1 Encourage and support programs that increase vehicle occupancy.
- 2 Support actions/ordinances/development/agreements that reduce peak hour trips.

GOAL B

Support programs to improve traffic flow.

POLICIES:

- 1 Support programs to improve traffic flow

CITY OF SACRAMENTO COMMUNITY PLANS

South Watt Avenue is partially within the communities of East Broadway, East Sacramento and South Sacramento. Of these communities, South Sacramento is the only one with a Community Plan.

SOUTH SACRAMENTO COMMUNITY PLAN

This Plan is currently being updated. The existing plan does not show the designation of roadways within the community. Therefore, the General Plan's Major Streets Plan would be followed. The policies below detail the City's overall transportation goal for this

community; to move people and goods safely, economically, comfortably and quickly, with as few adverse impacts to the environment as possible.

POLICIES:

- 2 Improve the flow of traffic along major streets.
- 3 Encourage the provision of more bus service in South Sacramento.

SACRAMENTO COUNTY COMMUNITY PLANS

South Watt Avenue is within two community plan areas in the County of Sacramento. The majority of the project roadways are within the Vineyard Community Plan, while a small section of South Watt Avenue is within the Cordova Community Plan.

CORDOVA COMMUNITY PLAN

The project roadway in this plan area is Watt Avenue from Jackson Road, north to Folsom Boulevard. This plan does not contain a roadway designation map, instead relies on the Sacramento County Transportation Plan (discussed earlier). Watt Avenue is identified as a six-lane thoroughfare. The objectives below detail the County's overall intent to shape transportation in this community is to come to a reasonable balance between the various transportation modes and help promote a multi-modal transportation system.

OBJECTIVES:

URBAN DESIGN AND NEIGHBORHOOD CHARACTER

- UDNC-6 Promote the installation of landscaped medians and meandering or separated sidewalks to create a more attractive and active streetscape environment, particularly along the Folsom Boulevard Corridor.
- UDNC-9 Promote pedestrian-friendly, human scale urban environments that provide safe and pleasant spaces for people to live and work.

TRANSPORTATION AND CIRCULATION

- TC-2 Encourage roadway circulation improvements that minimize congestion, provide for alternative forms of transportation (e.g., bicycles, golf carts and guided buses), maximize efficiency and convenience, promote safety, and are sensitive to surrounding neighborhoods.
- TC-8 Ensure adequate pedestrian circulation by sidewalks or similar means within and between land uses.

- TC-9 Ensure adequate bicycle provisions within new land uses to encourage bicycle use.

VINEYARD COMMUNITY PLAN

The project roadways that are in this plan area are Watt Avenue from Jackson Road, south to Florin Road (where it becomes Elk Grove-Florin Road), Bradshaw Road, Vineyard Road, Excelsior Road, Jackson Road, Elder Creek Road, Florin Road, Gerber Road and Calvine Road. This plan does not have policies pertinent to the proposed project; however, there is discussion and mapping regarding planned transportation facilities in the area. The Major Street and Highway Plan shows the ultimate planned width of South Watt Avenue, Elk Grove-Florin Road, Florin Road, and Calvine Road as six-lane expressways. The ultimate planned width for Elder Creek Road, Gerber Road, Bradshaw Road, Vineyard Road and Excelsior Road is four-lane arterials. Plate LU -4 presents the Major Street and Highway Plan map for this community. This map is from the 1982 Sacramento County General Plan.

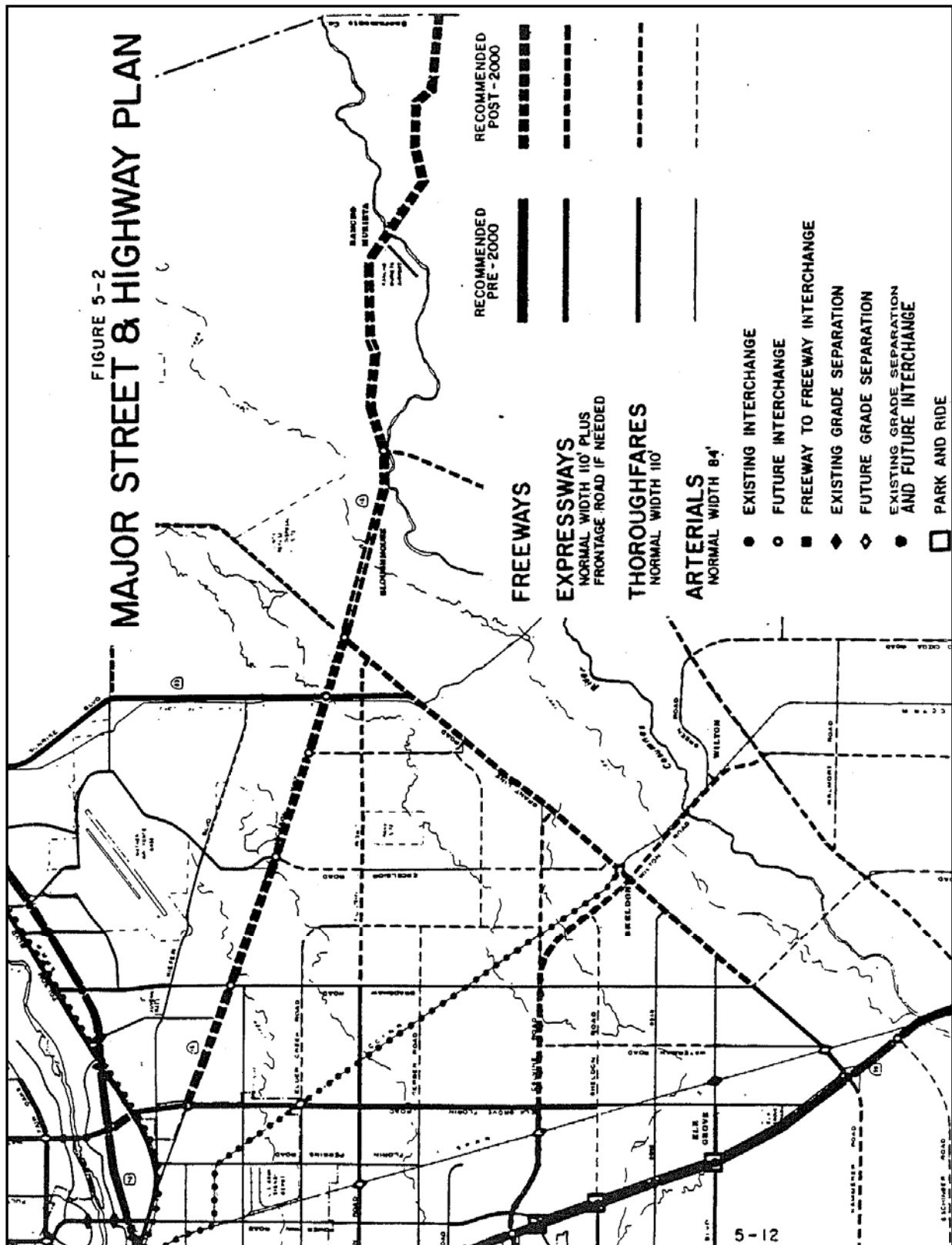
RIGHT-OF-WAY ACQUISITION PROCESS

The majority of properties flanking the project roadways will be subject to acquisition to provide sufficient right-of-way for the roadway widenings. The types of properties involved in acquisition include commercial, shopping center, industrial office park, light and heavy industry, urban and agricultural residential and portions of larger agricultural properties.

Rights-of-way will initially be secured through a willing seller process whereby agents of the County would negotiate the purchase of the land based on an appraised value. If agreement cannot be reached between the owner(s) and County on any property subject to acquisition, the County may file a condemnation action in court, exercising the government's right of eminent domain as provided by the Constitution. In such a case, the court hears testimony relative to the value of the lands and easements the County wishes to acquire, and determines, based on evidence presented by the County and landowner, what is fair compensation. Either party may appeal the judge's decision if they are dissatisfied with the compensation awarded.

Acquisition from either a willing seller or by eminent domain would only affect those portions of land actually needed for the right-of-way and would not affect the remainder of each property, unless it is determined that a full acquisition of the property is necessary. In some cases the property owners may need to obtain waivers from mortgage holders and/or revise title insurance policies to cover a change in property description as a result of selling a small portion of their land. In acquiring property, the County (and the courts, if involved) would consider not only the value of the land, but the value of anything on the land. They would also consider whether there would be any effect on the remaining parcel by taking a portion of the property. Such effects are termed severance damages. If a public agency wishes to purchase half of a parcel, for

Plate LU -4 Vineyard Community Major Street & Highway Plan



example, that purchase may decrease the value of the remainder. In such case, public agencies often buy the entire parcel since it can be less costly.

RELOCATION PROGRAMS/PROCESS

The following is an explanation of relocation assistance and is general in nature and not intended to be a complete statement of Federal and State relocation laws and regulations.

Any persons to be displaced by the proposed project will be assigned to a relocation advisor, who will work closely with each displacee in order to see that all payments and benefits are fully utilized, and that all regulations are observed, thereby avoiding the possibility of displacee jeopardizing or forfeiting any of their benefits or payments. At the time of the first written offer to purchase, owner-occupants are given a detailed explanation of the State's or local agency's relocation services. Tenant occupants of properties to be acquired are contacted soon after the first written offer to purchase, and also are given a detailed explanation of the Relocation Program. To avoid loss of possible benefits, no individual, family, business, farm, or nonprofit organization should commit to purchase or rent a replacement property without first contacting the relocation advisor.

RELOCATION ASSISTANCE ADVISORY SERVICES

Persons who are eligible for relocation payment(s) and who are legally occupying a property required for the project will not be asked to move without first being given at least 90 days written notice, and not unless at least one decent, safe, and sanitary replacement building, available on the market, is offered to them.

In accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, the local agency will provide relocation advisory assistance to any person, business, farm or nonprofit organization displaced as a result of the acquisition of real property for public use. The local agency will assist the displacee in obtaining comparable replacement housing by providing current and continuing information on the availability and prices of both houses for sale and rental units that are "decent, safe, and sanitary." Nonresidential displacees will receive information on comparable properties for lease or purchase.

Residential replacement dwellings will be in equal or better neighborhoods at rent or prices within the financial ability of the individuals and families displaced, and reasonably accessible to their places of employment. Before any displacement occurs, comparable replacement dwellings that are open to all persons regardless of race, color, religion, sex, and national origin, and which are consistent with the requirements of Title VIII of the Civil Rights Act of 1968, will be offered to displacees. This assistance will also include the supply of information concerning Federal and State assisted housing programs, and any other known services being offered by public and private agencies in the area.

THE NONRESIDENTIAL RELOCATION ASSISTANCE PROGRAM

The Nonresidential Relocation Assistance Program provides assistance to businesses, farms, and nonprofit organizations in locating suitable replacement property, and reimbursement for certain costs involved in relocation. The Relocation Advisory Assistance Program will provide current lists of properties offered for sale or rent, suitable for a particular business's specific relocation needs. The types of payments available to eligible businesses, farms and nonprofit organizations are moving and searching expenses, and possibly reestablishment expenses or a fixed in-lieu payment instead of any moving, searching, and reestablishment expenses.

MOVING EXPENSES

Moving expenses may include the following actual, reasonable costs:

- The moving of inventory, machinery, equipment, and similar business-related property; dismantling, disconnecting, crating, packing, loading, insuring, transporting, unloading, unpacking, and reconnecting of personal property.
- Lost of tangible personal property provides payment for actual, direct lost of personal property that the owner is not permitted to move.
- Expenses related to searching for a new business site, up to \$1,000 for reasonable expenses actually incurred.

REESTABLISHMENT EXPENSES

Reestablishment expenses related to the operation of the business at the new location, up to \$10,000 for reasonable expenses actually incurred.

FIXED IN LIEU PAYMENT

A fixed payment in lieu of moving and searching payments, and reestablishment payment may be available to businesses that meet certain eligibility requirements. This payment is an amount equal to the average annual net earnings from the last two taxable years prior to the relocation and may not be less than \$1,000 or more than \$20,000.

RESIDENTIAL RELOCATION PAYMENTS PROGRAM

The Relocation Payment Program will help eligible residential occupants by paying certain costs and expenses. These costs are limited to those necessary for or incidental to the purchase or rental of the replacement dwelling and actual reasonable moving expenses to a new location within 50 miles of the displacement property. Any actual moving costs in excess of the 50 miles are the responsibility of the displacee. The Residential Relocation Program can be summarized as in the following sections.

MOVING COSTS

Any displaced person who lawfully occupied the acquired property, regardless of the length of occupancy in the property acquired, will be eligible for reimbursement of moving costs. Displacees will receive either the actual reasonable costs involved in moving themselves and personal property up to a maximum of 50 miles, or a fixed payment based on a fixed moving costs schedule.

PURCHASE SUPPLEMENT

In addition to moving and related expense payments, fully eligible homeowners may be entitled to payments for increased costs of replacement housing.

Homeowners who have owned and occupied their property for 180 days or more prior to the date of the first written offer to purchase the property, may qualify to receive a price differential payment and may qualify to receive reimbursement for certain nonrecurring costs incidental to the purchase of the replacement property. An interest differential payment is also available if the interest rate for the loan on the replacement dwelling is higher than the loan rate on the displacement dwelling, subject to certain limitations on reimbursement based upon the replacement property interest rate. The maximum combination of these three supplemental payments that the owner-occupant can receive is \$22,500. If the total entitlement (without the moving payments) is in excess of \$22,500, the Last Resort Housing Program will be used and is described below.

RENTAL SUPPLEMENT

Tenants who have occupied the property to be acquired by the county for 90 days or more and owner-occupants of 90-179 days prior to the date of the first written offer to purchase may qualify to receive a rental differential payment. This payment is made when the county determines that the cost to rent a comparable “decent, safe, and sanitary” replacement dwelling will be more than the present rent of the displacement dwelling. As an alternative, the tenant may qualify for a down payment benefit designed to assist in the purchase of a replacement property and the payment of certain costs incidental to the purchase, subject to certain limitations noted below under the Down Payment section. The maximum amount payable to any tenant of 90 days or more and any owner-occupant of 90-179 days, in addition to moving expenses, is \$5,250. If the total entitlement for rental supplement exceeds \$5,250, the Last Resort Housing Program will be used.

In addition to the occupancy requirements, in order to receive any relocation benefits, the displaced person must buy or rent and occupy a “decent, safe, and sanitary” replacement dwelling within one year from the date the department takes legal possession of the property, or from the date the displacee vacates the displacement property, which ever is later.

DOWN PAYMENT

The down payment option has been designed to aid owner occupants of 90-179 days and tenants with no less than 90 days of continuous occupancy prior to the county's first written offer. The down payment and incidental expenses cannot exceed the maximum payment of \$5,250. The one-year eligibility period in which to purchase and occupy a "decent, safe, and sanitary" replacement dwelling will apply.

LAST RESORT HOUSING

Federal regulations (49 CFR 24) contain the policy and procedure for implementing the Last Resort Housing Program on Federal-aid projects. Last resort housing benefits are, except for the amounts of payments and the methods in making them, the same as those benefits for standard residential relocation, as explained above. Last resort housing has been designed primarily to cover situations where a displacee cannot be relocated because of lack of available comparable replacement housing, or when the anticipated replacement housing payments exceed the \$5,250 and \$22,500 limits of the standard relocation procedure, because either the displacee lacks the financial ability or other valid circumstances. In certain exceptional situations, Last Resort Housing may also be used for tenants of less than 90 days.

OTHER RELOCATION INFORMATION

After the first written offer to acquire the property has been made, the county will, within a reasonable length of time, personally contact the displacee to gather important information, including the following:

- Preferences in area of relocation;
- Number of people to be displaced and the distribution of adults and children according to age and sex;
- Location of school and employment;
- Specific arrangements needed to accommodate any familiar members' special needs; and
- Financial ability to relocate into comparable replacement dwelling which will adequately house all members of the family.

RELOCATION PAYMENTS NOT INCOME

Reimbursement for moving costs and replacement housing payments are not considered income for the purpose of the Internal Revenue Code of 1954, or resources for the purpose of determining the extent of eligibility of a displacee for assistance under the Social Security Act, local "Section 8" Housing programs, or other Federal assistance programs.

RIGHT TO APPEAL

Any person, business, farm or nonprofit organization which has been refused a relocation payment by the county relocation advisor or believes that the payment(s) offered by the agency are inadequate, may appeal for a special hearing of their complaint. No legal assistance is required. Information about the appeal procedure is available from the relocation advisor.

FUTURE ANALYSIS AND REVIEW

The above analysis was conducted at the beginning of the environmental review. It is acknowledged that time will pass and some of the information regarding exact dollars of replacement costs will vary over time. However, the impacts and conclusions will remain the same since it is not anticipated that the overall real estate environment in the area will dramatically alter, given the stability of the area and the “built-out” nature of the community. County Real Estate will base any transactions on the real estate costs at the time of acquisition.

IMPACTS AND ANALYSIS

IMPACT: CONFLICT WITH ADOPTED PLANS AND POLICIES*SACRAMENTO COUNTY GENERAL PLAN CIRCULATION ELEMENT*

The project is in compliance with the policies of the General Plan and the County Transportation Plan Map. This is ***not an impact.***

CITY OF ELK GROVE GENERAL PLAN CIRCULATION ELEMENT

The project is in compliance with the policies in the General Plan and the Major Roadways map. This is ***not an impact.***

CITY OF SACRAMENTO GENERAL PLAN CIRCULATION ELEMENT

The project is in compliance with the policies in the General Plan and the Major Streets Plan. This is ***not an impact.***

*CITY OF SACRAMENTO COMMUNITY PLAN***SOUTH SACRAMENTO COMMUNITY PLAN**

This project is in compliance with the policies in this Community Plan. This is ***not an impact.***

*SACRAMENTO COUNTY COMMUNITY PLANS***CORDOVA COMMUNITY PLAN**

This project is in compliance with the objectives for this Community Plan. This is ***not an impact***.

VINEYARD COMMUNITY PLAN

This project is not in compliance with the major street and highway plan for this community. The map classifying the roadways in this community is from a previous Sacramento County General Plan (January 26, 1982) and does not match the current General Plan's transportation mapping (1993 General Plan). Upon project completion, the section of Bradshaw Road from Calvine Road to Jackson Road would have six lanes. This is more lanes than designated in the community major street and highway plan. While the project would add more lanes, the plan is outdated. This is a ***less than significant impact***.

IMPACT: RIGHT-OF-WAY ACQUISITION

Financial compensation will be provided to property owners subject to right-of-way acquisition necessary for the project. A total of 484 parcels would be subject to some degree of right-of-way acquisition, generally consisting of small strips along the particular roadway being upgraded. A total of ten parcels appear subject to full acquisition; nine due to structure conflict with the project and one due to the parcel's location within the project boundaries.

STUDY PROCESS

Project design plans showing roadway right-of-way and public utilities easement (PUE) areas were overlaid on photographic aerials. Based on these plans, each parcel identified as being subject to some degree of acquisition was reviewed. The extent of acquisition was determined (full versus partial) based on four criteria. Full and partial acquisition of a parcel is discussed in more detail below. The four criteria for full acquisition are:

- Encroachment into structures
- Maintain safe driveway access for residential parcels
- Maintain five foot side yard setback for residential structures
- Maintain adequate parking for commercial and industrial parcels

Encroachment into structures occurs when a structure is bisected by the project's right-of-way boundaries. Parcels affected by this encroachment were assessed and a field verification by DERA staff was conducted.

Maintenance of safe access for residential parcels was considered when determining full or partial acquisition needs for a particular parcel. The parcels with direct access to the project roadway were reviewed to determine if the remaining parcel allows sufficient area to maintain safe parking of a vehicle on a driveway. A setback distance of 20 feet from the back edge of the project sidewalk is required.

Maintenance of adequate side yard setback for residential structures was evaluated. The minimum required setback from the roadway is five feet. When this setback distance cannot be maintained, the parcel is identified for possible full acquisition.

Maintenance of adequate parking for commercial and industrial parcels was considered when determining if full or partial acquisition was necessary. When loss of parking area resulted, the parcel was analyzed for sufficient replacement parking area. The Sacramento County Zoning Code was used to determine the minimum parking requirements.

FULL ACQUISITION

Parcels identified for possible full acquisition are affected by right-of-way acquisition that encroaches into structures or may include the whole parcel within the right-of-way. These parcels may be able to avoid full acquisition if there is adequate remaining property to which the affected structure(s) may be moved. Possible options for each affected property will be discussed between the Sacramento County Real Estate Department and the affected property owner(s) once land surveys have been conducted to confirm the exact area to be acquired. Project plans show the PUE and/or roadway right-of-way boundaries encroaching into residential structures on eight parcels of land, and a gas station pump island on another property. The tenth parcel of land that requires full acquisition is vacant and is completely within the proposed right-of-way. There were no parcels identified for possible full acquisition based on the other criteria. There is safe access for residential structures, adequate side yard setback for residential structures and adequate parking for commercial and industrial parcels. Plate LU -5 through Plate LU -14 presents the photographic aerials including project right-of-way boundaries over each of the ten properties that have structures potentially subject to full acquisition due to encroachment.

PARTIAL ACQUISITION

Parcels have been identified for partial acquisition in cases where the road widening would not encroach into any structures, safe driveway access to residential parcels is maintained, a five foot setback from the residential side yard can be maintained, and adequate parking for commercial and industrial parcels is available. The types of properties affected by partial acquisition include residences, landscape nurseries, industrial sites, agricultural and vacant land. Partial acquisition may result in residences losing portions of their front or side yard.

Plate LU -5 Properties Potentially Subject to Possible Full Acquisition
APN: 063-0200-001
9700 Jackson Road



Legend

- Future Right of Way
- ▨ Parcel Potentially being Acquired
- ▭ Parcels
- Streets

Plate LU -6 Properties Potentially Subject to Possible Full Acquisition
115-0170-028
8690 CALVINE RD



Legend





-  Parcels Potentially being Acquired
-  Future Right of Way
-  Parcels
-  Streets

Plate LU -7 Properties Potentially Subject to Possible Full Acquisition
065-0052-001
9204 FLORIN RD



Legend

- Parcels
- Streets
- Parcels Potentially being Acquired
- Future Right of Way

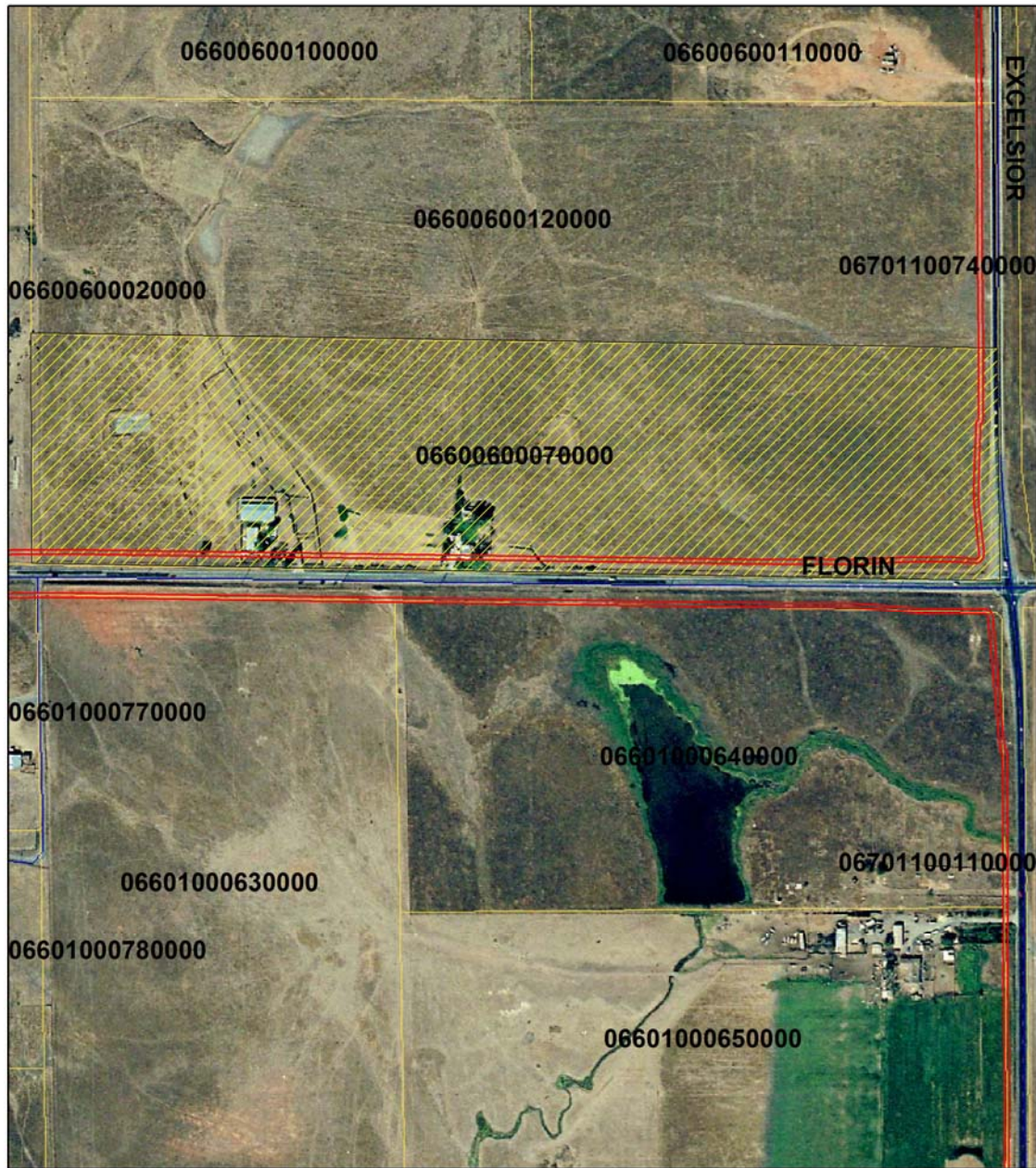
Plate LU -8 Properties Potentially Subject to Possible Full Acquisition
064-0080-055
8911 FLORIN RD



Legend

- Parcels
- Streets
- Parcels Potentially being Acquired
- Future Right of Way

Plate LU -9 Properties Potentially Subject to Possible Full Acquisition
066-0060-007
10401 FLORIN RD



Legend

- Parcels
- Streets
- Parcels Potentially being Acquired
- Future Right of Way

Plate LU -10 Properties Potentially Subject to Possible Full Acquisition
066-0100-016
10093 GERBER RD



Legend

- Parcels
- Streets
- Parcels Potentially being Acquired
- Future Right of Way

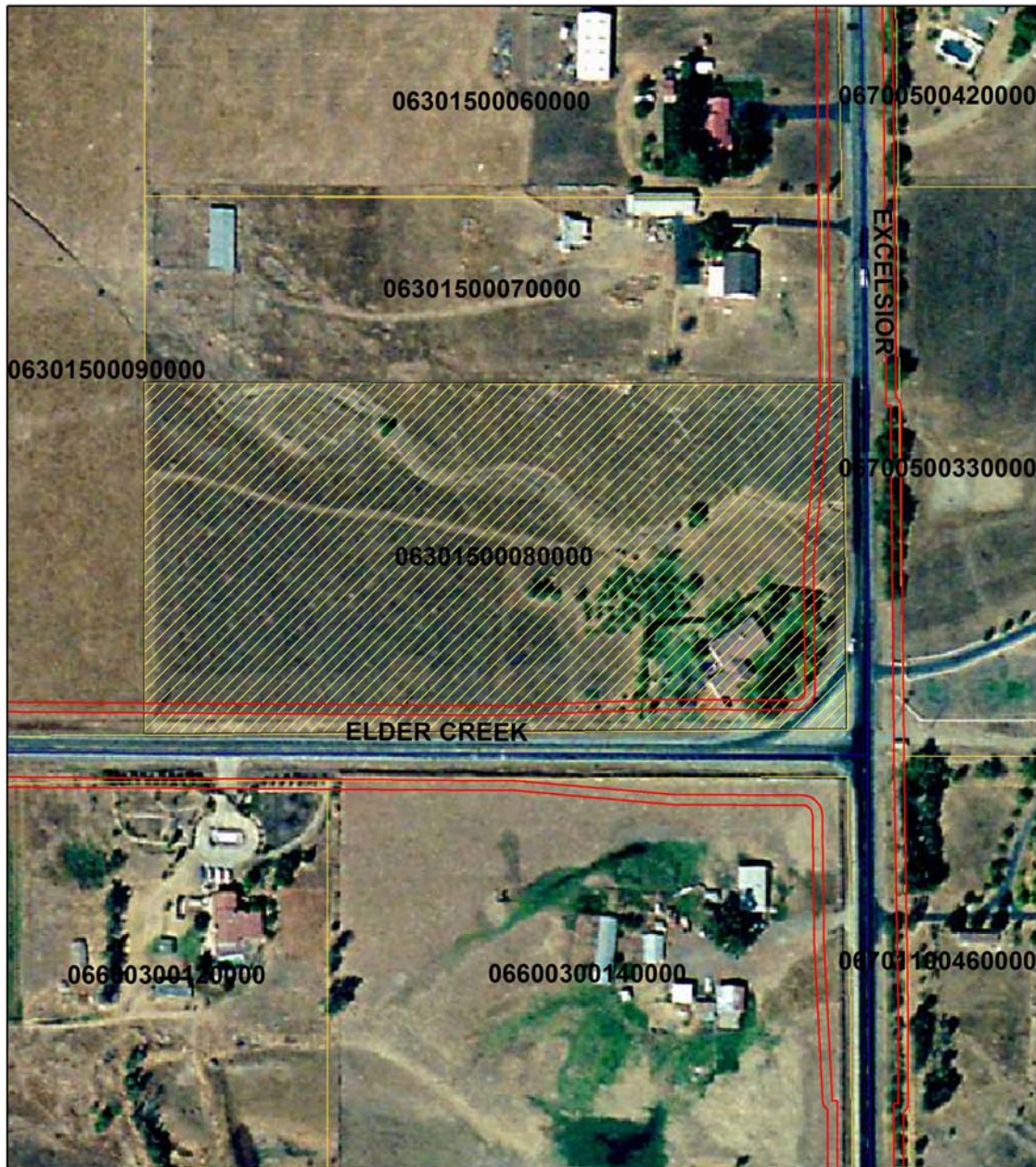
Plate LU -11 Properties Potentially Subject to Possible Full Acquisition
063-0030-005
5140 BRADSHAW RD



Legend

- Parcels
- Streets
- Parcels Potentially being Acquired
- Future Right of Way

Plate LU -12 Properties Potentially Subject to Possible Full Acquisition
063-0150-008
10485 ELDER CREEK RD



Legend

- Parcels
- Streets
- Parcels Potentially being Acquired
- Future Right of Way

Plate LU -13 Properties Potentially Subject to Possible Full Acquisition
121-0010-003
0 ELK GROVE-FLORIN RD



Plate LU -14 Properties Potentially Subject to Possible Full Acquisition
064-0080-014
9133 FLORIN RD



Legend

- Parcels
- Streets
- Parcels Potentially being Acquired
- Future Right of Way

Partial acquisition of right-of-way would keep the overall use of the land intact, but would reduce the setback distance of structures from the project roadway. This reduction may result in the setback not being sufficiently far enough from the roadway to meet zoning standards for the affected properties. In these cases, the affected properties would be considered as having a non-conforming use. Non-conforming uses occur when lots, structures, and uses of land and structures are incompatible with permitted uses in the zones involved. Properties with non-conforming structures cannot be enlarged, expanded, or extended without making the necessary changes to bring the property into compliance with current zoning standards. Non-conforming use would not prevent the continued use or future sale of the property.

The majority of commercial and industrial parcels would lose portions of their driveway and property frontage. Two industrial zoned parcels would lose some parking spaces. These parcels are identified as assessor parcel numbers 063-0013-011 (at 9200 Jackson Road) and 063-0013-023 (at 9144 Jackson Road). The first of these parcels is a fast food restaurant and would lose approximately five or fewer parking spaces; however there is an abundance of parking spaces that would remain. The second parcel is designated as a warehouse and would lose approximately seven or fewer parking spaces; however there is sufficient area on the property to replace the lost parking. One agricultural-residential zoned parcel is designated as “mobile home” but appears to be functioning as some other use. This parcel appears to have parking spaces that are not clearly marked and are within the project’s acquisition area. The parcel has sufficient area to accommodate the replaced parking.

Table LU-2 presents the properties to be acquired by Assessor’s Parcel Number and site address. It also indicates the amount of right-of-way to be acquired (acres) and possible full acquisition and partial acquisition. Implementation of the right-of-way acquisition and relocation processes will ensure that impacts associated with right-of-way acquisition are ***less than significant***.

CONCLUSION

The proposed project is in compliance with the Sacramento County General Plan, City of Elk Grove General Plan, City of Sacramento General Plan, South Sacramento Community Plan, Cordova Community Plan, and applicable transportation plans. The proposed project is not in compliance with the transportation plan in the Vineyard Community Plan; however, the transportation plan is based on an outdated plan in the 1982 General Plan. This outdated plan identifies Bradshaw Road as a four lane roadway, which the current transportation plan and project plans identify as six lanes. This is a ***less than significant impact***.

Property acquisition necessary to provide sufficient right-of-way to construct the proposed roadway improvements would affect a total of 484 parcels. Of those, ten

would possibly require full acquisition and the remaining parcels would be subject to partial acquisition. The relocation program, as described previously in this section, is required to assist affected property owners. Financial compensation and assistance to find a replacement dwelling or property is provided under the program. Two industrial and one agricultural-residential property would have a portion of their parking acquired. All three of these properties have adequate remaining area where the parking for the affected parcels to relocate. Non-conforming uses may result from partial acquisition which, but the continued use of the parcel will not be impaired. This is a ***less than significant impact***.

Table LU-2 Right-of-Way Acquisition

APN	OWNER(S)	SITE ADDRESS	AMOUNT OF ACQUISITION (ACRES)	FULL OR PARTIAL
066-0100-065	2545 BIDWELL LLC/7300 EXCELSIOR LLC	7300 EXCELSIOR RD	0.08	PARTIAL
063-0020-032	A GOETZ & SON INC	9349 JACKSON RD	0.21	PARTIAL
066-0040-034	AGUSTIN GUZMAN	9453 FLORIN RD	0.26	PARTIAL
063-0170-007	ALBERT & MARY SARTI	0 JACKSON RD	0.87	PARTIAL
066-0100-059	ALFRED DIAS	9720 FLORIN RD	0.27	PARTIAL
066-0100-058	ALFRED DIAS	0 FLORIN RD	0.13	PARTIAL
064-0033-026	ALIM HUSSAIN	9040 ELDER CREEK RD	0.05	PARTIAL
123-0080-004	AMADO R & DENIA PANES	0 EXCELSIOR RD	0.22	PARTIAL
063-0011-002	ANDREW RITCHEY	9011 JACKSON RD	0.06	PARTIAL
063-0020-031	ANN M RAPOZO	9461 JACKSON RD	0.11	PARTIAL
062-0060-043	ANTHONY & LISA CIANCHETTA	8989 ELDER CREEK RD	0.10	PARTIAL
064-0033-030	ANTHONY & TINA AKINS FAMILY TRUST	8986 ELDER CREEK RD	0.02	PARTIAL
123-0210-010	ANTHONY ANDRES	10510 SILENT WINGS WAY	0.11	PARTIAL
063-0120-013	ANTONIO ACOSTA & YOLANDA LOPEZ	9431 ELDER CREEK RD	0.14	PARTIAL
066-0040-029	ARTHUR A & SYLVIA BOUNE	0 FLORIN RD	0.27	PARTIAL
066-0070-002	B LAVONNE	9384 FLORIN RD	0.28	PARTIAL
063-0070-028	BARMBY FAMILY 1996	9550 JACKSON RD	0.06	PARTIAL
066-0100-046	BASILO L & LUTGARDA LAMPA	10050 FLORIN RD	0.26	PARTIAL
122-0260-041	MARYANNE BATES-COSTA	10300 CALVINE RD	0.19	PARTIAL
121-0110-049	BBC ENTERPRISES LLC	0 CALVINE RD	0.60	PARTIAL
066-0100-091	BENSON & G SEAH	7346 COE LN	1.03	PARTIAL

APN	OWNER(S)	SITE ADDRESS	AMOUNT OF ACQUISITION (ACRES)	FULL OR PARTIAL
066-0100-050	BERRY	10074 FLORIN RD	0.01	PARTIAL
065-0051-023	BETTY L YANT	8962 FLORIN RD	0.11	PARTIAL
122-0260-024	BEVERLY J STEVENS	10436 CALVINE RD	0.11	PARTIAL
063-0170-005	BHUPINDER S & MANPREET SANDHU	10294 JACKSON RD	0.73	PARTIAL
063-0110-030	BONNIE R & DEAN MOON	9373 ELDER CREEK RD	0.12	PARTIAL
115-0142-018	BOULDER GLEN INVESTORS	8591 CALVINE RD	0.13	PARTIAL
066-0100-064	BOURIS FAMILY	7232 EXCELSIOR RD	0.28	PARTIAL
066-0100-077	BOUSSINA	10250 FLORIN RD	0.29	PARTIAL
063-0020-011	BRADLEY & LINDA JONES	9395 JACKSON RD	0.12	PARTIAL
063-0200-002	BRADSON DEVELOPMENT	0 BRADSHAW RD	0.29	PARTIAL
067-0190-018	BRYCE J & ROBERTA TANNER	10770 BIRCH RANCH DR	0.34	PARTIAL
115-0120-015	BZB ROSEVILLE LLC	8330 ELK GROVE-FLORIN RD	0.25	PARTIAL
121-0030-057	CALIFORNIA-AMERICAN WATER COMPANY	0 ELK GROVE-FLORIN RD	0.08	PARTIAL
066-0030-014	CALIFORTECH INCORPORATED	6410 EXCELSIOR RD	0.98	PARTIAL
115-0180-022	CALVINE & ELK GROVE-FLORIN LLC	8840 CALVINE RD	0.09	PARTIAL
115-0180-005	CALVINE & ELK GROVE-FLORIN LLC	8850 CALVINE RD	0.10	PARTIAL
115-0180-021	CALVINE & ELK-GROVE FLORIN LLC	8820 CALVINE RD	1.12	PARTIAL
122-0110-019	CALVINE 1100	0 CALVINE RD	1.72	PARTIAL
063-0060-039	CAPITOL SAND & GRAVEL COMPANY	9330 JACKSON RD	0.12	PARTIAL
122-0210-020	CARLO & SUSAN MANANGAN	9880 CALVINE RD	0.41	PARTIAL
063-0120-025	CAROL & RICK RING	0 ELDER CREEK RD	0.01	PARTIAL
063-0120-011	CAROL & RICK RING	9441 ELDER CREEK RD	0.03	PARTIAL
063-0120-026	CAROL & RICK RING	9441 ELDER CREEK RD	0.07	PARTIAL
115-0142-016	CAROL A & DANIEL RADMAN	8375 SHORT RD	0.20	PARTIAL
065-0051-039	CAROL J CLOSTER	7271 ELK GROVE-FLORIN RD	0.21	PARTIAL

APN	OWNER(S)	SITE ADDRESS	AMOUNT OF ACQUISITION (ACRES)	FULL OR PARTIAL
115-0091-007	CASELMAN PROPERTIES L P	7808 ELK GROVE-FLORIN RD	0.14	PARTIAL
115-0091-006	CASELMAN PROPERTIES L P	7832 ELK GROVE-FLORIN RD	0.30	PARTIAL
121-0190-003	CECIL & BETTY GOODNIGHT	9570 CALVINE RD	0.12	PARTIAL
066-0100-049	CECIL N & CHARLIEN BISPO	0 GERBER RD	0.53	PARTIAL
122-0120-013	CENTRAL CALIFORNIA TRACTION COMPANY	0 CALVINE RD	0.14	PARTIAL
122-0260-006	CENTRAL CALIFORNIA TRACTION COMPANY	0 CALVINE RD	0.19	PARTIAL
064-0030-003	CENTRAL CALIFORNIA TRACTION COMPANY	0 ELDER CREEK RD	0.12	PARTIAL
064-0080-032	CENTRAL CALIFORNIA TRACTION COMPANY	0 FLORIN RD	0.23	PARTIAL
065-0052-003	CENTRAL CALIFORNIA TRACTION COMPANY	0 FLORIN RD	0.14	PARTIAL
066-0100-019	CHAQUICA FAMILY 2004	0 VINEYARD RD	0.21	PARTIAL
121-0010-019	CHARAN BADWAL	7733 ELK GROVE-FLORIN RD	0.18	PARTIAL
066-0040-009	CHARLES KEITH SMITH & CALVERT CITY TRUST	0 BRADSHAW RD	0.32	PARTIAL
064-0080-048	CHARLES & NOREEN MORRISON	9149 FLORIN RD	0.11	PARTIAL
063-0200-001	CHHEANG & ELAINE MENG	9700 JACKSON RD	0.37	POSSIBLE FULL/ ENCROACH STRUCTURE
063-0013-011	CHI & THERESA LI	9200 JACKSON RD	0.06	PARTIAL
123-0010-003	CHRIS N VRAME	0 GERBER RD	2.29	PARTIAL
062-0060-018	CHRISTOPHER CUMBRA	9087 ELDER CREEK RD	0.05	PARTIAL
115-0170-028	CHRISTOPHER SCRUTON	8690 CALVINE RD	0.12	POSSIBLE FULL/ ENCROACH STRUCTURE
122-0260-129	STEPHEN & LILY CHU	10150 CALVINE RD	0.07	PARTIAL
065-0052-001	CLAIRE HARTMAN	9204 FLORIN RD	0.12	POSSIBLE FULL/ ENCROACH STRUCTURE
065-0051-022	CLAUDIA RICHARDSON	0 FLORIN RD	0.23	PARTIAL
066-0040-048	BRUNELLO & CONSTANCE DARE	9647 FLORIN RD	0.07	PARTIAL

APN	OWNER(S)	SITE ADDRESS	AMOUNT OF ACQUISITION (ACRES)	FULL OR PARTIAL
063-0020-010	CORDOVA RECREATION & PARK DISTRICT	9405 JACKSON RD	0.11	PARTIAL
063-0020-036	CORDOVA RECREATION & PARK DISTRICT	9425 JACKSON RD	0.39	PARTIAL
123-0220-062	COUNTY OF SACRAMENTO DEPARTMENT OF WATER RESOURCES	0 STEED WAY	0.02	PARTIAL
063-0070-025	CRIMSONCO LLC <u>JACKSON RD FOURTEEN LLC</u>	0 JACKSON RD	0.08	PARTIAL
063-0070-024	CRIMSONCO LLC <u>JACKSON RD FOURTEEN LLC</u>	9510 JACKSON RD	0.08	PARTIAL
066-0100-043	CRYSTAL SINGH	10263 GERBER RD	0.30	PARTIAL
066-0040-040	CTB REN	7190 BRADSHAW RD	0.35	PARTIAL
063-0110-024	D & N WALKER PROPERTIES LLC	0 ELDER CREEK RD	0.09	PARTIAL
063-0110-023	D & N WALKER PROPERTIES LLC	9381 ELDER CREEK RD	0.09	PARTIAL
063-0120-001	D & N WALKER PROPERTIES LLC	9411 ELDER CREEK RD	0.11	PARTIAL
064-0033-025	DAN SIKICH REVOCABLE LIVING TRUST	0 ELDER CREEK RD	0.13	PARTIAL
064-0033-027	DAN SIKICH REVOCABLE LIVING TRUST	0 ELDER CREEK RD	0.05	PARTIAL
066-0050-007	DANIEL L & JOYCE IRVING	9845 FLORIN RD	0.14	PARTIAL
121-0190-006	DARYL D & HELEN MILLER	9616 CALVINE RD	0.11	PARTIAL
063-0020-030	DAVID & STEPHANIE COOPER	9457 JACKSON RD	0.05	PARTIAL
064-0080-037	DAVID CHAVEZ	8955 FLORIN RD	0.36	PARTIAL
121-0060-022	DAVIS FAMILY HOLDINGS	9670 GERBER RD	0.79	PARTIAL
064-0035-025	DEBBIE WOODRUFF	9200 ELDER CREEK RD	0.02	PARTIAL
063-0040-038	DELBERT L & JOYCE NIELSEN	9815 JACKSON RD	0.17	PARTIAL
121-0050-016	DELLA W MOORE	9544 GERBER RD	0.08	PARTIAL
063-0070-004	DELMAR DEAN/DELORES ANN RICHBAW FAMILY REV TRUST	9656 JACKSON RD	0.07	PARTIAL
123-0090-018	DEWAYNE E REECE	8295 EXCELSIOR RD	0.18	PARTIAL
122-0180-003	DEXTER & EVELYN BEAVER TRUST	8401 BRADSHAW RD	0.77	PARTIAL
121-0190-002	DINH CUONG	9550 CALVINE RD	0.12	PARTIAL

APN	OWNER(S)	SITE ADDRESS	AMOUNT OF ACQUISITION (ACRES)	FULL OR PARTIAL
066-0100-080	DND LAND INC	0 EXCELSIOR RD	0.26	PARTIAL
066-0100-081	DND LAND INC	0 EXCELSIOR RD	0.24	PARTIAL
066-0100-082	DND LAND INC	0 EXCELSIOR RD	0.25	PARTIAL
066-0100-083	DND LAND INC	0 EXCELSIOR RD	1.65	PARTIAL
066-0100-084	DND LAND INC	0 GERBER RD	1.06	PARTIAL
066-0070-007	DO TRINH FAMILY	9536 FLORIN RD	0.22	PARTIAL
063-0180-028	DOHERTY FAMILY TRUST	0 ELDER CREEK RD	0.07	PARTIAL
063-0180-027	DOHERTY FAMILY TRUST	9765 ELDER CREEK RD	0.24	PARTIAL
064-0035-027	DON & ANNA LALICH	9302 ELDER CREEK RD	0.03	PARTIAL
066-0040-033	DON T HOANG	9509 FLORIN RD	0.13	PARTIAL
063-0130-013	DONALD & NANCY WALKER	9411 ELDER CREEK RD	0.37	PARTIAL
063-0020-028	DONALD H STARK 1989 TRUST	9451 JACKSON RD	0.05	PARTIAL
121-0190-008	DONALD L & CAROL MORGAN	9636 CALVINE RD	0.13	PARTIAL
121-0110-016	DONALD & SUNNY LUTHRINGER	9601 CALVINE RD	0.14	PARTIAL
121-0180-051	DONALD PINKHAM	0 CALVINE RD	0.01	PARTIAL
121-0180-007	DONALD PINKHAM	9450 CALVINE RD	0.37	PARTIAL
121-0190-001	DONALD PINKHAM	9450 CALVINE RD	0.49	PARTIAL
066-0010-022	DORIS B SMITH	9370 ELDER CREEK RD	0.06	PARTIAL
121-0030-053	DORIS KAWAKAMI	7881 ELK GROVE-FLORIN RD	0.07	PARTIAL
063-0020-016	DOROTHY M KUNISAKI	0 JACKSON RD	0.06	PARTIAL
063-0020-005	DOROTHY M KUNISAKI	9497 JACKSON RD	0.13	PARTIAL
121-0030-019	DOUG E & LUCIANA LEMONS	7943 ELK GROVE-FLORIN RD	0.10	PARTIAL
066-0040-032	PHILONIE, MARYLOU, MALO, GAVNICK DUCUSIN ET AL	9535 FLORIN RD	0.24	PARTIAL
121-0120-004	DULCE EIGHT ELK GROVE LLC	0 ELK GROVE-FLORIN RD	0.22	PARTIAL
122-0010-003	DUNMORE HIGHLANDS LLC	9756 GERBER RD	0.23	PARTIAL
122-0760-001	DUNMORE HIGHLANDS LLC	0 GERBER RD	0.13	PARTIAL
066-0110-010	EAST BRADSHAW GERBER ASSOCIATES	0 GERBER RD	0.38	PARTIAL

APN	OWNER(S)	SITE ADDRESS	AMOUNT OF ACQUISITION (ACRES)	FULL OR PARTIAL
063-0150-026	ECX INVESTMENT INC	0 ELDER CREEK RD	1.18	PARTIAL
122-0070-008	EDDIE BENEDETTI	10488 GERBER RD	0.29	PARTIAL
064-0080-023	EDNA CLEGG	8905 S WATT AVE	0.18	PARTIAL
064-0080-055	EDNA CLEGG	8911 FLORIN RD	0.17	POSSIBLE FULL/ ENCROACH STRUCTURE
065-0051-045	EGF HOLDINGS LIMITED LIABILITY COMPANY	7291 ELK GROVE- FLORIN RD	0.41	PARTIAL
063-0040-037	ELAINE & PETER KOWALSKI	0 JACKSON RD	0.01	PARTIAL
063-0110-025	ELDER CREEK INVESTMENTS LLC	9335 ELDER CREEK RD	0.26	PARTIAL
064-0035-002	ELENA & IOAN NITA	6415 HEDGE AVE	0.13	PARTIAL
063-0012-025	ELEVATION OF THE HOLY CROSS ORTHODOX CHURCH	9155 JACKSON RD	0.04	PARTIAL
065-0080-088	ELK GROVE RESERVE	8915 GERBER RD	0.61	PARTIAL
121-0050-015	ENOS GEORGE A/NORMA I	9540 GERBER RD	0.06	PARTIAL
123-0090-002	ERIC G & SHERYL JACKSON	8241 EXCELSIOR RD	0.21	PARTIAL
063-0130-006	ESCH	0 ELDER CREEK RD	0.19	PARTIAL
063-0130-017	ESCH	0 ELDER CREEK RD	0.18	PARTIAL
066-0100-047	EUSEBIO & IGNACIA LAMPA	10000 FLORIN RD	0.29	PARTIAL
067-0190-001	FAVIDA & KABUL SINGH	0 EXCELSIOR RD	0.24	PARTIAL
063-0180-011	FELTON A & EVETTA OMARY	9067 ELDER CREEK RD	0.13	PARTIAL
066-0100-006	FLORIN 40 LLC	9994 FLORIN RD	0.36	PARTIAL
066-0060-012	FLORIN EXCELSIOR 235 LLC	0 EXCELSIOR RD	0.86	PARTIAL
066-0060-002	FLORIN EXCELSIOR 235 LLC	10291 FLORIN RD	1.01	PARTIAL
066-0060-007	FLORIN EXCELSIOR 235 LLC	10401 FLORIN RD	3.78	POSSIBLE FULL/ ENCROACH STRUCTURE
066-0100-003	FLORIN INVESTORS	9850 FLORIN RD	0.43	PARTIAL
066-0070-034	FLORIN-BRADSHAW	0 FLORIN RD	0.46	PARTIAL
064-0080-011	FLOYD R EISENBEISZ	9197 FLORIN RD	0.10	PARTIAL
066-0060-009	FORD FAMILY 1996	0 EXCELSIOR RD	0.67	PARTIAL
066-0060-011	FORD FAMILY 1996	0 EXCELSIOR RD	0.80	PARTIAL
066-0050-008	FRANK & EVA TERRELL	9825 FLORIN RD	0.14	PARTIAL

APN	OWNER(S)	SITE ADDRESS	AMOUNT OF ACQUISITION (ACRES)	FULL OR PARTIAL
062-0060-010	FRANK J & SUSAN MCCLEAN	9061 ELDER CREEK RD	0.10	PARTIAL
066-0010-005	FRANK/DELMA CARSON FAMILY 1992 REVOCABLE TRUST	9540 ELDER CREEK RD	0.19	PARTIAL
063-0011-010	FRAZIER LLC	9195 JACKSON RD	0.01	PARTIAL
064-0080-019	FRED & PAMELA STILWELL	8933 FLORIN RD	0.07	PARTIAL
063-0013-002	FRIENDSHIP MISSIONARY BAPT CHURCH	9160 JACKSON RD	0.05	PARTIAL
115-0180-003	FRUITRIDGE & STOCKTON LLC	8796 CALVINE RD	0.07	PARTIAL
115-0120-021	FRUITRIDGE & STOCKTON LLC	8851 CALVINE RD	0.15	PARTIAL
066-0010-013	GARY A & LINDA HOUCK	0 ELDER CREEK RD	0.24	PARTIAL
066-0090-018	GARY E & CARLOTTA HAMMERSLEY	9635 GERBER RD	0.12	PARTIAL
122-0220-005	GENE ROBINSON REVOCABLE FAMILY TRUST	9980 CALVINE RD	0.41	PARTIAL
065-0052-028	GEORGE & JOHN SEPHOS	0 FLORIN RD	0.88	PARTIAL
066-0010-027	GEORGE E & DEBRA CLOSE	0 MATTOS RD	0.07	PARTIAL
066-0100-015	GEORGE GASNAKIS	10141 GERBER RD	6.30	PARTIAL
121-0010-020	GEORGE GASNAKIS	7729 ELK GROVE-FLORIN RD	0.18	PARTIAL
066-0100-016	GEORGE GASNAKIS REVOCABLE TRUST	10093 GERBER RD	0.62	POSSIBLE FULL/ ENCROACH STRUCTURE
063-0150-027	GEORGE M MAUERHAN	0 EXCELSIOR RD	0.03	PARTIAL
066-0100-017	GERALD N & LINDA ZIERDEN	10069 GERBER RD	0.37	PARTIAL
064-0080-001	GF WATT AV ASSOC	0 S WATT AVE	0.39	PARTIAL
123-0080-005	GILBERT & KATHERINE ALBIANI	8171 EXCELSIOR RD	0.28	PARTIAL
063-0013-001	GIAMPOLINI GROUP LLC	9144 JACKSON RD	0.28	PARTIAL
063-0110-001	GRANITE CONSTRUCTION	6201 HEDGE AVE	0.91	PARTIAL
063-0110-012	GRANITE CONSTRUCTION	9297 ELDER CREEK RD	0.16	PARTIAL
063-0110-028	GRANITE CONSTRUCTION	9197 ELDER CREEK RD	0.45	PARTIAL
066-0010-001	GRANITE CONSTRUCTION	9332 ELDER CREEK RD	0.32	PARTIAL
066-0010-026	GRANITE CONSTRUCTION	9560 ELDER CREEK RD	0.10	PARTIAL

APN	OWNER(S)	SITE ADDRESS	AMOUNT OF ACQUISITION (ACRES)	FULL OR PARTIAL
0660-100-045	GUADALUPE DE LA TORRE	10251 GERBER RD	0.26	PARTIAL
122-0260-045	ALVIN & DELIA GUINEA	10380 CALVINE RD	0.11	PARTIAL
064-0035-022	GURBUX & MAYA SINGH	9296 ELDER CREEK RD	0.08	PARTIAL
064-0035-004	H HARMON	9158 ELDER CREEK RD	0.01	PARTIAL
064-0035-005	H HARMON	9158 ELDER CREEK RD	0.03	PARTIAL
122-0260-128	LEON & ANNA HACKET	0 CALVINE RD	0.06	PARTIAL
063-0180-019	HAN & THUY VOQUI	9759 ELDER CREEK RD	0.31	PARTIAL
066-0010-017	HARDEV SHERGILL	0 ELDER CREEK RD	0.06	PARTIAL
066-0010-020	HARDEV SHERGILL	0 ELDER CREEK RD	0.29	PARTIAL
121-0130-048	HARMAN MANAGEMENT CORPORATION	0 ELK GROVE-FLORIN RD	0.04	PARTIAL
063-0030-012	HAROLD TUFFY	0 BRADSHAW RD	0.09	PARTIAL
063-0030-007	HAROLD TUFFY	0 JACKSON RD	0.11	PARTIAL
063-0030-013	HAROLD TUFFY	5098 BRADSHAW RD	0.01	PARTIAL
063-0030-005	HAROLD TUFFY	5140 BRADSHAW RD	0.21	POSSIBLE FULL/ ENCROACH STRUCTURE
066-0050-006	HATEM EL-GEZIRY/MASSARI OSAMMA	0 FLORIN RD	0.21	PARTIAL
063-0150-028	HENRY J & CHARLENE TUFTS	10498 JACKSON RD	2.72	PARTIAL
066-0070-009	HENRY N WOO	0 FLORIN RD	0.36	PARTIAL
066-0110-016	HILARIO & CHRISTINE MAMARIL	7560 HEATHERPACE LN	0.35	PARTIAL
063-0110-013	HOANG M PHAM	9229 ELDER CREEK RD	0.25	PARTIAL
063-0120-027	HOI & DIEP CONG	9427 ELDER CREEK RD	0.08	PARTIAL
064-0080-034	IRENE DELROSSO	7106 HEDGE AVE	1.33	PARTIAL
063-0170-009	ISABEL F CHETCUTI	10768 JACKSON RD	0.52	PARTIAL
122-0260-008	IVAN & VALENTINA KATAN	0 CALVINE RD	0.06	PARTIAL
122-0210-003	JACK W SELLERS	9832 CALVINE RD	0.73	PARTIAL
063-0070-026	JACKSON ROAD PROPERTIES LLC	0 JACKSON RD	0.05	PARTIAL
063-0070-021	JACKSON ROAD PROPERTIES	9630 JACKSON RD	0.08	PARTIAL

APN	OWNER(S)	SITE ADDRESS	AMOUNT OF ACQUISITION (ACRES)	FULL OR PARTIAL
	LLC			
063-0150-009	JACKSON ROAD VENTURE IR	0 ELDER CREEK RD	1.90	PARTIAL
063-0150-011	JACKSON ROAD VENTURE IR	0 EXCELSIOR RD	0.18	PARTIAL
066-0110-003	JAHANSHIR JAVANIFARD	9743 GERBER RD	0.39	PARTIAL
066-0070-033	JAMES & SHARON KRAUSE	9610 FLORIN RD	0.45	PARTIAL
122-0170-017	JAMES L & SYLMA DAVIS	9757 CALVINE RD	0.05	PARTIAL
063-0150-008	JAMES M & BARBARA KELLEY	10485 ELDER CREEK RD	1.24	POSSIBLE FULL/ ENCROACH STRUCTURE
065-0080-001	JANSSEN REVOCABLE TRUST	7411 ELK GROVE-FLORIN RD	0.74	PARTIAL
066-0040-008	JAVIER	6850 BRADSHAW RD	0.37	PARTIAL
066-0030-015	JEROME & NAZZARENA CHETCUTI	6512 EXCELSIOR RD	0.57	PARTIAL
066-0040-036	JERRY & ROWENA ZAPANTA	7060 BRADSHAW RD	0.20	PARTIAL
115-0120-023	JERRY L & MELISSA WALL	8294 ELK GROVE-FLORIN RD	0.09	PARTIAL
063-0110-010	JOE & A SAITELMAYER	9291 ELDER CREEK RD	0.53	PARTIAL
064-0080-045	JOHN & B SMITH	7040 BANDY RD	0.32	PARTIAL
066-0100-071	JOHN & DAVID SACA	0 FLORIN RD	0.05	PARTIAL
066-0100-005	JOHN & DIANE SACA	9924 FLORIN RD	0.33	PARTIAL
065-0051-019	JOHN & JANET JASTRAUB	8932 FLORIN RD	0.16	PARTIAL
063-0150-024	JOHN & STEVEN NGUYEN	10320 JACKSON RD	1.25	PARTIAL
122-0220-025	JOHN ALLERT REVOCABLE TRUST	9990 CALVINE RD	0.02	PARTIAL
064-0035023	JOHN C & IRENE BASOUEZ	9212 ELDER CREEK RD	0.04	PARTIAL
122-0220-027	JOHN HARRIS FAMILY REVOCABLE TRUST	9962 CALVINE RD	0.04	PARTIAL
066-0100-072	JOHN P & DAVID SACA	9836 FLORIN RD	0.34	PARTIAL
122-0260-049	JOHN R & A MARTHA MCALISTER	10098 CALVINE RD	0.24	PARTIAL
123-0090-015	JOSE C & SOPHIE CENTEIO	0 EXCELSIOR RD	0.10	PARTIAL
062-0060-016	JOSE HERNANDEZ	0 HEDGE AVE	0.06	PARTIAL
063-0180-025	JOSEPH A AVILA	9791 ELDER CREEK RD	0.30	PARTIAL

APN	OWNER(S)	SITE ADDRESS	AMOUNT OF ACQUISITION (ACRES)	FULL OR PARTIAL
063-0130-018	JOSEPH/DELORES ROOTS REVOCABLE FAMILY TRUST	9651 ELDER CREEK RD	0.14	PARTIAL
122-0260-017	JUDY HAMILTON	10200 CALVINE RD	0.11	PARTIAL
115-0120-025	JULIAN A LOPEZ	8234 ELK GROVE-FLORIN RD	0.11	PARTIAL
122-0220-026	K HARRIS	9940 CALVINE RD	0.06	PARTIAL
066-0100-088	KAREN L DAGOSTINE	7278 COE LN	1.07	PARTIAL
066-0100-021	KATHERINE COURTNEY	0 VINEYARD RD	0.32	PARTIAL
065-0051-030	KATHERINE DOLE	0 ELK GROVE-FLORIN RD	0.42	PARTIAL
064-0080-036	KATHERINE M SMITH	8989 FLORIN RD	0.01	PARTIAL
123-0090-001	KATHLEEN FRAWLEY	8235 EXCELSIOR RD	0.31	PARTIAL
066-0100-030	KAVIANI INVESTMENT CORPORATION	10041 GERBER RD	0.14	PARTIAL
121-0030-055	KEINATH CENDANA	7911 ELK GROVE-FLORIN RD	0.11	PARTIAL
063-0070-008	KENNETH & MICHAEL LEE	5220 BRADSHAW RD	0.18	PARTIAL
063-0070-007	KENNETH & MICHAEL LEE	9698 JACKSON RD	0.13	PARTIAL
063-0011-087	KENNETH & VERA THOMPSON	9297 JACKSON RD	0.16	PARTIAL
122-0180-002	KENNETH C INABA	9764 CALVINE RD	0.33	PARTIAL
063-0070-005	KENNETH S & MICHAEL LEE	9680 JACKSON RD	0.08	PARTIAL
121-0110-015	KOBRA PROPS	8374 BRADSHAW RD	0.50	PARTIAL
063-0013-009	KOELZER FAMILY TRUST/ GARY STEWART	9284 JACKSON RD	0.06	PARTIAL
121-0110-054	L & M COLE	0 CALVINE RD	0.34	PARTIAL
063-0180-010	LARRY A ANNIGONI	9871 ELDER CREEK RD	0.09	PARTIAL
066-0050-005	LARRY M & BEATRICE INIGUEZ	0 FLORIN RD	0.22	PARTIAL
066-0040-031	LARRY THOMPSON	9347 FLORIN RD	0.64	PARTIAL
063-0120-022	LAURA WARNER	9479 ELDER CREEK RD	0.27	PARTIAL
123-0080-003	LAWRENCE W & MICHELLE CANFIELD	8151 EXCELSIOR RD	0.15	PARTIAL
066-0100-051	LAWRENCE WARGO REVOCALBE TRUST	0 FLORIN RD	1.08	PARTIAL
066-0090-019	LEE P YANG	9647 GERBER RD	0.09	PARTIAL
063-0150-005	LELIA PRIDE	6240 EXCELSIOR RD	0.43	PARTIAL

APN	OWNER(S)	SITE ADDRESS	AMOUNT OF ACQUISITION (ACRES)	FULL OR PARTIAL
066-0120-082	LW VINEYARD POINT LLC	0 DIAMOND RANCH DR	0.50	PARTIAL
066-0080-019	VINEYARD SACRAMENTO LP	0 GERBER RD	0.45	PARTIAL
122-0050-019	LEONARD & BETSY KENDRICK	10066 GERBER RD	0.88	PARTIAL
063-0120-005	LEONARD R & ENRIQUETA GARCIA	9459 ELDER CREEK RD	0.11	PARTIAL
066-0040-022	LILLIAN HOM	9425 FLORIN RD	0.36	PARTIAL
121-0030-045	LILLIAN J GLANTZ	8959 CASELMAN RD	0.03	PARTIAL
066-0050-013	LIN VOONG	0 KNOX RD	0.29	PARTIAL
066-0040-047	LINDA CARLEEN SMITH SEPARATE PROPERTY TRUST	9625 FLORIN RD	0.04	PARTIAL
066-0100-076	LINDA M POWELL	7345 COE LN	1.07	PARTIAL
066-0020-008	LISA OKI	0 BRADSHAW RD	0.94	PARTIAL
065-0051-025	LISA UNG	0 FLORIN RD	0.38	PARTIAL
122-0260-010	LIEM & VI HUYNH	10450 CALVINE RD	0.47	PARTIAL
064-0035-003	LOREN & JEAN CAMPBELL	9150 ELDER CREEK RD	0.04	PARTIAL
122-0260-043	LOU F SAECHOU	10340 CALVINE RD	0.14	PARTIAL
122-0170-015	LUTZ	8377 CARMENCITA AVE	0.09	PARTIAL
067-0190-027	MA & J BRAIDO	10500 BIRCH RANCH DR	0.57	PARTIAL
064-008-0046	MANUEL & MARYJANE MOITOSO	6968 BANDY RD	0.17	PARTIAL
066-0090-011	MARIA VANDENBERG	9625 GERBER RD	0.12	PARTIAL
063-0013-008	MARIE J CARSEY	9274 JACKSON RD	0.09	PARTIAL
115-0120-017	MARJORIE WILLIAMS	8240 ELK GROVE-FLORIN RD	0.09	PARTIAL
064-0033-031	MARK & LUANN CHAMBERS	8982 ELDER CREEK RD	0.10	PARTIAL
123-0220-001	MARK A MIGNOT	8161 STALLION WAY	0.03	PARTIAL
066-0010-010	MARTHA SMYTH	9398 ELDER CREEK RD	0.01	PARTIAL
121-0190-007	MARTINEZ	9624 CALVINE RD	0.13	PARTIAL
067-0110-011	DONALD & MARCIA MATSUDA	10600 FLORIN RD	2.33	PARTIAL
064-0080-020	MEEHAN	0 FLORIN RD	0.07	PARTIAL
064-0080-024	MEEHAN FAMILY TRUST	0 S WATT AVE	0.07	PARTIAL
064-0080-056	MEEHAN FAMILY TRUST	8909 S WATT AVE	0.10	PARTIAL

APN	OWNER(S)	SITE ADDRESS	AMOUNT OF ACQUISITION (ACRES)	FULL OR PARTIAL
1220260025	MEHAR SINGH	10448 CALVINE RD	0.19	PARTIAL
063-0180-021	MEREDITH & DOROTHA CRUISE	9895 ELDER CREEK RD	0.20	PARTIAL
115-0120-024	MEU	8228 ELK GROVE-FLORIN RD	0.11	PARTIAL
064-0035-007	MICHAEL & NAOMI ALFORD	9196 ELDER CREEK RD	0.03	PARTIAL
064-0035-006	MICHAEL F & TERESA ARCANGELO	9184 ELDER CREEK RD	0.09	PARTIAL
064-0033-020	MICHAEL J READING	8940 ELDER CREEK RD	0.71	PARTIAL
123-0220-034	MICHAEL K & PAULA EDWARDS	8050 BELGIAN CT	0.04	PARTIAL
122-0170-018	MICHAEL J & LYNNETTE SANDOVAL	9775 CALVINE RD	0.05	PARTIAL
121-0190-005	MILLER	9608 CALVINE RD	0.11	PARTIAL
065-0080-036	MILLERS	7475 ELK GROVE-FLORIN RD	0.73	PARTIAL
123-0210-001	MINH NGUYEN	10511 SILENT WINGS WAY	0.13	PARTIAL
063-0011-055	MONTE BELLO APARTMENTS LLC	4001 S WATT AVE	0.28	PARTIAL
064-0032-006	MONTGOMERY	8936 TOKAY LN	0.30	PARTIAL
062-0060-008	MTVR JOINT ENTERPRISES LLC	9073 ELDER CREEK RD	0.12	PARTIAL
122-0220-018	N B REVOCALBE TRUST ET AL	10050 CALVINE RD	0.24	PARTIAL
122-0260-039	NATHANIEL D BOCOBO	10254 CALVINE RD	0.34	PARTIAL
122-0260-040	NATHANIEL D BOCOBO	10276 CALVINE RD	0.17	PARTIAL
066-0040-035	JOSEPH & SOFIA NEW	9441 FLORIN RD	0.09	PARTIAL
066-0090-008	NICK P & MARIA BOZIOELOS	9681 GERBER RD	0.15	PARTIAL
065-0051-031	NILO & PACITA GONZALES	7375 ELK GROVE-FLORIN RD	0.37	PARTIAL
066-0100-090	NORA L COE	10130 FLORIN RD	2.26	PARTIAL
123-0220-035	NORMA & RICARDO GUTIERREZ	8060 BELGIAN CT	0.04	PARTIAL
065-0052-033	NORTH VINEYARD INVESTORS	9230 FLORIN RD	0.85	PARTIAL
066-0090-010	NORTH VINEYARD INVESTORS	9601 GERBER RD	0.11	PARTIAL
115-0120-022	NORTHERN CA CONF ASSOC	8280 ELK GROVE-	0.07	PARTIAL

APN	OWNER(S)	SITE ADDRESS	AMOUNT OF ACQUISITION (ACRES)	FULL OR PARTIAL
	OF SEVENT	FLORIN RD		
066-0040-041	OH REVOCABLE LIVING TRUST	0 FLORIN RD	0.22	PARTIAL
065-0051-021	OH REVOCABLE LIVING TRUST	0 FLORIN RD	1.10	PARTIAL
066-0100-029	ONE HNDRD 19 GERBER RD PARTNERSH	10019 GERBER RD	0.27	PARTIAL
063-0020-052	P & H PROPERTIES	9381 JACKSON RD	0.06	PARTIAL
063-0040-057	PABCO BUILDING PRODUCTS LLC	4879 BRADSHAW RD	0.27	PARTIAL
066-0110-004	PAN CHO	9769 GERBER RD	0.38	PARTIAL
122-0070-007	PAUL & PAULETTE PFANNENSTIEL	10472 GERBER RD	0.02	PARTIAL
121-0010-051	PAUL S & CHERYL PETROVICH	7635 ELK GROVE-FLORIN RD	1.47	PARTIAL
063-0040-060	PCBP PROPERTIES INC	9787 JACKSON RD	0.02	PARTIAL
121-0050-013	PHAM LIEN T/NGOAN PHAN/XUAN NGHIA DINH/ET AL	0 GERBER RD	0.43	PARTIAL
122-0170-011	PIONEER ENTERPRISES	8355 BRADSHAW RD	0.28	PARTIAL
122-0150-057	PULTE HOME CORPORATION	0 CALVINE RD	0.14	PARTIAL
115-0180-020	R & W DEV LLC	8770 CALVINE RD	0.05	PARTIAL
063-0040-058	RAHIM INC	9701 JACKSON RD	0.30	PARTIAL
064-0035-019	RANDY H LATHE	9232 ELDER CREEK RD	0.04	PARTIAL
115-0180-006	RATNER GROUP 1000 LLC	8850 CALVINE RD	0.30	PARTIAL
064-0035-020	RAUL & CONSUELO MORA	9328 ELDER CREEK RD	0.02	PARTIAL
066-0010-003	RAYNER FAMILY REVOCABLE TRUST OF 1989	9390 ELDER CREEK RD	0.03	PARTIAL
123-0020-001	REYNEN & BARDIS (WERE)	0 EXCELSIOR RD	2.21	PARTIAL
123-0220-032	RICHARD & CHERYL LEBLEU	10501 PERUVIAN WAY	0.03	PARTIAL
065-0051-042	RICHARD A HEAPS REVOCABLE 1998 TRUST	7210 HEDGE AVE	0.52	PARTIAL
066-0020-007	RICHARD K & BARBARA OKI	0 ELDER CREEK RD	1.33	PARTIAL
066-0050-001	RICHARD K & BARBARA OKI	6901 BRADSHAW RD	0.91	PARTIAL
065-0052-027	RIPPETOE FAMILY TRUST	7221 HEDGE AVE	0.34	PARTIAL
122-0210-017	ROBERT A & JANICE WILKINSON	9800 CALVINE RD	0.06	PARTIAL
123-0080-002	ROBERT B NGUYEN	8141 EXCELSIOR RD	0.23	PARTIAL

APN	OWNER(S)	SITE ADDRESS	AMOUNT OF ACQUISITION (ACRES)	FULL OR PARTIAL
063-0170-006	ROBERT F & GRACE BUNN REVOCABLE LIVING TRUST	0 JACKSON RD	1.14	PARTIAL
063-0150-004	ROBERT FINKBOHNER	6140 EXCELSIOR RD	0.29	PARTIAL
062-0060-009	ROBERT J & MARY JACINO	9065 ELDER CREEK RD	0.10	PARTIAL
064-0033-028	ROBERT MCCLERNON	9010 ELDER CREEK RD	0.05	PARTIAL
066-0040-046	ROBERT P SMITH	9675 FLORIN RD	0.14	PARTIAL
121-0030-032	ROBERT TOUMEY	7932 ELK GROVE-FLORIN RD	0.12	PARTIAL
063-0170-008	ROBERT VAROZZA	10204 JACKSON RD	0.75	PARTIAL
064-0080-047	ROBERTA A LARSON	0 FLORIN RD	0.72	PARTIAL
121-0190-009	ROCK CHURCH	8434 BRADSHAW RD	0.78	PARTIAL
122-0180-001	RODGER M SPRINGSTEEN	9774 CALVINE RD	0.35	PARTIAL
066-0100-020	RODGERS FAMILY 1995	0 VINEYARD RD	0.23	PARTIAL
063-0130-007	ROGER D & SUZIE COWAN	9591 ELDER CREEK RD	0.23	PARTIAL
065-0051-032	ROGER S & LYNN SWANSON	7371 ELK GROVE-FLORIN RD	0.38	PARTIAL
121-0030-031	ROGER W & CAROL SIMMONS	7935 ELK GROVE-FLORIN RD	0.11	PARTIAL
122-0260-046	ROHIT AJESHINI SHARMA	0 CALVINE RD	0.10	PARTIAL
065-0051-024	ROLLING WILLOW LLC	0 FLORIN RD	0.06	PARTIAL
065-0051-003	ROLLING WILLOW LLC	8990 FLORIN RD	0.19	PARTIAL
066-0100-060	RONALD E & JANET BUHLER	9740 FLORIN RD	0.14	PARTIAL
066-0100-057	RONALD E & JANET BUHLER	9770 FLORIN RD	0.29	PARTIAL
066-0110-017	ROSARIO & NINELLA MALTESE	7561 HEATHERPACE LN	0.46	PARTIAL
066-0010-014	ROSBURG	8305 GERBER RD	0.27	PARTIAL
066-0090-009	ROSEANN M & THOMAS DARR	9679 GERBER RD	0.14	PARTIAL
066-0090-020	ROSEANN M & THOMAS DARR	9679 GERBER RD	0.17	PARTIAL
066-0010-024	ROY D COWAN	9591 ELDER CREEK RD	0.03	PARTIAL
066-0100-031	ROY F ADAIR SR SECOND	10051 GERBER RD	0.13	PARTIAL
067-0190-017	ROY M & GLORIA PEREZ	10790 BIRCH RANCH DR	0.60	PARTIAL
063-0120-009	RUDOLFO ACOSTA	9417 ELDER CREEK	0.06	PARTIAL

APN	OWNER(S)	SITE ADDRESS	AMOUNT OF ACQUISITION (ACRES)	FULL OR PARTIAL
		RD		
063-0013-020	RUSSELL B BAY	9190 JACKSON RD	0.14	PARTIAL
122-0170-019	S K & WANDA THORNSBERRY	9791 CALVINE RD	0.05	PARTIAL
064-0035-011	SMUD	0 ELDER CREEK RD	0.05	PARTIAL
121-0010-003	SACRAMENTO COUNTY REGIONAL SANITATION DISTRICT	0 ELK GROVE-FLORIN RD	0.05	POSSIBLE FULL/ PARCEL IN PROJECT RIGHT-OF-WAY
121-0010-050	SACRAMENTO COUNTY REGIONAL SANITATION DISTRICT	0 ELK GROVE-FLORIN RD	0.11	PARTIAL
063-0030-018	SACRAMENTO COUNTY REGIONAL SANITATION DISTRICT	5190 BRADSHAW RD	0.11	PARTIAL
121-0030-056	SACRAMENTO COUNTY WATER AGENCY	0 ELK GROVE-FLORIN RD	0.03	PARTIAL
066-0060-001	SACRAMENTO COUNTY WATER AGENCY	0 FLORIN RD	1.00	PARTIAL
066-0020-005	SACRAMENTO METROPOLITAN FIRE DISTRICT	0 ELDER CREEK RD	0.05	PARTIAL
121-0050-021	SACRAMENTO SIKH SOCIETY	9550 GERBER RD	0.01	PARTIAL
066-0110-009	SAM & DEANNA LAW	0 GERBER RD	0.39	PARTIAL
123-0220-031	SAMUEL & JOANN WILLIAMS	10511PERUVIAN WAY	0.02	PARTIAL
063-0013-006	SAMUEL DEGREGORIO	9250 JACKSON RD	0.38	PARTIAL
122-0220-001	SAMUEL Y & JOYCE PAN	9930 CALVINE RD	0.44	PARTIAL
063-0070-006	BHUPINDER & MAPREET SANDHU	9690 JACKSON RD	0.12	PARTIAL
065-0051-028	SANG HAN	7311 ELK GROVE-FLORIN RD	0.42	PARTIAL
121-0050-014	SILVERIO SANTANA	9538 GERBER RD	0.07	PARTIAL
122-0220-013	SARBJIT S PANNU	10020 CALVINE RD	0.22	PARTIAL
066-0030-004	SATPAL S & VIDYA SHERGILL	0 EXCELSIOR RD	1.14	PARTIAL
121-0130-049	SFP-B L P	0 ROBBINS RD	0.05	PARTIAL
063-0110-008	SHARON K & TONY MELVOLD	9307 ELDER CREEK RD	0.18	PARTIAL
115-0180-002	CHEN TUI SHIH YEE TONG	8786 CALVINE RD	0.02	PARTIAL
064-0080-010	SHEHADEH	9231 FLORIN RD	1.39	PARTIAL
122-0170-016	SHEILA FOLAN	9835 CALVINE RD	0.07	PARTIAL

APN	OWNER(S)	SITE ADDRESS	AMOUNT OF ACQUISITION (ACRES)	FULL OR PARTIAL
115-0170-088	SHELDON NORTH INVESTORS	0 CALVINE RD	0.20	PARTIAL
063-0020-040	SILVERADO BUILDING MATERIALS	9353 JACKSON RD	0.22	PARTIAL
121-0190-004	SIMONSMA	9600 CALVINE RD	0.45	PARTIAL
115-0120-020	SIN HON CHAY ET AL	8865 CALVINE RD	0.19	PARTIAL
115-0120-019	SIN HON CHAY ET AL	8881 CALVINE RD	0.19	PARTIAL
122-0260-044	SINCLAIR & ANN LEE	0 CALVINE RD	0.14	PARTIAL
122-0260-042	HARNINDER/HARVINDER/HARP REET SINGH	10320 CALVINE RD	0.14	PARTIAL
063-0180-029	SLAVIC MISSIONARY CHURCH INC	9800 JACKSON RD	0.38	PARTIAL
063-0200-011	SLAVIC MISSIONARY CHURCH	9880 JACKSON RD	0.16	PARTIAL
063-0190-039	SLAVIC MISSIONARY CHURCH	9890 JACKSON RD	0.31	PARTIAL
121-0010-044	SMUD	0 ELK GROVE-FLORIN RD	0.15	PARTIAL
064-0031-002	SMUD	0 S WATT AVE	0.04	PARTIAL
115-0130-002	SOUTHERN PACIFIC TRANSPORTATION COMPANY	0 CALVINE RD	0.03	PARTIAL
115-0170-009	SOUTHERN PACIFIC TRANSPORTATION COMPANY	0 CALVINE RD	0.07	PARTIAL
122-0700-087	SOUTHGATE RECREATION/PARK DISTRICT	0 CABOCHAN WAY	0.20	PARTIAL
115-0142-035	SOUTHGATE RECREATION/PARK DISTRICT	0 CALVINE RD	0.01	PARTIAL
115-1730-079	SOUTHGATE RECREATION/PARK DISTRICT	0 CALVINE RD	0.29	PARTIAL
122-0320-530	SOUTHGATE RECREATION/PARK DISTRICT	0 CALVINE RD	0.23	PARTIAL
122-0410-012	SOUTHGATE RECREATION/PARK DISTRICT	0 CALVINE RD	0.41	PARTIAL
122-0720-033	SOUTHGATE RECREATION/PARK DISTRICT	0 CALVINE RD	0.22	PARTIAL
066-0100-066	SOUTHGATE RECREATION/PARK DISTRICT	0 EXCELSIOR RD	0.32	PARTIAL
122-0060-026	SOUTHGATE RECREATION/PARK DISTRICT	0 GERBER RD	0.13	PARTIAL
122-0450-022	SOUTHGATE RECREATION/PARK DISTRICT	0 POLO CROSSE AVE	0.08	PARTIAL
122-0330-001	SOUTHGATE	0 SAVONA DR	0.19	PARTIAL

APN	OWNER(S)	SITE ADDRESS	AMOUNT OF ACQUISITION (ACRES)	FULL OR PARTIAL
	RECREATION/PARK DISTRICT			
122-0330-002	SOUTHGATE RECREATION/PARK DISTRICT	0 SAVONA DR	0.64	PARTIAL
122-0110-018	SOUTHGATE RECREATION/PARK DISTRICT	0 VINEYARD RD	1.07	PARTIAL
122-0310-059	SOUTHGATE RECREATION/PARK DISTRICT	0 VINEYARD RD	0.11	PARTIAL
122-0310-060	SOUTHGATE RECREATION/PARK DISTRICT	0 VINEYARD RD	0.70	PARTIAL
122-0350-021	SOUTHGATE RECREATION/PARK DISTRICT	0 VINEYARD RD	0.16	PARTIAL
122-0350-022	SOUTHGATE RECREATION/PARK DISTRICT	0 VINEYARD RD	0.16	PARTIAL
065-0052-034	STANDARD PACIFIC CORP.	9230 FLORIN RD	0.22	PARTIAL
066-0040-038	STAR OF BETHLEHEM MISSIONARY CHURCH	7040 BRADSHAW RD	0.21	PARTIAL
067-0050-039	STATE OF CALIFORNIA	6037 EXCELSIOR RD	0.72	PARTIAL
066-0040-045	STEPHEN F & ROSALINE MARTINEZ	7176 BRADSHAW RD	0.25	PARTIAL
063-0180-009	STEVEN D MACDONALD	9881 ELDER CREEK RD	0.16	PARTIAL
064-0080-043	STOCKTON & 65 TH LP	0 S WATT AVE	0.46	PARTIAL
062-0060-033	SWANSON INVESTMENTGROUP	0 ELK GROVE-FLORIN RD	0.23	PARTIAL
122-0260-121	SYLVIA & JOHN FREER	10060 CALVINE RD	0.34	PARTIAL
062-0060-011	TADASHI TAKEOKA	9025 ELDER CREEK RD	0.59	PARTIAL
122-0010-007	TAYLOR & VLG SAC INVESTMENT PARTNERS	9710 GERBER RD	0.13	PARTIAL
066-0050-009	TAYLOR & VLG SACRAMENTO INVS PARTNERS	6901 BRADSHAW RD	2.07	PARTIAL
122-0010-009	TAYLOR VILLAGE SACRAMENTO INVSMENT PARTNERS	9730 GERBER RD	0.08	PARTIAL
063-0180-005	TEICHERT LAND COMPANY	0 ELDER CREEK RD	0.38	PARTIAL
063-0060-032	TEICHERT LAND COMPANY	9400 JACKSON RD	0.05	PARTIAL
063-0130-011	TEICHERT LAND COMPANY	9505 ELDER CREEK RD	0.21	PARTIAL
063-0030-019	TEICHERT LAND COMPANY	0 BRADSHAW RD	0.15	PARTIAL

APN	OWNER(S)	SITE ADDRESS	AMOUNT OF ACQUISITION (ACRES)	FULL OR PARTIAL
063-0200-007	TEICHERT LAND COMPANY	0 BRADSHAW RD	0.02	PARTIAL
063-0180-006	TEICHERT LAND COMPANY	0 ELDER CREEK RD	0.70	PARTIAL
061-0150-004	TEICHERT LAND COMPANY	0 JACKSON RD	0.03	PARTIAL
063-0011-054	TEICHERT LAND COMPANY	0 JACKSON RD	0.21	PARTIAL
063-0012-003	TEICHERT LAND COMPANY	0 JACKSON RD	0.17	PARTIAL
063-0012-004	TEICHERT LAND COMPANY	0 JACKSON RD	0.11	PARTIAL
063-0012-005	TEICHERT LAND COMPANY	0 JACKSON RD	0.26	PARTIAL
063-0012-007	TEICHERT LAND COMPANY	0 JACKSON RD	0.05	PARTIAL
063-0012-022	TEICHERT LAND COMPANY	0 JACKSON RD	0.68	PARTIAL
063-0013-015	TEICHERT LAND COMPANY	0 JACKSON RD	0.10	PARTIAL
063-0030-017	TEICHERT LAND COMPANY	0 JACKSON RD	0.77	PARTIAL
063-0040-034	TEICHERT LAND COMPANY	0 JACKSON RD	0.02	PARTIAL
063-0060-037	TEICHERT LAND COMPANY	0 JACKSON RD	0.15	PARTIAL
063-0060-047	TEICHERT LAND COMPANY	0 JACKSON RD	0.02	PARTIAL
063-0060-048	TEICHERT LAND COMPANY	0 JACKSON RD	0.47	PARTIAL
063-0170-022	TEICHERT LAND COMPANY	0 JACKSON RD	0.30	PARTIAL
063-0170-023	TEICHERT LAND COMPANY	0 JACKSON RD	1.31	PARTIAL
063-0160-001	TEICHERT LAND COMPANY	10151 ELDER CREEK RD	5.54	PARTIAL
078-0201-018	TEICHERT LAND COMPANY	8515 JACKSON RD	0.04	PARTIAL
063-0014-006	TEICHERT LAND COMPANY	8888 JACKSON RD	0.34	PARTIAL
063-0013-016	TEICHERT LAND COMPANY	9180 JACKSON RD	0.14	PARTIAL
063-0060-026	TEICHERT LAND COMPANY	9470 JACKSON RD	0.03	PARTIAL
063-0130-010	TEICHERT LAND COMPANY	0 ELDER CREEK RD	0.68	PARTIAL
063-0200-010	TEICHERT LAND COMPANY	0 JACKSON RD	0.47	PARTIAL
064-0035-026	THEODORE & ROBIN NILES	9298 ELDER CREEK RD	0.03	PARTIAL
064-0080-014	THOMAS & PATRICIA ENOS	9133 FLORIN RD	0.12	POSSIBLE FULL/ ENCROACH STRUCTURE
064-0033-007	TOM YAMAMURA	8996 ELDER CREEK RD	0.07	PARTIAL
063-0170-021	TRIANGLE PROPERTIES INC	0 JACKSON RD	0.14	PARTIAL
063-0190-014	TRIANGLE PROPERTIES INC	0 JACKSON RD	0.09	PARTIAL
063-0190-015	TRIANGLE PROPERTIES INC	0 JACKSON RD	0.08	PARTIAL

APN	OWNER(S)	SITE ADDRESS	AMOUNT OF ACQUISITION (ACRES)	FULL OR PARTIAL
063-0190-018	TRIANGLE PROPERTIES INC	0 JACKSON RD	0.08	PARTIAL
063-0190-027	TRIANGLE PROPERTIES INC	10004 JACKSON RD	0.11	PARTIAL
063-0190-028	TRIANGLE PROPERTIES INC	9932 JACKSON RD	0.13	PARTIAL
063-0190-029	TRIANGLE PROPERTIES INC	9940 JACKSON RD	0.06	PARTIAL
066-0040-044	TRINIDAD MARZAN	9595 FLORIN RD	0.20	PARTIAL
066-0040-043	TRINIDAD MARZAN	9597 FLORIN RD	0.09	PARTIAL
122-0210-002	VERNE & DELMA HEAROLD	9860 CALVINE RD	0.25	PARTIAL
123-0220-033	VINCENT A & JEAN MALIZIA	8040 BelGIAN CT	0.03	PARTIAL
065-0052-012	VIVIAN KARA	0 FLORIN	0.02	PARTIAL
121-0010-002	VIJAY KUMAR	7711 ELK GROVE- FLORIN RD	0.16	PARTIAL
063-0110-027	WALTON & MICHELLE TAKEHARA	9351 ELDER CREEK RD	0.15	PARTIAL
066-0010-006	WB INVESTMENTS	0 ELDER CREEK RD	0.18	PARTIAL
063-0040-059	WHAL PROPERTIES LP	0 JACKSON RD	0.02	PARTIAL
063-0060-038	WILLIAM & JEANENE HASTIE	9350 JACKSON RD	0.12	PARTIAL
121-0021-001	WILLIAM BYPASS	8900 LELAND AVE	0.21	PARTIAL
121-0022-001	WILLIAM BYPASS	8900 LELAND AVE	0.20	PARTIAL
066-0040-049	WILLIAM CERING IVY NGUYEN	0 BRADSHAW RD	0.27	PARTIAL
066-0010-008	WILLIAM CERING-CALVERT CITY TRUST	0 ELDER CREEK RD	0.15	PARTIAL
123-0090-013	WILLIAM E & BONNIE GARRETT	8359 EXCELSIOR RD	0.10	PARTIAL
063-0060-049	WILLIAM HASTIE	9340 JACKSON RD	0.08	PARTIAL
065-0051-018	WILLILAM R & BEULAH STEVENS	0 FLORIN RD	0.43	PARTIAL
123-0090-003	WONG FAMILY TRUST	8263 EXCELSIOR RD	0.19	PARTIAL
123-0090-014	WOOD FAMILY	8375 EXCELSIOR RD	0.10	PARTIAL
122-0260-090	WU FAMILY TRUST/DIANA LEE SETO/ARNELE LEE/ET AL	0 CALVINE RD	0.13	PARTIAL
063-0180-013	YANG FAMILY REVOCABLE TRUST	6211 BRADSHAW RD	0.71	PARTIAL
066-0100-004	YOSHIO & ALMA MURATA	9946 FLORIN RD	0.09	PARTIAL
121-0030-054	ZOILO & LUZ CENDANA	8920 CASELMAN RD	0.07	PARTIAL
Source: MacKay & Soms, 2006.				

5 PUBLIC SERVICES

INTRODUCTION

The following is a discussion of public facilities and service supply/demand issues related to the project. Some of the service providers have submitted comments pertaining to their ability to provide service to the project, including recommended conditions of approval that must be satisfied by the developer before service can be adequately provided.

ELECTRICAL AND NATURAL GAS SERVICE

Pacific Gas and Electric Company (PG&E) supplies natural gas in the project area. Incorporated in California in 1905, it is one of the largest combination natural gas and electric utilities in the United States.

The following comments were received from PG&E:

*“PG&E operates and maintains the Gold Hill – Eight Mile Road 230kV and the Rio Oso –Lockford 230kV Transmission Lines which are located within the project limits of the Roadway Improvements plan. **Land use is restricted within the easement.** One of PG&E’s concerns is for continued access to the structures and lines with heavy equipment for maintenance and repair of the towers, insulators, and wires. Another is for adequate ground clearance from the wires as set forth in California Public Utilities Commission General Order No. 95 for the proposed improvements as shown on the plan. Should an infraction occur, the developer will be responsible for the costs of raising or the relocating of the facilities.*

The proposed roadway improvements should not interfere with PG&E’s tower lines provided the below restrictions are observed. Should PG&E’s electric transmission facilities be affected, PG&E would like to review the proposed improvement plans to ensure consistent uses within PG&E’s easement area and the safety of the public prior to construction.

- 1. All trees, shrubs, and plants within PG&E’s easement area shall not exceed a height of 15 feet at maturity and no trees shall be planted within said area within 15 feet of any tower structure, or within a 15 foot horizontal distance from the conductor.*
- 2. Overhead lighting installed within said area shall not exceed 15 feet in height and be located a minimum horizontal distance of 15 feet from the*

conductors of PG&E's overhead electric transmission lines nor within 15 feet of any tower structure.

- 3. No grading, cuts or fills is to be done within the tower line easement without written approval from PG&E.*
- 4. Place protection barriers such as bollards around the legs of the tower located where towers may be put in a vulnerable position due to traffic.*
- 5. Your contractor is to be aware of and observe the minimum clearances for both workers and equipment operating near high voltage electric lines set out in the High-Voltage Electrical Safety Orders of the California Division of Industrial Safety, as well as any other safety regulations.*

PG&E owns and operates gas distribution facilities located within the project limits of the Roadway Improvements plan. To promote the safe and reliable maintenance and operation of utility facilities, the California Public Utilities Commission (CPUC) has mandated specific clearance requirements between utility facilities and surrounding objects or construction activities.

In the event the proposed improvements under this roadway plan will conflict with the existing gas facilities and require them to be relocated, all costs associated with the relocation of PG&E's gas facilities shall be the responsibility of the developer and PG&E will expect full reimbursement, as this Roadway Improvement Plan has been made a condition of development for the North Vineyard Station Specific Plan and is not a public improvement project using taxpayer dollars."

Coordination between the applicant and PG&E will be necessary to identify the exact locations of possible conflict. Compliance with this requirement should ensure that impacts associated with electric and natural gas services are ***less than significant***.

SANITATION SERVICE

The Sacramento County Department of Water Quality provides staffing for operations, maintenance, engineering, and administrative services of the Sacramento Regional County Sanitation District (SRCSD) and County Sanitation District 1 (CSD-1). These special districts provide sanitary sewer and wastewater collection, conveyance and treatment within the developed areas of Sacramento County.

The following comments were received from CSD-1 in response to the Notice of Preparation:

"County Sanitation District 1 (CSD-1) and Sacramento Regional County Sanitation District (SRCSD) have reviewed the Draft Supplemental Environmental Impact Report (EIR) for the subject project. The Districts have

significant infrastructure existing and planned for this area. We expect that if the project is subject to currently established policies, ordinances, fees, and to conditions of approval, then mitigation measures within the EIR will adequately address the sewage aspects of the project and protect our existing facilities. We anticipate a less than significant impact to the sewage facilities due to mitigation.”

Coordination between the applicant and CSD-1 will be necessary to identify the exact locations of possible conflict with roadway construction. This coordination should ensure that impacts to CSD-1 facilities are ***less than significant***.

STATE HIGHWAY

The California Department of Transportation (Caltrans) has jurisdiction of state highways, expressways and freeways. Jackson Road is a state highway (State Route 16) that facilitates the movement of traffic from its intersection with Folsom Boulevard in the City of Sacramento to its intersection with State Route 49 in Amador County. In the project area, Jackson Road is a two-lane highway with roadside ditches extending through urban and rural areas and along flat terrain.

The following comments were received from Caltrans in response to the Notice of Preparation:

“The proposed project entails various road and highway improvements to the North Vineyard Station Specific Plan area with regard to addressing traffic capacity and traffic impact needs to serve this growing development. One part of the proposed roadway improvements is to widen out a segment of State Route (SR) 16 (the Jackson Highway) to 4 lanes with a median between the South Watt Avenue and Excelsior Road intersections. The map on Page 4 of the NOP also indicates that three intersection improvements are planned at South Watt, Bradshaw Road and Excelsior Road. Several issues and coordination actions involving the modifications to SR16 need to be addressed, including, but not limited to, the following:

- *An adequate truck turning radius must be provided at the SR 16/Excelsior Road intersection*
- *Need for a Caltrans Encroachment Permit*
- *Hydraulics issues*
- *Utilities issues*
- *Preparation of a Traffic Management Plan (TMP)*
- *Updating of right of way information”*

Coordination between the applicant and Caltrans will be necessary. Impacts to the State Highway system are considered ***less than significant***.

RAILROAD

The Central California Traction Company (CCTC) railroad extends diagonally through the project, crossing Calvine Road, Gerber Road, Florin Road and Elder Creek Road at-grade. This segment of the CCTC railroad is a part of the Central California Branch that until 1998 provided passenger and freight service from Stockton to Sacramento. In 1998 service along the segment from Lodi to Sacramento was suspended, leaving freight service from Stockton to Lodi in operation. CCTC still retains ownership of the unused section of railroad for future service.

Comments were received from the Public Utilities Commission during the circulation period for the Notice of Preparation. As the state agency responsible for rail safety in California, the Public Utilities Commission raised the following comments:

- *“Planning for grade separations at major thoroughfares.*
- *Improvements to existing at-grade highway-rail crossings due to increase in traffic volumes.*
- *Appropriate fencing to limit the accesses of trespassers onto the railroad right-of-way.*
- *The Commission has a policy of not allowing new at-grade highway-rail crossings.*
- *The proposed alterations for the existing at-grade highway-rail crossings at Calvine Road and Florin Road are subject to Public Utilities Commission approval and must undergo a diagnostic review for appropriate improvements.”*

Coordination with the Public Utilities Commission will be necessary for roadway improvements that involve rail crossings. This coordination will ensure that impacts associated to rail service are ***less than significant***.

WATER SUPPLY & RESOURCES

SACRAMENTO COUNTY WATER AGENCY

The Sacramento County Water Agency manages water for beneficial use, drainage and flood control, groundwater management and ensures an adequate and continuous

water supply, especially for the provision of high-quality drinking water in Sacramento County. Different zones were created to finance and manage these areas.

Comments were received from the Sacramento County Water Agency during the circulation period for the Notice of Preparation. The following comments regarding project coordination with proposed Water Resources pipeline projects were received:

“Many of the project’s roadway improvements coincide with proposed pipes in the project. The projects are:

- *Bradshaw Road- A 48 inch treated water supply pipeline and an 18 inch raw water supply pipeline are proposed from Gerber Road, north to Florin Road. A 24 inch treated water supply pipeline is proposed from Florin Road, north to Elder Creek Road.*
- *Calvine Road- A 24 inch treated water supply pipeline is proposed from ¼ mile east of Bradshaw Road, east to Vineyard Road. A 12 inch treated water supply pipeline is proposed from Vineyard Road, east to Excelsior Road.*
- *Elder Creek Road- A 16 inch treated water supply pipeline is proposed from South Watt Avenue, east to Excelsior Road.*
- *Elk Grove-Florin Road- A 16 inch treated water supply pipeline is proposed from Gerber Road, north to Elder Creek Road.*
- *Excelsior Road- A 16 inch treated water supply pipeline is proposed from Gerber Road, north to Elder Creek Road. This raw water supply pipeline increases in diameter as it heads north from 18 inches at Gerber Road, to 30 inches at Elder Creek Road.*
- *Florin Road- A 24 inch treated water supply pipeline is proposed from Elk Grove-Florin Road, east to Bradshaw Road. A 60 inch treated water supply pipeline is proposed from Bradshaw Road, east to Vineyard Road. A 66 inch treated water supply pipeline is proposed from Vineyard Road, east to Excelsior Road. An 18 inch raw water supply pipeline is proposed from Bradshaw Road, east to Vineyard Road.*
- *Gerber Road- A 24 inch treated water supply pipeline is proposed from Elk Grove-Florin Road, east to Vineyard Road. A 16 inch treated water supply pipeline is proposed from Vineyard Road, east to Excelsior Road. An 84 inch raw water supply pipeline is proposed from Elk Grove-Florin Road, east to Vineyard Road. A 66 inch raw water supply pipeline is proposed from Vineyard Road to Excelsior Road.*
- *Vineyard Road- A 24 inch treated water supply pipeline is proposed from ¼ mile south of Gerber Road, north to Florin Road. A 60 inch raw water supply pipeline is proposed from Gerber Road, north to Florin Road.*

- *Waterman Road- A 24 inch treated water supply pipeline is proposed from Gerber Road, north to the North Vineyard Station Storage Tank site, north of Florin Road. (The tank site is located approximately halfway between Gerber Road and Florin Road).” (NOTE: This section of Waterman Road is not included in the scope of this document. Impacts to this section of roadway were analyzed within the SEIR for the NVSSP (03-CPB-0082)).”*

The proposed North Vineyard Station Specific Plan Roadway Improvements project would coordinate with the Sacramento County Water Agency proposed projects to ensure disturbance is kept to a minimal level. This impact is considered ***less than significant***.

SACRAMENTO COUNTY DEPARTMENT OF WATER RESOURCES

The Sacramento County Department of Water Resources manages surface water and groundwater resources via the powers of the County of Sacramento and the Sacramento County Water Agency. They also provide services including drainage, flood control and water supply to various areas in the unincorporated Sacramento County, as well as to the cities of Citrus Heights, Elk Grove and Rancho Cordova.

The Sacramento County Department of Water Resources reviewed the project plans and provided the following comments:

“Sacramento County Floodplain Management Ordinance disallows adverse impacts to a floodplain. The floodplain is the base flood, which is the 1% annual recurrence storm event, hydrologically measured and mapped (also known as the 100 year flood). This is not limited to those floodplains mapped by FEMA. Instead, it should be recognized that there 100-year floodplain on every property as the runoff from the unique high intensity rain event finds its way downhill.

The lowest floor of new buildings must be at least 18” above the base flood water surface elevation assuming 25% debris clogging of large box culverts or bridges and 100% clogging of smaller diameter pipe culverts. Consequently, in areas where the roadway will be raised, there will need to be at least a 25% over-sizing of new crossings, or there will be much fill needed to raise the building pads.

Areas of particular interest:

Jackson Road at Excelsior Road – here the flood water flows over the intersection about 3’ deep during the base flood event.

Elder Creek Road approximately 1 mile east of Bradshaw – here Elder Creek flows over the road about 4’ deep during the base flood event.

South Watt Avenue 1200 to 2700 feet south of Fruitridge Road – There is a broad floodplain crossing over the road at this location during the base flood event. This is in the City of Sacramento so this office lacks specific data.”

The roadway elevation would not be raised by the project. Should changes to the roadway plans occur, the applicant shall coordinate with the Sacramento County

Department of Water Resources to address any conflicts. This coordination will ensure that impacts associated with drainage are ***less than significant***.

FREEPORT REGIONAL WATER AUTHORITY

The Freeport Regional Water Authority (FRWA) was formed by a joint powers agreement of Sacramento Water Agency (SCWA) and East Bay Municipal Utility District of Oakland (EBMUD) in February 2002 to provide surface water to customers in central Sacramento County and in the East Bay.

FRWA is in the construction phase of the water intake facility portion of the Freeport Regional Water Project and is scheduled to begin construction on the pipeline facilities portion in May 2007. The project will install an 84 inch pipeline, carrying up to 185 million gallons per day, from a new pumping station at the Sacramento River at Freeport bend, east along Cosumnes River Boulevard, north along Power Inn Road, and east along Gerber Road, where the pipeline is split to two lines, one extending north along Vineyard Road and the other continuing east to connect with the Folsom South Canal near the intersection of Gerber Road and Grant Line Road. The Vineyard Road section of pipeline will be 66 inches in diameter and the pipeline connecting with the Folsom South Canal will be 72 inches in diameter. Plate PS -2 presents the pipeline route for this project. Coordination between the applicant and FRWA will be necessary to identify any areas of possible conflict. This coordination will ensure that impacts associated with conflicts with the FRWA line installation are ***less than significant***.

CITY OF SACRAMENTO

The City of Sacramento, Utilities Department is responsible for providing and maintaining water, sewer, storm drain and flood control services to residents and businesses in the City of Sacramento. The project roadway that borders the City of Sacramento is South Watt Avenue.

The following comments were received from the City of Sacramento Department of Utilities in response to the Notice of Preparation:

"The project needs to be constructed so that there is no increased impact to downstream drainage facilities which convey storm drain runoff through the City of Sacramento. Also, storm drain runoff must be treated per the States NPDES permit."

Mitigation measures to protect water quality during construction are included in the Biological Resources chapter of this document. In addition, the applicant will be required to comply with the applicable NPDES permit. Impacts associated with drainage and water quality are considered ***less than significant***.

WELLS

Well facilities are typically encountered at rural properties. The project roadways extend through urban, semi-rural and rural environments. Based on current project engineering, project acquisition of right-of-way along these semi-rural and rural properties will conflict with existing wells. The six properties subject to acquisition and shown in Table PS-1 have possible well conflicts that will need to be resolved prior to construction. This impact is considered ***less than significant***.

BICYCLE AND PEDESTRIAN FACILITIES

The Sacramento Area Bicycle Advocates submitted the following comments in response to the Notice of Preparation:

"We request that the Supplemental EIR address the following:

- 1. On-street bikeway improvements*
- 2. Use of the Central California Traction Company right of way for trail use and access to that trail*
- 3. Other off-street trails*
- 4. Bicycle and pedestrian connectivity and air quality impacts of using building lot record recordation as triggers*
- 5. Block size and collector and local street spacing*
- 6. Street standards for collector and local streets*
- 7. Carbon dioxide and other greenhouse gas emissions. The California legislative record and Assembly Bill 32, signed into law by the governor, indicate that global warming is a significant environmental problem for the world and for California in particular. This environmental impact needs to be addressed.*
- 8. A project alternative that does not include any roadways over 4 lanes."*

The following is in response to the above comments:

1. The Sacramento County Street Improvement Standards indicate that upon completion of ultimate improvements to roadways, bike lanes shall be included (Plate PS -1). For interim improvements, a paved multi-purpose shoulder shall be constructed (Urquhart).

2. As neither the County nor the developers of the North Vineyard Station Specific Plan own the right-of-way associated with the Central California Traction Railroad (CCTC), it would be premature to speculate on potential future uses of that right-of-way.
3. An off street trail system is proposed as part of the North Vineyard Station Drainage Master Plan. The FSEIR for the North Vineyard Station Specific Plan (03-CPB-0082) states the following:

“Ultimately, the open space areas will include the joint use trail system that will serve as a drainage maintenance path and a pedestrian bicycle path.”
4. Collector street standards will be subject to the Sacramento County Street Improvements Standards.
5. An evaluation of the project's impact on climate change is included in Chapter 10 of this SEIR.
6. This SEIR does not evaluate alternatives to the proposed roadway improvements, as they are a result of approved mitigation from a previously approved development plan.

MITIGATION MEASURES

None recommended.

Plate PS -1 Typical Striping for Thoroughfare (includes 5-foot bike lane)

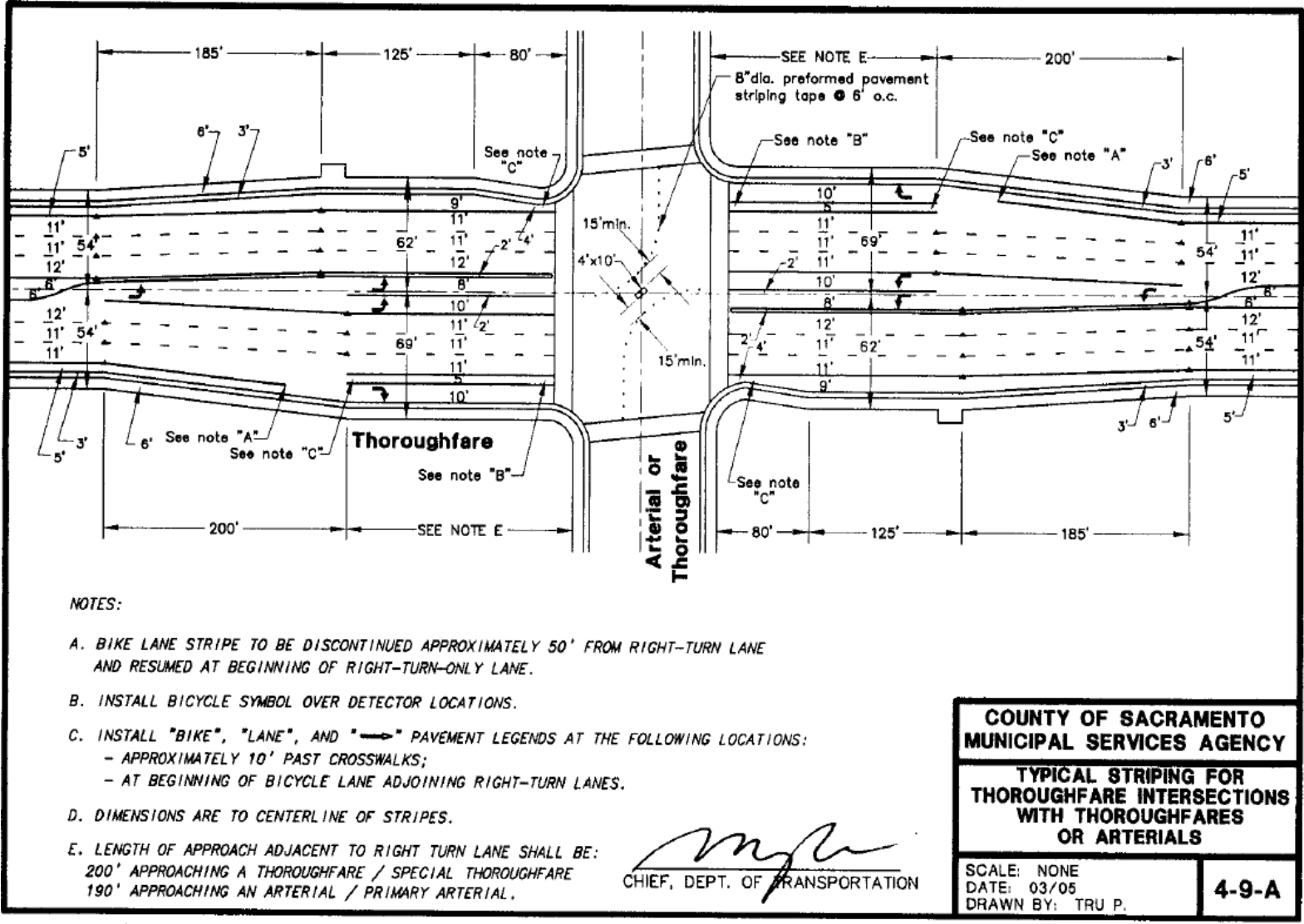


Plate PS -2 Freeport Regional Water Project Pipeline Route



Table PS-1 Conflicting Wells with Right-of-Way Acquisition

APN	OWNER(S)	ADDRESS	COMMENTS
066-0050-009	TAYLOR & VLG SACRAMENTO INVS PARTNERS	6901 BRADSHAW RD	Water supply well requires abandonment as it is within the PUE*.
122-0180-002	KENNETH C INABA	9764 CALVINE RD	An illegally abandoned water supply well requires a "Permit to Destroy" from EMD to abandon the water supply well legally. Well appears to be within the roadway right-of-way.
063-0180-027	DOHERTY FAMILY TRUST	9765 ELDER CREEK RD	Water supply well requires abandonment as it is within the roadway right-of-way.
064-0080-019	FRED & PAMELA STILWELL	8933 FLORIN RD	Water supply well requires abandonment as it is within the roadway right-of-way.
066-0100-043	CRYSTAL SINGH	10263 GERBER RD	Water supply well requires abandonment as it is within the PUE*
063-0070-006	BHUPINDER & MAPREET SANDHU	9690 JACKSON RD	The aged building on this parcel may be connected to a private septic system.
Notes: *PUE is the public utilities easement. Source: EMD, 2006.			

6 NOISE

INTRODUCTION

The proposed project would widen roadways from Jackson Road on the North, Calvine Road on the South, South Watt/Elk Grove-Florin Road on the West and Excelsior Road on the East. Improved traffic flow and capacity on these roadways could result in a potentially significant increase in traffic noise levels in the project vicinity. The improvements would also reduce the distance from some existing uses to the nearest travel lanes of these roadways. The project corridor area consists of agriculture-residential uses, agricultural parcels, churches, and industrial and manufacturing facilities.

Sensitive receptors were identified based on their proximity to the acceptable noise contour for that land use. Any structure located within the acceptable noise contour was included as a sensitive receptor.

CRITERIA FOR ACCEPTABLE NOISE EXPOSURE

SACRAMENTO COUNTY NOISE ELEMENT CRITERIA:

The Sacramento County Noise Element contains land use compatibility guidelines and noise standards for various land use designations for both transportation and non-transportation noise sources. The County Noise Element standards are normally applied to new projects, such as development of new residential or commercial uses. However, for capacity-enhancing roadway improvement projects, such as the proposed Bradshaw Road Widening Project, Sacramento assesses compliance with the General Plan Noise Element standards. Plate 5.5-2 shows the land use compatibility standards.

RESIDENTIAL USES

The Sacramento County Noise Element establishes a land use compatibility criterion of 60 dB Ldn for exterior noise levels for residential uses and agricultural-residential uses of 1 and 2 acres (AR1 and AR2), which is intended to provide an acceptable noise environment for outdoor activities. An exterior noise level up to 65 dB Ldn may be permitted only after careful study and inclusion of protective measures if needed. In addition, an interior noise level criterion of 45 dB Ldn is applied to residential dwelling units. The intent of this standard is to provide a suitable environment for indoor communication and sleep.

AGRICULTURAL-RESIDENTIAL 5 AND 10 ACRES

Agricultural-residential uses of 5 and 10 acres in Sacramento County are normally acceptable in exterior noise environments of 65 dB Ldn or less. These uses are considered conditionally acceptable in noise environments between 65 and 75 dB Ldn, and unacceptable in exterior noise environments over 75 dB Ldn.

CHURCH AND SCHOOL USES

Church and school uses in Sacramento County are normally acceptable in exterior noise environments of 60 dB Ldn or less. Church uses are considered conditionally acceptable in noise environments between 60 and 70 dB Ldn, and unacceptable in exterior noise environments over 70 dB Ldn. The Sacramento County Noise Element recommends an interior noise level for churches of 40 dB Ldn during the worst-case hour in which the church would be in use.

INDUSTRIAL, MANUFACTURING, AND AGRICULTURAL USES

Industrial, Manufacturing, and Agricultural Uses in Sacramento County are normally acceptable in exterior noise environments of 70 dB Ldn or less. These uses are considered conditionally acceptable in noise environments between 70 and 80 dB Ldn, and unacceptable in exterior noise environments over 80 dB Ldn.

PROJECT-RELATED NOISE LEVEL INCREASE CRITERIA

Besides the County Noise Element standards, the significance of project-related noise level increases may be determined by comparison of existing (pre-project) traffic noise levels to the expected change in traffic noise levels which will occur because of the project. It is generally recognized that an increase of at least 3 dB is usually required before most people will perceive a change in noise levels, and an increase of 5 dB is required before the change will be clearly noticeable. A common practice is to assume that a minimally perceptible increase of 3 dB represents a significant increase in ambient noise levels.

Table 5.5-1 is based upon recommendations made in August 1992 by the Federal Interagency Committee on Noise (FICON) to provide guidance in the assessment of changes in ambient noise levels resulting from aircraft operations. The recommendations are based upon studies that relate aircraft noise levels to the percentage of persons highly annoyed by the noise. Although the FICON recommendations were specifically developed to assess aircraft noise impacts, it has been assumed for this analysis that they are applicable to all sources of noise described in terms of cumulative noise exposure metrics such as the L_{dn} . This metric is generally applied to transportation noise sources, and defines noise exposure in terms of average noise exposure during a 24-hour period with a penalty added to noise that occurs during the nighttime.

According to table 5.5-1 an increase in the traffic noise level of 1.5 dB or more would be significant where the ambient noise level exceeds 65 dB L_{dn} . Extending this concept to higher noise levels, an increase in the traffic noise of 1 dB or more may be significant where the ambient noise level exceeds 75 dB L_{dn} .

Table NS-1 Significance of Changes in Cumulative Noise Exposure

Ambient Noise Level Without Project (L_{dn} or CNEL)	Significant Impact
<60 dB	+5.0 dB or more
60-65 dB	+3.0 dB or more
>65 dB	+1.5 dB or more
Source: Federal Interagency Committee on Noise (FICON), as applied by Brown-Buntin Associates, Inc.	

EVALUATION OF EXISTING AND FUTURE NOISE LEVELS

EXISTING AMBIENT NOISE ENVIRONMENT

The existing noise environment in the project vicinity is dominated by traffic on Bradshaw Road. Existing land uses in the project vicinity are not significantly affected by industrial, railroad, or aircraft noise sources. Therefore, this analysis of the existing and future ambient noise environment in the project area focuses on noise from traffic on Bradshaw Road. To characterize the existing traffic noise environment in the project vicinity, accepted traffic modeling algorithms were used.

USE OF RUBBERIZED ASPHALT AS A NOISE MITIGATION MEASURE

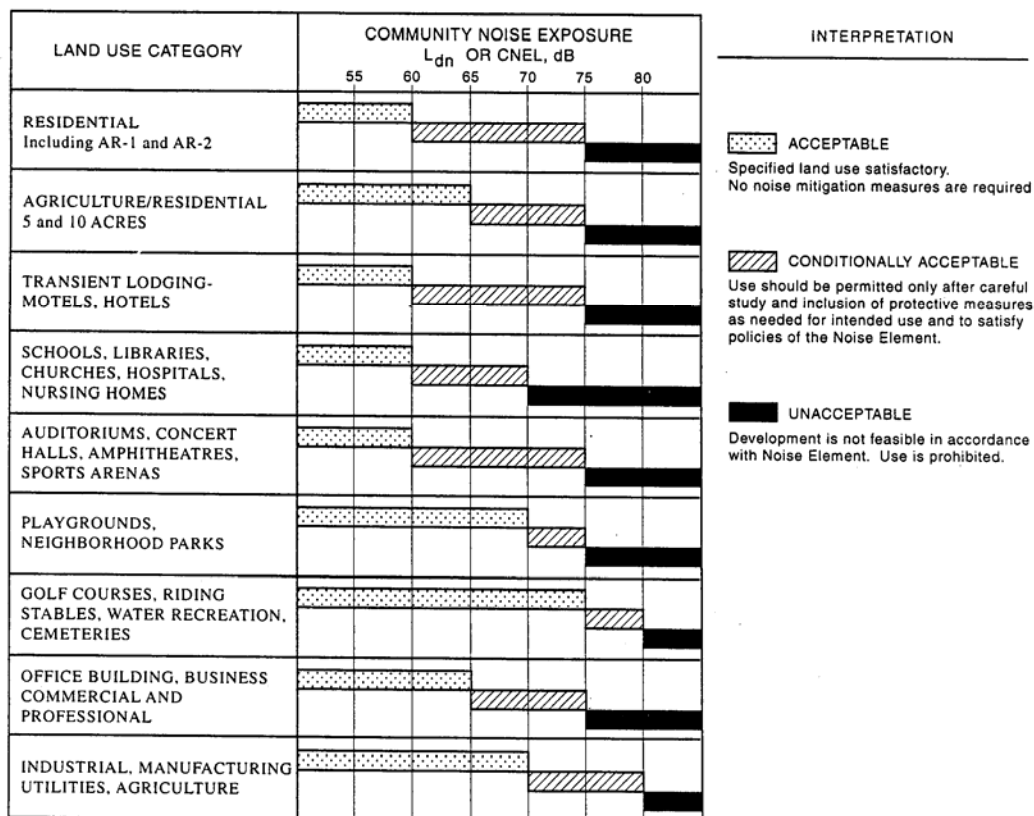
The Sacramento County Department of Environmental Review and Assessment and Transportation Department have conducted studies to determine the noise reduction provided by rubberized asphalt. Those studies indicate that the use of rubberized asphalt results in an average traffic noise level reduction of approximately 4 dB over that provided by conventional asphalt. This reduction was considered and included in the analysis of noise impact for this project.

Plate NS -1 Land Use Compatibility

Figure II-1

LAND USE COMPATIBILITY
FOR COMMUNITY NOISE ENVIRONMENTS

Noise Source: All noise except airport; for Airport Noise compatibility see Figure II-4



This figure is to be used to determine the necessity for an acoustical study based on the exterior, pre-mitigation noise exposure level. Any mitigation must achieve noise levels that are in compliance with the policies of the Noise Element. Noise Source: All noise except airport; for Airport Noise compatibility see Table II-6.

TRAFFIC NOISE PREDICTION MODEL

To describe existing and projected future noise levels due to traffic for this analysis, the Federal Highway Administration Highway Traffic Noise Prediction Model (FHWA RD-77-108) was utilized. The FHWA model is based upon the Calvenno reference noise factors for automobiles, medium trucks and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site.

The FHWA model was developed to predict hourly L_{dn} values for free-flowing traffic conditions. To predict L_{dn} values, it is necessary to determine the day/night distribution of traffic and adjust the traffic volume input data to yield an equivalent hourly traffic volume.

FHWA TRAFFIC NOISE PREDICTION MODEL INPUTS

Average daily traffic (ADT) volumes for existing and future conditions were obtained from the traffic study prepared for the North Vineyard Station Specific Plan Amendments project (County Control Number 03-CPB-0082) by Fehr and Peers Associates, Inc. According to those data, the proposed improvements are expected to increase roadway capacity. The FHWA model inputs for existing and future conditions are contained in Table NS-2.

Table NS-2 FHWA Traffic Noise Prediction Model Inputs

Segment	Average Daily Traffic		Day/Night %	Truck Usage		Speed Limit
	Future No Project (2025)	Future Plus Project (2025)		Medium Trucks %	Heavy Trucks %	
SR 16 – West of S. Watt Ave.	25,000	29,400	87%/13%	4	3	55
SR 16 – S. Watt Ave. to Bradshaw Rd.	25,900	30,700	87%/13%	4	3	55
SR 16 – Bradshaw Rd. to Excelsior Rd.	19,900	20,200	87%/13%	3	2.5	55
SR 16 – East of Excelsior Rd.	17,400	17,700	87%/13%	2.5	2.5	55
Elder Creek Rd. – West of S. Watt Ave.	13,800	15,800	87%/13%	4	3	45
Elder Creek Rd. – S. Watt Ave. to Bradshaw Rd.	7,400	8,500	87%/13%	4	3	55
Elder Creek Rd. – Bradshaw Rd. to Excelsior Rd.	3,200	3,400	87%/13%	3	2.5	55
Florin Rd. – West of S. Watt Ave.	15,300	18,700	87%/13%	4	3	45
Florin Rd. – S. Watt Ave. to Bradshaw Rd.	12,300	19,300	87%/13%	4	3	55
Florin Rd. – Bradshaw Rd. to Excelsior Rd.	6,300	9,300	87%/13%	3	2.5	55
Florin Rd. – East of Excelsior Rd.	7,600	8,500	87%/13%	2.5	2.5	55

Average Daily Traffic			Truck Usage			
Segment	Future No Project (2025)	Future Plus Project (2025)	Day/Night %	Medium Trucks %	Heavy Truck s %	Speed Limit
Gerber Rd. – West of Elk Grove-Florin Rd.	30,200	34,200	87%/13%	3	2.5	40
Gerber Rd. – Elk Grove-Florin Rd. to Bradshaw Rd.	15,400	17,100	87%/13%	2.5	2.5	50
Gerber Rd. – Bradshaw Rd. to Vineyard Road	6,300	6,300	87%/13%	2.5	2.5	55
Gerber Rd. – Vineyard Rd. to Excelsior Rd.	4,500	4,500	87%/13%	2.5	2.5	55
Calvine Rd. – West of Elk Grove-Florin Rd.	49,500	50,900	87%/13%	3	2.5	45
Calvine Rd. – Elk Grove-Florin Rd. to Waterman Rd.	35,200	36,700	87%/13%	3	2.5	45
Calvine Rd. – Waterman Rd. to Bradshaw Rd.	20,200	23,600	87%/13%	2.5	2.5	45
Calvine Rd. – Bradshaw Rd. to Vineyard Rd.	16,200	17,300	87%/13%	2.5	2.5	55
Calvine Rd. – Vineyard Rd. to Excelsior Rd.	11,100	11,800	87%/13%	2.5	2.5	55
Calvine Rd. – Excelsior Rd. to Grant Line Rd.	7,100	7,300	87%/13%	2.5	2.5	55
S. Watt Avenue – North of SR 16	45,900	48,000	87%/13%	4	3	45
S. Watt Avenue – SR 16 to Elder Creek Rd.	37,000	39,600	87%/13%	4	3	55
S. Watt Avenue – Elder Creek Rd. to Florin Rd.	31,600	34,100	87%/13%	4	3	55
Elk Grove-Florin Rd. – Florin Rd. to Gerber Rd.	39,300	40,000	87%/13%	3	2.5	55
Elk Grove-Florin Rd. – Gerber Rd. to Calvine Rd.	38,800	41,900	87%/13%	3	2.5	45
Elk Grove-Florin Rd. – South of Calvine Rd.	26,300	27,100	87%/13%	2.5	2.5	45
Bradshaw Road – North of SR 16	28,200	30,500	87%/13%	4	3	55
Bradshaw Road – SR 16 to Elder Creek Rd.	28,500	34,600	87%/13%	4	3	55
Bradshaw Road – Elder Creek Rd. to Florin Rd.	26,300	36,100	87%/13%	3	2.5	55
Bradshaw Road – Florin Rd. to Gerber Rd.	26,500	26,500	87%/13%	3	2.5	55
Bradshaw Road – Gerber Rd. to Calvine Rd.	22,400	26,100	87%/13%	2.5	2.5	55
Bradshaw Road – South of Calvine Rd.	17,800	19,700	87%/13%	2.5	2.5	55
Waterman Rd. – South of Calvine Rd.	8,400	8,700	87%/13%	2.5	2.5	55
Vineyard Rd. – Gerber Rd. to Calvine Rd.	4,400	4,400	87%/13%	2.5	2.5	45
Excelsior Rd. – North of SR 16	8,000	9,200	87%/13%	2.5	2.5	55
Excelsior Rd. – Elder Creek Rd. to Florin Rd.	8,200	9,600	87%/13%	2.5	2.5	55
Excelsior Rd. – Florin Rd. to	10,500	10,500	87%/13%	2.5	2.5	55

Average Daily Traffic			Truck Usage			
Segment	Future No Project (2025)	Future Plus Project (2025)	Day/Night %	Medium Trucks %	Heavy Trucks %	Speed Limit
Gerber Rd.						
Excelsior Rd. – Gerber Rd. to Calvine Rd.	5,500	6,300	87%/13%	2.5	2.5	55
Excelsior Rd. – South of Calvine Rd.	5,400	6,600	87%/13%	2.5	2.5	55

PROJECT VERSUS NO PROJECT TRAFFIC NOISE LEVELS

The FHWA model was used with the input data shown in Table NS-2 to calculate existing and future traffic noise levels with the proposed interim improvements. These calculations were performed for the sensitive receptors located throughout the project area and are shown in Table NS-3 through Table NS-12. Sensitive receptors were chosen when a structure was located inside the acceptable noise contour for its particular zone. The predicted exterior noise levels at those locations are shown in Table NS-3 through Table NS-12. A general discussion of predicted traffic noise impacts and noise mitigation measures is included in subsequent sections of this chapter.

Table NS-3 Noise Levels South Watt/Elk Grove-Florin Road

Location	Nearest Sensitive Receptor (ft.)	Barrier Height (ft.)	Future No Project (2025) (dB)	Future Plus Project (2025) (dB)*
North of Jackson Road	40	6	72.9	72.9 <u>68.9</u>
Jackson Road to Elder Creek Road	No Sensitive Receptors			
Elder Creek Road to Florin Road	No Sensitive Receptors			
Florin Road to Gerber Road	80	N/A	73.4	73.4 <u>69.4</u>
Gerber Road to Calvine Road	67	6	68.9	68.9 <u>64.9</u>
	85	N/A	72.9	73.2 <u>69.2</u>
South of Calvine Road	60	6	67.7	67.7 <u>63.7</u>
	150	N/A	67.4	67.6 <u>63.6</u>

Table NS-4 Noise Levels Bradshaw Road

Location	Nearest Sensitive Receptor (ft.)	Barrier Height (ft.)	Future No Project (2025) (dB)	Future Plus Project (2025) (dB)*
North of Jackson Road	160	N/A	67.7	68.0 <u>64.0</u>
Jackson Road to Elder Creek Road	130	N/A	69.1	70.1 <u>66.1</u>
Elder Creek Road to Florin Road	No Sensitive Receptors			
Florin Road to Gerber Road	85	N/A	71.2	71.2 <u>67.2</u>
Gerber Road to Calvine Road	80	N/A	70.8	71.5 <u>67.5</u>
South of Calvine Road	75	N/A	70.3	70.7 <u>66.7</u>

Table NS-5 Noise Levels Vineyard Road

Location	Nearest Sensitive Receptor (ft.)	Barrier Height (ft.)	Future No Project (2025) (dB)	Future Plus Project (2025) (dB)*
Gerber Road to Calvine Road	Sensitive Receptors are Outside 65 dB Noise Contour			

Table NS-6 Noise Levels Waterman Road

Location	Nearest Sensitive Receptor (ft.)	Barrier Height (ft.)	Future No Project (2025) (dB)	Future Plus Project (2025) (dB)*
South of Calvine Road	40	6	64.8	65.4 <u>61.4</u>
	80	N/A	66.6	66.7 <u>62.7</u>

Table NS-7 Noise Levels Excelsior Road

Location	Nearest Sensitive Receptor (ft.)	Barrier Height (ft.)	Future No Project (2025) (dB)	Future Plus Project (2025) (dB)*
North of Jackson Road	Sensitive Receptors are Outside 65 dB Noise Contour			
Elder Creek Road to Florin Road	Sensitive Receptors are Outside 65 dB Noise Contour			
Florin Road to Gerber Road	Sensitive Receptors are Outside 65 dB Noise Contour			
Gerber Road to Calvine Road	75	N/A	65.2	65.8 <u>61.8</u>
South of Calvine Road	No Sensitive Receptors			

Table NS-8 Noise Levels Jackson Road

Location	Nearest Sensitive Receptor (ft.)	Barrier Height (ft.)	Future No Project (2025) (dB)	Future Plus Project (2025) (dB)*
West of S. Watt Avenue	No Sensitive Receptors			
S. Watt Avenue to Bradshaw Road	60	6	73.7	74.4 <u>71.4</u>
Bradshaw Road to Excelsior Road	Sensitive Receptors are Outside 65 dB Noise Contour			
East of Excelsior Road	Sensitive Receptors are Outside 65 dB Noise Contour			

Table NS-9 Noise Levels Elder Creek Road

Location	Nearest Sensitive Receptor (ft.)	Barrier Height (ft.)	Future No Project (2025) (dB)	Future Plus Project (2025) (dB)*
West of S. Watt Avenue	No Sensitive Receptors			
S. Watt Avenue to Bradshaw Road	75	N/A	66.8	67.4 <u>63.4</u>
Bradshaw Road to Excelsior Road	Sensitive Receptors are Outside 65 dB Noise Contour			

Table NS-10 Noise Levels Florin Road

Location	Nearest Sensitive Receptor (ft.)	Barrier Height (ft.)	Future No Project (2025) (dB)	Future Plus Project (2025) (dB)*
West of S. Watt Avenue	75	6	64.2	65.2 <u>61.2</u>
	115	N/A	67.2	68.1 <u>64.1</u>
S. Watt Avenue to Bradshaw Road	52	N/A	71.4	73.4 <u>69.4</u>
Bradshaw Road to Excelsior Road	90	N/A	64.6	66.3 <u>62.3</u>
East of Excelsior Road	No Sensitive Receptors			

Table NS-11 Noise Levels Gerber Road

Location	Nearest Sensitive Receptor (ft.)	Barrier Height (ft.)	Future No Project (2025) (dB)	Future Plus Project (2025) (dB)*
West of Elk Grove-Florin Road	40	6	70.5	71.5 <u>67.5</u>
	130	N/A	69.0	69.6 <u>65.6</u>
Elk Grove Florin Road to Bradshaw Road	88	N/A	68.6	69.1 <u>65.1</u>
Bradshaw Road to Vineyard Road	Sensitive Receptors are Outside 65 dB Noise Contour			
Vineyard Road to Excelsior Road	Sensitive Receptors are Outside 65 dB Noise Contour			

Table NS-12 Noise Levels Calvin Road

Location	Nearest Sensitive Receptor (ft.)	Barrier Height (ft.)	Future No Project (2025) (dB)	Future Plus Project (2025) (dB)*
West of Elk Grove-Florin Road	45	6	71.9	72.4 <u>68.1</u>
Elk Grove Florin Road to Waterman Road	75	6	68.0	68.0 <u>64.0</u>
	82	N/A	73.3	73.5 <u>69.5</u>
Waterman Road to Bradshaw Road	71	N/A	71.2	71.9 <u>67.9</u>
Bradshaw Road to Vineyard Road	56	N/A	71.8	72.0 <u>68.0</u>
Vineyard Road to Excelsior Road	80	6	61.9	62.3 <u>58.3</u>
Excelsior Road to Grant Line Road	75	N/A	66.3	66.4 <u>62.4</u>

EFFECTS OF THE PROPOSED IMPROVEMENTS

PROJECT VERSUS NO PROJECT CONDITIONS

Table NS-3 through Table NS-12 indicate that future plus project traffic noise levels *will be less than* future traffic noise levels without the project. This is not considered significant since, according to Table NS-1, the noise level would have to increase at least 1.5 dB in order to be considered a significant impact. Impacts to these roadways are considered ***less than significant***. It should be noted that while this impact is not considered significant, many of these locations are above the 65 dB noise threshold established in the General Plan. The application of rubberized asphalt *required as mitigation in the Climate Change chapter* reduces the noise level by 4 dB. While this may not bring these locations into compliance with the General Plan, it *will* have the effect of reducing noise levels along the project roadways *below that of existing noise levels*.

NOISE IMPACTS ASSOCIATED WITH CONSTRUCTION

During the construction phases of the project, noise from construction activities would add to the noise environment in the immediate project vicinity. Activities involved in construction would generate maximum noise levels, as indicated in Table NS-13, ranging from 85 to 90 dB at a distance of 50 feet. Construction activities would be temporary in nature and are anticipated to occur during normal daytime working hours.

Noise would also be generated during the construction phase by increased truck traffic on area roadways. The most important project-generated noise source would be truck traffic associated with transport of heavy materials and equipment. This noise increase would be of short duration, and would probably occur primarily during daytime hours. Although construction activities would result in periods of elevated noise levels, significant noise impacts are not expected to occur.

Table NS-13 Construction Equipment Noise

Type of Equipment	Maximum Level, dB at 50 feet
Bulldozers	87
Heavy Trucks	88
Backhoe	85
Pneumatic Tools	85
Source: <u>Environmental Noise Pollution</u> , Patrick R. Cuniff, 1977.	

MITIGATION MEASURES

NS-1.

7 BIOLOGICAL RESOURCES

INTRODUCTION

An inventory of biological resources within and immediately surrounding the project roadways was conducted by ECORP Consulting, Inc. Special status species, wetlands, and vernal pools were noted in the Study Area. Previous biological evaluations have been conducted within the North Vineyard Station Specific Plan area to varying degrees of detail. This chapter addresses the roadways that border the Specific Plan area and particular regional roadways.

BIOLOGICAL SETTING

The Plan Area is composed of relatively flat to gently rolling terrain and is situated at an elevation of approximately 10 – 30 feet above mean sea level. Most of the Plan Area is situated along developed roadways. However, undeveloped areas bordering the roadways are comprised of natural vegetation communities including annual grassland, valley foothill riparian, actively farmed agricultural fields, and fallow agricultural lands. Other areas within the project area consist of developed lands such as rural residences, light-industrial areas, gravel mining areas, schools, retail and commercial developments. The vegetation community classifications are based on the classification systems presented in a *Preliminary Descriptions of the Terrestrial Natural Communities* (Holland 1986) and *A Guide to Wildlife Habitats of California* (Mayer and Laudenslayer Jr. 1988), but have been modified to reflect the specific conditions observed within the site.

The annual grassland community is composed primarily of non-native, naturalized Mediterranean grasses and a variety of other weedy species. Non-native grasses observed in this community include soft brome (*Bromus hordeaceus*), ryegrass (*Lolium multiflorum*), wild oat (*Avena* species), ripgut brome (*Bromus diandrus*), little quaking grass (*Briza minor*), and medusahead grass (*Taeniatherum caput-medusae*). Other herbaceous species observed in this community include yellow star-thistle (*Centaurea solstitialis*), skeleton weed (*Chondrilla juncea*), rose clover (*Trifolium hirtum*), bedstraw (*Gallium* species), sticky tarweed (*Holocarpha virgata*), and goat's beard (*Tragopogon porrifolius*). A number of ornamental trees occur within the grassland community throughout the Plan Area.

Valley foothill riparian occurs in two remnant patches along Bradshaw Road. The dominant tree species in this community were Valley oak (*Quercus lobata*) and interior live oak (*Quercus wislizenii*). A variety of shrubs, annual grasses, and other herbaceous species occur in the understory. These include Gooding's black willow

(*Salix goodingii*), poison oak (*Toxicodendron diversilobum*), California buckeye (*Aesculus californica*), ripgut brome, soft brome, and bedstraw.

The ruderal/disturbed community type refers to those areas that have been previously graded or modified and are typically dominated by weedy herbaceous species, such as yellow star-thistle, skeleton weed, and variety of non-native, annual grasses. A number of ornamentals including California sycamore (*Platanus racemosa*), crabapple (*Malus* sp.), crape myrtle (*Lagerstoemia indica*), redwood (*Sequoia sempervirens*), olive (*Olea europea*), fig (*Ficus carica*), wattle (*Acacia* species), fruit and other ornamental trees occur in close proximity to the residence. This community occurs in association with the developed portion of the Plan Area.

Adjacent land use includes fallow undeveloped pastures, agricultural residential development, gravel mining operations, schools, retail and commercial developments.

REGULATORY SETTING

GENERAL PLAN (GP) CONSERVATION ELEMENT

POLICY

CO-62	Ensure no net loss of marsh and riparian woodland acreage, values or functions.
CO-66	Encroachments within the designated floodway of Sacramento waterways shall be consistent with policies to protect marsh and riparian areas.
CO-67	Parcels shall not be created wherein much of the parcel area would comprise marsh or riparian habitat rendering the parcel unbuildable except when within a floodplain corridor or to be dedicated to and maintained by the County for flood control, drainage, and wetland maintenance.
CO-70	Public or private projects involving filling or removal of marsh/riparian habitat shall be mitigated outside of natural preserves where on-site mitigation is not desirable or appropriate shall be mitigated through the purchase of mitigation credits for restored wetlands/riparian areas at no net loss.
CO-130	Make every effort to protect and preserve non-oak native, excluding cottonwoods, and landmark trees and protect and preserve native oak trees measuring 6 inches in diameter at 4.5 feet above ground in urban and rural areas, excluding parcels zoned exclusively for agriculture.

- CO-131 Native trees other than oaks, which cannot be protected, shall be replaced with in-kind species in accordance with established tree planting specifications, the combined diameter of which shall equal the combined diameter of the trees removed. In addition, with respect to oaks, a provision for a comparable on-site area for the propagation of oak trees may substitute for replacement tree planting requirements at the discretion of the County Tree Coordinator when removal of a mature oak tree is necessary in accordance with consistent policy.
- CO-132 If the project site is not capable of supporting all the required replacement trees a sum equivalent to the replacement cost of the number of trees that cannot be accommodated shall be paid to the County's Tree Preservation Fund. The replacement cost of trees shall be established in accordance with the Council of Tree and Landscape Appraiser's standards for appraising trees.
- CO-134 Mitigate for loss of trees for road expansion and development consistent with County Tree Ordinance and General Plan policies.
- CO-136 If on-site mitigation is not possible given site limitation, off-site mitigation may be considered. Such a mitigation area must meet all of the following criteria to preserve, enhance, and maintain a natural woodland habitat in perpetuity, preferably by transfer of title to an appropriate public entity. Protected woodland habitat could be used as a suitable site for replacement tree plantings required by ordinances or other mitigation.
- a. Equal or greater in area to the total area that is included within a radius of 30 feet of the dripline of all trees to be removed;
 - b. Adjacent to protected stream corridor or other preserved natural areas;
 - c. Support a significant number of native broadleaf trees; and Offer good potential for continued regeneration of an integrated woodland community.

FEDERAL, STATE AND LOCAL REGULATORY AUTHORITY

FEDERAL ENDANGERED SPECIES ACT

The federal Endangered Species Act of 1973 (FESA) (50 CFR 17) provides legal protection, and requires definition of critical habitat and development of recovery plans for plant and animal species in danger of extinction. This law regulates the listing of plant and animal species as endangered, threatened, or in the case of plants, rare. The federal Endangered Species Act requires federal agencies to make a finding on all

federal actions, including the approval by an agency of a public or private action, such as the issuance of a Section 10/404 permit, as to the potential to jeopardize the continued existence of any listed species potentially/impacted by the action. Section 9 of the federal Endangered Species Act prohibits the “take” of any member of an endangered species. “Take” is defined by the act as, “...to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” USFWS has further defined the terms “harass” and “harm” to include indirect injury through habitat destruction or modification. Section 10(a) of the federal Endangered Species Act permits the incidental “take” of an endangered species if the take is “incidental to, and not the purpose of, the carry out of an otherwise lawful activity.”

US FISH AND WILDLIFE SERVICE REQUIREMENTS

As project triggers are met and identified projects are presented for construction, consultation with the USFWS will be necessary if federal listed species are present within the immediate project area and/or if work will be carried out in or on the banks of rivers, streams or other waterways. Consultation with the USFWS on an informal or formal basis may generate additional requirements for avoidance, minimization and/or mitigation. The measures listed in this document are considered additions to any USFWS-generated measures.

WATERS OF THE UNITED STATES

The U.S. Army Corps of Engineers (Corps) has jurisdiction and permitting authority under Section 404 of the Clean Water Act (CWA) over the discharge of dredged or fill material into waters of the United States, including wetlands. The Corps determines the significance of and approves, restricts, or prohibits discharges through application of the Section 404(b)(1) guidelines, the substantive criteria for dredged and fill material discharges under the CWA. These guidelines have been developed by the U.S. Environmental Protection Agency in conjunction with the Corps. The guidelines are based on the precept that dredged or fill material should not be discharged into the aquatic ecosystem, unless it can be demonstrated that such a discharge will not have an unacceptable adverse impact either individually or in combination with known and /or probable impacts of other activities affecting the ecosystems of concern. Under the Fish and Wildlife Coordination Act, the USFWS advises the Corps on project involving dredge and fill activities in waters and wetlands of the U.S.

CALIFORNIA ENDANGERED SPECIES ACT

The California Endangered Species Act (CESA) was passed in 1984 by the State of California to recognize and protect species that are endangered or threatened with extinction within the state of California. The California Endangered Species Act is intended to operate in conjunction with CEQA to help protect the ecosystems upon which endangered and threatened species depend.

CALIFORNIA DEPARTMENT OF FISH AND GAME REQUIREMENTS

The Fish and Game Code of California Sections 1601-1603 state requirements for Streambed Alteration Agreements. These agreements and resulting permits, which are managed by the CDFG, are ~~requires~~ required for any project that will impact stream flows or the bed and banks of streams or lakes within the state of California. As site-specific projects are ~~present~~ presented for construction, consultation with the CDFG (including written notification) will be necessary if state listed species are present within the immediate project area and/or if work will be carried out in or on the banks of rivers, streams or other waterways. Consultation with CDFG on an informal or formal basis may generate additional requirements for avoidance, minimization and/or mitigation. The measures listed in this document are considered additions to any CDFG-generated measures.

RESEARCH AND SURVEY

A search and review of the California Natural Diversity Database (CNDDDB) was conducted for an approximate 5 mile radius around the project site to determine if any current or historic recorded occurrences of special-status species are located within the project area. This search range was used to identify potential special-status species issues because it encompasses a sufficient distance to accommodate for regional habitat diversity and to overcome the limitations of distance to accommodate for regional habitat diversity and to overcome the limitations of the CNDDDB. The CNDDDB is based on actual recorded occurrences and does not constitute an exhaustive inventory of every resource. In addition, a 10-mile radius of the project area was reviewed for CNDDDB Swainson's hawk occurrences. Other sources of biological resources data for the project area include:

- USFWS list of endangered and threatened species that may occur in or be affected by projects in the Carmichael and Elk Grove 7.5 minute USGS quadrangle,
- The California Native Plant Society (CNPS) *Inventory of Rare and Endangered Plants of California*; and

The biological field assessment for this project was conducted August 23, 24, and 25 2006 by ECORP Consulting, Inc. biologist Dustin Brown. The assessment consisted of walking the entire project area with special attention paid to areas likely to support special-status species or sensitive habitats, including wetlands. Field notes recorded dominant plant communities, noted the locations of sensitive habitats and characterized wildlife habitat.

IMPACTS AND ANALYSIS

THRESHOLDS OF SIGNIFICANCE

Significant impacts that could occur on biological resources are determined from criteria stated in the CEQA Guidelines. Section 15065(a) of the Guidelines states that a project may have a significant effect on the environment when “. . . the project has the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal.” In addition, because of the sensitive nature and decline of wetland habitats throughout California, the removal, filling, dredging, or damage (directly or indirectly) to wetland or riparian areas would be considered a significant impact.

An evaluation of whether or not an impact on biological resources would be substantial must consider both the resource itself and how that resource fits into a regional or local context. Substantial impacts would be those that would diminish or result in the loss of an important biological resource, or those that would obviously conflict with local, state, or federal resource conservation plans, goals, or regulations.

IMPACT: WATERS OF THE UNITED STATES

ECORP Consulting, Inc. prepared a wetland delineation for the proposed project. The delineation report is shown in Plate BR -1.

SURVEY RESULTS

A total of 15.738 acres of Waters of the U.S., including wetlands, were delineated in the North Vineyard Station Roadways Project (Table BR-1). The 15.738 acres of Waters of the U.S. appear to meet U.S. Army Corps of Engineers' (Corps) criteria as “Wetlands” and “Other Waters of the United States”, respectively, subject to Corps regulation under Section 404 of the Clean Water Act. Placement of fill material onto the Waters of the U.S., including wetlands, is subject to Section 404 of the Clean Water Act. Implementation of the project may require Sacramento County to obtain a Section 404 permit from the Corps.

Table BR-1 Waters of the United States

Type of Waters of the United States	Existing Acreage Within Project
Wetlands	
Vernal Pool	0.923
Seasonal Wetland	0.173
Seasonal Wetland Swale	0.713
Marsh	0.068

Type of Waters of the United States	Existing Acreage Within Project
Subtotal	1.877
Other Waters of the United States	
Creek	0.342
Ephemeral Drainage	0.056
Intermittent Drainage	0.001
Pond	0.017
Ditch	13.445
Subtotal	13.861
Grand Total	15.738
Source: ECORP Consulting Inc., 2006a.	

PROJECT IMPACTS

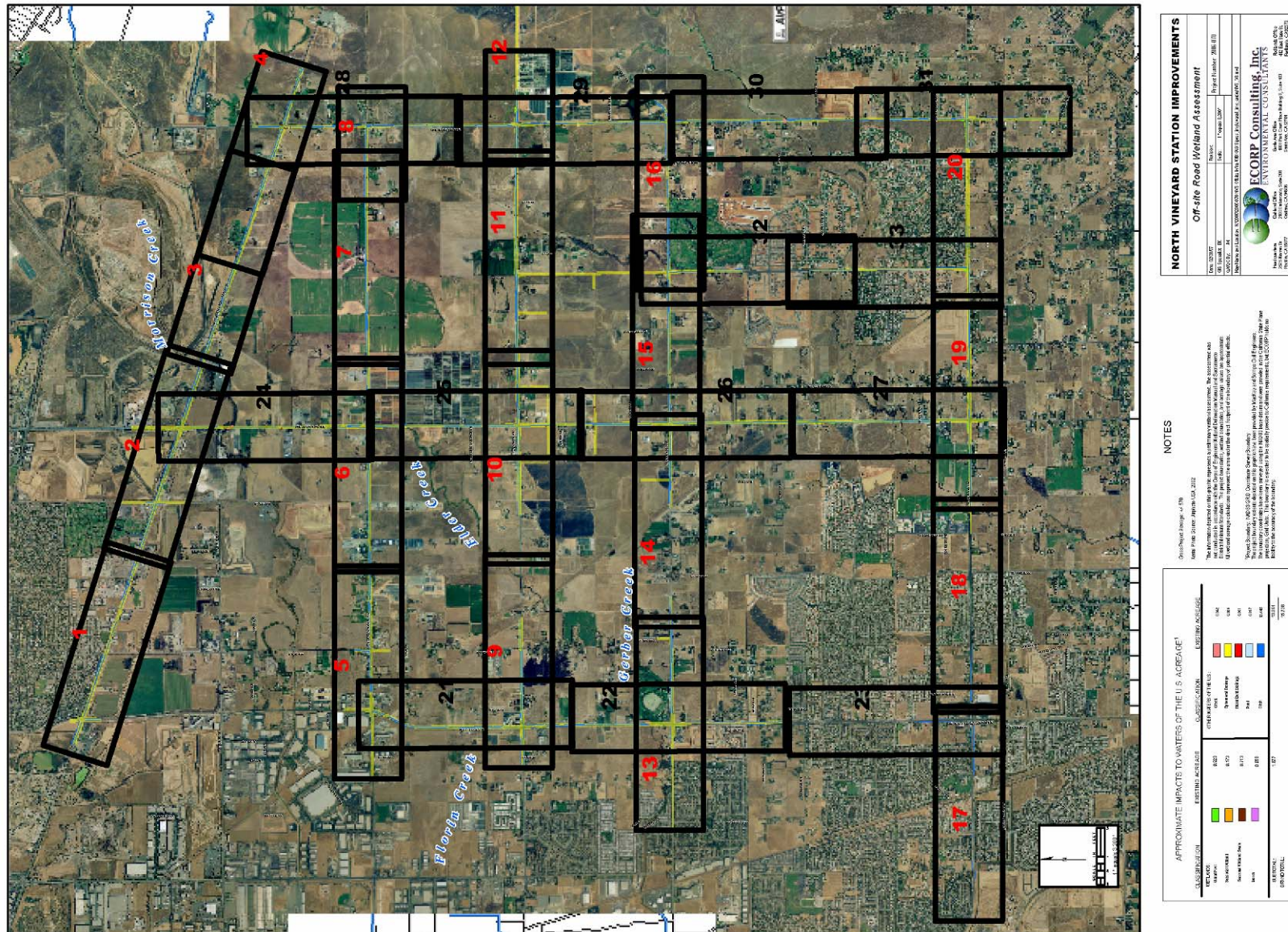
Roadway widening will fill Waters of the U.S. within the identified right-of-way. Roadside ditches may be re-located or replaced with curb and gutter. This would result in permanent impacts to all Waters of the U.S. that are filled and temporary impacts to those ditches that can be relocated. This impact is considered **significant**; however, with the incorporation of mitigation measures, this impact can be reduced to **less than significant**.

MITIGATION MEASURES

BR-1. To compensate for the permanent loss of wetlands, the applicant shall perform one of the following:

1. Where a Section 404 Permit has been issued by the Corps of Engineers, or an application has been made to obtain a Section 404 Permit, the Mitigation and Management Plan required by that permit or proposed to satisfy the requirements of the Corps for granting a permit may be submitted for purposes of achieving a no net loss of wetlands. The required Plan shall be submitted to the Sacramento County Department of Environmental Review and Assessment, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service and California Department of Fish and Game for approval prior to its implementation.
2. Pay to the County of Sacramento an amount based on a rate of \$35,000 per acre for the unmitigated/uncompensated wetlands, which shall constitute mitigation for purposes of implementing adopted no net loss policies and CEQA required mitigation. The payment shall be collected by the Department of Planning and Community Development, and deposited into the Wetlands Restoration Trust Fund.

Plate BR -1 Wetland Survey Overview



DRAFT

This map has been reduced from its original size and should only be used for informational purposes

Plate BR -2 – Wetland Survey Sheets 1 & 2

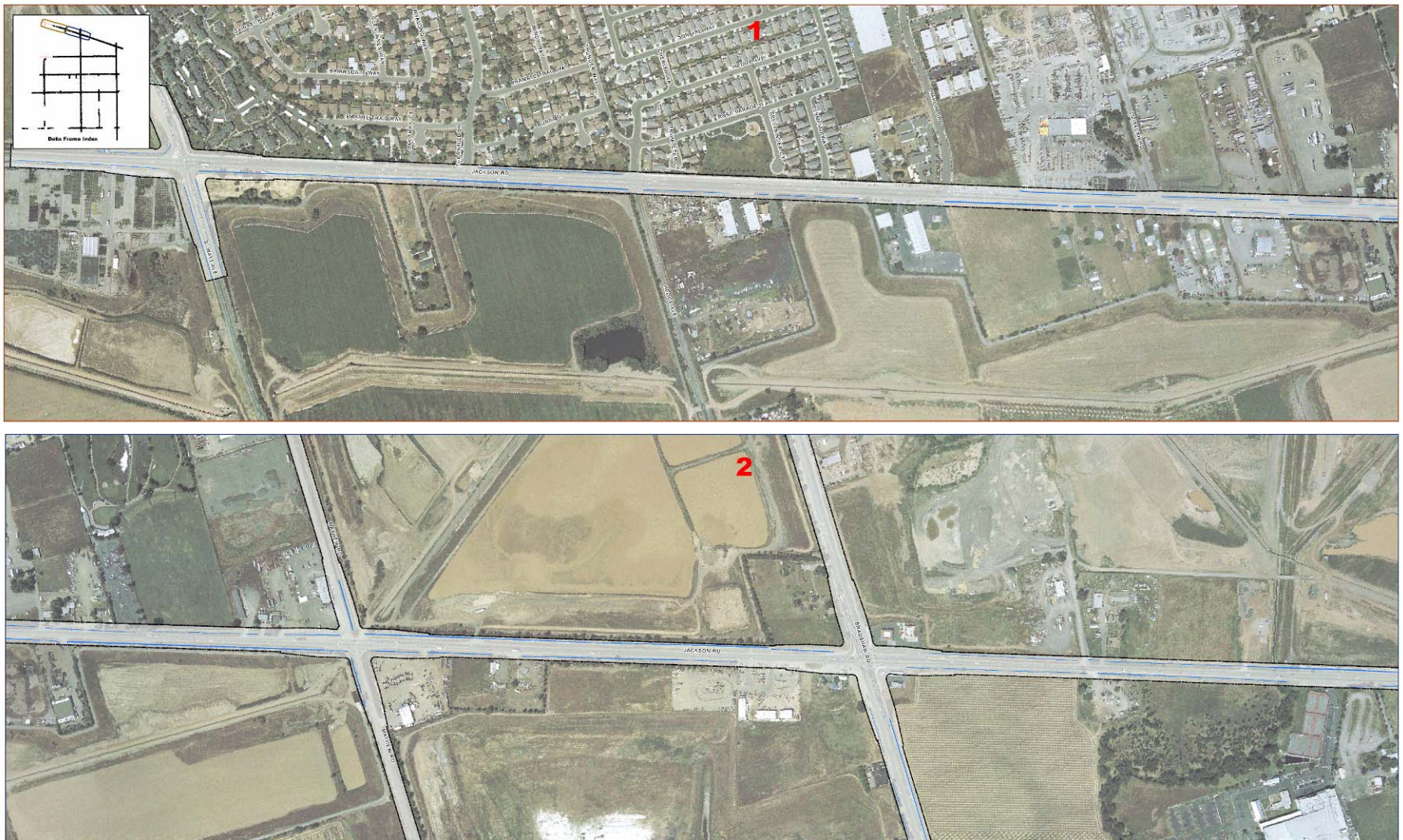


Plate BR -3 – Wetland Survey Sheets 3 & 4



Plate BR -4 – Wetland Survey Sheets 5 & 6

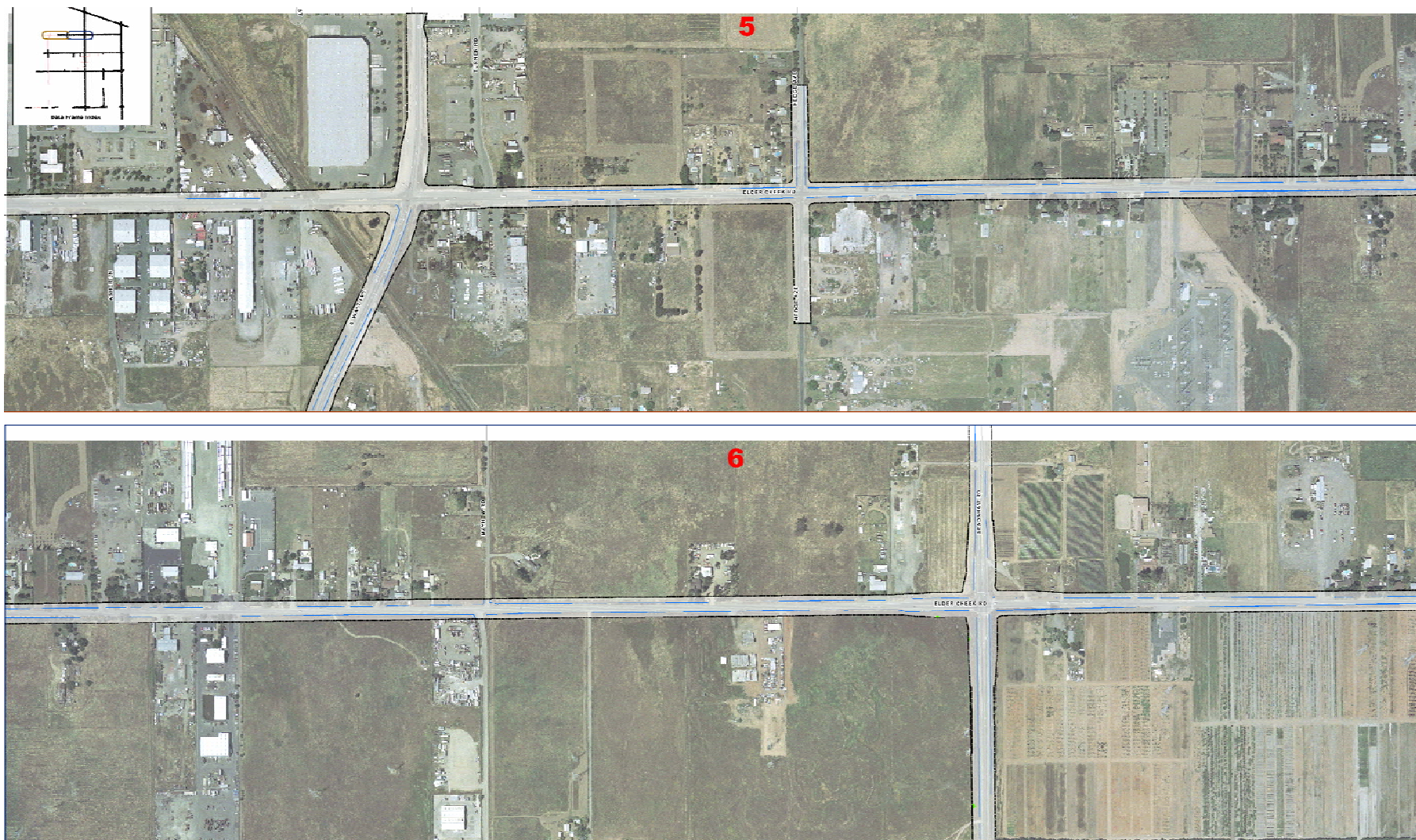


Plate BR -5 – Wetland Survey Sheets 7 & 8



This aerial map shows the intersection of Highway 10 and Highway 9. The proposed road layout is overlaid on the map, showing the intersection and the surrounding agricultural fields. A north arrow and a scale bar are included in the top left corner.

Plate BR -7 – Wetland Survey Sheets 11 & 12



Plate BR -9 – Wetland Survey Sheets 15 & 16



Plate BR -10 – Wetland Survey Sheets 17 & 18



Plate BR -11 – Wetland Survey Sheets 19 & 20

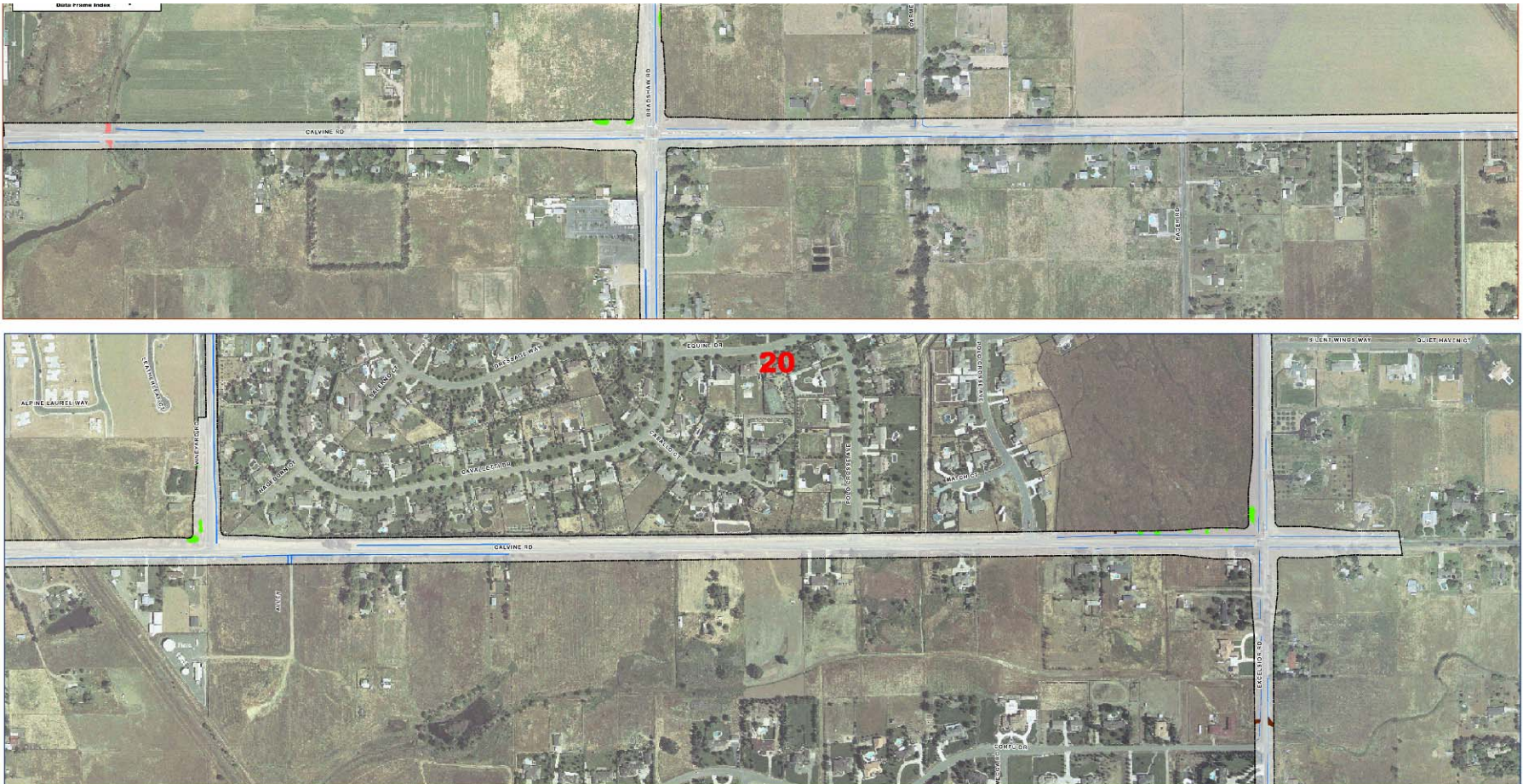


Plate BR -12 – Wetland Survey Sheets 21 & 22



Plate BR -13 – Wetland Survey Sheet 23



Plate BR -14 – Wetland Survey Sheets 24 & 25



Plate BR -15 – Wetland Survey Sheets 26 & 27

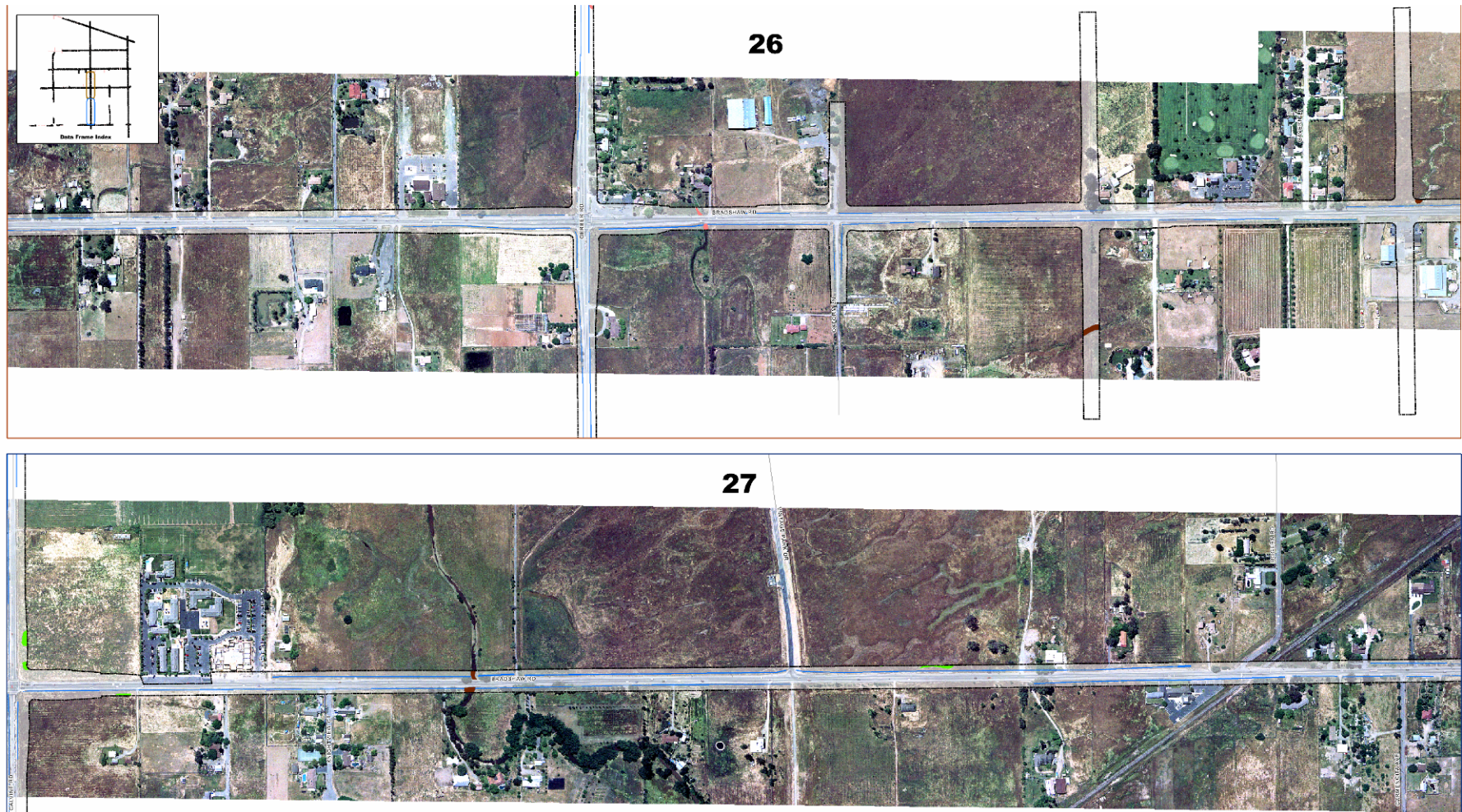


Plate BR -16 Wetland Survey Sheets 28 & 29



Plate BR -17 – Wetland Survey Sheets 30 & 31

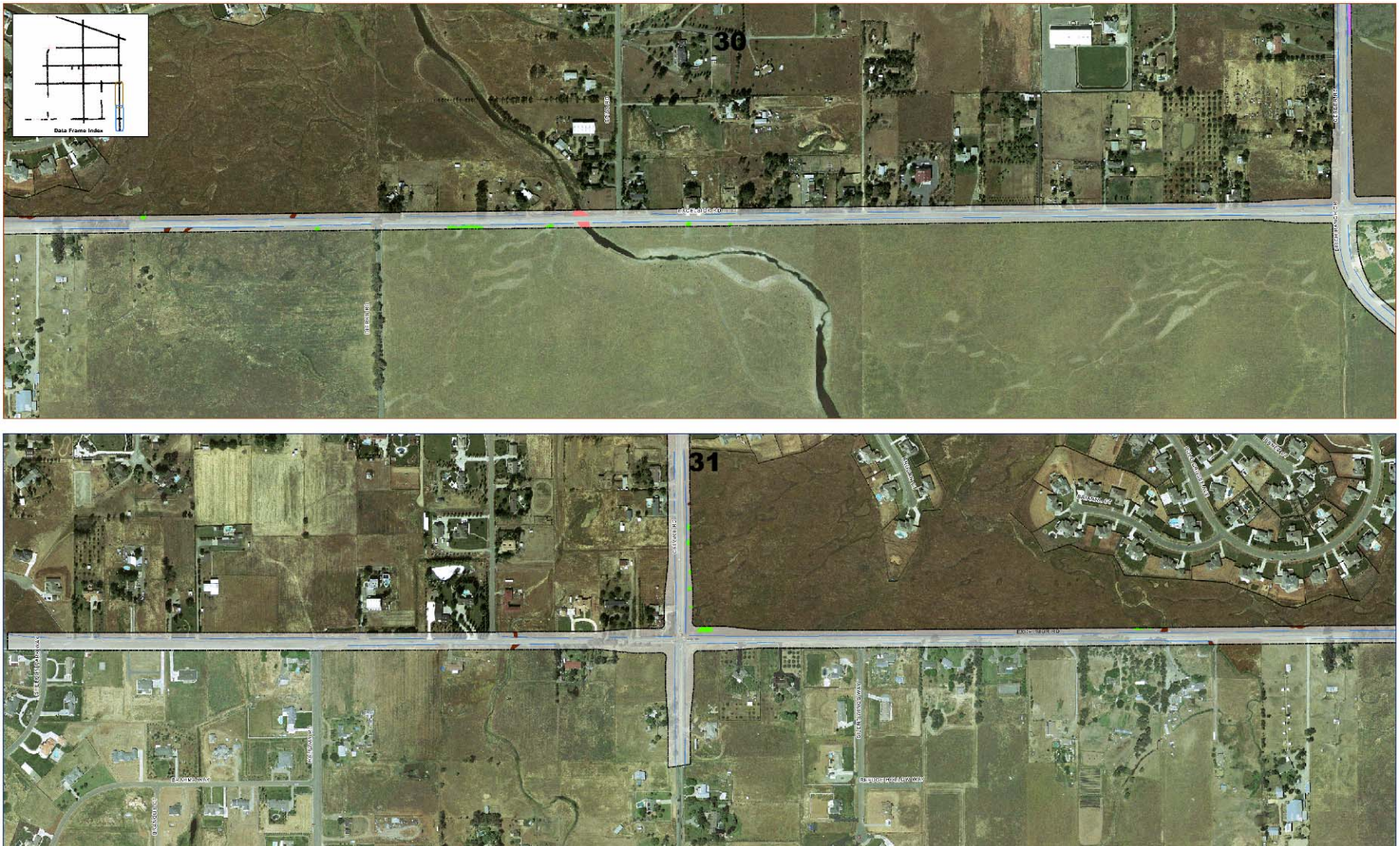


Plate BR -18 – Wetland Survey Sheets 32 & 33



SPECIAL STATUS SPECIES

Based upon vegetation communities present within the Plan Area and known species distributions, a list of potentially occurring special-status species has been developed for the Plan Area (Table BR-2). There are currently five previously documented occurrences of special-status species within the Plan Area (CDFG 2003), and other occurrences within the vicinity. Potentially occurring special-status species include seven plants, five invertebrates, one amphibian, two reptiles, thirteen birds, and three mammals.

IMPACT: SPECIAL-STATUS PLANTS

The plant communities and environmental conditions observed within the Plan Area support potentially suitable habitat for a variety of special status plants, including Ahart's dwarf rush (*Juncus leiospermus* var. *ahartii*), Boggs Lake hedge-hyssop (*Gratiola heterosepala*), Dwarf downingia (*Downingia pusilla*), Legenere (*Legenere limosa*), Sacramento orcutt grass (*Orcuttia viscida*), Sandford's arrowhead (*Sagittaria sandfordii*), and Slender orcutt grass (*Orcuttia tenuis*).

AHART'S DWARF RUSH

This species is designated as a California Native Plant Society (CNPS) List 1B species. This herbaceous annual grows in vernal pool margins and moderately moist valley and foothill grasslands at elevations ranging from 100 to 300 feet (CNPS 2001, Placer County 2003). This species has a current range that includes Butte, Calaveras, Placer, Sacramento and Yuba counties (CNPS 2001). This species generally blooms from March through May (CNPS 2001).

The CNDDDB showed two occurrences of this species within five miles of the Plan Area, with the closest documented occurrence (CNDDDB Occurrence No. 8) located approximately 1.79 miles northeast of the intersection of Jackson Road and Excelsior Road (CDFG 2003). This population is presumed to be still in existence. Vernal pools within the project area represent potential habitat for this species. Construction could result in the disturbance or removal of freshwater marsh and vernal pools that could provide habitat for this species. This impact is considered ***potentially significant***. With the incorporation of mitigation measures, this impact can be reduced to ***less than significant***.

Table BR-2: Regional Species and Habitats of Concern

Scientific Name	Common Name	Status	General habitat Description	Habitat Present/ Absent	Rationale
<i>Accipiter cooperii</i>	Cooper's hawk	SSC	In lowlands, nests chiefly in open riparian woodlands and other open woodlands	P	Suitable nesting habitat near project corridor.
<i>Acipenser medirostris</i>	green sturgeon	FSC SSC	Large rivers w/suitable spawning substrates; Pacific Ocean	A	Outside known range.
<i>Agelaius tricolor</i>	tricolored blackbird	FSC SSC	Nests in wetland habitats; forages in wetlands, agricultural fields, pastures	A	No suitable nesting habitat present within project impact area
<i>Ambystoma californiense</i>	California tiger salamander	FSC SSC	Grasslands and woodlands with low gradient bodies of water	A	No suitable habitat present within project impact area
<i>Ammodramus savannarum</i>	Grasshopper Sparrow	FSC	Dry, dense grasslands with scattered shrubs	A	No suitable habitat present within project impact area.
<i>Ardea herodias</i>	great blue heron		Rookery sites in tall trees, cliff sides, and secluded marsh areas	A	No rookery sites within project impact area
<i>Asio flammeus</i>	Short-eared owl	FSC	Dense vegetation for roosting and cover	A	No suitable habitat present within project impact area.
<i>Athene cunicularia hypugea</i>	western burrowing owl	FSC SSC	Nests in ground squirrel burrows in sparse grasslands, deserts, and agricultural fields	P	Suitable habitat within and adjacent to project impact area.

7 - BIOLOGICAL RESOURCES

Scientific Name	Common Name	Status	General habitat Description	Habitat Present/ Absent	Rationale
<i>Baeolophus inornatus</i>	Oak titmouse	SLC	Live oaks and deciduous growth of all kinds: oak woodlands, streamside cottonwoods, forest edges, and oak-juniper woodlands.	P	Within known range.
<i>Branchinecta lynchi</i>	vernal pool fairy shrimp	FT	Vernal pools	P	Vernal pools present in project area
<i>Branchinecta mesoavallensis</i>	Midvalley fairy shrimp	FSC	Vernal pools	P	Vernal pools present in project area.
<i>Branta canadensis leucopareia</i>	Aleutian Canada goose	FT	Agricultural fields with waste grain; roosts near sloughs, lakes	A	No suitable habitat present within project impact area
<i>Buteo regalis</i>	ferruginous hawk	FSC SSC	Arid, open terrain; plains, prairies	P	suitable habitat present within project impact area
<i>Buteo Swainsoni</i>	Swainson's hawk	ST	Nests in large trees usually in riparian habitats. Forages in agricultural lands with low vegetative cover adjacent to nest sites	P	Recorded nesting sites within 5 – 10 miles of project corridor. Potential nesting sites along riparian corridor. Foraging habitat is insufficient.
<i>Carduelis lawrencei</i>	Lawrence's goldfinch	FSC	Chapparal and open woodland	A	No suitable habitat present within project impact area.
<i>Casmerodius albus</i>	great egret		Colonial nester in large trees along rivers and near marshes and irrigated pastures	A	No rookery sites within project impact area
<i>Chaetura vauxi</i>	Vaux/s swift	FSC	Forests and woodlands	P	Suitable habitat present within project impact area.
<i>Charadrius montanus</i>	mountain plover	FPT SSC	Arid plains, open terrain	A	No suitable habitat present within project impact area

7 - BIOLOGICAL RESOURCES

Scientific Name	Common Name	Status	General habitat Description	Habitat Present/ Absent	Rationale
<i>Chlidonias niger</i>	Black tern	FSC	Large deep water marsh complexes.	A	No suitable habitat present within project impact area.
<i>Clemmys marmorata marmorata</i>	northwestern pond turtle	FSC SSC	Still waters such as ponds, marshes, rivers, streams, and drainage ditches; breeds in upland habitats within ¼ mile of water	P	Known to occur, Suitable basking or nesting habitat present in project impact area.
<i>Cypseloides niger</i>	Black swift	FSC	Mountains and coastal cliffs; most frequently seen in the open sky.	A	Outside known range.
<i>Desmocerus californicus dimorphus</i>	valley elderberry longhorn beetle	FT	Riparian habitat with elderberry	A	Elderberry shrubs were not observed during field surveys.
<i>Downingia pusilla</i>	Dwarf Downingia	FSC 2	Vernal Pools	P	Vernal pools present in project area..
<i>Empidonax traillii brewsteri</i>	Little Willow Flycatcher	FSC	Summer resident of riparian habitats	A	Outside of known range.
<i>Euderma maculatum</i>	Spotted bat	FSC	Mountainous regions with ponderosa pines. Apparently roosts primarily in crevices in rocky cliffs and canyons.	A	No suitable roosting habitat within project corridor.
<i>Eurnops perotis californicus</i>	Greater western mastiff-bat	FSC	High buildings, trees, and tunnels in open, arid areas with high cliffs; roosts in small colonies	A	No suitable roosting habitat within project corridor.

7 - BIOLOGICAL RESOURCES

Scientific Name	Common Name	Status	General habitat Description	Habitat Present/ Absent	Rationale
<i>Falco peregrinus anatum</i>	American peregrine falcon	SE	Favors shorelines, coasts, marshes and other areas of abundant prey. Nests on cliffs, ledges, caves	A	No suitable habitat present within project impact area
<i>Gratiola heterosepala</i>	Boggs Lake hedge-hyssop	SE 1B	Freshwater and Brackish Marshes	A	Marshes not present in project area.
<i>Haliaeetus leucocephalus</i>	bald eagle	SE	Ocean shorelines, lake margins, and rivers	A	No suitable nesting habitat present within project impact area
<i>Hypomesus transpacificus</i>	delta smelt	FT ST	Open surface waters; spawns in dead end sloughs and shallow edge waters	A	Outside of known range.
<i>Lampetra ayresi</i>	River lamprey	FSC	Anadromous; spawns in cold, clear freshwater rivers and streams with suitable spawning gravels	A	No suitable spawning habitat present in project impact area.
<i>Lampetra tridentata</i>	Pacific Lamprey	FSC	Pacific Ocean during predatory phase; spawns in cold, clear freshwater rivers and streams with suitable spawning gravels.	A	No suitable spawning habitat present in project impact area.
<i>Lanius ludovicianus</i>	Loggerhead shrike	FSC	Open country, thinly wooded or scrubby land with clearings, meadows; roadside thickets or hedges	P	Suitable habitat present within project impact area.
<i>Legenere limosa</i>	Legenere	FSC 1B	Vernal Pools	P	Vernal pools present in project area.

7 - BIOLOGICAL RESOURCES

Scientific Name	Common Name	Status	General habitat Description	Habitat Present/Absent	Rationale
<i>Lepidurus packardii</i>	vernal pool tadpole shrimp	FE	Vernal pools	P	Vernal pools present in project area.
<i>Linderiella occidentalis</i>	California linderiella	FSC	Vernal pools	P	Vernal pools present in project area.
<i>Melanerpes lewis</i>	Lewis' woodpecker	FSC	Old growth woodlands	A	No suitable habitat present within project impact area.
<i>Myotis ciliolabrum</i>	small-footed myotis bat	FSC	Arid wooded or brushy uplands near water; roosts in caves, buildings, mines, crevices, occasionally bridges; colonies of 10-20 individuals	A	No suitable roosting habitat within project corridor.
<i>Myotis evotis</i>	Long-eared myotis bat	FSC	Variety of habitats, from sage to high-altitude coniferous forests; mostly found in forested regions. Sometimes roosts in buildings.	A	No suitable roosting habitat within project corridor.
<i>Myotis thysanodes</i>	Fringed myotis bat	FSC	Oak, pinyon, and juniper forests; desert scrub. Roosts in caves, mines, buildings, and other protected locations.	A	No suitable roosting habitat within project corridor.

7 - BIOLOGICAL RESOURCES

Scientific Name	Common Name	Status	General habitat Description	Habitat Present/Absent	Rationale
<i>Myotis volans</i>	long-legged myotis bat	FSC	Woodland and forest habitat, chaparral, coastal scrub; absent from central valley; roosts in rock crevices, buildings, snags, mines, caves, under tree bark; colonies of up to 300 individuals	A	No suitable roosting habitat present within project impact area
<i>Myotis yumanensis</i>	Yuma myotis bat	FSC SSC	Various habitats; optimal habitats are open forests and woodlands with sources of water; roosts in buildings, mines, caves, and crevices; colonies of 100 to 3,000 individuals	A	No suitable roosting habitat present within project impact area
<i>Naverretia myersii</i> <i>spp. Myersii</i>	Pincushion navaretia	FSC	Vernal pools.	P	Vernal pools present in project area.
<i>Numenius americanus</i>	Long-billed curlew	FSC	Coastal estuaries, upland herbaceous areas, croplands	A	No suitable habitat present within project impact area.
<i>Oncorhynchus mykiss</i>	Central Valley steelhead	FT	Cold freshwater habitats with suitable spawning substrates and high quality water	A	Outside known range.
<i>Oncorhynchus tshawytscha</i> (includes critical habitat)	Central Valley fall-run chinook salmon	FC SSC	Cold freshwater habitats with suitable spawning substrates and high quality water	A	Outside known range

7 - BIOLOGICAL RESOURCES

Scientific Name	Common Name	Status	General habitat Description	Habitat Present/ Absent	Rationale
<i>Oncorhynchus tshawytscha</i>	Central Valley spring-run chinook salmon	FT ST	Cold freshwater habitats with suitable spawning substrates and high quality water	A	Outside known range
<i>Oncorhynchus tshawytscha</i>	winter-run chinook salmon	FE SE	Cold freshwater habitats with suitable spawning substrates and high quality water	A	Outside known range
<i>Orcuttia viscida</i>	Sacramento Orcutt grass	FE	Vernal pools	P	Vernal pools present on project site.
<i>Perognathus inornatus</i>	San joaquin pocket mouse	FSC SSC	Sandy dune habitats with friable soils	A	Outside known range
<i>Phrynosoma coronatum frontale</i>	California horned lizard	FSC SSC	Desert sage scrub and chaparral communities	A	No suitable habitat present within project impact area
<i>Picoides nuttallii</i>	Nuttall's woodpecker	FSC	Canyon scrub oaks, oak woodlands, and streamside growth.	A	No suitable habitat present within project area.
<i>Plecotus townsendii townsendii</i>	Pacific western big-eared bat	FSC SSC	Mesic sites in a variety of communities, including oak woodlands; requires caves, mines, buildings for roosting	A	No suitable roosting habitat within project area.
<i>Plegadis chihi</i>	white-faced ibis	FSC SSC	Dense freshwater emergent wetlands and coastal marshes	A	No suitable nesting habitat present within project impact area
<i>Pogonichthys macrolepidotus</i>	Sacramento splittail	FT SSC	Backwater slough areas	A	No suitable spawning habitat present in project impact area.

7 - BIOLOGICAL RESOURCES

Scientific Name	Common Name	Status	General habitat Description	Habitat Present/ Absent	Rationale
<i>Rana aurora draytoni</i>	California red-legged frog	FT SSC	Marshes, slow-moving water; prefers areas with plant cover	A	No suitable habitat present within project impact area
<i>Riparia riparia</i>	bank swallow	ST	Riparian and lowland habitats; vertical banks/cliffs with fine-textured sandy soils required for nesting	A	No suitable habitat present within project impact area
<i>Scaphiopus hammondi</i>	western spadefoot toad	FSC SSC	Breeds in vernal pools; inhabits underground burrows most of year	P	Suitable habitat present within project impact area
<i>Selasphorus rufus</i>	Rufous hummingbird	FSC	Open woodlands, scrub, and chaparral	A	No suitable habitat present within project impact area.
<i>Spirinchus thaleichthys</i>	longfin smelt	FC SSC	Estuaries; spawns in fresh water over sandy gravel substrates, rocks, and aquatic plants	A	Outside of known range.
<i>Spizella breweri</i>	Brewer's sparrow	FSC	Sagebrush and alpine meadows.	A	No suitable habitat present with project impact area.
<i>Thamnophis gigas</i>	giant garter snake	FT ST	Sloughs, ponds, irrigation canals, rice fields and small lakes with open basking sites and uplands for winter hibernation retreats	P	Suitable habitat present in project area.
<i>Toxostoma redivivum</i>	California thrasher	FSC	Chaparral, foothills, dense shrubs in parks or gardens. Resident in California west of Sierra Nevada.	A	No suitable habitat present within project impact area.

BOGGS LAKE HEDGE-HYSSOP

This species is designated as endangered pursuant to the California Endangered Species Act (CESA) and is a CNPS List 1B species. This small, semi-aquatic herbaceous annual grows in shallow waters or moist clay soils of vernal pools and lake margins up to 7,800 foot elevation (CNPS 2001, CDFG 2005). This species has a current range that includes Fresno, Lake, Lassen, Madera, Merced, Modoc, Placer, Sacramento, Shasta, Siskiyou, San Joaquin, Solano, and Tehama counties, with one occurrence was found in Lake County, Oregon (CNPS 2001, CDFG 2005).

The CNDDDB showed seven occurrences of this species within five miles of the Plan Area, with the closest documented occurrence (CNDDDB Occurrence No. 81) located approximately 0.14 miles east of the Plan Area. This population is uprooted due to development. The closest population presumed to be still in existence (CNDDDB Occurrence No. 34) is located approximately 0.44 miles south of Gerber Road between South Watt Avenue and Bradshaw Road (CDFG 2003). Vernal pools within the project area represent potential habitat for this species. Construction could result in the disturbance or removal of freshwater marsh and vernal pools that could provide habitat for this species. This impact would be **potentially significant**. With the incorporation of mitigation measures, this impact can be reduced to **less than significant**.

DWARF DOWNINGIA

This species is designated as a CNPS List 2 species. This small herbaceous annual is found in vernal pools, seasonal wetland swales and man-made features such as tire ruts, scraped depressions, stock ponds and roadside ditches (Hickman 1993, CNPS 2001, CDFG 2003, Placer County 2003). This species blooms from March through May and typically is found at elevations from sea level to 1,460 feet (CNPS 2001). This species has a current range that includes Mariposa, Merced, Napa, Placer, Sacramento, Solano, Sonoma, Stanislaus, Tehama, and Yuba counties (CNPS 2001).

The CNDDDB showed two occurrences of this species within five miles of the Plan Area, with the closest documented occurrence (CNDDDB Occurrence No. 54) located approximately 1.35 miles south of the Plan Area, south of Sheldon Road between Elk Grove-Florin Road and Bradshaw Road (CDFG 2003). This population is presumed to still be in existence. Vernal pools within the project area represent potential habitat for this species. Construction could result in the disturbance or removal of freshwater marsh and vernal pools that could provide habitat for this species. This impact would be **potentially significant**. With the incorporation of mitigation measures, this impact can be reduced to **less than significant**.

LEGENERE

This species is designated as a CNPS List 1B species. This annual herb has been documented as occurring in a variety of seasonally inundated environments, including wetlands, wetland swales, marshes, vernal pools, artificial ponds and floodplains of intermittent drainages at elevations up to 2,900 feet above mean sea level (CNPS 2001,

CDFG 2003, Placer County 2003). This species has a current range that includes Lake, Napa, Placer, Sacramento, Shasta, San Mateo, Solano, Sonoma, Stanislaus and Tehama counties (CNPS 2001). The species is believed to be uprooted from Sonoma and Stanislaus counties (CNPS 2001).

The CNDDB showed thirteen occurrences of this species within five miles of the Plan Area, with the closest documented occurrence (Occurrence No. 60) located approximately 0.55 miles south of Gerber Road between South Watt Avenue and Bradshaw Road (CDFG 2003). This population is located in a preserve and is believed to still be in existence. Vernal pools within the project area represent potential habitat for this species. Construction could result in the disturbance or removal of freshwater marsh and vernal pools that could provide habitat for this species. This impact would be **potentially significant**. With the incorporation of mitigation measures, this impact can be reduced to **less than significant**.

SACRAMENTO ORCUTT GRASS

This species is designated as endangered pursuant to both the federal and California Endangered Species Act, FESA and CESA respectively. This annual herb is endemic to the southeastern Sacramento Valley, with all known occurrences restricted to Sacramento County (Keeler-Wolf *et al.* 1998, as cited in USFWS 2003). This species occurs in vernal pools at elevations ranging from 100 to 330 feet above mean sea level and blooms from April through July (CNPS 2001). The median area of occupied pools discovered prior to 1988 was 0.69 acre and ranged from 0.25 to 2.03 acres (USFWS 2003).

The CNDDB showed three occurrences of this species within five miles of the Plan Area, with the closest documented occurrence (Occurrence No. 20) located approximately 0.11 miles east of Excelsior Road near the intersection of Florin Road (CDFG 2003). This population is presumed to still be in existence. Vernal pools within the project area represent potential habitat for this species. Construction could result in the disturbance or removal of freshwater marsh and vernal pools that could provide habitat for this species. This impact would be **potentially significant**. With the incorporation of mitigation measures, this impact can be reduced to **less than significant**.

SLENDER ORCUTT GRASS

This species is designated as threatened and endangered by both FESA and CESA, respectively. This annual herb occurs in vernal pools, primarily on substrates of volcanic origin at elevations ranging from 115 to 5,775 feet above mean sea level (CNPS 2001, Crampton 1959, Corbin and Schoolcraft 1989; as cited in USFWS 2003). This species blooms from May through October. While this species is known to occur in the same types of vernal pool complexes as Sacramento orcutt grass, these species have not been observed in the same vernal pool (USFWS 2003). The species has a current range that includes Lake, Lassen, Plumas, Sacramento, Shasta, Siskiyou and Tehama counties (CNPS 2001).

The CNDDDB showed three occurrences of this species within five miles of the Plan Area, with the closest documented occurrence (Occurrence No. 90) located approximately 0.20 miles east of Excelsior Road between Calvine Road and Gerber Road (CDFG 2003). This population is presumed to still be in existence. Vernal pools within the project area represent potential habitat for this species. Construction could result in the disturbance or removal of freshwater marsh and vernal pools that could provide habitat for this species. This impact would be ***potentially significant***. With the incorporation of mitigation measures, this impact can be reduced to ***less than significant***.

SANDFORD'S ARROWHEAD

This species is designated as a CNPS List 1B species. This herbaceous perennial is found in shallow freshwater marshes, swamps, ponds, and ditches at elevations up to 2,000 feet. This species blooms from May through October and has a current range that includes Butte, Del Norte, Fresno, Kern, Merced, Orange, Sacramento, San Joaquin, Shasta, Tehama and Ventura counties (CNPS 2001).

The CNDDDB showed twenty occurrences of this species within five miles of the Plan Area, with the closest documented occurrence (Occurrence No. 18) located approximately 0.06 miles southwest of the Plan Area (CDFG 2003). This population is presumed to be uprooted. The closest population presumed to still be in existence is located 0.22 miles north of Jackson Road between South Watt Avenue and Bradshaw Road (CDFG 2003). The ditches, marsh and ponds within the Plan Area provide potentially suitable habitat for this species.

MITIGATION MEASURE: SPECIAL-STATUS PLANTS

BR-2. A qualified botanist shall conduct a special-status plant survey of all vernal pool and freshwater marsh habitat occurring along the project roadways. These surveys shall be conducted during the appropriate time of year for the blooming period of the potentially occurring species (April, May, and late June). Survey protocols outlined by the DFG shall be followed. If focused surveys are conducted for all special-status plants with potential to be affected by the proposed project and all of them are confirmed to be absent, no additional mitigation would be required. Populations of special-status plant species that are encountered and would be potentially affected by implementation of the proposed project shall be evaluated for their biological importance based on their known distribution and other pertinent data. If it is determined, based on this evaluation, that an impact on special-status plant populations would occur, then the applicant shall obtain a "take" authorization and mitigate for the impact by developing a mitigation plan in coordination with DFG and/or USFWS. Mitigation measures may include creation of offsite populations, through seed collection or transplanting, preserving and enhancing existing populations, or restoring or creating suitable habitat in sufficient quantities to compensate for the impact.

VALLEY ELDERBERRY LONGHORN BEETLE

The valley elderberry longhorn ~~neetle~~ beetle (*Desmocerus californicus dimorphus*) is a federally listed as threatened species. Adult beetles of this subspecies feed and lay eggs on the elderberry (*Sambucus* sp.) shrubs in riparian communities of the Central Valley. Females lay eggs in crevices in the elderberry bark. After approximately ten days, the eggs hatch and the larvae bore into elderberry shrub stems to feed and mature (Essig Museum, 1999).

In the Central Valley, the elderberry shrub is found in riparian forests which occur along rivers and streams. Although the beetle historically occupied the entire valley, recent surveys show that the beetle is today only scattered in vicinities along the Sacramento, American, San Joaquin, Kings, Kaweah, and Tule rivers and their tributaries (Essig Museum, 1999).

No elderberry shrubs were identified within the Plan Area during the August 2006 surveys. The proposed project will have **no impact** to valley elderberry longhorn beetle.

VERNAL POOL CRITICAL HABITAT

This type of habitat is determined critical habitat by the USFWS as being occupied at the time of listing, containing the primary constituent elements essential to the conservation of the species, and additional areas found to be essential to the conservation of the species. Although there may be other areas that represent suitable habitat for the species and other species may be present, critical habitat has been identified by the USFWS as habitat whose preservation is critical to the conservation of the species, primarily vernal pool branchiopods.

The CNDDB showed three occurrences of vernal pool fairy shrimp critical habitat (Plate BR -19), with Unit 11E as the closest occurrence within five miles of the Plan Area, near the northeastern portion of the Plan Area. The other two occurrences, Units 11F and 11G are located over five miles southeast of the Plan Area (USFWS 2006). Project construction near Unit 11E has the potential to indirectly affect vernal pool critical habitat. This impact is considered **potentially significant**. With the incorporation of mitigation measures, this impact can be reduced to **less than significant**.

*VERNAL POOL SPECIES***VERNAL POOL FAIRY SHRIMP**

This species is designated as threatened pursuant to the FESA. This species inhabits seasonal ponds, vernal pools and swales during the wet season, generally December through May and in a variety of pool sizes ranging from less than 0.001 acres to over 24.5 acres (Eriksen and Belk 1999). Once colder water (50⁰ F or less) fills the pool the shrimp hatches from cysts and matures in as little as 18 days in optimal conditions. Once maturity is reached, mating occurs and cysts are dropped. This species are found

in disjunct patches dispersed around the Central Valley from Shasta to Tulare counties, the central and southern Coast Ranges from northern Solano to Ventura counties and three areas in Riverside County (USFWS 2003). Loss and fragmentation of habitat is as a result of conversion of vernal pool habitat to urban and agricultural uses and appears to be the primary reason for decline of this species.

The wetland delineation identified 0.898 acres of vernal pools within the project impact area. Construction of the proposed roadways could directly ~~effect~~ affect these vernal pools. This impact is considered **significant**. With the incorporation of mitigation measures, this impact can be reduced to **less than significant**.

VERNAL POOL TADPOLE SHRIMP

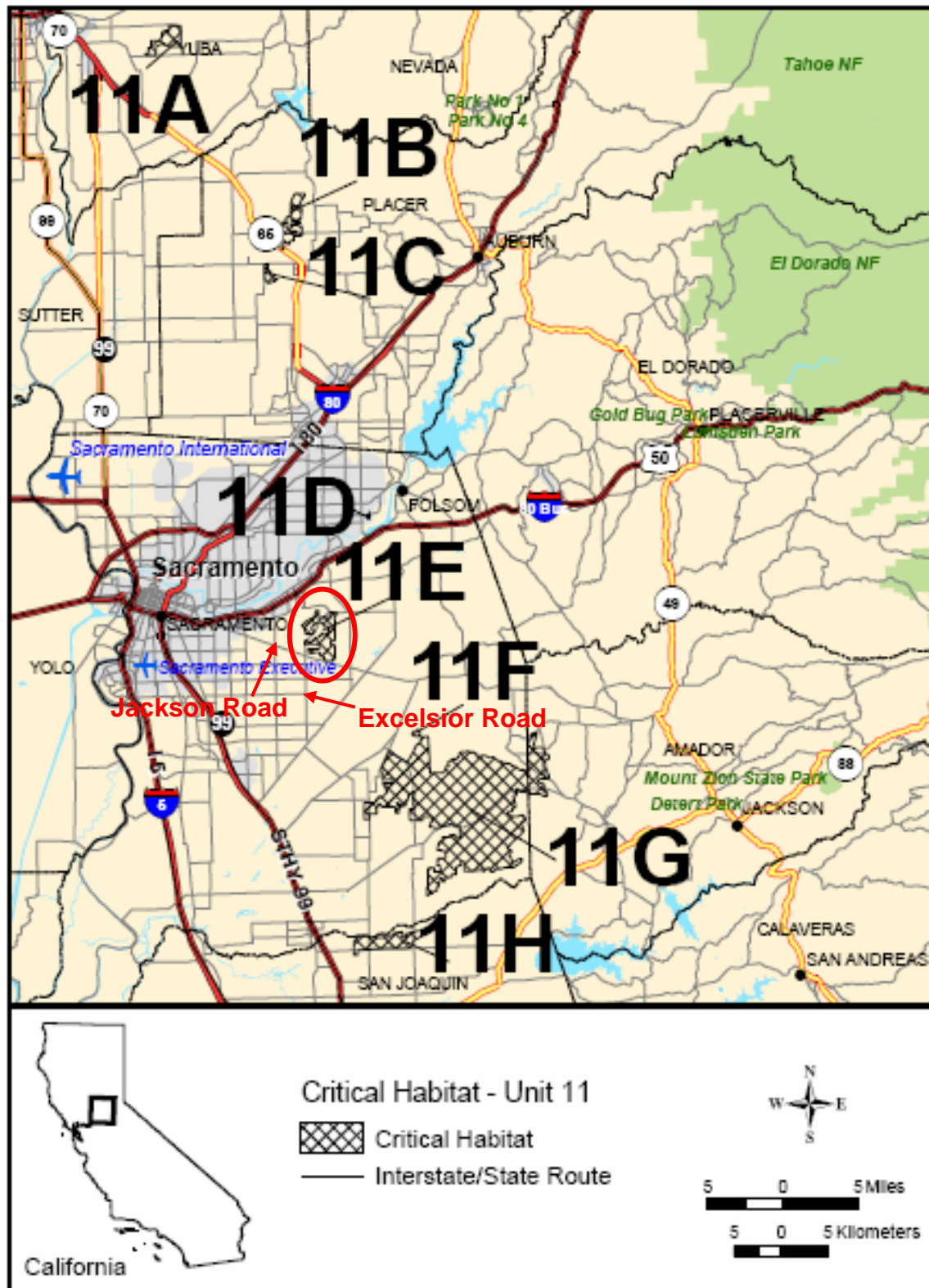
This species is designated as endangered pursuant to FESA. This species inhabits vernal pools containing clear to highly turbid water ranging in size from 0.001 to 89.0 acres (USFWS 1994). This shrimp has a large shield-like carapace that covers the anterior half of their body, unlike the other shrimp species discussed in this chapter. Cysts hatch during the wet season, maturing slowly over a few weeks. Once mature, they are long-lived compared to other shrimp species and continue to grow as long as the pools where they inhabit remain inundated, possibly living as long as six months or more (USFWS 2003). This species are found ranging from Shasta to northern Tulare counties in the Central Valley and in the central Coast Range from Solano to Alameda counties (USFWS 2003). Loss and fragmentation of habitat is as a result of conversion of vernal pool habitat to urban and agricultural uses and appears to be the primary reason for decline of this species.

The wetland delineation identified 0.898 acres of vernal pools within the project impact area. Construction of the proposed roadways could directly ~~effect~~ affect these vernal pools. This impact is considered **significant**. With the incorporation of mitigation measures, this impact can be reduced to **less than significant**.

WESTERN SPADEFOOT TOAD

This species is designated as a CDFG species of special concern. This species is mostly terrestrial, but requires temporary rain pools, such as vernal pools and seasonal wetlands or pools within portions of intermittent drainages to reproduce (Jennings and Hayes 1994). Breeding and egg laying occurs at night typically between late February and May and eggs are deposited on submerged debris and vegetation. Adults will burrow into sandy or gravelly soils. According to species information, adults are unable to reproduce successfully in the presence of exotic predators, primarily introduced fishes, but also bullfrogs and crayfish (Jennings and Hayes 1994). They are found at elevations below 4,475 feet. This species has a current range from the Redding area, Shasta County southward to northwestern Baja California.

Plate BR -19 – Vernal Pool Critical Habitat



The proposed roadway projects will impact vernal pools and seasonal wetlands along the corridors. Surveys did not detect western spadefoot toad, however these areas are considered potential habitat for the species. Impacts due to construction are considered **potentially significant**. With the incorporation of mitigation measures, this impact can be reduced to **less than significant**.

MITIGATION MEASURE: VERNAL POOL SPECIES AND CRITICAL HABITAT

BR-3. The applicant shall compensate for indirect effects to vernal pool species and critical habitat through consultation with the U.S. Fish and Wildlife Service as outlined in Section 7 of the Endangered Species Act. The applicant shall implement all measures included in the Biological Opinion issued as a result of this consultation.

FISH

No critical habitat or spawning habitat is present within the Plan Area; however, sediment runoff to Morrison, Elder, Laguna, Gerber or Florin Creeks or their tributaries is possible. Downstream of the Plan Area waterways there are federally and/or California-listed fish species, Central Valley Evolutionarily Significant Units (ESU), anadromous salmonids, such as Central Valley steelhead, fall-run Chinook salmon, and spring-run Chinook salmon. Other special status fish that could be found downstream of the Plan Area include delta smelt and Sacramento perch.

There are no immediate fish issues associated with the Plan Area. Morrison, Elder, Laguna, Gerber, and florin creeks have not been designated as critical habitat for any federally and/or California listed fish species. However, impacts to Morrison, elder, Laguna, Gerber or florin creeks or their tributaries via sediment runoff could potentially be viewed by regulatory agencies as affecting downstream conditions for federally and/or California listed fish species, Central Valley ESUs, anadromous salmonids, such as Central Valley steelhead, fall-run Chinook salmon, spring-run Chinook salmon. Other special-status fish that could be affected by sediment runoff include delta smelt and Sacramento perch. Impacts due to sediment runoff are considered **potentially significant**. With the incorporation of mitigation measures, this impact can be reduced to **less than significant**.

MITIGATION MEASURES: FISH

BR-4. The applicant shall prepare and implement an erosion control and water quality protection plan that will be subject to the review and approval of the County Department of Water Resources. The Plan shall include, but not be limited to, the following measures to protect water quality during construction:

1. Construction activities within the area of the Ordinary High Water (OHW) line shall be limited to the period from May 30th to October 1st of each construction year.

2. Construction activities that occur between October 15 and May 15 within the floodplain, but above the OHW line, shall be limited to those actions that can adequately withstand high river flows without resulting in the inundation of and entrainment of materials in floodflows.
3. Stockpiling of construction materials, including portable equipment, vehicles and supplies, including chemicals, will be restricted to the designated construction staging areas and exclusive of the wetlands avoidance areas.
4. Erosion control measures that prevent soil or sediment from entering the creeks shall be emplaced, monitored for effectiveness, and maintained throughout the construction operations.
5. Refueling of construction equipment and vehicles within the floodplain shall only occur within designated, paved, bermed areas where possible spills will be readily contained.
6. Between October 15 and May 15, truck and cement equipment wash-down will not occur within the floodplain.
7. Equipment and vehicles operated within the floodplain shall be checked and maintained daily to prevent leaks of fuels, lubricant or other fluids to the creeks.
8. Litter and construction debris shall be removed from below the OHW line daily, and disposed of at an appropriate site. All litter, debris and unused materials, equipment or supplies shall be removed from construction staging areas above OHW at the end of each summer construction season.
9. No on-site harvesting of in-situ gravels shall occur for temporary landings and ramps. Where additional earth material is required below the OHW line, clean washed gravels (from an off-site commercial/permitted source) will be the preferred material. If another type of engineered fill is required, it will likewise be obtained from an off-site permitted source, and all excess earth material will be properly disposed of outside the floodplain upon completion of the construction phase. If it is determined by DFG that the clean washed gravels used for fill would benefit fisheries, these clean washed gravels may be left on-site consistent with the DFG Streambed Alteration Agreement.

AMPHIBIANS AND REPTILES

The plant communities and environmental conditions observed within the Plan Area support potentially suitable habitat for one amphibian, the Western spadefoot toad (*Spea hammondi*) (discussed within the context of vernal pool species), and two

reptiles, the Northwestern pond turtle (*Clemmys marmorata marmorata*) and the Giant garter snake (*Thamnophis gigas*).

NORTHWESTERN POND TURTLE

This species is designated as a CDFG species of special concern. This species are mostly aquatic; however they leave the aquatic environment in the fall to reproduce and overwinter (Jennings and Hayes 1994). Their aquatic habitat includes fresh and brackish water habitats, ponds, marshes, lakes, and slow-moving streams. Adults mate generally during late April and early May and eggs are deposited between late April and early August in excavated nests in upland areas with high clay or silt substrates in the vicinity of aquatic areas. Hatchlings and juveniles require shallow water with dense submerged or short emergent vegetation for foraging. The majority of nesting sites are within 650 feet of aquatic habitat; however, sites have been recorded at 1,310 feet from aquatic habitat.

The proposed roadway projects will impact marsh, ponds, and slow moving streams along the corridors. While surveys did not detect northwestern pond turtle, these areas are considered potential habitat for the species. Impacts due to construction are considered ***potentially significant***. With the incorporation of mitigation measures, this impact can be reduced to ***less than significant***.

GIANT GARTER SNAKE

This species is designated as threatened pursuant to both FESA and CESA. This species typically inhabits perennial ponds, marshes, slow moving streams and agricultural ditches with adequate water during the spring and summer months. This species is endemic to the Sacramento and San Joaquin valley floors and historically ranged from Butte County to Buena Vista Lake in Kern County.

The proposed roadway projects will impact marsh, ponds, and slow moving streams along the corridors. While surveys did not detect giant garter snake, these areas are considered potential habitat for the species. Impacts due to construction are considered ***potentially significant***. With the incorporation of mitigation measures, this impact can be reduced to ***less than significant***.

MITIGATION MEASURES: AMPHIBIANS AND REPTILES

NORTHWESTERN POND TURTLE

BR-5. A qualified biologist shall inform all construction personnel that protected turtles may occur in the area. A description of their natural history and identifying characteristics shall be provided. The personnel shall be further instructed as the proper techniques for handling and relocating turtles, should relocation be required.

- BR-6. If a turtle of any species enters an active construction area, or is in imminent danger, construction personnel (or the on-call wildlife biologist) shall carefully remove the turtle to a point at least 300 feet downstream of the project limits and within similar habitat.

GIANT GARTER SNAKE

- BR-7. All construction activity within giant garter snake habitat (aquatic habitat and adjacent upland habitat within 200 feet of aquatic habitat) should be conducted between May 1 and October 1.
- BR-8. Construction and maintenance personnel should participate in a USFWS approved worker environmental awareness training program. Under the guidelines of this program, workers should be informed about the presence of GGS and habitat associated with this species.
- BR-9. Any dewatered habitat must remain dry for at least 15 days after April 15 and prior to excavating or filling of the dewatered habitat.
- BR-10. The site will be inspected by a Service-approved biologist within 24-hours of commencement of construction activities. The monitoring biologist will be available thereafter; if a snake is encountered during construction activities, the monitoring biologist shall have the authority to stop construction activities until appropriate corrective measures have been completed or it is determined that the snake will not be harmed. Giant garter snakes encountered during construction activities should be allowed to move away on their own. The biologist shall report within one working day to the Service any incidental take. The project area shall be re-inspected whenever a lapse in construction activity of two weeks or greater has occurred.
- BR-11. The Department of Fish and Game shall be included in any consultation with the Service regarding the dual listed GGS. If the Service issues a Biological Opinion related to the GGS and proposed project, then under section 2080.1 of the Fish and Game Code, the Department of Fish and Game shall be notified and a take authorization obtained.
- BR-12. Clearing of wetland vegetation will be confined to the minimal area necessary to excavate toe of bank for riprap or fill placement. Excavation of channel for removal of accumulated sediments will be accomplished by equipment located on and operated from the top of the bank, with the least interference practical for emergent vegetation.
- BR-13. Minimize habitat disturbance by restricting movement of heavy equipment to and from the project site to established roadways and areas designated for construction and staging.

- BR-14. During project activities, properly contain or remove all trash that may attract predators to the worksite. Following construction, all trash and construction debris shall be removed from work areas.
- BR-15. No plastic, monofilament, jute, or similar erosion control matting that could entangle snakes shall be placed on the project site when working within 200 feet of snake aquatic habitat. Possible substitutes include coconut coir matting, tackified hydroseeding compounds, or other materials approved by the Service.
- BR-16. After completion of construction activities, remove any temporary fill and construction debris and, wherever feasible, restore disturbed areas to pre-project conditions. Restoration work may include such activities as replanting species removed from banks or replanting emergent vegetation in the active channel.

BIRDS

The plant communities and environmental conditions observed within the Plan Area support potentially suitable habitat for a variety of nesting, foraging, and/or wintering special-status birds. These birds include the burrowing owl (*Athene cunicularia*), cooper's hawk (*Accipiter cooperii*), ferruginous hawk (*Buteo regalis*), golden eagle (*Aquila chrysaetos*), loggerhead shrike (*Lanius ludovicianus*), nesting swallows, northern harrier (*Circus cyaneus*), prairie falcon (*Falco mexicanus*), Swainson's hawk (*Buteo swainsoni*), tricolored blackbird (*Agelaius tricolor*), white-tailed kite (*Elanus leucurus*).

BURROWING OWL

Burrowing Owl (*Athene cunicularia hypugnea*) is identified by the CDFG as a species of special concern. The burrowing owl is a small terrestrial owl commonly found in open grasslands and other sparsely vegetated habitats. The species occurs throughout the western United States, southern Canada, and portions of Central and South America. Burrowing owls typically utilize the burrows or "burrow starts" of other animals (especially mammals) for nesting. In California, burrowing owls most commonly use the burrows of ground squirrels. Breeding occurs from April to mid-August, with peak periods between April and May.

Burrowing owls are becoming increasingly rare in many parts of their range, including the Central Valley. Urbanization of flat lands, agricultural disturbance, and rodent eradication efforts are considered principal factors in the burrowing owl's decline.

No burrowing owls were observed during the field surveys. However, suitable habitat does exist along the project corridors, and burrowing owls could inhabit these areas at the time of construction. This is considered a **potentially significant** impact. With the incorporation of mitigation measures, this impact can be reduced to **less than significant**.

NESTING SWALLOWS

Cliff swallow (*Petrochelidon pyrrhonota*) and barn swallow (*Hirundo rustica*) may be found within the project area at roadway creek crossings. The mud nests built by both of these species are a typical occurrence on the eaves of buildings and bridges. These species are protected under the Migratory Bird Treaty Act, which makes it unlawful to take any migratory bird. Bridge construction activities could affect nesting colonies of swallows. This is considered a **potentially significant** impact. With the incorporation of mitigation measures, this impact can be reduced to **less than significant**.

SWAINSON'S HAWK

This species is designated as a threatened species pursuant to CESA. This species utilizes tall trees for nesting in a variety of communities, including riparian, oak woodland, roadside landscape corridors, urban areas and agricultural areas. Nesting typically takes place from mid-March through late August in California and this species can be found nesting in North America (Canada, western United States and Mexico). While most populations of this species fly south to Mexico through South America, there is a small population that has been documented to spend winter in the Sacramento-San Joaquin River Delta (England et al, 1997). Foraging habitat includes open grassland, savannah, low-cover row crop fields and livestock pastures. This species can be found foraging in areas where agricultural mowing, harvesting and discing activities occur as this clearing of land allows prey to be more accessible to the hawk.

There are 25 occurrences of Swainson's hawk within five miles or less of the project area. While no Swainson's hawks were observed during field surveys, construction activities have the potential to disturb Swainson's hawks that may nest in this area. This is considered a **potentially significant** impact. With the incorporation of mitigation measures, this impact can be reduced to **less than significant**.

OTHER RAPTORS

Other raptors include red-tailed hawk (*Buteo jamaicensis*), red-shouldered hawk (*B. lineatus*), American kestrel (*Falco sparverius*), great horned owl (*Bubo virginianus*), Cooper's hawk (*Accipiter cooperii*), ferruginous hawk (*Buteo regalis*), white-tailed kite (*Elanus leucurus*), and golden eagle. Generally raptor nesting occurs from late February/early March through late July/early August, depending upon the species and various environmental conditions. Construction activities have the potential to disturb raptors that may nest in this area. This is considered a **potentially significant** impact. With the incorporation of mitigation measures, this impact can be reduced to **less than significant**.

TRICOLORED BLACKBIRD

This species is designated as a species of special concern by the CDFG. They nest in colonies that range in number from several pairs to several thousand pairs, depending upon prey availability, presence of predators or level of human disturbance. They are a

nomadic species typically nesting from April through June in emergent marsh, riparian thickets and blackberry brambles usually with nearby standing water or ground saturation. Foraging activities take them into open grassland and agricultural fields. This species has a current range throughout the Central Valley and Coast Range.

One documented nesting tricolored blackbird occurrence within the Plan area was identified (CNDDDB occurrence No. 305). This population was documented near Bradshaw Road and Morrison Creek (CDFG 2003). However, full improvements have already been constructed on this bridge as a part of the Bradshaw Road Widening Project (01-PWE-0471), and the identified population of the species will not be affected by the construction activities proposed in this document. Other creek crossings have potentially suitable habitat, and construction activities have the potential to affect tricolored blackbird in those locations. This is considered a **potentially significant** impact. With the incorporation of mitigation measures, this impact can be reduced to **less than significant**.

MITIGATION MEASURES: BIRDS

BURROWING OWL

- BR-17. A qualified biologist will perform burrowing owl surveys in order to determine burrow locations within 30 days of site disturbance. Surveys and the survey report shall be performed according to California Department of Fish and Game (CDFG) guidelines. The survey report will be submitted to the CDFG and to the Department of Environmental Review and Assessment for approval prior to construction.
- BR-18. All project construction within 160 feet of occupied burrows during the non-breeding season of September 1 through January 31 or within 250 feet during the breeding season of February 1 through August 31 of the project area shall be clearly marked with flags to identify burrow locations.
- BR-19. Construction equipment and personnel shall remain on paved and previously disturbed areas except where necessary to install the new pavement.
- BR-20. If project areas off of the access road are within 160 feet of occupied burrows, passive relocation methods shall be applied per CDFG guidelines. Passive relocation requires the use of one-way exclusion doors which must remain in place 48 hours prior to site disturbance to insure owls have left the burrow prior to construction.

NESTING SWALLOWS

- BR-21. Weekly inspection of the bridge and pier structures for nesting activity by a qualified biologist shall begin prior to March 1st. If cliff swallows begin colonizing the existing or new bridge prior to the beginning construction work, all nest precursors (mud placed by the swallows for the construction of nests) shall be

washed down at least once daily until swallows cease trying to construct nests. However, under no circumstances can this activity result in the harm or death to any adult swallows or their eggs. Completed nests cannot be removed without a permit from the USFWS.

SWAINSON'S HAWK AND OTHER RAPTORS

BR-22. If construction, grading, or project-related improvements are to occur between March 1 and September 15, a focused survey for raptor nests on the site and on nearby trees (within ½ mile of the site) shall be conducted by a qualified biologist within 14 days prior to the start of construction work (including clearing and grubbing). If active nests are found, the California Department of Fish and Game (CDFG) shall be contacted to determine appropriate protective measures. If no active nests are found during the focused survey, no further mitigation will be required.

TRICOLORED BLACKBIRD

BR-23. In order to mitigate potential impacts to tricolored blackbird (TBB), two pre-construction surveys of the project impact area and areas of appropriate habitat within 100 yards of the site shall be performed by a qualified biologist. The surveys shall be done during the months of March and April (one each month) the year of project construction. If tricolored blackbirds are found nesting within the survey area, project construction shall be postponed until fledging of all nestlings (about July 15). If no tricolored blackbirds are found during the pre-construction survey, no further mitigation would be required.

BR-24. If breeding or nesting tricolored black birds are found the following will need to be performed. Prior to construction, the project proponent will need to submit a TBB Mitigation Plan to the CDFG for review and approval. The plan should include the following measures:

- 1 Perform preconstruction surveys to determine the number of nesting or breeding TBB and amount of nesting habitat onsite.
- 2 Avoidance of active nesting colonies should be practiced through establishment of temporary setbacks and fencing. A qualified biologist shall ~~verifies~~ verify that the setbacks and fencing are adequate and will determine when the colonies are no longer dependent on the nesting habitat (i.e. nestling have fledged and are no longer using habitat). Breeding season typically last from April to July.

BR-25. If existing TBB habitat is to be permanently destroyed it will be necessary to recreate nesting habitat on or adjacent to the site in wetland or riparian habitat by planting tules, cattails, native blackberries, etc, at an appropriate location. Open accessible water, foraging habitat with adequate insect prey nearby (0-2 km from nests) and nesting substrate protected from predators should be

present and adequately preserved and protected from future destruction. Habitat needs to be of adequate size (according to CDFG biologist) to support a breeding colony of similar or greater size to the one destroyed by construction.

NATIVE TREES

A tree inventory was conducted by an ECORP Consulting, Inc. arborist on October 6, 10 and 12, 2006. This inventory includes trees occurring on both sides of the project roadways within an approximate 100 foot width. Table BR-3 presents the results of this inventory.

NATIVE OAK

The preservation of oak trees enhances natural scenic beauty, sustains the long term potential increase in property values which encourages quality development, maintains the original ecology, retains the original tempering effect of extreme temperatures, increase the attractiveness of the County to visitors, helps to reduce soil erosion, increases the oxygen output of the area, and increases the overall aesthetic value and environmental quality of land for both humans and wildlife.

Native oak, when young trees, are very tolerant of their environment and make excellent and adaptable landscape assets. The mature native oak is an invaluable part of our environment, but any substantial change in its environment will weaken a healthy specimen and may eventually kill it. Native oak trees have adapted to the long dry summers of the Sacramento Valley, primarily through the development of their root system. The initial root is a taproot extending deep for more dependable moisture. As the oak grows, the taproot is outgrown by an extensive lateral root system that spreads horizontally out from the trunk to, and well beyond, the dripline. For a mature oak, this horizontal root system is the primary supporter of the tree for the rest of its life. It includes the important feeder roots, which absorb moisture and nutrients. Nearly all of the lateral root system occurs within the top five feet of the soil surface. In shallower soils, the root system is concentrated in even a shallower zone, typically 1 to 2 feet below the surface. As oak trees mature, particularly in the summer-dry Sacramento Valley, deep growing vertical roots form off the laterals, usually within ten feet of the trunk. These are called "sinker" roots and they exploit deeper soil moisture and add stability to an increasingly massive tree. By the time the mature tree has established an elaborate root system designed for its environment and particular site conditions, it has lost the vigor of youth. It is less tolerant to change and/or damage and can less easily support its massive living structure. The activities that are likely to cause significant impacts to mature oak trees are discussed below.

The amount of soil that can be removed from beneath an oak before permanent root damage occurs varies depending on several factors including the individual tree size, species, location, and health. Although small amounts of soils may sometimes be removed without permanently damaging an oak, it is generally recommended that no soil be removed and the area beneath the tree remain undisturbed. The addition of fill and the operation of heavy equipment beneath an oak tree which compacts the surface

soils, prohibits the natural exchange of gases between the feeder roots and the atmosphere, and also restricts water percolation to the root zone. Excessive moisture may also be trapped by fill, can also cause root and crown rot. There is no guarantee that additional soil can be safely added around a mature oak tree. Arborists usually recommend not tampering with the natural grade within the root zone, using retaining walls where necessary. The major damage done to oaks in fill operations occurs because the soil is first excavated down to firmer and denser layers. Roots are damaged and removed. Then fill and native soil are knitted together in successive layers, each usually compacted to 90% to form a firm base for development.

Paving can cause the same problems associated with soil compaction. Impervious paving, such as asphalt and concrete, prevent water percolation and the exchange of gases between roots, soil and the atmosphere. In addition, paving usually required excavation to create a stable base and to allow for depth of paving material. This process damages and removes roots and compacts the soil. Regardless of the type of surface covering, particularly paving, nothing should be placed within a 60-foot radius out from the base of an oak tree.

Mechanical damage to the trunk or limbs of oak trees is very detrimental, especially to older, less vigorous trees. Any wounds that remove bark and penetrate the cambium layer allows an opening for decay causing organisms. This can weaken a tree to the point of structural failure. The best cure in this case is prevention.

Chemical spill can be directly toxic to the roots. The best way to avoid this type of damage is to prevent vehicles from being parked near a tree and not to store any materials under or near a tree.

Good drainage is very important because oaks need a proper balance of moisture, air, and nutrients to grow and survive. Too much moisture, particularly during the warm growing months when the oak in nature is normally dry, can smother the roots and/or encourage the proliferation of crown and root rot fungus.

Trenching is an often-overlooked cause of oak tree death. Trenching usually occurs when utilities are installed, and can result in severing a significant portion of the total root area from a tree. A single three-foot deep trench at the dripline along one edge of an oak tree will remove approximately 15% of the roots. A similar trench made midway between the dripline and the trunk will remove approximately 30% of the roots. Trenches made within ten (10) feet of a large oak are considered very damaging. Severing any horizontal roots means the loss of any sinker roots that are attached beyond the point of severance. A root loss of 50% or greater usually cause immediate water stress and reduces photosynthesis (food production). Growth is reduced and die back, or death, may result.

Young, healthy, vigorous trees can survive moderate root loss, while large, old, or declining trees may not. Recovery following the shock of severe root loss depends on rapid root replacement. Root growth requires adequate food resources, growth stimulating hormones, water and minerals. If these are available and there are no other

restrictive influences or construction impacts, root growth and replacement will generally proceed rapidly. Low or depleted food reserves will delay root replacement. If the soil conditions have been altered by construction, root replacement will be slowed or stopped. A delay in recovery from root loss will result in growth loss, die back or death.

The worst time to cut roots is just prior to bud break in the spring because growth hormones are not present in the roots to stimulate root growth. Also, cutting roots later in the spring should be avoided as food reserves have been nearly depleted by leaf growth. Root growth proceeds most rapidly in the summer and fall when top growth has slowed, food reserves are high and growth hormones are present in the roots.

The tree survey revealed potential project impacts to a total of 333 native oaks with dbh 6 or greater, resulting in a 5,096 dbh impact. Removal of oaks within the project area is considered a **significant** impact.

NORTHERN CALIFORNIA BLACK WALNUT

The California Black Walnut occurs as two varieties within the Sacramento Valley. The Southern California Black Walnut is a common tree naturalized to the area by use as a landscaping plant. The Northern California Black Walnut (*Juglans californica* var. *hindsii*) is listed by the Federal Government as a "Species of Concern". The California Native Plant Society has ranked it as extremely rare (List 1B). All CNPS List 1B plants meet the definition of Sec. 1901, Chapter 10 (Native Plant Protection Act) or Secs. 2062 and 2067 (California Endangered Species Act) of the California Department of Fish and Game Code and are eligible for state listing. There are only two existing naturally occurring stands of Northern California Black Walnuts in the state of California (CNPS *Inventory of Rare and Endangered Vascular Plant of California*, p. 174). Mature Northern California Black Walnut trees are being lost to urbanization and clearing for agricultural uses.

The tree survey revealed potential project impacts to a total of 153 Northern California Black Walnuts with dbh 6 or greater, resulting in a 2,858 dbh impact. This impact is considered **significant**.

CALIFORNIA SYCAMORE

A tree survey revealed potential project impacts to a total of 17 California Sycamores with dbh 19 or greater, resulting in a 576 dbh impact. This impact is considered **significant**.

Table BR-3 Project Tree Inventory

Common Name	Species	Estimated Total Trees	Estimated Total DBH
Native Oak			
Valley Oak	<i>Quercus lobata</i>	261	3,787
Interior Live Oak	<i>Quercus wislizenii</i>	72	1,309
Total Oaks		333	5,096
Northern California Black Walnut	<i>Juglans californica</i> var. <i>hindsii</i>	153	2,858
California Sycamore	<i>Platanus racemosa</i>	17	576

Source: ECORP Consulting, Inc., 2006b

It should be noted that the project will be taking place along ten roadways over approximately 40 miles. This averages out to approximately 500 inches of oak removal, 280 inches of black walnut removal and 57 inches of sycamore removal for each roadway. In comparison, the Bradshaw Road Widening Project (01-PWE-0471 and 02-PWE-0460) estimated a removal of 793 inches of native oak trees along a 5-mile stretch of roadway. Also, the tree inventory identified trees within a 100-foot width of the current edge of pavement. This was done to provide a conservative estimate of potentially impacted trees due to roadway construction, easement requirements, and temporary work areas necessary during construction.

In addition, of the 333 native oaks identified for potential removal, only 97 (20%) are of heritage size (19-inches dbh or greater). Of the 153 black walnuts proposed for removal, 78 (51%) are of potential landmark size (19-inches dbh or greater). All California Sycamore trees identified for removal are greater than 19-inches dbh.

Due to the extended timeframe for construction of the proposed roadway projects, it is recommended that individual arborist reports are submitted to DERA upon the commencement of each roadway project. This will allow for an accurate depiction of the size, and health of the trees at the time of construction so that appropriate compensation can be implemented.

MITIGATION MEASURES: TREES

BR-26. As roadway projects within the project area are developed, the project proponent(s) shall submit an arborist report for the section of roadway proposed for development. The report shall include the species, diameter, dripline, and health of the trees, and shall be prepared by an ISA certified arborist.

BR-27. All native oak and California Black Walnut trees that are 6 inches dbh or larger (10 inches aggregate for multi trunk trees) and California Sycamore trees that are 19 inches dbh or larger on the project site are protected from possible impact. All portions of adjacent off-site native oak, California Black Walnut, and California Sycamore trees identified as being protected and have driplines that extend onto the project site or may be impacted by utility relocation and/or improvements associated with this project, shall be preserved and protected as follows:

1. A circle with a radius measurement from the trunk of the tree to the tip of its longest limb shall constitute the dripline protection area of each tree. Limbs must not be cut back in order to change the dripline. The area beneath the dripline is a critical portion of the root zone and defines the minimum protected area of each tree. Removing limbs that make up the dripline does not change the protected area.
2. Any protected trees on the site that require pruning shall be pruned by a certified arborist prior to the start of construction work. All pruning shall be in accordance with the American National Standards Institute (ANSI) A300 pruning standards and the International Society of Arboriculture (ISA) "Tree Pruning Guidelines."
3. Prior to initiating construction, temporary protective fencing shall be installed at least one foot outside the driplines of the protected trees within 100-feet of construction related activities, in order to avoid damage to the tree canopies and root systems.
4. Any removal of paving or structures (i.e. demolition) that occurs within the dripline of a protected oak tree shall be done under the direct supervision of a certified arborist. To the maximum extent feasible, demolition work within the dripline protection area of the oak tree shall be performed by hand. If the certified arborist determines that it is not feasible to perform some portion(s) of this work by hand, then the smallest/lightest weight equipment that will adequately perform the demolition work shall be used.
5. No signs, ropes, cables (except those which may be installed by a certified arborist to provide limb support) or any other items shall be attached to the protected trees. Small metallic numbering tags for the purpose of preparing tree reports and inventories shall be allowed.
6. No vehicles, construction equipment, mobile home/office, supplies, materials or facilities shall be driven, parked, stockpiled or located within the driplines of protected trees.
7. No grading (grade cuts or fills) shall be allowed within the driplines of protected trees.

8. Drainage patterns on the site shall not be modified so that water collects or stands within, or is diverted across, the dripline of any protected tree.
 9. No trenching shall be allowed within the driplines of protected trees. If it is absolutely necessary to install underground utilities within the dripline of a protected tree, the utility line shall be bored and jacked under the supervision of a certified arborist.
 10. The construction of impervious surfaces within the driplines of protected trees shall be stringently minimized. When it is absolutely necessary, a piped aeration system per County standard detail shall be installed under the supervision of a certified arborist.
 11. Trunk protection measures, per Sacramento County standards, shall be used for all protected trees where development/construction activity occurs within 10 feet of the trunk of a tree.
- BR-28. The removal of native Oak Trees and California Black Walnut, 6-inch dbh or larger, and the removal of California sycamore, 19-inches dbh or larger shall be compensated by planting native oak trees (valley oak/*Quercus lobata*, interior live oak/*Quercus wislizenii*, and blue oak/*Quercus douglasii*), native black walnuts (*Juglans hindsii*), and native sycamore (*Platanus racemosa*) equivalent to the dbh inches lost, based on the ratios listed below, at locations that are authorized by the Department of Environmental Review and Assessment.

Equivalent compensation based on the following ratio is required:

- one deepot seedling (40 cubic inches or larger) = 1 inch dbh
- one 15-gallon tree = 1 inch dbh
- one 24-inch box tree = 2 inches dbh
- one 36-inch box tree = 3 inches dbh

Prior to the approval of Improvement Plans or building permits, a Replacement Oak/Black Walnut Tree Planting Plan shall be prepared by a certified arborist or licensed landscape architect and shall be submitted to the Environmental Coordinator for approval. The Replacement Oak/Black Walnut Tree Planting Plan(s) shall include the following minimum elements:

1. Species, size and locations of all replacement plantings;
2. Method of irrigation;
3. The Sacramento County Standard Tree Planting Detail L-1, including the 10-foot deep boring hole to provide for adequate drainage;

4. Planting, irrigation, and maintenance schedules;
5. Identification of the maintenance entity and a written agreement with that entity to provide care and irrigation of the trees for a 3-year establishment period, and to replace any of the replacement oak trees which do not survive during that period.

No replacement tree shall be planted within 15 feet of the driplines of existing oak trees, black walnuts or landmark size trees that are retained on-site, or within 15 feet of a building foundation or swimming pool excavation. The minimum spacing for replacement trees shall be 20 feet on-center.

Examples of acceptable planting locations are publicly owned lands, common areas, and landscaped frontages (with adequate spacing). Generally unacceptable locations are utility easements (PUE, sewer, storm drains), under overhead utility lines, private yards of single family lots (including front yards), and roadway medians.

If tree replacement plantings are demonstrated to the satisfaction of the Environmental Coordinator to be infeasible for any or all trees removed, then compensation shall be through payment into the County Tree Preservation Fund. Payment shall be made at a rate of \$325.00 per dbh inch removed but not otherwise compensated, or at the prevailing rate at the time payment into the fund is made.

BR-29. Include Southgate Recreation and Park District in the coordination and identification of possible locations for tree replacement plantings.

8 CULTURAL RESOURCES

INTRODUCTION

Under CEQA, lead agencies must consider the effects of their projects on cultural resources. The project area encompasses portions of Elder Creek, Laguna Creek and other intermittent drainages, which were an important resource for food procurement and transportation in the prehistoric and historic periods of California history. Prehistoric sites have been identified along these watersheds. Additionally, the project area contains houses that are fifty (50) years or older. These factors indicate a potential sensitivity for cultural resources.

A cultural resource analysis was conducted by ECORP Consulting with a historical evaluation completed by Peak and Associates, Inc. for the project area. The following analysis contains portions of, and is based on, these reviews. The full cultural resource reports are available for review at the Department of Environmental Review and Assessment.

The following analysis provides an overview of all cultural resources on the project site and identifies any potential adverse impacts to them associated with the project. The analysis also recommends mitigation measures to reduce such impacts to a less than significant level.

CULTURAL HISTORY

The cultural history is described to examine current knowledge of the prehistoric and historic context and to define resources associated with that context, thereby establishing expectations for potential project level impacts.

PREHISTORY

The Sacramento area has a long prehistoric association. Indigenous people populated the Sacramento Valley region for thousands of years prior to the influx of Euro-American settlers in the mid-1800s. Archaeological evidence confirms that the initial occupation of California occurred prior to 8,000 years ago (Moratto 1984). The earliest inhabitants were apparently transient hunters and gatherers who exploited the various ecological zones on a seasonal rotation. As time progressed, more permanent settlements were established and food collecting became intensive, involving storage of food (Bennyhoff 1977: 11).

Cultural changes such as increasing density of people and intensive use of resources are what archaeologists seek to explain. The evolution of hunter - gatherers into complex societies is a process that has occurred relatively recently and is not fully understood. The archaeological record has the potential to reveal the chronological history of events as well as the mechanisms of change. Archaeologists look for correlations between different settlement strategies and different resources and technologies, or subsistence patterns. The development of sedentism, the process by which people shift from living in non-permanent settlements to living in permanent settlements, is one process that archaeologists seek to explain through analysis of settlement and subsistence patterns.

However, defining ethnic and linguistic groups archaeologically is very difficult. The archaeological record is only a fraction of the material culture of a group, and it is skewed towards inorganic materials that persist through time. Archaeological remains can reveal broad patterns, but they cannot be used to distinguish individual groups of people, such as a specific tribe. The broad patterns of the prehistory of Sacramento County are listed below:

Table CR-1 Archaeological Periods

Period	Archaeological Unit	Patterns
Archaic 6,000 B.C.–A.D. 1,000	Windmill 3,000 B.C.–500 B.C.	Social stratification inferred from burials; distant trade; flaked stone, bone, ground stone, baked clay, and shell items.
	Berkeley 500 B.C.– A.D. 500	Reliance on acorns; groundstone; mortar and pestle; extensive bone tool kit; unique knapping techniques; shell beads and pendants
	Augustine A.D. 500–A.D. 1800	Increased reliance on hunting, gathering, and fishing. Bow and arrow; extensive trade.

The above generalized patterns are described in more detail in terms of the North Vineyard Station Roadways project area in the proceeding sections.

PREVIOUS ARCHAEOLOGY

The earliest evidence of prehistoric occupancy of the Central Valley region is present at several sites on the eastern flanks of the San Joaquin Valley. Known as the Farmington Complex, these sites consist of flaked and ground stone artifacts that indicate use of the area approximately 10,000 years ago. Archaeological remains of this antiquity are rare in most of the region, possibly because of the deep alluvial sediments that have accumulated since that time. However, site locations such as Rancho Murieta to the east and the Borax Lake sites near Clear Lake to the northwest demonstrate Native American use of the entire Central Valley and its margins between 10,000 B.C. and 6,000 B.C. (Moratto 1984).

Utian populations are thought to have entered this portion of California about 4,000 years ago. The Windmill Pattern (Early Horizon), as defined by Fredrickson (1973), was first identified at the Windmill site (CA-SAC-107). Sites in this pattern are characterized by extended burials oriented toward the west and often contain grave goods, including baked clay balls, charmstones, and exotic minerals. Fishing and gathering of acorns are apparently emphasized. Elk, deer, pronghorn antelope, rabbits, and waterfowl were hunted in quantity. Villages appear to have been occupied year round and were situated along drainages. Radiocarbon dating of Windmill Pattern deposits points to an occupation beginning around 4,350 years ago (prior to 2,400 B.C.) and continuing until around 500 B.C. (Heizer 1949, Johnson 1982, Moratto 1984, Ragir 1972).

Most of what is known about the Early Horizon in the Central Valley comes from cemetery and habitation sites along the Cosumnes and Mokelumne Rivers. The typical site is stratified with later period components located above the basal Windmill Pattern deposits. Johnson (1982) notes that virtually all Early Horizon sites have some detectable midden, and every Windmill Pattern site in the lower Sacramento Valley and the Sacramento-San Joaquin Delta (Delta) known to date contains human remains. Meighan argues that the evidence for residential occupation or the presence of midden at the classic Early Horizon sites is very limited and that the sites actually represent specialized mortuary mounds (Meighan 1987).

The Windmill Pattern is succeeded from about 500 B.C. in the Delta to A.D. 500 in the Central Valley by the Berkeley Pattern (Middle Horizon). A refinement in subsistence strategies and eastward population movement related to Miwok occupation is suggested by this pattern (Moratto 1984). A distinct focus on acorns as a dietary staple is evident in the archaeological record of this period. Technologically, the Berkeley Pattern is distinguished from the Windmill Pattern by evidence of more frequent use of mortars and pestles; a well-developed bone industry; distinctive diagonal flaking of large, concave-based projectile points; and certain forms of Olivella and Haliotis shell beads and ornaments (Fredrickson 1973, Moratto 1984).

The third pattern defined by Fredrickson is the Augustine (Late Horizon), which appears to represent large, dense populations, each with a major tribelet center surrounded by smaller villages. Subsistence practices within this pattern include the development of

an intensive fishing industry, along with the hunting of game and the continued use of acorns (Fredrickson 1973); all these practices are seen in the archaeological record after about A.D. 500 (Moratto 1984). Native American populations appear to have been highly socialized and hierarchically stratified during this time. Both cremations and flexed burials were used. Cook (1955a) estimates that at least 50,000 individuals lived in the Sacramento Valley at one time, with dense population concentrations in the region. Complex exchange systems and elaborate ritual ceremonies became integral components of the Native American culture in the Central Valley during this time (Fredrickson 1973). Radiocarbon analysis has dated sites in the valley, such as the Blodgett site (CA-SAC-267) and CA-YOL-13 at Knights Landing, from A.D. 580 to A.D. 1605 (Elsasser 1978, Johnson 1982, Johnson et al. 1976, Kielusiak 1982, Moratto 1984).

Moratto (1984) postulates that the Augustine Pattern represents the southward incursion of Wintu populations and the introduction of many of the cultural materials found in archaeological contexts, including shaped mortars and pestles, bone awls, the bow and arrow, and shell and steatite beads. Pottery-making technology is also found in some parts of the Central Valley during the last prehistoric period (Moratto 1984).

ETHNOLOGY

Ethnography is the written record of a culture. Archaeology can be combined with ethnography to identify groups more specifically. Ethnographic records (from missions and other documents) show that the groups that inhabited Sacramento County are the Nisenan, or Southern Maidu, and the Plains Miwok, a subgroup of the Eastern Miwok.

The project area is located within the territory commonly attributed to the ethnographic Nisenan, sometime referred to as the Southern Maidu (Dixon 1905, Kroeber 1925, Wison and Towne 1978) and the Plains Miwok (Barrett 1908, Bennyhoff 1977, Levy 1978). The Plains Miwok traditional territory included the lower reaches of the Cosumnes and Mokelumne Rivers and extended west to the Sacramento River from Rio Vista north to Freeport (Levy 1978). Ethnographers generally agree that Nisenan territory included the drainages of the Bear, American, Yuba, and southern Feather Rivers and extended from the Sacramento River east to the crest of the Sierra Nevada (Beals 1933, Faye 1923, Gifford 1927, Kroeber 1925, Powers 1976, Wilson and Towne 1978). Although the project site is approximately several miles north of the Cosumnes River, which is commonly thought to comprise Plains Miwok territory, it is widely accepted that both the Nisenan and Plains Miwok may have utilized the area north of the Cosumnes River to the southern reaches of the American River.

PLAINS MIWOK

Several divisions or tribelets of the Plains Miwok occupied the region south of the traditional Nisenan territory. These included both the Bualacomne and Chapumne tribelets. In spite of references to this distinctive culture by the earliest Spanish explorers and recognition of Plains Miwok as a separate language by the mid-1840s

(Bennyhoff 1977), subsequent historic-era documents are rare. Knowledge of the pre-contact culture of the Plains Miwok is limited because of the devastating effects of Spanish missionization efforts and an 1830-1833 malaria epidemic in the area (Cook 1955b). By the time intensive ethnographic studies were conducted in California, the Plains Miwok culture had been largely forgotten. As a result, few ethnographic references remain from the late 1800s and early 1900s.

In 1961, James A. Bennyhoff conducted an extensive review of historical, archaeological, and ethnographic information on the Plains Miwok. The results of this investigation (Bennyhoff 1977), although of recent origin, provide an excellent database on this poorly understood group. Much of the following background discussion is presented there in more detail.

Each Plains Miwok tribelet was an independent political entity and functioned primarily within recognized tribelet boundaries. Large, multilineal villages were concentrated on rises along watercourses, and all but the smallest villages were occupied permanently, except during the fall acorn harvest (Bennyhoff 1977).

The economy of the Plains Miwok was based primarily on the collection of plant foods and augmented by fishing and hunting. As with many California native populations, the acorn served as the staple food item. A wide variety of seeds, nuts, roots, berries, and greens supplemented the diet. Birds, rodents, and small mammals were apparently of greater year-round dietary significance than elk, deer, or antelope (Bennyhoff 1977). Archaeological investigations at sites on South Stone Lake (CA-SAC-65 and CA-SAC-145) indicate a considerable reliance on fishing for subsistence among the prehistoric populations (Schulz and Simons 1973, Schulz et al. 1979).

The first contacts between the Plains Miwok and Euro-Americans came during Spanish military and religious expeditions. The Franciscan order of the Roman Catholic Church in Spain established Mission San Jose, the fourteenth in the Alta California system, on June 11, 1797 (Bennyhoff 1977, Hoover et al. 1990). Alferez Gabriel Moraga led an overland expedition from this San Francisco Bay area mission to the Sacramento region in 1808. On May 13, 1817, Father Narciso Duran and Luis Arguello left the beach at the Presidio of San Francisco and sailed up the Sacramento River. They reached a point midway between Clarksburg and Freeport before they turned back and went around Brannan Island (Beck and Haase 1974).

These encounters soon led to the missionization of the local Native Americans. Because of the combined deadly effects of massacres and introduced diseases, an irreversible disruption of the traditional Plains Miwok way of life was inevitable (Cook 1955a). By 1828, the names of the Plains Miwok tribelets near the Master Plan service area were no longer mentioned in the records of Mission San Jose (Bennyhoff 1977).

NISENAN

The Nisenan built their villages on low, natural rises along streams and rivers or on gentle slopes with a southern exposure, usually in places protected from flooding.

Village populations ranged from 15 to 500 people, with one village usually playing a dominant role in the sociopolitical organization of a particular area. The ethnographic village of Pusune or Pushuni (CA-SAC-26), located at the confluence of the American and Sacramento Rivers, served as the head village for the area (Wilson and Towne 1978).

Nisenan settlements varied from three to as many as 50 houses. Structures were dome-shaped; 10-15 feet in diameter; and covered with earth, tule mats, or grass. A variety of other structures, including sweat houses, dance houses, and acorn granaries, were also constructed (Kroeber 1925, Wilson and Towne 1978). Ethnographic village sites located along the American River area in Nisenan territory include Ekwo (on Sunrise Boulevard), Shiba (on Hazel Avenue), and Yodok (at Folsom) (Wilson and Towne 1978).

The Sacramento Valley and lower foothills were rich in natural resources, and the Nisenan took advantage of the wide variety of food sources. Waterfowl, fish, and freshwater mussels and clams were readily available in the rivers. Acorns were important to their diet and were supplemented with seeds, nuts, berries, herbs, and fruit. Except for lizards, snakes, and grizzly bears, virtually every animal was a food source, including tule elk, deer, and antelope. The Nisenan moved with the seasons, following game and collecting plants. Manzanita berries, pine nuts, black oak acorns, skins, bows and bow wood were traded to the valley people in exchange for fish, roots, grasses, shells, beads, salt, and feathers (Kroeber 1925, Wilson and Towne 1978).

Because early contact with the Spaniards was limited to the southern edge of their territory, the Nisenan were not affected by Spanish soldiers searching for mission converts in the late 1700s, although they often sheltered Plains Miwok who had escaped from the missions (Wilson and Towne 1978). In 1808, Gabriel Moraga crossed Nisenan territory, but it was not until the Hudson's Bay Company trappers journeyed through the region in the 1820s and 1830s that the first impacts on the native residents were felt. The fur trappers introduced malaria into the Central Valley, leading to an epidemic that decimated the local population in 1833. The Valley Nisenan were particularly affected by the disease, with entire villages wiped out (Wilson and Towne 1978). Cook (1955a) estimates that 75% of the Valley Nisenan population died during this epidemic.

John Sutter initiated further disruption when he introduced Plains Miwok into the region in the early 1840s and persuaded or forced the local Nisenan village people to either work for him or live peaceably with him. The Nisenan that had survived the epidemic and Sutter's working conditions had little chance against the gold miners that poured into the valley and foothills in the later 1840s. Most of the Nisenan population was completely eliminated by the mid-1850s (Wilson and Towne 1978). The survivors eked out a living working in agricultural activities, ranching activities, logging and/or in the domestic sphere (Wilson and Towne 1978).

HISTORY

Early Spanish explorers and the Franciscan and Jesuit missionaries who followed them were the first Europeans to reach northern California. The interior of the Sacramento Valley, away from the easily defended and more accessible chain of coastal missions and pueblos, was left largely untouched by the Spanish and “Californios” (Hoover et al. 1990). Established settlement of the Sacramento area did not begin until the late 1830s and early 1840s, when resourceful and independent individuals such as Sutter and Jared Sheldon obtained land grants from the Mexican government, usually in exchange for an agreement to protect Mexican interest in these remote interior regions (Beck and Haase 1974, Thompson and West 1880).

With the initial Euro-American settlement of Sacramento County by John Sutter in 1839 at what would become Sutter’s Fort, the established outpost brought with it an increase in Euro-American trappers, hunters and settlers to the area. After the arrival of Sutter, several individuals obtained large Mexican Land Grants in the area. As a result of the Mexican War (1847-1848), California became part of the territory of the United States. In 1848, gold was discovered at Sutter’s Mill in Coloma. With the discovery of gold in 1848, a torrent of settlers from the east flooded into the Sacramento region. As the population increased and easily found gold decreased, newcomers who decided to stay turned to alternative vocations, particularly agriculture. Many found land comparatively plentiful and cheap. Raising grain, livestock, and produce to sell to the thousands of miners heading to the gold fields proved a profitable venture. These combined events hastened the settlement of the area and the development of Sacramento as an economic and transportation center. The designation of Sacramento as the state capital, in 1854, also resulted in the area’s increase in socio-political importance.

The proposed project area is within the historical San Joaquin Township. This area of the county was not part of the original Mexican land grants nor is it in an area that was utilized for extensive mining. Past use of the area has focused primarily on agricultural endeavors associated with ranches, dairy and other farms, and orchards, which occurred after the initial gold rush. As such since 1849, use of the area has largely consisted of family farming and ranching operations crossed by transportation corridors.

According to the ECORP report:

Little occurred in the Elk Grove area until 1850 when James W. Hall built a hotel and stage stop and named them Elk Grove, apparently after his hometown in Missouri. By 1853, settlers in the area had established a school about 3 1/2 – miles to the south of the project area, called the San Joaquin School. This school was the first public school in Sacramento County, and operated until 1928, when it was merged into the Elk Grove Grammar School. Today, San Joaquin in the Elk Grove area survives only in the name of a cemetery. Esteem for education continued, with the formation of the Elk Grove Union High School District, the first in the state, in 1893, and the established [sic] in a successful effort to get the high school accredited by the University of California.

One of the major technological advances that occurred in the project area was the construction of the Central California Traction Railroad (CCTR). The CCTR was an electric railroad line that connected passengers and freight between Sacramento and Stockton, some 53 miles long. The portion of this railroad that runs through the project area was completed in 1910. In 1933 passenger service was eliminated and the line was utilized for freight transportation only. Currently, the CCTR is an “out of service” line.

Today the project area is characterized by rapid residential development. However, the project area also contains remnant agricultural tracts and more commonly agricultural-residential communities.

REGULATORY SETTING

GENERAL PLAN CONSERVATION ELEMENT

The following policies pertain to cultural resource conservation:

PREHISTORIC SITE POLICIES

- | | |
|--------|--|
| CO-155 | Utilize the California Archeological and the Sacramento History and Science Division to assist in determining the need for a survey. |
| CO-157 | Significant archeologic, prehistoric, or historic sites shall be protected as open space for potential future excavation. |
| CO-158 | Native American burial sites encountered during pre-approved survey or during construction shall, whenever possible, remain in situ. Excavation and reburial shall occur when in situ preservation is not possible or when the archeologic significance of the site merits excavation and recording procedure. On-site reinterment shall have priority. The project developer shall provide the burden of proof that off-site reinterment is the only feasible alternative. Reinterment shall be the responsibility of the local tribal representatives. |
| CO-159 | The cost of all excavation conducted prior to completion of the project shall be the responsibility of the project developer. |
| CO-160 | Monitor projects during construction to ensure crews follow proper reporting, safeguards, and procedures. |
| CO-161 | As a condition of approval of discretionary permits, a procedure shall be included to cover the potential discovery of archaeological resources during development or construction. |

- CO-162 As a condition of approval for discretionary projects which are in areas of cultural resource sensitivity, the following procedure shall be included to cover the potential discovery of archeological resources during development or construction.

Should any cultural resources, such as structural features, unusual amounts of bone or shell, artifacts, human remains, or architectural remains be encountered during any development activities, work shall be suspended and the Department of Environmental Review and Assessment shall be immediately notified at 874-7914.

At that time, the Department of Environmental Review and Assessment will coordinate any necessary investigation of the find with appropriate specialists as needed. The project applicant shall be required to implement any mitigation deemed necessary for the protection of the cultural resources. In addition, pursuant to Section 5097.97 of the State Public Resources Code and Section 7050.5 of the State Health and Safety Code, in the event of the discovery of human remains, all work is to stop and the County Coroner shall be immediately notified. If the remains are determined to be Native American, guidelines of the Native American Heritage Commission shall be adhered to in the treatment and disposition of the remains.

HISTORIC SITE POLICIES

- CO-163 Conduct surveys and designate structures with architectural or historical importance on community maps. Where appropriate, plans shall designate significant historical architectural districts.
- CO-164 Develop local architectural preservation standards drawing from State and Federal guidelines.
- CO-165 Refer projects involving structures or within districts having historical or architectural importance to the Cultural Resources Committee to recommend appropriate means of protection and mitigation.
- CO-166 Development surrounding areas of historic significance shall have compatible design in order to protect and enhance the historic quality of the areas.

SIGNIFICANCE CRITERIA

Cultural resources in California are treated under two areas of code. One is the CEQA Section 15064.5 (as amended 1999). The second is California PRC Section 5024.1. CEQA Section 21083.2(g) defines a "unique archaeological resource" as one that:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
2. Has a special and particular quality such as being the oldest of its type or the best available example of its types.
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

CEQA Section 15064.5 also addresses historic resources. This section identifies a project that may have an effect on a property eligible for inclusion in the California Register of Historical Resources (CRHR) as a project that may have a significant effect upon the environment. Eligibility for the California Register is based upon criteria set forth in PRC Section 5024.1.(c) paragraphs 1 through 4 as follows:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
4. Has yielded, or may be likely to yield, information important in prehistory or history. (Public Resources Code §5024.1, Title 14 CCR, §4852).

Under the State CEQA Guidelines, an impact is considered significant if a project would have an effect that may change the significance of the resource (Public Resources Code § 21084.1). Demolition, replacement, substantial alteration, and relocation of historic properties are actions that would change the significance of a historical resource. The criteria for listing properties in the CRHR are found in Section 15064.5(a)(2)-(3) of the CEQA Guidelines, which provide the criteria from Section 5024.1 of the California Public Resources Code. The CRHR is in the California Code of Regulations Title 14, Chapter 11.5.

The eligibility criteria for listing properties in the National Register of Historic Places (NRHP) are codified in 36CFR60 and explained in guidelines published by the Keeper of the National Register. Similar to the criteria for eligibility for the California Register, they state that an historical resource must be significant at the local, state, or national level, under one or more of the following four criteria:

1. That are associated with events that have made a significant contribution to the broad patterns of our history; or
2. That are associated with the lives of persons significant in our past; or

3. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
4. That have yielded, or may be likely to yield, information important in prehistory or history.

Eligibility for listing in either the NRHP or CRHR rests on twin factors of historic significance and integrity. Integrity is determined through applying seven factors to the historic resource: location, design, setting, workmanship, materials, feeling and association. Location and setting relate to the relationship between the resource and its environment. Design, material and workmanship relate to construction methods and architectural details. Feeling and association relate to the overall ability of the resource to convey a sense of historic time and place. A property must have both historic significance and integrity to be considered eligible for listing in the NRHP or CRHR. Loss of integrity, if sufficiently great, will overwhelm the historical significance a property may possess and render it ineligible. Likewise, a property can have complete integrity, but if it lacks historic significance, it must also be considered ineligible. Generally, properties also must be 50 years old to qualify for listing in the NRHP or CRHR.

INFORMATION CENTER RECORD SEARCH

The following information sources were considered relevant to evaluating the project site, and the types of archaeological sites and site distribution which might be encountered within the project area: (1) Data maintained by the North Central Information Center of the California Historical Resources Information System (CSU-Sacramento) including State and federal listings and data bases, (2) input from Native American representatives and the Native American Heritage Commission, and (3) available published and unpublished documents relevant to regional prehistory, ethnography, and early historic developments.

ECORP conducted a record search at the NCIC for the subject project site. These records document the following conditions for the project area:

Thirty-four archaeological surveys have been undertaken within a half-mile radius of the project area. Additionally, two historic sites (CA-SAC-544-H and CA-SAC-545-H) were previously identified within the project site. These resources consist of: Old Calvine Road (CA-SAC-544-H) and Old Elk Grove-Florin Road (CA-SAC-545-H). No prehistoric sites have been formally recorded or otherwise identified within the project site. However, seventeen additional historic resources have been recorded within the general half-mile search radius. The record number and general resource description for these seventeen resources are listed below for reference only:

- P-34-605: Residence
- P-34-684: Residence
- P-34-688: Residence
- P-34-690: Residence
- P-34-709: Residence
- P-34-710: Residence
- P-34-711: Residence
- P-34-712: Residence
- P-34-713: Residence
- P-34-714: Residence
- P-34-715: Residence
- P-34-716: Residence
- P-34-717: Residence
- P-34-718: Residence
- P-34-999: Residence
- P-34-1087: Residence
- P-34-1296 (CA-SAC-819-H): Residence

The proposed project will not impact the above referenced resources.

In addition to examining records maintained by the North Central Information Center, the following sources were also consulted:

- The National Register of Historic Places (2006)
- California Register of Historic Resources (November 2004).
- The California Inventory of Historic Resources (State of California 1976).
- The California Historical Landmarks (State of California 1996).
- California Department of Transportation Bridge Inventory (1987 & 2000).
- California State Points of Historical Interest (1992).
- OHP Historic Property Directory (May 2005).
- Gold Districts of California (1979)
- California Gold Camps (1975)
- California Place Names (1969)
- Survey of Surveys Historic and Architectural Resources (1989)
- California and Pony Express Trail (1984)
- Historic Spots in California (2002)
- Historic County Maps and GLO Plats.

NATIVE AMERICAN CONSULTATION

In addition to examining the records of Sacramento County at CSU-Sacramento and reviewing published and other sources of information, letters were written to the Native American Heritage Commission (NAHC) and to any individuals or organizations

designated by the Commission, requesting relevant information on the project area by ECORP. A response from the NAHC indicated that the record search of the sacred land file failed to show the presence of Native American cultural resources within the project site.

FIELD ASSESSMENT

METHODOLOGY

ARCHAEOLOGICAL SURVEY

All of the project area was subject to an intensive pedestrian survey between March and April of 2006. The project area was walked by two archaeologists. The area was covered employing parallel transects with transect spacing at approximately 25 meter intervals. Ground visibility was generally good (over 75%) according to ECORP. According to ECORP, when possible, the survey area also included an additional 35± feet on each side of the existing right-of-way, plus the additional 12.5 feet of landscape corridor.

HISTORICAL SURVEY

ECORP conducted a cursory level historical survey which identified historical properties and historical resources that would be impacted by the proposed project.

ECORP retained Peak & Associates to conduct a historical evaluation and determination of eligibility for the historical resources in the project area that would be impacted by project implementation. Peak & Associates followed standard methodology for inventorying and evaluating properties. Peak first examined the standard sources of information that list and identify known and potential historic resources to determine if any structures on the project had been previously recorded or evaluated, as noted under "Information Center Record Search and Record Review."

Standing structures on the project site that were 50 years or older and would be impacted by the proposed roadway improvements, including five buildings/building complexes, three foundations, a concrete trough, a sign, and an irrigation system, were first recorded and photographed during a site visit by ECORP between March and April of 2006, while in January of 2007 Peak and Associates evaluated these same resources for eligibility and effect. State of California Department of Parks and Recreation (DPR) Primary and Building/Structure/ Object (523) forms were completed for the structures.

The DPR form, which is with the Cultural Resources report available for review at the Department of Environmental Review and Assessment, records the features currently

present at the site when it was surveyed by ECORP between March and April of 2006, as well as including selective photographs of the project site.

PREHISTORIC RESOURCES

No evidence of prehistoric presence or activity was observed anywhere within the project area. However, there always exists the possibility of encountering buried resources without surface manifestation.

HISTORIC RESOURCES

A total of twelve potentially historic resources (nine sites and three isolates) were observed during field surveys. These sites were evaluated for eligibility for the NRHP and CRHP and are discussed below.

Evaluation of Historic Resources

The eight historic resources identified during surveys are described as follows, per the ECORP report (2006):

EC-06-19. (no site address). This resource appears to be the remnants of a commercial or residential complex, consisting of three features.

Feature 1 includes a 36-foot, 5-inch by 26-foot, 2-inch concrete pad surrounded by a 6 ¼-inch wide, 6-inch high footing. The west side of this foundation is a 5-foot by 24-foot, 6-inch long sidewalk bordered on the west by a 1-foot, 8-inch rock wall, with a 2-foot finished concrete bench capping the wall. Only 10-feet, 10-inches of the bench remain and most of the rock wall has been removed. A 2 ¼-inch diameter pipe extends 15 feet west from the east side of the foundation.

Feature 2 includes of a well and water tank on an 8-foot by 8-foot concrete pad with a vertical 9-foot concrete standpipe. A 4-inch diameter pipe with a valve extends from the base of the standpipe. A date of 1953 is written in cement on a block set next to the base of the standpipe.

Feature 3 includes the remnants of an asphalt pad, possibly a small parking area. The visible portion of the asphalt pad measures 8 feet by 8 feet.

Utilizing the significance criteria listed above in the “Significance Criteria” discussion an evaluation of this resource has determined that it is ***not a significant cultural resource***. According to Peak and Associates, this resource, consisting of remnants of original buildings, “obviously lacks integrity of appearance, design, workmanship, feeling, and association, and cannot be considered a significant resource under criteria of the National Register. Similarly, the lack of integrity prevents them to be deemed important resources under criteria of the California Register of Historical Resources.”

EC-06-20. (9149 Florin Road). This resource is a residential complex consisting of two features.

Feature 1 is a single-family Craftsman-style residence with 2 ¼-inch horizontal clapboards with coursed wood shingles under the gabled eaves on the west and east sides of the house. The side-gabled roof is covered with asphalt shingles, there are 12 windows, including a bay window of the east side and a French door that has recently been installed in the rear. The foundation is concrete and the porch runs the entire width of the house on the front.

Feature 2 is a three-story tank house with a pump located in the southeast corner. The structure is built on a concrete foundation and the frame is covered with 3 ½-inch horizontal clapboard siding. The structure is cantilevered 1 ½ to 2 feet.

Utilizing the significance criteria listed above in the “Significance Criteria” discussion an evaluation of this resource has determined that it is ***not a significant cultural resource***. According to Peak and Associates:

The complex consists of two buildings with widely divergent dates. The tankhouse was constructed in the early years of development of the rural landscape, likely in the 1870s. The residence is a replacement for the earlier residence related to the tankhouse. The residential building was constructed in 1921 using the popular style of the time. The building is a fair example of the Craftsman style, but has been modified over time. The lack of continuity in the complex, as well as the lack of integrity for the tankhouse, detracts from the overall appearance. The complex is not associated with individuals or events important in our past [NRHP Criteria A and B; CRHR B(1) and B(2)]. The complex does not represent a distinctive style, and is not eligible under NRHP Criterion C [CRHR b(3)].

EC 06-22. (9681 Gerber Road). This resource is a house with a construction date of 1949. There is a propane tank in the rear of the house that has a date of 1949 in the cement where it is mounted.

Utilizing the significance criteria listed above in the “Significance Criteria” discussion an evaluation of this resource has determined that it is ***not a significant cultural resource***. According to Peak and Associates:

The building present is a replacement for the 1946 residence that formerly stood on the site. The building is too new to merit consideration for the NRHP or the CRHR.

EC 06-23. (7572 Elk Grove-Florin Road). This resource includes a complex of abandoned buildings, comprised of four features.

Feature 1 is a single-family residence which may be the oldest building onsite. This residence has two additions; a shed-like room on the north and one on the west side, and a finished room, perhaps a kitchen, on the east. The main building measures 22

feet by 15 feet and has a porch measuring 10 feet by 3 feet and a side room that is 13 feet by 6 feet. The concrete foundation is post and pier, the 2 1/4 –inch clapboard siding, and the roof with sub-roofing is covered with more recent plywood and rolled asphalt shingles. The entry appears to be on the north side of the building through a five-panel door.

Feature 2 is also a single-family residence, approximately 52 feet by 23 feet. The siding is a mix of 3 1/4-inch clapboard on the front and a portion of an apparent addition in the rear, and 6 3/4-inch tongue-and-groove planks on the rest of the house. The concrete foundation is post and pier and the roof, which was originally covered in wood shingles, has been re-shingled with asphalt. A carport has been added to the rear of the addition.

Feature 3 is another single-family residence, approximately 39 feet by 22 feet on a concrete foundation. The siding on the north and west sides consists of 7-inch tongue-and-groove planks, while the south and east sides appear to have been rebuilt and covered with particleboard/compressed plywood. The roof is covered with asphalt roll shingles. A covered porch and shed-like room have been added to the original building and the doors are all modern replacements, including an aluminum sliding glass door.

Feature 4 is a chicken coop with a roof covered with asphalt roll shingles. There is no visible foundation and the coop appears to have been built from leftover materials. There is one four-panel door located on the west side of the coop has missing panels. The structure appears to have been used to house other types of animals.

Two additional items were found during surveys. The first is a large round watering tank made of steel riveted metal. This tank measures 93 inches in diameter and 30 1/2 inches high. The second item is a concrete fragment with “2/1952” inscribed on it, lying at the base of a large walnut tree.

Utilizing the significance criteria listed above in the “Significance Criteria” discussion an evaluation of this resource has determined that it is ***not a significant cultural resource***. According to Peak and Associates:

The residences on the property were likely built as rentals, and were never owner occupied. They date to three different time periods, and apparently were built with little concern for design or aesthetics. The buildings are in poor to fair condition.

The complex is not associated with individuals or events in our past [NRHP Criteria A and B, CRHR B(1) and B(2)]. The complex does not represent a distinctive style, and is not eligible under NRHP Criterion C [CRHR B (3)].

EC 06-24. (9204 Florin Road). This resource includes three features, a residence listed as being built in 1922, a three-story tank house and a garage.

Feature 1 is one-unit with a two bedroom, one bath residence with two-car garage. The house has a wood shingle-clad roof, a concrete foundation, and 7-inch tongue-and-groove horizontal siding wrapping around and covering the entire lower 2 feet of the

residence. The entire complex appears to have been used to raise animals as there are over twelve 3 by 6 foot cages at the rear of the property.

Feature 2 is a three-story tank house that appears to have been build as a part of the original complex. This tank house has a concrete foundation and the building extends 12 feet by 12 feet with an additional 14 feet south to include a single story building. The area of the building is 12 feet by 26 feet. The frame of the building is covered with 7 inch horizontal long board siding and the corners with trim board.

Feature 3 is a garage, measuring approximately 18 feet by 20 feet. There is a crude aggregate foundation and the wood shingle roof has the subroofing exposed. The siding is 12-inch horizontal long board, which was used for the entire building.

Utilizing the significance criteria listed above in the “Significance Criteria” discussion an evaluation of this resource has determined that it is ***not a significant cultural resource***. According to Peak and Associates:

The complex has been altered greatly over time. The home is almost unrecognizable as a building from the 1920s. The tankhouse has been altered, with numerous decorative windows added on all three stories. The building complex lacks integrity of design, appearance, workmanship, feeling and materials.

The complex is not associated with individuals or events in our past [NRHP Criteria A and B, CRHR B(1) and B(2)]. The complex does not represent a distinctive style, and is not eligible under NRHP Criterion C [CRHR B (3)].

EC 06-25. (no site address).

This resource is a concrete foundation that is t-shaped at the south end of the foundation and appears to be the remnants of a church, possibly a Masonic center. The pad extends 159 feet by 35 feet. There is a concrete curb which borders the fence. An asphalt pad which may have been used for parking, borders the western portion of the foundation, measuring approximately 120 feet by 135 feet. The section of concrete furthest south is a fine aggregate, while the northern end is a rougher type. A well pump is situated approximately 230 feet from the southwest end of the concrete pad.

Utilizing the significance criteria listed above in the “Significance Criteria” discussion an evaluation of this resource has determined that it is ***not a significant cultural resource***. According to Peak and Associates, this resource, consisting of remnants of original buildings, “obviously lacks integrity of appearance, design, workmanship, feeling, and association, and cannot be considered a significant resource under criteria of the National Register. Similarly, the lack of integrity prevents them to be deemed important resources under criteria of the California Register of Historical Resources.”

EC 06-26. (no site address).

This resource appears to be the remnants of a residential complex consisting of three features, two concrete foundation pads, a debris scatter and a concrete foundation.

Feature 1 includes two concrete pads, the first measuring 22 feet by 16 feet and the second, situated northeast of the first pad, measures 24 feet by 15 feet. The first pad includes the remains of a plumbing system at the northwestern corner of the foundation.

Directly south of the first pad there is a 20 foot by 3 foot cement walkway. At the end of this walkway and eight feet to the south, there is a 20 foot by 3 foot high standing concrete block.

On the eastern side of the first pad is another 36 foot by 3 foot walkway. North of the northwestern corner of the first pad there are two smaller pads two feet apart. The first of these smaller pads has a drainage system similar to those found in a shower, measuring 3 feet by 3 feet. The second of these smaller pads is a brick foundation measuring 5 feet by 5 feet. The function of these two smaller pads is unknown.

The second pad has had the northeastern half of the foundation removed.

Feature 2 is a debris scatter with ceramic and glass fragments and lies directly south of Feature 1. The debris scatter measures 27 feet by 27 feet. No diagnostic artifacts were observed during surveys.

Feature 3 is a 24 foot by 15 foot foundation that appears to have been a three room building. The foundation is 6 inches wide by 5 inches tall. Two 1956 dates were inscribed along the northern end of the foundation. An associated 5 foot by 5 foot concrete pad was found 12 feet to the north. The associated pad includes a 6 inch diameter pipe at the southwest corner.

One artifact was found during surveys; a 6 ¼ -inch rail spike, possibly associated with the nearby Central California Traction Company railroad tracks.

Utilizing the significance criteria listed above in the “Significance Criteria” discussion an evaluation of this resource has determined that it is ***not a significant cultural resource***. According to Peak and Associates, this resource, consisting of remnants of original buildings, “obviously lacks integrity of appearance, design, workmanship, feeling, and association, and cannot be considered a significant resource under criteria of the National Register. Similarly, the lack of integrity prevents them to be deemed important resources under criteria of the California Register of Historical Resources.”

EC 06-27. (9133 Florin Road).

This resource is a single-family residence measuring 49 feet by 40 feet with stucco siding, a concrete foundation, a modern asphalt shingle roof and modern windows. There is a 24-foot porch running from the west side of the house and facing south at the front of the house. The roof seems to indicate that the northern portion of the residence

is an addition to the existing house. A modern two-car garage appears to have been added east of the residence and connected by the roof extending the entire length of the building.

Utilizing the significance criteria listed above in the “Significance Criteria” discussion an evaluation of this resource has determined that it is ***not a significant cultural resource***. According to Peak and Associates:

The building is a plain, vernacular building, with no particular detail or style. The building is not associated with individuals or events in our past [NRHP Criteria A and B, CRHR B(1) and B(2)]. The complex does not represent a distinctive style, and is not eligible under NRHP Criterion C [CRHR B (3)].

Evaluation of Historic Isolate Resources

The three historic isolate resources identified during surveys are described as follows, per the ECORP report (2006):

ISO-1

This isolate is a 48 inch wide by 116-inch long by 24-inch deep concrete water trough. The sides of the trough are 6 1/2-inches thick and there is a 1 1/2-inch diameter drain in the bottom. The trough is in poor condition.

ISO-2

This isolate is a large metal restaurant sign, measuring 30 feet high with neon lights. The glass tubing is missing on one side of the sign. The sign reads on both sides, “Old MacDonald’s Farm,” with Chicken Dinners” on an arrow pointing to where the restaurant was.

ISO-3

This isolate is a 72-inch tall by 30-inch diameter concrete standpipe that appears to be part of an old well and pump system.

Utilizing the significance criteria listed above in the “Significance Criteria” discussion an evaluation of these isolate resources has determined that they are ***not significant cultural resources***. According to Peak and Associates:

These resources are minor landscape features, lacking associations with important individuals or events. They are in no way distinctive features, or particularly good examples of their type.

These resources are not significant resources under the criteria of the NRHP, nor are they important resources under CRHR criteria.

Evaluation of Previously Recorded Historic Sites

Site P-34-699 (CA-SAC-544-H).

This resource corresponds with a section of Old Calvine Road. This section was described in 1993 as a two lane paved road with no curbs or gutters, extending from East Stockton Boulevard on the west to Grant Line Road on the east in an east-west alignment. At the time the road was recorded, only a short portion existed and it was to be widened. It is apparent that the road has now been completely repaved and widened into a four-lane road.

Site P-34-700 (CA-SAC-545-H).

This resource corresponds with a section of Old Elk Grove-Florin Road. This section was described in 1993 as a two lane paved road with no curbs or gutters, extending from Elk Grove to Florin. At the time the road was recorded, much of the road had been widened and new housing and business developments built. It is apparent that the road has now been completely repaved and widened into a four-lane road.

Both of the above resources have been modified with improvements such as repaving, widening, curb, gutter, and sidewalk along various portions. The addition of the proposed projects improvements along these roadways will not add additional impacts to these resources.

CONCLUSION

No significant evidence of prehistoric use or presence was observed during the pedestrian survey. The Native American Heritage Commission indicated that no Sacred Land listings exist for the project area or adjacent lands. Additionally, no significant historic-period cultural resources were recorded within the project impact area.

IMPACTS AND ANALYSIS

Impact: Potential for impact to an important cultural resource.

The cultural resource surveys indicated no evidence of significant surface archaeological remains or historic resources. However, subsurface cultural remains could be present due to the natural burial of prehistoric or historic sites by alluviation through periodic flooding or other natural phenomena. The possibility exists for potentially significant unidentified cultural materials to be encountered on or below the surface during the course of future development or construction activities. Mitigation has been added to ensure that impacts to potential subsurface cultural resources by ground disturbance from future construction are *less than significant*.

Additionally, given the fact that the proposed project will be built out in a gradual manner, additional significant resources that have not been previously evaluated, due to the fact that they were not 50 years or older at the time of this project's evaluation, could be altered or demolished. Thus, significant cultural resources could be removed as a result of this project. This impact is considered ***potentially significant***. Mitigation has been added requiring an evaluation of such historic features, prior to project right-of-way acquisition or demolition, whichever occurs first.

Mitigation Measures:

CR-1 Should any cultural resources, such as structural features, unusual amounts of bone or shell, artifacts, human remains, or architectural remains be encountered during any development activities, work shall be suspended and the Department of Environmental Review and Assessment (DERA) shall be immediately notified at (916) 874-7914.

At that time, the DERA will coordinate any necessary investigation of the find with appropriate specialists as needed. The project applicant shall be required to implement any mitigation deemed necessary for the protection of the cultural resources. In addition, pursuant to Section 5097.97 of the State Public Resources Code and Section 7050.5 of the State Health and Safety Code, in the event of the discovery of human remains, all work is to stop and the County Coroner shall be immediately notified. If the remains are determined to be Native American, guidelines of the Native American Heritage Commission shall be adhered to in the treatment and disposition of the remains.

CR-2 Prior to project right-of-way acquisition or demolition, whichever occurs first, conduct an evaluation of structures affected by right-of-way acquisition that meet the 50 year age requirement and have not previously been evaluated, to determine possible eligibility for inclusion in the California Register of Historical Resources. Prepare necessary documentation of such an evaluation.

9 HAZARDOUS MATERIALS

INTRODUCTION

The term “hazardous substances” refers to both hazardous materials and hazardous wastes. A material is defined as hazardous if it appears on a list of hazardous materials prepared by a federal, state or local regulatory agency, or if it has characteristics defined as hazardous by such an agency.

The definition of a hazardous waste, as regulated by the California Environmental Protection Agency, Department of Toxic Substances Control (CAL-EPA, DTSC), is found in the California Health and Safety Code Section 25141 (b), as follows:

“...as hazardous waste because if its quantity, concentration, or physical, chemical, or infectious characteristics: (1) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness; (2) pose a substantial present or potential hazard to human health or the environment, due to factors including, but not limited to, carcinogenicity, acute toxicity, chronic toxicity, bio-accumulative properties, or persistence in the environment, when improperly treated, stored, transported, or disposed of, or otherwise managed.”

A hazardous waste is a “solid waste” that exhibits hazardous characteristics. The Federal Environmental Protection Agency (EPA) has defined the term “solid waste” to include the following: any gaseous, liquid, semi-liquid, or solid material that is discarded or has served its intended purpose, unless the material is excluded from regulation. Such materials are considered wastes whether they are discarded, reused, recycled, or reclaimed. The EPA classifies a waste as hazardous if it (1) is listed on the EPA’s list of hazardous waste and (2) exhibits one or more of the following properties: ignitability (including oxidizers, compressed gases, and extremely flammable liquids and solids), corrosivity (including strong acids and bases), reactivity (including materials that are explosive or generate toxic fumes when exposed to air or water), or toxicity (including materials listed by the EPA as capable of inducing systemic damage in humans or animals).

The Sacramento County Environmental Management Department (EMD) prepared a Phase 1 Environmental Site Assessment (ESA) for the proposed project (December 8, 2006). The purpose of the ESA report is to evaluate the properties subject to acquisition for evidence of potential soil or groundwater contamination resulting from current and/or former activities, and to identify any groundwater monitoring wells, water supply wells, remediation equipment, etc., that might be impacted by the road project. The report is herein incorporated by reference and can be reviewed at the EMD offices, 8475 Jackson Road, Sacramento, California, or the Department of Environmental Review and Assessment, 827 7th Street, Room 220, Sacramento, California.

The Phase 1 ESA did not include collection of soil or groundwater samples, the evaluation of potential lead paint or asbestos hazards, or potential flood hazards at the properties subject to acquisition or in their vicinity. The ESA is summarized below.

ENVIRONMENTAL SETTING

The study area for the Phase 1 ESA includes 40± miles of roadway frontage along the project roadways and the resulting parcels that are subject to acquisition. The ESA included 707 parcels subject to full or partial acquisition. The project roadways are Jackson Road, Elder Creek Road, Florin Road, Gerber Road and Calvine Road extend west to east and Elk Grove-Florin Road/South Watt Avenue, Waterman Road, Bradshaw Road, Vineyard Road and Excelsior Road extend north to south.

The portions of property subject to acquisition are parallel to the project roadways and are generally free of stored machinery, agricultural equipment and abandoned or discarded items. On occasion, urban trash consisting of paper, cardboard and plastic items are found along the shoulders within the project area. Much of the portions of property subject to acquisition consist of landscaped private and commercial frontages or fallow land.

During field visits, no stained or odoriferous surface soils, stressed or dead vegetation, areas mysteriously void of vegetation, surface waters with iridescent sheen, 55-gallon drums or other containers were observed. Additionally, no aboveground storage tanks or anything else of an obvious or potentially hazardous materials nature was observed. There were no signs of improper use or storage of hazardous materials at the various parcels adjoining the properties subject to acquisition.

Four parcels are associated with existing underground fuel storage tanks (USTs) or UST-related objects, such as abandoned ground water supply wells. Eight parcels were identified as having active or illegally abandoned ground water supply wells.

METHODOLOGY

Information used to compile the Phase 1 ESA report was obtained from the following sources:

- reconnaissance of the subject properties and the immediate vicinity;
- review of environmental databases of known or suspected hazardous materials release sites (most of the database searches having been completed by EMD's vendor BBL of Solano Beach, California);
- review of files at the Sacramento County EMD and other governmental agencies, as needed;

- interviews with regulatory personnel familiar with the project area, as necessary, including the Regional Water Quality Control Board (RWQCB), Central Valley Region, and
- referencing the Wallace-Kuhn & Associates, Inc. (WKA) completed a Feb. 27, 2004 Phase 1 Environmental Site Assessment for the overall Specific Plan, titled "North Vineyard Station Specific Plan (NVSSP) Right-of-Way Acquisitions" for various parts of the December 2006 report.

Additionally, a federal, state and county database search was performed for facilities located within various search radii depending upon the type of database. The search radii were in accordance with the American Society of Testing and Materials (ASTM) Standard E 1527-00 for Environmental Assessments.

A review of historical aerial photography taken in 1966, 1975, 1977, 1983, 1998, and 2002 of the area showing the parcels subject to acquisition and the surrounding area was conducted to look for evidence of potential hazardous materials concerns. The nature of hazardous materials concerns include, but are not necessarily limited to, illegal dumping, drum storage or disposal, landfill activity and industrial usage. Land use within the project area has been primarily rural residential/agricultural, with some encroaching "modern" subdivision and commercial land development throughout the time period the photos covered.

Available historic topographic maps were reviewed from 1909, 1952, 1968 and 1979. Based on these maps, there was no indication of large manufacturing facilities, large aboveground storage tank facilities, industrial process water ponds, effluent sprayfields, airfields, transportation hubs, mining features or mine tailings currently or historically located within the project area. Vast portions of the project area remained relatively unchanged during the past approximate century based on the available topographic mapping.

A search of the agricultural history of the project area was conducted through discussions with the Sacramento County Agricultural Commissioner's office Senior Agricultural Biologist, Debbie Thompson. Ms. Thompson recalled that the area was used predominantly as dairy and beef cattle pastureland and for low-intensity agriculture. She explained that restricted (persistent) chemicals are not typically applied to pastureland and agricultural lands typical of those found in this area. Additionally, the aerial application of pesticides, or crop dusting, was not common in the project area. She indicated that the existing nurseries and the golf course currently operating within the project area are permitted and inspected for compliance through her office. Modern pesticides used by the existing nurseries are not persistent for greater than one year when formulated and applied according to the manufacturer's directions. However, the historic nurseries are likely to have used persistent pesticides such as DDT. Surficial soils sampling is recommended for areas where historic nurseries have operated for at least the past couple of decades.

REGULATORY SETTING

FEDERAL REGULATIONS

Many agencies regulate hazardous substances. At the federal level, the principal agency regulating the generation, transport and disposal of hazardous waste is the EPA, under the authority of the Resource Conservation and Recovery Act (RCRA). The EPA regulates hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA).

- Resource Conservation and Recovery Act. The Resource Conservation and Recovery Act (RCRA) of 1976 (substantially amended in 1984), administered by the U. S. Environmental Protection Agency, is the principal federal legislation regulating hazardous waste. The RCRA imposes reporting, permitting, and operational control requirements on businesses or individuals that generate, treat, store, or dispose of hazardous materials or hazardous waste. The RCRA is implemented by Title 40 of the Code of Federal Regulations. The 1984 amendments to the RCRA involve stringent monitoring of landfills and underground storage tanks for hazardous materials and hazardous wastes.
- Comprehensive Environmental Response, Compensation and Liability Act. In response to the need to clean up hazardous waste sites created before implementation of the RCRA, Congress enacted the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) in 1980. CERCLA is commonly referred to as “Superfund”. Subsequently, abandoned hazardous waste sites have to be inspected and cleaned up, and the waste had to be disposed of properly.
- Superfund Amendments and Reauthorization Act. The risk of exposure to hazardous waste as a result of RCRA and CERCLA was addressed in the Superfund Amendments and Reauthorization Act (SARA) of 1986. As a result of SARA, the federal Occupational Safety and Health Administration (OSHA) published hazardous waste cleanup regulations in 29 CFR 1910.120.

STATE REGULATIONS

California regulations governing hazardous materials are as stringent as (and in some cases, more stringent than) federal regulations. The state has been granted primacy (primary responsibility for oversight) by the EPA to administer and enforce hazardous waste management programs. State regulations also have detailed planning and management requirements to ensure that hazardous materials are handled, stored, and disposed of properly to reduce human health risks. California regulations pertaining to hazardous waste management are published in the CCR, previously called the California Administrative Code. The CCR is updated yearly and incorporates all legislation and final regulations enacted during the year, as well as specifying the agencies responsible for enforcing the various regulations.

- Department of Toxic Substances Control. 22CCR gives the California Department of Toxic Substances Control (DTSC) responsibility for regulating hazardous waste management at the state level. The DTSC regulates the treatment, storage, and disposal of hazardous waste in accordance with 22 CCR and the RCRA. The DTSC administers the state and federal Superfunds for cleanup of major hazardous waste contamination sites.
- Regional Water Quality Control Board. 23 CCR charges the nine RWQCBs with responsibility for overseeing water quality control. The RWQCBs are responsible for protecting actual or potential beneficial uses of water, including municipal, industrial, and agricultural water supplies and recreation. Each RWQCB has authority to supervise hazardous waste cleanup at sites referred by local agencies and in cases where water quality is affected or threatened. Either the DTSC or the RWQCB may be responsible for cleanup of sites of significant contamination by hazardous wastes. The two agencies often work together to ensure that their requirements are consistent and are implemented as intended.
- California Occupational Safety and Health Administration. Health and safety regulations applying to the investigation and cleanup of sites contaminated with hazardous waste are enforced by Cal-OSHA under 8 CCR and the adopted federal regulations (29CFR 1910).

LOCAL REGULATIONS

Sacramento County is responsible for enforcing the state regulations, both in the City of Sacramento and the County, governing hazardous waste generators, hazardous waste storage, and underground storage tanks (including inspections, enforcement and removals). The Sacramento County EMD regulates the use, storage and disposal of hazardous materials in Sacramento County by issuing permits, monitoring regulatory compliance, investigating complaints, and other enforcement activities. The EMD oversees remediation of certain contaminated sites resulting from leaking underground storage tanks.

IMPACTS AND ANALYSIS

IMPACT: RIGHT-OF-WAY ACQUISITION

Existing county right-of-way does not provide enough area to construct the proposed roadway improvements. Based on current project design plans, 487 parcels are subject to full or partial acquisition. Table HM-1 below presents the Phase 1 Site Assessment results for 13 parcels that warrant further investigation.

Right-of-way identified for acquisition to construct the project improvements may contain hazardous materials or underground storage tanks. Acquisition and acceptance of properties with hazardous materials creates risk for the County and construction

Table HM-1 Phase 1 Site Assessment Results on Parcels Subject to Acquisition

APN	OWNER(S)	ADDRESS	PHASE 1 ESA FINDNGS
066-0020-008	LISA OKI	0 BRADSHAW RD	The long-term nursery operations on site can result in presence of persistent pesticide residuals. Surficial soil testing is recommended.
066-0050-001	RICHARD K & BARBARA OKI	6901 BRADSHAW RD	The long-term nursery operations on site can result in presence of persistent pesticide residuals. Surficial soil testing is recommended.
066-0020-007	RICHARD K & BARBARA OKI	0 ELDER CREEK RD	The long-term nursery operations on site can result in presence of persistent pesticide residuals. Surficial soil testing is recommended.
122-0120-013	CENTRAL CALIFORNIA TRACTION COMPANY	0 CALVINE RD	Once old railroad ties and ballast (gravel underlay) are removed, perform visual survey of soils and test soils if necessary based on the visual review.
122-0260-006	CENTRAL CALIFORNIA TRACTION COMPANY	0 CALVINE RD	Once old railroad ties and ballast (gravel underlay) are removed, perform visual survey of soils and test soils if necessary based on the visual review.
115-0130-002	SOUTHERN PACIFIC TRANSPORTATION COMPANY	0 CALVINE RD	Perform visual survey of soils and test soils if necessary based on the visual review.
115-0170-009	SOUTHERN PACIFIC TRANSPORTATION COMPANY	0 CALVINE RD	Perform visual survey of soils and test soils if necessary based on the visual review.
064-0030-003	CENTRAL CALIFORNIA TRACTION COMPANY	0 ELDER CREEK RD	Once old railroad ties and ballast (gravel underlay) are removed, perform visual survey of soils and test soils if necessary based on the visual review.
064-0080-032	CENTRAL CALIFORNIA TRACTION COMPANY	0 FLORIN RD	Once old railroad ties and ballast (gravel underlay) are removed, perform visual survey of soils and test soils if necessary based on the visual review.
065-0052-003	CENTRAL CALIFORNIA TRACTION COMPANY	0 FLORIN RD	Once old railroad ties and ballast (gravel underlay) are removed, perform visual survey of soils and test soils if necessary based on the visual review.
066-0100-084	DND LAND INC	10401 GERBER RD	This parcel contains the now closed Gerber Road Disposal Site.

9 - HAZARDOUS MATERIALS

APN	OWNER(S)	ADDRESS	PHASE 1 ESA FINDNGS
			Acquisition of land north of the existing fence could encroach into landfilled materials which have the potential to consist of contaminated materials and/or contaminated subsurface soils. A land survey should be conducted in order to confirm or eliminate the possibility that the acquisition of roadway right-of-way or PUE* areas will involve landfilled wastes. If the area of acquisition is confirmed to involve landfill wastes, a Phase 2 environmental site assessment should be conducted.
063-0014-006	TEICHERT LAND CO	8888 JACKSON RD	The long-term nursery operations on site can result in presence of persistent pesticide residuals. Surficial soil testing is recommended.
063-0013-001	GIAMPOLINI GROUP LLC	9144 JACKSON RD	This site is presently an auto storage yard. A Phase 2 environmental site assessment of surficial soils within the area of roadway right-of-way and PUE* acquisition should be conducted.
063-0020-011	BRADLEY & LINDA JONES	9395 JACKSON RD	This parcel is occupied by a business called "Action Ironworks." Both the roadway and PUE acquisition areas are located behind a solid metal fence with no sizeable openings. Observations made by Sacramento County EMD staff through cracks between the solid metal fence panels revealed numerous stored objects that hindered clear observation of the ground surface. An old building, located beyond (north of) the roadway and PUE acquisition area has the look of a former automobile repair shop. Given the historic auto repair use of the building, thorough field surveys should be conducted to determine presence or absence of underground storage tanks (USTs) within the acquisition area. Formal arrangements should be made with the landowner to ensure that the acquisition area can be fully assessed.
063-0200-001	CHHEANG & ELAINE MENG (Flying V Filling Station)	9700 JACKSON RD	This site contains an active fueling station. Numerous monitoring wells and backfilled test borings exist on this parcel. The site is known to be contaminated. Acquisition of the roadway right-of-way will encroach into the existing diesel fuel dispensing island and the location of the site's groundwater supply well (the site's water supply well is not obvious because the well is located within a below-grade vault with a metal cover plate). Acquisition of the PUE* will encroach into the existing gasoline fueling islands as well as the site's underground fuel storage tanks.

APN	OWNER(S)	ADDRESS	PHASE 1 ESA FINDNGS
063-0040-058	RAHIM INC (ARCO fueling station)	9701 JACKSON RD	This site contains an ARCO fueling station, which has previously contained historical USTs that leaked and have been remediated. Acquisition of the land will encroach into on the present location of the fuel USTs as well as the facility's water supply well. The USTs are located along the south portion of the parcel, while the water supply well is located near the northwest corner area of the parcel.
Notes: *PUE is the public utilities easement.			
Source: EMD, 2006.			

workers. Remediation activities would be transferred to the County, resulting in additional unforeseen expenses and project delays. This impact is considered **significant**, however, with the incorporation of mitigation measures, this impact can be reduced to **less than significant**.

MITIGATION MEASURES: RIGHT-OF-WAY ACQUISITION

- HM-1 Prior to acquiring additional right-of-way or construction of the proposed project, if the area of acquisition on the property is identified to have possible contamination, as shown in Table HM-1, the applicant shall perform all necessary work indicated in the table to the satisfaction of Sacramento County Environmental Management Department. If contamination is identified within the acquisition area, responsibility of the clean up shall be identified and remediation and disposal procedures shall be undertaken by qualified personnel in accordance with all applicable regulations, and in coordination with all applicable agencies.
- HM-2 The applicant shall develop a contingency plan in the event that construction activities uncover unforeseen contamination that may hinder the progress of the project. This plan should include steps to contain any contamination, consultation with regulatory agencies and a work plan to evaluate and characterize any contaminations. In addition, Sacramento County Department of Transportation shall consult with the County Counsel's Office regarding potential liabilities if contamination is encountered during construction activities.

IMPACT: REMOVAL OF STRUCTURES CONTAINING ASBESTOS OR LEAD-BASED PAINT

Based on current project design plans, 11 parcels to be acquired contain structures pre-dating 1979, and contain lead-based paint and/or asbestos. This impact is considered **significant**, however, with the incorporation of mitigation measures, this impact can be reduced to **less than significant**.

Table HM-2 presents these parcels. One of these properties is subject to structure removal; while the remaining parcels don't appear to require removal of structures. Demolition activities can cause lead-based paint and asbestos to become friable, thereby more easily inhaled, causing respiratory problems.

Prior to demolition of any of these sites, the structures will be assessed for lead based paint and asbestos containing materials by a County staff member or an Environmental Consultant. The County staff member or Environmental Consultant will be certified by Cal-OSHA as a Certified Asbestos Consultant (CAC), and also by the State Department of Health Services with a Certification of Lead-Related Construction Consultant.

The Certified Asbestos Consultant will use approved sampling techniques to determine the presence of asbestos in the structures. Any regulated asbestos containing materials that require removal prior to demolition will be removed and disposed of in conformance with the U.S. Environmental Protection Agency (EPA), National Emissions Standard for Asbestos (NESHAP) Standard, 40 CFR 61, Subpart M, which regulates the disposal, manufacturing, fabricating, demolition, renovation, and spraying of asbestos-containing material, which have an asbestos concentration of greater than one percent, by area.

Paint in the structures to be removed will be evaluated for the presence of lead in the structure and in the soil surrounding the structures. Remediation will be implemented for soil that exceeds thresholds as established by EPA Region 9 Preliminary Remediation Goals and for structure paint that is peeling and/or flaking for waste management purposes. If lead paint is present, a Lead Paint Containment Plan will be required.

Table HM-2 Structures with Possible Asbestos and Lead Concerns

APN	OWNER(S)	ADDRESS	YEAR CONSTRUCTED
063-0030-005	HAROLD TUFFY	5140 BRADSHAW RD	1962
122-0180-003	DEXTER & EVELYN BEAVER TRUST	8401 BRADSHAW RD	1978
115-0180-006	RATNER GROUP 1000 LLC	8850 CALVINE RD	1958
122-0180-001	RODGER M SPRINGSTEEN	9774 CALVINE RD	1930
122-0220-005	GENE ROBINSON REVOCABLE FAMILY TRUST	9980 CALVINE RD	1973
122-0260-010	LIEM & VI HUYNH	10450 CALVINE RD	1957
063-0180-009	STEVEN D MACDONALD	9881 ELDER CREEK RD	1945
064-0035-007	MICHAEL & NAOMI ALFORD	9196 ELDER CREEK RD	1949
063-0180-010	LARRY A ANNIGONI	9871 ELDER CREEK RD	1963
066-0070-007	DO TRINH FAMILY	9536 FLORIN RD	1965
066-0100-016*	GEORGE GASNAKIS REVOCABLE TRUST	10093 GERBER RD	1957
063-0070-028	BARMBY FAMILY 1996	9550 JACKSON RD	1930
Notes: *Structure encroachment.			
Source: EMD, 2006.			

MITIGATION MEASURES:

HM-3 Prior to structure demolition, a survey for potential asbestos-containing materials by a Certified Asbestos Consultant shall be conducted. Removal and disposition of asbestos-containing materials shall be carried out in accordance with the U.S.

Environmental Protection Agency (EPA) and National Emissions Standard for Asbestos (NESHAP) Standard, 40 CFR 61, Subpart M.

HM-4

The applicant shall prepare a Lead Paint Containment Plan to safely remove, contain and dispose of lead paint during the demolition phase of the project. The plan shall contain, at a minimum, the following elements:

- a. Work practices and worker health and safety shall conform to Section 1532.1, "Lead" of Construction Safety Orders Title 8, of the California Code of Regulations.
- b. The Contractor shall furnish to the Engineer a written Code of Safe Practices and have an Injury and Illness Prevention Program and Hazards Communication Program in accordance with the provisions of the Construction Safety Orders 1509 and 1510.
- c. Temporary storage on the ground for the debris produced when the existing paint system is distributed will not be permitted. The debris shall be stored in approved leak proof containers and shall be handled in such a manner that no spillage will occur.
- d. Disposal of debris produced when the existing paint system is disturbed shall be performed in accordance with all applicable federal, state and local hazardous waste laws. Laws that govern this work include:
 - Health and Safety Code, Division 20, Chapter 6.5 (California Hazardous Waste Control Act)
 - Title 22, California Code of Regulations, Chapter 30 (Minimum Standard for Management of Hazardous and Extremely Hazardous Materials)
 - Title 8, California Code of Regulations
- e. All debris produced when the existing paint system is disturbed shall be disposed of by the Contractor at an approved Class 1 disposal facility in accordance with the requirement of the disposal operator. A transporter currently registered with the California Department of Toxic Substances Control using correct manifesting procedures and vehicles displaying current certification of compliance shall haul the debris. The Contractor shall make arrangements with the operator of the disposal facility and perform any testing of the debris required.

10 CLIMATE CHANGE

CLIMATE CHANGE AND GLOBAL WARMING

The average surface temperature of the Earth has risen by about 1 degree Fahrenheit in the past century, with most of that occurring during the past two decades. There is evidence that most of the warming over the last 50 years is due to human activities. Human activities, such as energy production and internal combustion vehicles, have increased the amount of greenhouse gases in the atmosphere, which in turn may be causing the Earth's average temperature to rise. Rises in average temperature may lead to changes in climate patterns and shrinking polar ice caps and a rise in sea level, with a host of corresponding impacts to humans and ecosystems.

Greenhouse gases are atmospheric gases that act as global insulators by reflecting visible light and infrared radiation back to Earth. Some greenhouse gases, such as water vapor, carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O), occur naturally and are emitted to the atmosphere through natural processes. Although CO₂, CH₄, and N₂O occur naturally in the atmosphere, human activities have changed their atmospheric concentrations. From 1750 to 2004, concentrations of CO₂, CH₄, and N₂O have increased globally by 35, 143, and 18 percent, respectively. Other greenhouse gases, such as fluorinated gases, are created and emitted solely through human activities. (EPA 2006.)

The principal greenhouse gases that enter the atmosphere because of human activities are CO₂, CH₄, N₂O, and fluorinated gases.

ASSEMBLY BILL 32

In September 2006, Assembly Bill (AB) 32 was signed by the Governor of California. AB 32 requires that the California Air Resources Board (CARB) adopt regulations requiring the reporting and verification of statewide greenhouse gas emissions. AB 32 also requires that the CARB adopt a statewide greenhouse gas emissions limit equivalent to the statewide greenhouse gas emissions in 1990 to be achieved by year 2020. AB 32 also requires that a list of emission reduction strategies be published to achieve these emissions reduction goals. While no strategies have been published as part of AB 32 compliance at this time, the California EPA Climate Action Team has separately prepared a report that provides some strategies. For residential and commercial projects these strategies include: planting street trees, clustering residential development to preserve existing woodland, increasing density, conserving or restoring open space, increasing water use efficiency, incorporating building energy efficiency, the use of energy-efficient appliances, encouraging high-density residential and commercial mixed-use, and increasing energy efficiency beyond Title 24 requirements.

EMISSIONS THRESHOLDS

The United Nations Intergovernmental Panel on Climate Change (IPCC) constructed several emission trajectories of carbon dioxide needed to stabilize global temperatures and climate change impacts. It concluded that a stabilization of greenhouse gases at 400-450 ppm carbon dioxide-equivalent concentration is required to keep global mean warming below 2°C, which in turn is assumed to be necessary to avoid dangerous climate change (IPCC 2001). The California Climate Change Center (CCCC) at UC Berkeley has determined that an 11 percent reduction of greenhouse gases from present levels is required by year 2010, a 25 percent reduction is required by 2020, and an 80 reduction by 2050 in order to stabilize greenhouse gases at 400-450 ppm carbon dioxide-equivalent concentrations and avoid potentially dangerous climate change impacts (CCCC 2006). The California Legislature required these reduction levels by enacting AB 32.

Though reduction rates were established in California law (AB 32), there are no established CEQA thresholds for greenhouse gases. AB 32 requires ARB to adopt a statewide greenhouse gas emissions limit equivalent to the statewide greenhouse gas emissions levels in 1990 to be achieved by 2020, as specified.

What follows is a discussion of the primary greenhouse gases of concern.

CARBON DIOXIDE

The natural production and absorption of carbon dioxide (CO₂) is achieved through the terrestrial biosphere and the ocean. However, humankind has altered the natural carbon cycle by burning coal, oil, natural gas, and wood. Since the industrial revolution began in the mid-1700s, each of these activities has increased in scale and distribution. Carbon dioxide was the first greenhouse gas demonstrated to be increasing in atmospheric concentration, with the first conclusive measurements being made in the last half of the 20th Century. Prior to the industrial revolution, concentrations were fairly stable at 280 ppm. Today, they are around 370 ppm, an increase of well over 30% (EPA 2006). Left unchecked, the concentration of carbon dioxide in the atmosphere is projected to increase to a minimum of 540 ppm by 2100 as a direct result of anthropogenic sources (IPCC 2001)⁴. This could result in an average global temperature rise of at least two degrees Celsius (IPCC 2001).

Carbon dioxide emissions are mainly associated with combustion of carbon-bearing fossil fuels such as gasoline, diesel, and natural gas used in mobile sources and energy-generation-related activities. The U.S. EPA estimates that CO₂ emissions accounted for 84.6% of greenhouse gas emissions in the United States in 2004. (EPA 2006.) The California Energy Commission (CEC) estimates that CO₂ emissions account for 84% of California's anthropogenic (manmade) greenhouse gas emissions, nearly all of which is associated with fossil fuel combustion. (CEC 2005.) Total CO₂ emissions in the United States increased by 20% from 1990 to 2004. (EPA 2006.)

METHANE

Methane (CH₄) is an extremely effective absorber of radiation, though its atmospheric concentration is less than carbon dioxide and its lifetime in the atmosphere is brief (10-12 years), compared to some other greenhouse gases (such as CO₂, N₂O, and CFCs). CH₄ has both natural and anthropogenic sources. Landfills, natural gas distribution systems, agricultural activities, fireplaces and wood stoves, stationary and mobile fuel combustion, and gas and oil production fields categories are the major sources of these emissions. (EPA 2006.)

The U.S. EPA estimates that CH₄ emissions accounted for 7.9% of total greenhouse gas emissions in the United States in 2004. (EPA 2006.) The CEC estimates that in CH₄ emissions from various sources represent 6.2% of California's total greenhouse gas emissions. (CEC 2005.) Total CH₄ emissions in the United States decreased by 10% from 1990 to 2004. (EPA 2006.)

NITROUS OXIDE

Concentrations of nitrous oxide (N₂O) also began to rise at the beginning of the industrial revolution. N₂O is produced by microbial processes in soil and water, including those reactions which occur in fertilizers that contain nitrogen. Use of these fertilizers has increased over the last century. Global concentration for N₂O in 1998 was 314 ppb, and in addition to agricultural sources for the gas, some industrial processes (fossil fuel fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. (EPA 2006.)

The U.S. EPA estimates that N₂O emissions accounted for 5.5% of total greenhouse gas emissions in the United States in 2004. (EPA 2006.) The CEC estimates that nitrous oxide emissions from various sources represent 6.6% of California's total greenhouse gas emissions. (CEC 2005.) Total N₂O emissions in the United States decreased by 2% from 1990 to 2004. (EPA 2006.)

FLUORINATED GASES (HFCs, PFCs, AND SF₆)

Fluorinated gases, such as hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulfurhexafluoride (SF₆), are powerful greenhouse gases that are emitted from a variety of industrial processes. Fluorinated gases are occasionally used as substitutes for ozone-depleting substances such as chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs), and halons, which have been regulated since the mid-1980s because of their ozone destroying potential. Fluorinated gases are typically emitted in smaller quantities than CO₂, CH₄, and N₂O, but each molecule can have a much greater global warming effect. Therefore, fluorinated gases are sometimes referred to as High Global Warming Potential (GWP) gases. (EPA 2006.)

The primary sources of fluorinated gas emissions in the United States include the production of HCFC-22 production, electrical transmission and distribution systems, semiconductor manufacturing, aluminum production, magnesium production and

processing, and substitution for ozone-depleting substances. The U.S. EPA estimates that fluorinated gas (HFC, PFC, and SF₆) emissions accounted for 2.0% of total greenhouse gas emissions in the United States in 2004. (EPA 2006.) The CEC estimates that fluorinated gas emissions from various sources represent 3.4% of California's total greenhouse gas emissions. (CEC 2005.) Total fluorinated gas emissions in the United States increased by 58% from 1990 to 2004. (EPA 2006.)

STATE OF CALIFORNIA EMISSION REDUCTION STRATEGIES

Several strategies to reduce vehicle emissions have been identified by the California Environmental Protection Agency's Climate Action Team. These include, but are not limited to, the following:

VEHICLE CLIMATE CHANGE STANDARDS

With the passage of AB 1493, Pavley, Chapter 200, Statutes of 2002, California moved to the forefront of reducing vehicle climate change emissions. This bill required the state to develop and adopt regulations that achieve the maximum feasible and cost-effective reduction of climate change emissions emitted by passenger vehicles and light duty trucks. Regulations were adopted by the ARB in September 2004. The ARB analysis of this regulation indicates emissions savings of 1 million tons CO₂ equivalent (MMtCO₂e) by 2010 and 30 million tons CO₂ equivalent by 2020.

DIESEL ANTI-IDLING

Reduced idling times and the electrification of truck stops can reduce diesel use in trucks by about 4 percent, with major air quality benefits. In July 2004 the ARB adopted a measure to limit diesel-fueled commercial motor vehicle idling. ARB 42 analysis indicates that anti-idling measures could reduce climate change emissions by 1.2 MMtCO₂e in 2020.

OTHER NEW LIGHT DUTY VEHICLE TECHNOLOGY IMPROVEMENTS

In September 2004 the California Air Resources Board approved regulations to reduce climate change emissions from new motor vehicles. The regulations apply to new passenger vehicles and light duty trucks beginning with the 2009 model year. The standards adopted by the Board phase in during the 2009 through 2016 model years. When fully phased in, the near term (2009–2012) standards will result in about a 22 percent reduction as compared to the 2002 fleet, and the mid-term (2013–2016) standards will result in about a 30 percent reduction.

New standards would be adopted to phase in beginning in the 2017 model year (following up on the existing mid-term standards that reach maximum stringency in 2016). Assuming that the new standards call for about a 50 percent reduction,

phased in beginning in 2017, this measure would achieve about a 4 MMT reduction in 2020. The reduction achieved by this measure would significantly increase in subsequent years as clean new vehicles replace older vehicles in the fleet—staff estimates a 2030 reduction of about 27 MMT.

WORLDWIDE, NATIONAL AND STATEWIDE EMISSIONS

Table X presents estimated GHG emissions from California, the United States, and from worldwide sources. The results are presented in units of million metric tons per year of CO₂ equivalents (MMTCO₂Eq). Worldwide GHG emissions were taken from the World Resources Institute's Climate Analysis Indicators Tool (CAIT) version 4 for calendar year 2000 (the latest year for which complete data are available). The United States GHG emissions were taken from Energy Information Administration's Emissions of Greenhouse Gases in the United States 2004. While data for 2005 are available, 2004 data were used because the California data are for 2004. California GHG emissions were taken from the California Energy Commission's Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004 (the latest year for which complete data are available).

Table CL-1
Greenhouse Gases Emissions Worldwide, United States, and California

Geographic Region	CO ₂	CH ₄	N ₂ O
	MMTCO ₂ Eq ^a	MMTCO ₂ Eq ^b	MMTCO ₂ Eq ^c
Worldwide GHG Emissions for calendar year 2000 ¹	32,541.3	5,854.9	3,349.4
United States GHG Emissions for calendar year 2004 ²	5,973.0	639.5	353.7
California GHG Emissions for calendar year 2004 ³	334.9	27.9	33.3

Notes:

^aMMTCO₂Eq means million metric tons per year of CO₂ equivalent, using Global Warming Potential (GWP) values provided by IPCC in its Third Assessment Report (TAR) (IPCC 2001). The GWP for CO₂ is 1.

^bThe GWP from IPCC's TAR for CH₄ is 23.

^cThe GWP from IPCC's TAR for N₂O is 296.

CO₂ = carbon dioxide; N₂O = Nitrous oxide; CH₄ = Methane.

¹Worldwide GHG emissions taken from Climate Analysis Indicators Tool (CAIT) version 4.0. Washington, DC: World Resources Institute, 2007. Available at <http://cait.wri.org>.

²United States GHG emissions taken from *Emissions of Greenhouse Gases in the United States 2004*, Energy Information Administration, U.S. Department of Energy, Washington, DC, December 2005.

³California GHG emissions taken from *Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004*, California Energy Commission, CEC-600-2006-013-SF, December 2006.

SACRAMENTO COUNTY EMISSION REDUCTION EFFORTS

CHICAGO CLIMATE EXCHANGE

In February 2007, the County joined the Chicago Climate Exchange (CCX). The CCX is the world's first and North America's only voluntary, legally binding rules-based greenhouse gas (GHG) emission reduction and trading system. CCX Phase I members commit to reduce GHG emissions 1% per year over the years 2003 through 2006 relative to a 1998 through 2001 average baseline. Members agree to reduce GHG emissions by a total of 4% below the baseline by 2006. CCX Phase II members commit to reduce GHG emissions from 1¼ % to ½ % per year through the years 2007 through 2010 for grand total of 6% below the baseline.

Those members that reduce their emissions annually beyond the committed level can sell surplus emission allowances on the CCX exchange or bank them. A member that cannot achieve the annual reduction target within its organization can meet its commitment by purchasing emissions allowances through the CCX exchange from other CCX members that reduce their emissions beyond the reduction target.

The goals of CCX are:

1. To facilitate the transaction of GHG emissions allowance trading with price transparency, design excellence and environmental transparency.
2. To build the skills and institutions needed to cost-effectively manage GHG emissions.
3. To facilitate capacity-building in both public and private sector to facilitate mitigation.
4. To strengthen the intellectual framework required for cost effective and valid reduction.
5. To help inform the public debate on managing the risk of global climate change.

CCX members make a commitment to:

1. Measure, report, and reduce GHG emissions.
2. Establish an emission reduction schedule.
3. Implement GHG emissions management.
4. Participate in annual emissions audits.

ENERGY CONSERVATION/ENERGY EFFICIENCY PROGRAM

For years, the County of Sacramento has taken a leadership role in implementing policies and programs to conserve energy in County facilities and reduce emissions from the County fleet of vehicles.

The Board of Supervisors approved an Energy Conservation/Energy Efficiency Program in 2001. The essence of the program is to reduce electrical energy usage during peak

periods of the day. The program contains ten measures such as participating in Sacramento Municipal Utility Districts Voluntary Emergency Curtailment Program, setting building temperatures to 78° F to decrease cooling demand and dual switching of lights.

The County converted 108 of 150 trucks to liquid natural gas (LNG) in the Refuse Collection Fleet. The Heavy Rental Fleet now includes 18 propane powered vehicles. The Light Fleet includes 95 hybrid vehicles and 3 Compressed Natural Gas (CNG) vehicles. Replacement vehicles to the Light Fleet will be hybrid vehicles. The Sacramento International Airport operates LNG Shuttle buses.

GHG emissions from County operations are either direct emissions or indirect emissions. Direct emissions result from on-site direct combustion by the County of fossil fuels such as natural gas to heat facilities and gasoline to fuel vehicles. Therefore, increasing the number of vehicles, which use alternative fuels, reduces GHG emissions.

Indirect emissions result from the purchase of energy, such as electricity, and the corresponding emissions associated with that generation. Therefore, purchasing electricity from green energy sources, or reducing energy use reduces GHG emissions. Direct and indirect emissions are the GHG emissions, expressed in metric tons of carbon dioxide (CO₂) equivalent.

The County provided CCX current and historical energy and fuel purchase data for fiscal years The County provided CCX current and historical energy and fuel purchase data for fiscal years 2000, 2001, 2002, 2003, 2004, and 2005. The data submitted is for County-owned facilities and vehicles. The County's commitment to join does not apply to businesses, other government agencies or residents within the County boundary, only to emissions generated by Sacramento County as an organization. Preliminary review by the CCX indicates the County could be in a position to sell surplus emission allowances for the period of 2003 through 2010. This data will be subject to an audit before a formal Baseline is established and exact credits can be calculated.

It is expected, based on information available and preliminary review by the CCX, that the County will receive potential financial reward from participation in the CCX. The County may be eligible to sell excess allowances for 2003, 2004 and 2005. Fiscal year 2006 is half-complete and it would appear the County would again be in a sell position. Fiscal years 2007 through 2010 will be dependent on the County's continued commitment to energy conservation and fleet conversion. The preliminary baseline for direct and indirect emissions for the County is 226,700 metric tons of CO₂.

CALIFORNIA CLIMATE ACTION REGISTRY

The County joined the California Climate Action Registry (Registry) in December 2006. The Registry is non-profit public/private partnership that serves as a voluntary GHG registry to protect, encourage and promote early actions to reduce GHG emissions. Registry participants agree to calculate, certify and publicly report GHG emissions. The Registry provides a reporting tool, standards and protocol for reporting GHG emissions.

AB32 recognizes participation in the Registry in a number of ways. First, AB 32 requires the ARB to incorporate the standards and protocols developed by the Registry in the rulemaking process. Second, AB 32 provides that entities that join the Registry prior to December 31, 2006 and report their emissions according to the Registry protocols will not be required to significantly alter their reporting program.

CITIES FOR CLIMATE PROTECTION (ICLEI)

Sacramento County joined ICLEI in 2007. The Cities for Climate Protection is administered under the International Council for Local Environmental Initiatives (ICLEI). The following is a brief description of the program from their website (www.iclei.org):

The Cities for Climate Protection™ (CCP) Campaign enlists cities to adopt policies and implement measures to achieve quantifiable reductions in local greenhouse gas emissions, improve air quality, and enhance urban livability and sustainability. More than 650 local governments participate in the CCP, integrating climate change mitigation into their decision-making processes.

The campaign is based on an innovative performance framework structured around five milestones that local governments commit to undertake. The milestones allow local governments to understand how municipal decisions affect energy use and how these decisions can be used to mitigate global climate change while improving community quality of life. The CCP methodology provides a simple, standardized way of acting to reduce greenhouse gas emissions and of monitoring, measuring, and reporting performance.

Benefits of Participation

Communities that participate in the CCP benefit from the actions that they take to reduce greenhouse gas emissions through:

- Financial savings in reduced utility and fuel costs to the local government, households, and businesses.
 - Improved local air quality, contributing to the general health and well being of the community. Economic development and new local jobs as investments in locally produced energy products and services keep money circulating in the local economy.
- ICLEI provides regionally specific tools and technical assistance to assist local governments in reducing their greenhouse gas emissions.

Cities for Climate Protection® (CCP) is ICLEI's flagship campaign. The program is designed to educate and empower local governments worldwide to take action on climate change. CCP is a performance-oriented campaign that offers a framework for local governments to reduce greenhouse gas emissions and improve livability within their municipalities. This campaign would give Sacramento County a framework and tools to develop a plan for greenhouse emissions. The basic framework is called the 5 Milestones and consists of the following steps:

1. Conduct a baseline emissions inventory and forecast. Based on energy and waste data, the member calculates greenhouse gas emissions for a base year (e.g., 2000) and for a forecast year (e.g., 2015). The inventory and the forecast capture emissions from all municipal operations (e.g., city owned and/or operated buildings, streetlights, transit systems, wastewater treatment facilities) and from all community-related activities (e.g., residential and commercial buildings, motor vehicles, waste streams, industry). The inventory and forecast provide a benchmark against which the city can measure progress.
2. Adopt an emissions reduction target for the forecast year. The city passes a council resolution establishing an emission reduction target for the city. The target is essential both to foster political will and to create a framework to guide the planning and implementation of measures.
3. Develop a Local Action Plan. The local government develops a Local Action Plan that describes or lists the policies and measures that the local government will take to reduce greenhouse gas emissions and achieve its emissions reduction target. Most plans include a timeline, a description of financing mechanisms, and an assignment of responsibility to departments and staff. In addition to direct greenhouse gas reduction measures, most plans also incorporate public awareness and education efforts. The development of the Local Action Plan should include strong public input and involvement in order to build the consensus among stakeholders required to implement measures.
4. Implement policies and measures. The city implements the policies and measures contained in their Local Action Plan. Typical policies and measures implemented by CCP participants include energy efficiency improvements to municipal buildings and water treatment facilities, streetlight retrofits, public transit improvements, installation of renewable power applications, and methane recovery from waste management.
5. Monitor and verify results. Monitoring and verifying progress on the implementation of measures to reduce or avoid greenhouse gas emissions is an ongoing process. Monitoring begins once measures are implemented and continues for the life of the measures, providing important feedback that can be use to improve the measures over time. ICLEI's software provides a uniform methodology for cities to report on measures.

The County is presently gathering the information to conduct the baseline emission inventory and expects to complete this step in fall 2007.

GREEN FLEETS

The City and County of Sacramento have adopted a heavy-duty low-emission vehicle (LEV) acquisition policy. The policy goal is to reduce oxides of nitrogen (NOx) emissions from heavy-duty fleet vehicles to meet the year 2005 standard for ozone in the Sacramento Federal Ozone Non-attainment area.

The foundation statements for this project are:

1. We recognize that the region has an air quality problem which is related to vehicle operations, especially the operation of heavy-duty vehicles;
2. We recognize that public agencies in Sacramento County operate large vehicle fleets which have significant numbers of heavy-duty vehicles.
3. We recognize that public agencies have a significant role to play in improving air quality by reducing the emissions from their fleet operations, especially their heavy-duty vehicles.

The commitments of this program are to show how fleets can aggressively incorporate low-emission vehicles into fleet operations, and how fleets can overcome training, facility and operational issues with resolve. The efforts will focus on the conversion of the on-road, heavy-duty equipment fleets to certified low-emission vehicles as these vehicles are replaced as part of regular systematic replacement programs. As of 2004 the County has committed to replace 50% off the fleet to low-emission vehicles.

IMPACTS AND ANALYSIS:

The proposed projects would generate CO₂, CH₄ and N₂O emissions associated with vehicle emissions. The proposed projects are not industrial in nature and would not generate substantial fluorinated gas emissions other than those associated with distribution and substitution for ozone-depleting substances used as refrigerants in vehicular air conditioning systems.

Several strategies to reduce vehicle emissions have been identified by the California Environmental Protection Agency's Climate Action Team. These include, but are not limited to, the following:

VEHICLE CLIMATE CHANGE STANDARDS

With the passage of AB 1493, Pavley, Chapter 200, Statutes of 2002, California moved to the forefront of reducing vehicle climate change emissions. This bill required the state to develop and adopt regulations that achieve the maximum feasible and cost-effective reduction of climate change emissions emitted by passenger vehicles and light duty trucks. Regulations were adopted by the ARB in September 2004. The ARB analysis of this regulation indicates emissions savings of 1 million tons CO₂ equivalent (MMtCO₂e) by 2010 and 30 million tons CO₂ equivalent by 2020.

DIESEL ANTI-IDLING

Reduced idling times and the electrification of truck stops can reduce diesel use in trucks by about 4 percent, with major air quality benefits. In July 2004 the ARB adopted a measure to limit diesel-fueled commercial motor vehicle idling. ARB 42 analysis indicates that anti-idling measures could reduce climate change emissions by 1.2 MMtCO₂e in 2020.

OTHER NEW LIGHT DUTY VEHICLE TECHNOLOGY IMPROVEMENTS

In September 2004 the California Air Resources Board approved regulations to reduce climate change emissions from new motor vehicles. The regulations apply to new passenger vehicles and light duty trucks beginning with the 2009 model year. The standards adopted by the Board phase in during the 2009 through 2016 model years. When fully phased in, the near term (2009–2012) standards will result in about a 22 percent reduction as compared to the 2002 fleet, and the mid-term (2013–2016) standards will result in about a 30 percent reduction.

New standards would be adopted to phase in beginning in the 2017 model year (following up on the existing mid-term standards that reach maximum stringency in 2016). Assuming that the new standards call for about a 50 percent reduction, phased in beginning in 2017, this measure would achieve about a 4 MMT reduction in 2020. The reduction achieved by this measure would significantly increase in subsequent years as clean new vehicles replace older vehicles in the fleet—staff estimates a 2030 reduction of about 27 MMT.

CONCLUSIONS

As discussed before, there are no established CEQA thresholds for greenhouse gases. Part of the issue with establishing thresholds and proposing mitigation is that global warming, as the name implies, is not a localized phenomenon. The users of the project will generate greenhouse gases through vehicle emissions, and the use of refrigerants in vehicular cooling systems

The proposed project consists of mitigation measures that were approved as part of the North Vineyard Station Specific Plan EIR (Specific Plan) (Control No. 93-SFB-0238). These measures were deemed necessary to provide transportation infrastructure to accommodate the additional traffic generated as a result of the approved Specific Plan. The proposed project is not considered singularly growth inducing as these impacts were considered as part of the Specific Plan EIR. The Specific Plan EIR states the following in regard to growth inducement:

There may be some growth inducing potential associated with the project in that extension and upgrade of urban infrastructure and services will facilitate

development of surrounding properties. However, the Plan Area and most of its surrounding lands were committed to urbanization with the adoption of the 1993 General Plan. The Plan Area interfaces to the northeast and east represent the most potential for land use compatibility concerns and thus, the greatest potential for growth inducement would be in those directions. Those potentially affected lands are shown on the General Plan Land Use Diagram for non-urban land uses: Recreation (along the creek), Agricultural Urban Reserve, General Agriculture and Agricultural Residential. These lands are outside the Urban Policy Area, which is defined in the General Plan as that “area expected to receive urban levels of public infrastructure and services within the 20-year planning period.” By virtue of being outside the Urban Policy Area, the General Plan policies would not support near term urbanization of those lands. Furthermore, there are lands contiguous to the Plan Area that are within the designed growth area that would be given much higher priority for accommodating growth needs before any additional lands outside the Urban Policy Area are committed for urbanization. For these reason, the growth inducing potential of the project on lands not otherwise designed for urbanization during the next 20 years is considered less than significant.

The proposed project and the Specific Plan EIR are intrinsically linked; without the approved changes in land use resulting from the Specific Plan, the area would not be developed, and eliminate the need for transportation infrastructure improvements.

At the time the Specific Plan EIR was prepared, it was known that major infrastructure modification would be necessary and those modifications are included in that EIR as Mitigation Measures (Chapter 2, of the NVSSP EIR) and are the subject of this EIR. However, the detailed construction level impacts were not known at that time. Approval of the Specific Plan allowed this second tier engineering to proceed and has resulted in the proposed project and associated impacts and mitigation measures described in this EIR.

The purpose of a Supplemental EIR is to disclose project additions or changes resulting in significant impacts. The additions in this case are those impacts associated with the specific geographical areas where the widening of roadways will take place. As noted previously, the general locations were known and disclosed in the Specific Plan EIR, but not the exact footprint necessary for the implementation. The degree of specificity described in this document allows analysis of individual impacts to trees, parking, utilities, etc. As such, the present document is not intended, nor is it required, to re-evaluate the overarching impacts of land use, air quality and growth inducement already considered when the Specific Plan was adopted.

The County is aware that the issue of climate change and global warming has become increasingly controversial since the certification of the Specific Plan EIR. In particular, the passage by the State Legislature of AB 32 has motivated many lead agencies to consider whether and to what extent they should address climate change in environmental documents. In the case of the NVSSP Roadway Improvements, however, the time for analyzing project-wide air quality impacts has already passed.

Those impacts were assessed in the Specific Plan EIR. The information necessitating preparation of this Supplemental EIR (i.e., more precise information relating to location of road widening, expansion, etc.) has not changed the overall traffic and air quality impacts of the NVSSP. The new information related in this EIR regarding roadway construction has not added any trips or altered emission levels from those discussed in the NVSSP EIR. Thus, those broader impacts need not be analyzed again. The signing of AB 32 during the interim period does not require the County to now go back and re-examine project-wide air quality issues. The time for conducting such analysis has passed.

In any event, the purpose of this chapter is to demonstrate that there are existing and applicable regulations, policies and mitigation measures that address the issue of climate change. Moreover, out of an abundance of caution, the County will identify mitigation measures that ensure this project's (Roadway Improvements) incremental contribution to cumulative climate change impacts are less than significant.

In addition to the mitigation measures applicable to this project, travel demand reduction measures have been incorporated into various aspects of the Specific Plan to reduce vehicle emissions. The incorporation of these measures complies with the County General Plan policy AQ-15 which states the following:

All new major indirect sources of emissions shall be reviewed and modified or conditioned to achieve a reduction in emissions. This indirect source review program will be developed in coordination with SACOG and SMAQMD, and include the following features:

- A. A 15 percent reduction in emissions from the level that would be produced by a base-case project assuming full trip generation per the current ITE Trip Generation Handbook.
- B. A focus on cost-effective measures in terms of cost per ton of pollutant avoided.
- C. A list of cost-effective measures to be developed, maintained, and annually reviewed by SMAQMD.
- D. A maximum expenditure cap which will be computed for each indirect source on the basis of factors including, but not limited to, total emissions and project value.
- E. A process for obtaining a waiver from the 15 percent requirement if it is found that a lower level of reduction is all that can be achieved with cost-effective measures and offsets, or that achieving the full 15 percent reduction would cost more than expenditure cap.
- F. An exception for projects which have already undergone the indirect source review at some point in the development approval process.

- G. A procedure to give full credit for other measures required in a project that may also achieve a reduction in emissions.

The following measures and corresponding credits that are used to meet the required 15 percent reduction in emissions are incorporated into the Specific Plan, giving a total credit of 15.5% reduction:

1. The Plan contains a mixture of complementary land uses (residential, commercial, parks, schools) located within the project or within one-half mile of the project boundaries. Approximately half of the Plan meets the County's criteria, which allows for up to a 6% credit. SPECIFIC PLAN CREDIT= 3%.
2. The Plan is designed to provide a transit stop within a reasonable distance of all land uses. The proposed roadway network of Arterial, Thoroughfare, and Collector streets would accommodate bus stops within one-quarter mile of most land uses. SPECIFIC PLAN CREDIT= 2%.
3. The Plan will include easements to accommodate bus stop improvements (route signs, benches, shelters and lighting) at all major transit stops. Current RT policy only requires easements for stops since a private firm provides the shelter and related improvements in exchange for advertising space. SPECIFIC PLAN CREDIT= 2%.
4. The Plan is designed to accommodate and provide access to the planned on-street (Class II) bicycle lanes as identified in the 2010 Sacramento City/County Bikeway Master Plan (BMP). On-street facilities within one-half mile of the project site are planned on Florin, Bradshaw, and Gerber Roads, and the entire Plan area meets the criteria. SPECIFIC PLAN CREDIT= 2%.
5. In addition to the bikeways included in the BMP, both on-street and off-street facilities are included throughout the Plan area and will be located within one-half mile of all major land uses. SPECIFIC PLAN CREDIT= 1.5%.
6. Through policy language, the Plan provides for direct (i.e., minimum distance) pedestrian connections between adjacent and complementary land uses. All parks, schools, and commercial areas will be connected to residential areas by interconnected roads and pathways. SPECIFIC PLAN CREDIT= 2%.
7. The Plan circulation system provides direct automobile access between complementary land uses to minimize the distance traveled within the limits of physical constraints (i.e., drainage parkways). SPECIFIC PLAN CREDIT= 1%.

8. The Plan area will participate in a Transportation Management Association to create, administer, and finance on-going programs to reduce vehicle trips. The Financing Plan for the Plan will include means to fund the TMA. SPECIFIC PLAN CREDIT= 3%.

MITIGATION MEASURES:

- CC-1. Synchronize traffic lights at signalized project intersections where feasible to limit vehicle idling time and allow traffic to pass more efficiently through congested areas.
- CC-2. Replace traffic signal lighting with light emitting diodes (LED) at signalized project intersections.
- CC-3. Construction vehicles shall be equipped with retrofit emission control devices, such as diesel oxidation catalysts and diesel particulate filters, verified by the California Air Resources Board (CARB).
- CC-4. All project landscaping, including median and property frontage landscaping, shall be designed to minimize water usage and runoff through the use of drought-tolerant plantings and irrigation systems designed and maintained to reduce water evaporation and water loss; thereby reducing the amount of water sent to the sewer system.
- CC-5. Construction and demolition waste shall be reused or recycled to the greatest extent practicable.
- CC-6. Project roadways shall be surfaced with rubberized asphalt in order to offset global warming impacts through the use of recycled materials.

11 AIR QUALITY

INTRODUCTION

This chapter presents the impact analysis and mitigation measures that were discussed and adopted in the North Vineyard Station Specific Plan Final Environmental Impact Report (FEIR) (Control no. 93-SFB-0238), which are also applicable to this proposed project. The mitigation measures were updated in the Supplemental EIR (SEIR) (Control no. 03-CPB-0082) to reflect the current measures that would achieve what the mitigation measures in the FEIR were achieving. The SEIR was prepared for the Vineyard Point and Vineyard Creek subdivisions, Specific Plan Amendment, Financing Plan, and Water Treatment Facilities within the North Vineyard Station Specific Plan. These updated mitigation measures would be applicable to this proposed project.

IMPACTS AND ANALYSIS

IMPACT: CONSTRUCTION EMISSIONS

Construction employee vehicle trips, equipment exhaust, and paving activities would represent temporary sources of ozone precursors (NO_x and ROG). Construction-related air quality impacts are considered potentially significant for certain levels of construction activity. Impacts can be reduced to a **less than significant** level by applying mitigation measures to reduce dust and exhaust emissions.

IMPACT: OPERATION EMISSIONS

Mobile sources of ozone precursors (NO_x and ROG) and PM₁₀ emissions would be generated by vehicle trips attracted to and generated in the Specific Plan area. The North Vineyard Station Specific Plan concluded that these emissions would impact regional air quality. Area source emissions alone for ROG and PM₁₀ would fall well below applicable significance criteria and NO_x emissions exceed the standard, but not by a substantial amount. However, mobile source generation of NO_x, ROG, and PM₁₀ greatly exceed standards and would be considered a **significant** impact. According to the Specific Plan FEIR, the worst case cumulative plus project traffic with associated congestion at build out of the Specific Plan will cause the eight hour State and Federal carbon monoxide standard to be exceeded at four of the eight intersections analyzed. Because the levels exceed the standard, the impact is considered a **significant** impact. The one hour standard would not be exceeded.

Operation emissions are considered **significant and unavoidable**.

MITIGATION MEASURES

- AQ-1. The project shall provide a plan for approval by the County of Sacramento and SMAQMD demonstrating that the heavy-duty (>50 horsepower) off-road vehicles to be used in the construction project, including owned, leased and subcontractor vehicles, will achieve a project wide fleet-average 20 percent NO_x reduction and 45 percent particulate reduction compared to the most recent CARB fleet average; and
- AQ-2. The project representative shall submit to the County of Sacramento and SMAQMD a comprehensive inventory of all off-road construction equipment, equal to or greater than 50 horsepower, that will be used an aggregate of 40 or more hours during any portion of the construction project. The inventory shall include the horsepower rating, engine production year, and hours of use or fuel throughput for each piece of equipment. The inventory shall be updated and submitted monthly throughout the duration of the project, except that an inventory shall not be required for any 30-day period in which no construction activity occurs. At least 48 hours prior to the use of subject heavy-duty off-road equipment, the project representative shall provide SMAQMD with the anticipated construction timeline including start date, and name and phone number of the project manager and on-site foreman.
- AQ-3. The project shall ensure that emissions from all off-road diesel powered equipment used on the project site do not exceed 40 percent opacity for more than three minutes in any one hour. Any equipment found to exceed 40 percent opacity shall be repaired immediately, and the County of Sacramento and SMAQMD shall be notified within 48 hours of identification of non-compliant equipment. A visual survey of all in-operation equipment shall be made at least weekly, and a monthly summary of the visual survey results shall be submitted throughout the duration of the project, except that the monthly summary shall not be required for any 30-day period in which no construction activity occurs. The monthly summary shall include the quantity and type of vehicles surveyed as well as the dates of each survey. The SMAQMD and/or other officials may conduct periodic site inspections to determine compliance. Nothing in this section shall supercede other SMAQMD or state rules or regulations.
- AQ-4. The following construction-related measures apply to project construction activities:
- a. Water exposed, graded surfaces at least two times per day and if possible, keep soil moist at all times.
 - b. Properly maintain diesel and/or gas fueled construction equipment.
 - c. Water haul roads at least two times per day
 - d. Use low VOC architectural coatings

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SIGNIFICANT EFFECTS WHICH CANNOT BE AVOIDED

AIR QUALITY

Significant and unavoidable impacts to regional air quality were identified in the Final EIR for the North Vineyard Station (93-SFB-0238) and apply to the proposed roadway improvements. The prior EIR states:

“The projects proposed uses will significantly increase the amount of vehicle emissions for the site over that expected with site development in conformance with existing zoning. The project’s vehicle emissions will significantly exceed the Sacramento metropolitan Air Quality Management District’s recommended significance thresholds for ROG, NO_x, and particulates (PM₁₀). Worst case cumulative plus project traffic with associated congestion at build out of the proposed planning area will cause the eight hour State and Federal carbon monoxide standard to be exceeded at four of the eight intersections analyzed.”

SIGNIFICANT EFFECTS WHICH COULD BE AVOIDED WITH IMPLEMENTATION OF MITIGATION MEASURES

AIR QUALITY

Air quality impacts due to construction activities were considered significant in the Final EIR for the North Vineyard Station (93-SFB-0238) and apply to the proposed roadway improvements. The prior EIR states:

“construction employee vehicle trips, equipment exhaust, architectural coating, and asphalt paving activities would represent temporary sources of ozone precursors (NO_x and ROG). Construction related air quality impacts are considered a potentially significant adverse impact for certain levels of construction activity. Impacts can be reduced to a less than significant level by applying mitigation measures to reduce dust and exhaust emissions.”

NOISE

Future plus project traffic noise levels (except for the two locations previously noted) would be no more than 1 dB higher than future traffic noise levels without the project. The exception to this is those properties located along Florin Road between South Watt

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Avenue and Bradshaw Road and between Bradshaw Road and Excelsior Road. Noise levels along this portion of the roadway increase by 2 dB and 1.7 dB respectively over the Future No Project condition. The use of rubberized asphalt on these roadway segments will achieve a 4 dB reduction and reduce this impact to ***less than significant***.

BIOLOGICAL RESOURCES

WATERS OF THE UNITED STATES

A total of 15.74 acres of Waters of the United States was delineated within the project boundaries. Roadway widening will fill Waters of the U.S. within the identified right-of-way. Roadside ditches may be re-located or replaced with curb and gutter. This would result in permanent impacts to all Waters of the U.S. that are filled and temporary impacts to those ditches that can be relocated.

SPECIAL STATUS PLANTS

Project construction could result in the disturbance or removal of freshwater marsh or vernal pools that provide habitat for the following species:

- Ahart's dwarf rush
- Bogg's Lake hedge-hyssop
- Dwarf downingia
- Legenere
- Sacramento orcutt grass
- Slender orcutt grass
- Sandford's arrowhead

VERNAL POOL SPECIES AND CRITICAL HABITAT

The project area includes potential habitat for vernal pool fairy shrimp, vernal pool tadpole shrimp, and western spadefoot toad. The proposed roadway projects will impact vernal pools and seasonal wetlands along the corridors.

The CNDDDB showed three occurrences of vernal pool fairy shrimp critical habitat, with Unit 11E as the closest occurrence within five miles of the Plan Area, near the northeastern portion of the Plan Area. The other two occurrences, Units 11F and 11G are located over five miles southeast of the Plan Area (USFWS 2006). Project construction near Unit 11E has the potential to indirectly affect vernal pool critical habitat.

FISH

There are no immediate fish issues associated with the Plan Area. Morrison, Elder, Laguna, Gerber, and florin creeks have not been designated as critical habitat for any

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federally and/or California listed fish species. However, impacts to Morrison, elder, Laguna, Gerber or florin creeks or their tributaries via sediment runoff could potentially be viewed by regulatory agencies as affecting downstream conditions for federally and/or California listed fish species, Central Valley ESUs, anadromous salmonids, such as Central Valley steelhead, fall-run Chinook salmon, spring-run Chinook salmon. Other special-status fish that could be affected by sediment runoff include delta smelt and Sacramento perch.

NORTHWESTERN POND TURTLE

The proposed roadway projects will impact marsh, ponds, and slow moving streams along the corridors. While surveys did not detect northwestern pond turtle, these areas are considered potential habitat for the species.

GIANT GARTER SNAKE

The proposed roadway projects will impact marsh, ponds, and slow moving streams along the corridors. While surveys did not detect giant garter snake, these areas are considered potential habitat for the species.

BURROWING OWL

No burrowing owls were observed during the field surveys. However, suitable habitat does exist along the project corridors, and burrowing owls could inhabit these areas at the time of construction.

NESTING SWALLOWS

Bridge construction activities could affect nesting colonies of swallows.

SWAINSON'S HAWK AND OTHER RAPTORS

There are 25 occurrences of Swainson's hawk within five miles or less of the project area. While no Swainson's hawks were observed during field surveys, construction activities have the potential to disturb Swainson's hawks that may nest in this area. Other raptors include red-tailed hawk (*Buteo jamaicensis*), red-shouldered hawk (*B. lineatus*), American kestrel (*Falco sparverius*), great horned owl (*Bubo virginianus*), Cooper's hawk (*Accipiter cooperii*), ferruginous hawk (*Buteo regalis*), white-tailed kite (*Elanus leucurus*), and golden eagle. Construction activities have the potential to disturb raptors that may nest in this area.

TRICOLORED BLACKBIRD

One documented nesting tricolored blackbird occurrence within the Plan area was identified (CNDDDB occurrence No. 305). This population was documented near

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Bradshaw Road and Morrison Creek (CDFG 2003). However, full improvements have already been constructed on this bridge as a part of the Bradshaw Road Widening Project (01-PWE-0471), and the identified population of the species will not be affected by the construction activities proposed in this document. Other creek crossings have potentially suitable habitat, and construction activities have the potential to affect tri-colored blackbird in those locations.

NATIVE TREES

The tree survey revealed potential project impacts to a total of 333 native oaks with dbh 6 or greater, resulting in a 5,096 dbh impact, a total of 153 Northern California Black Walnuts with dbh 6 or greater, resulting in a 2,858 dbh impact, and a total of 17 California Sycamores with dbh 19 or greater, resulting in a 576 dbh impact.

CULTURAL RESOURCE

The cultural resource surveys indicated no evidence of significant surface archaeological remains or historic resources. However, subsurface cultural remains could be present due to the natural burial of prehistoric or historic sites by alluviation through periodic flooding or other natural phenomena. The possibility exists for potentially significant unidentified cultural materials to be encountered on or below the surface during the course of future development or construction activities

Additionally, given the fact that the proposed project will be built out in a gradual manner, additional significant resources that have not been previously evaluated, due to the fact that they were not 50 years or older at the time of this project's evaluation, could be altered or demolished.

HAZARDOUS MATERIALS

Right-of-way identified for acquisition to construct the project improvements may contain hazardous materials or underground storage tanks. Acquisition and acceptance of properties with hazardous materials creates risk for the County and construction workers.

EFFECTS FOUND NOT TO BE SIGNIFICANTLAND USE*CONFLICT WITH ADOPTED PLANS AND POLICIES*

The proposed project is in compliance with the Sacramento County General Plan, City of Elk Grove General Plan, City of Sacramento General Plan, South Sacramento Community Plan, Cordova Community Plan, and applicable transportation plans. The

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proposed project is not in compliance with the transportation plan in the Vineyard Community Plan; however, the transportation plan is based on an outdated plan in the 1982 General Plan. This outdated plan identifies Bradshaw Road as a four lane roadway, which the current transportation plan and project plans identify as six lanes.

RIGHT-OF-WAY ACQUISITION

Property acquisition necessary to provide sufficient right-of-way to construct the proposed roadway improvements would affect a total of 484 parcels. Of those, ten would possibly require full acquisition and the remaining parcels would be subject to partial acquisition. The relocation program, as described previously in this section, is required to assist affected property owners. Financial compensation and assistance to find a replacement dwelling or property is provided under the program. Two industrial and one agricultural-residential property would have a portion of their parking acquired. All three of these properties have adequate remaining area where the parking for the affected parcels to relocate. Non-conforming uses may result from partial acquisition which, but the continued use of the parcel will not be impaired.

*PUBLIC SERVICES**ELECTRICAL AND NATURAL GAS SERVICE*

The Pacific Gas & Electric (PG&E) Gold Hill – Eight Mile Road 230kV and the Rio Oso – Lockford 230kV transmission lines are located within the project limits. PG&E's concerns include:

- Continued access to the structures and lines with heavy equipment for maintenance and repair of the towers, insulators, and wires.
- Adequate ground clearance from the wires as set forth in California Public Utilities Commission General Order No. 95 for the proposed improvements on the plan. If an infraction should occur, the developer will be responsible for the costs of raising or the relocation of the facilities.

The following restrictions should ensure no project interference with PG&E's tower lines:

- All trees, shrubs, and plants within PG&E's easement area shall not exceed a height of 15 feet at maturity and no trees shall be planted within said area within 15 feet of any tower structure, or within a 15 foot horizontal distance from the conductor.
- Overhead lighting installed within said area shall not exceed 15 feet in height and be located a minimum horizontal distance of 15 feet from the conductors of PG&E's overhead electric transmission lines nor within 15 feet of any tower structure.

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- No grading, cuts or fills are to be done within the tower line easement without written approval from PG&E.
- Place protection barriers such as bollards around the legs of the tower located where towers may be put in a vulnerable position due to traffic.
- The contractor is to be aware of and observe the minimum clearances for both workers and equipment operating near high voltage electric lines set out in the High-Voltage Electrical Safety Orders of the California Division of Industrial Safety, as well as any other safety regulations.

Should PG&E's electrical transmission facilities be affected, PG&E requests to review proposed improvement plans to ensure consistent uses within their easement area and the safety of the public prior to construction. Should the project conflict with existing gas facilities, reimbursement for relocation of those facilities is the responsibility of the developer.

SANITATION SERVICE

CSD-1 has several existing and proposed facilities within the project area. Coordination between the applicant and CSD-1 will be necessary to identify the exact locations of possible conflict with roadway construction.

STATE HIGHWAY

Caltrans operates and maintains Jackson Highway (SR 16) within the project area. Coordination between the applicant and Caltrans will be necessary to avoid adverse impacts to SR 16 during construction of the proposed roadway improvements.

RAILROAD

The Central California Traction Company (CCTC) railroad extends diagonally through the project, crossing Calvine Road, Gerber Road, Florin Road and Elder Creek Road at-grade. Coordination with the Public Utilities Commission will be necessary for roadway improvements that involve rail crossings.

*WATER SUPPLY & RESOURCES***SACRAMENTO COUNTY WATER AGENCY**

The Sacramento County Water Agency noted that many of the project's roadway improvements coincide with proposed pipes within the project area. The projects are:

- Bradshaw Road- A 48 inch treated water supply pipeline and an 18 inch raw water supply pipeline are proposed from Gerber Road, north to Florin Road. A 24

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inch treated water supply pipeline is proposed from Florin Road, north to Elder Creek Road.

- Calvin Road- A 24 inch treated water supply pipeline is proposed from ¼ mile east of Bradshaw Road, east to Vineyard Road. A 12 inch treated water supply pipeline is proposed from Vineyard Road, east to Excelsior Road.
- Elder Creek Road- A 16 inch treated water supply pipeline is proposed from South Watt Avenue, east to Excelsior Road.
- Elk Grove-Florin Road- A 16 inch treated water supply pipeline is proposed from Gerber Road, north to Elder Creek Road.
- Excelsior Road- A 16 inch treated water supply pipeline is proposed from Gerber Road, north to Elder Creek Road. This raw water supply pipeline increases in diameter as it heads north from 18 inches at Gerber Road, to 30 inches at Elder Creek Road.
- Florin Road- A 24 inch treated water supply pipeline is proposed from Elk Grove-Florin Road, east to Bradshaw Road. A 60 inch treated water supply pipeline is proposed from Bradshaw Road, east to Vineyard Road. A 66 inch treated water supply pipeline is proposed from Vineyard Road, east to Excelsior Road. An 18 inch raw water supply pipeline is proposed from Bradshaw Road, east to Vineyard Road.
- Gerber Road- A 24 inch treated water supply pipeline is proposed from Elk Grove-Florin Road, east to Vineyard Road. A 16 inch treated water supply pipeline is proposed from Vineyard Road, east to Excelsior Road. An 84 inch raw water supply pipeline is proposed from Elk Grove-Florin Road, east to Vineyard Road. A 66 inch raw water supply pipeline is proposed from Vineyard Road to Excelsior Road.
- Vineyard Road- A 24 inch treated water supply pipeline is proposed from ¼ mile south of Gerber Road, north to Florin Road. A 60 inch raw water supply pipeline is proposed from Gerber Road, north to Florin Road.
- Waterman Road- A 24 inch treated water supply pipeline is proposed from Gerber Road, north to the North Vineyard Station Storage Tank site, north of Florin Road. (The tank site is located approximately halfway between Gerber Road and Florin Road).

The proposed North Vineyard Station Specific Plan Roadway Improvements project would coordinate with the Sacramento County Water Agency proposed projects to ensure disturbance is kept to a minimal level.

SACRAMENTO COUNTY DEPARTMENT OF WATER RESOURCES

The Sacramento County Department of Water Resources manages surface water and groundwater resources via the powers of the County of Sacramento and the Sacramento County Water Agency. They also provide services including drainage, flood control and water supply to various areas in the unincorporated Sacramento County, as well as to the cities of Citrus Heights, Elk Grove and Rancho Cordova.

The Sacramento County Department of Water Resources reviewed the project plans and identified the following areas of particular interest:

- Jackson Road at Excelsior Road – here the flood water flows over the intersection about 3’ deep during the base flood event (100 year flood event).
- Elder Creek Road approximately 1 mile east of Bradshaw – here Elder Creek flows over the road about 4’ deep during the base flood event.
- South Watt Avenue 1200 to 2700 feet south of Fruitridge Road – There is a broad floodplain crossing over the road at this location during the base flood event. This is in the City of Sacramento so this office lacks specific data.

The roadway elevation would not be raised by the project. Should changes to the roadway plans occur, the applicant shall coordinate with the Sacramento County Department of Water Resources to address any conflicts.

FREEPORT REGIONAL WATER AUTHORITY

The Freeport Regional Water Authority (FRWA) was formed by a joint powers agreement of Sacramento Water Agency (SCWA) and East Bay Municipal Utility District of Oakland (EBMUD) in February 2002 to provide surface water to customers in central Sacramento County and in the East Bay.

FRWA is in the construction phase of the water intake facility portion of the Freeport Regional Water Project and is scheduled to begin construction on the pipeline facilities portion in May 2007. Coordination between the applicant and FRWA will be necessary to identify any areas of possible conflict

CITY OF SACRAMENTO

The City of Sacramento noted that the project needs to be constructed so that there is no increased impact to downstream drainage facilities which convey storm water runoff through the City of Sacramento and the treatment of storm water runoff must be treated as specified in the State’s National Pollutant Discharge Elimination Permit (NPDES). Mitigation measures to protect water quality during construction are included in the Biological Resources chapter of this document. In addition, the applicant will be required to comply with the applicable NPDES permit.

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WELLS

Well facilities are typically encountered at rural properties. The project roadways extend through urban, semi-rural and rural environments. Based on current project engineering, project acquisition of right-of-way along these semi-rural and rural properties will conflict with existing wells. Six properties subject to acquisition have possible well conflicts that will need to be resolved prior to construction.

NOISE

Future plus project traffic noise levels would be no more than 1 dB higher than future traffic noise levels without the project. This is not considered significant since the noise level would have to increase at least 1.5 dB in order to be considered a significant impact. It should be noted that while this impact is not considered significant, many of these locations are above the 65 dB noise threshold established in the General Plan. The application of rubberized asphalt in these locations would reduce the noise level by 4 dB. While this may not bring these locations into compliance with the General Plan, it would have the effect of reducing noise levels along the project roadways.

During the construction phases of the project, noise from construction activities would add to the noise environment in the immediate project vicinity. Construction activities would be temporary in nature and are anticipated to occur during normal daytime working hours.

CLIMATE CHANGE

*The reduction of greenhouse gases through the mitigation measures addressing climate change cannot be quantified at this time. However, every effort to reduce project-induced greenhouse gas emissions is being made. Application of roadway mitigation and the Specific Plan policy AQ-15 components aid in the reduction of greenhouse gas emissions. Impacts from greenhouse gas emissions introduced by the proposed project are considered **less than significant**.*

IRREVERSIBLE ENVIRONMENTAL CHANGES

The project will result in the following irreversible environmental changes should the proposed project be implemented. Approval and construction of the project would irreversibly commit more land to the transportation network of Sacramento County. The project would result in the use of aggregates, metals, and petrochemicals in the form of asphalts, oils, paints, and other materials used in construction. Secondary impacts include vehicle, pedestrian and bicycle access to areas that were formally unavailable for these uses. Construction of the project would commit future generations to using this land for transportation-related uses.

CUMULATIVE IMPACTS

Cumulative impacts of the project were full analyzed throughout this document along with project-specific, singularly significant impacts.

GROWTH INDUCING IMPACTS

According to CEQA, growth inducement is not considered necessarily detrimental or beneficial (CEQA Guidelines, Section 15126 [d]). Growth inducement is considered a significant impact only if it directly or indirectly affects the ability of agencies to provide needed public services, or if it can be demonstrated that the potential growth, in some other way could significantly affect the environment. Infrastructure is typically identified as growth inducing if it removes an obstacle to growth. Examples would be a *new* roadway in a rural area, a sewer system or water supply where they previously did not exist. A project may also be growth inducing if it fosters population growth or overburdens service facilities. The proposed project consists of the expansion of existing facilities and is identified as relieving projected congestion from the development of the North Vineyard Station Specific Plan.

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Relationships System, California Department of Fish and Game, Sacramento, CA.

14 RESPONSE TO COMMENTS

INTRODUCTION

The following section includes the comments received on the Draft Supplemental Environmental Impact Report (SEIR) and responses to those comments. The Draft SEIR was released on June 11, 2007. A public hearing before the Project Planning Commission was held on July 23, 2007. Oral testimony was taken at the public hearing; however, no one chose to comment. In addition, written comments were received via U.S. mail. All comment letters are contained in this chapter and each letter and comment is numbered. The response to the comments follows each letter. Changes to the DSEIR are shown with underlined italics for text added and ~~cross-out~~ for text deleted.

Comments from the following list are included:

Agencies and Sacramento County Departments

1. California Department of Transportation
2. City of Elk Grove
3. City of Sacramento
4. Department of Fish and Game
5. Sacramento County Department of Transportation
6. Sacramento Metropolitan Air Quality Management District
7. Sacramento Municipal Utilities District
8. Southgate Recreation and Park District

Public

9. Ted Niles
10. Anna Lalich
11. Prenita Devi on behalf of Maya and Gurbux Singh

LETTER #1 DEPARTMENT OF TRANSPORTATION

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY

ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF TRANSPORTATION

DISTRICT 3 – SACRAMENTO AREA OFFICE

VENTURE OAKS, MS 15

P. O. BOX 942874

SACRAMENTO, CA 94274-0001

PHONE (916) 274-0614

FAX (916) 274-0648

TTY (530) 741-4509

Letter 1

*Flex your power!
Be energy efficient!*

July 26, 2007

07SAC0120

03-SAC- 16 PM Various

North Vineyard Station Specific Plan Roadway Improvements

Draft Supplemental EIR (06-PWE-0194)

SCH#2006112105

Ms. Lisa Worrall

County of Sacramento

Department of Environmental Review and Assessment

827 7th Street, Room 220

Sacramento, CA 95814

Dear Ms. Worrall:

Thank you for the opportunity to review and comment on the above mentioned project. Our comments are as follows:

- This project proposes to construct roadway improvements based upon mitigation for the North Vineyard Station Specific Plan. Various local roadway and State Route (SR) 16 improvements are discussed in the Draft Supplemental Environmental Impact Report (DSEIR). Development and construction of the SR16 components will require close coordination with Caltrans and will require encroachment permits or a cooperative agreement, depending on the scope and cost of the project(s). Please contact our office to initiate these activities. **1**

With reference to Page 3-17 of the document, "Trigger 5701" indicates traffic volumes attaining a 90% capacity or 16, 200 daily vehicles are to be reached before the highway is widened on segments extending from South Watt Avenue to Excelsior Road. Depending on the phasing of this work and the time to construct, it may be necessary to initiate construction prior to the 90% or 16,200 daily vehicle thresholds. Again, close coordination with Caltrans is needed in this matter. **2**

"Caltrans improves mobility across California"

Ms. Lisa Worrall
July 26, 2007
Page 2

We would be pleased to meet with the County at the earliest opportunity to address these issues. **3**
Caltrans representatives from our Traffic Operations, Project Management, Permits and
Planning functions would be involved. Please contact Ken Champion at (916) 274-0615 to
make arrangements for the meeting.

Sincerely,



Bruce De Terra, Office Chief
Office of Transportation Planning - South

c: Scott Morgan, State Clearinghouse

"Caltrans improves mobility across California"

COMMENTS RECEIVED FROM DEPARTMENT OF TRANSPORTATION, JULY 26, 2007.

RESPONSE TO COMMENT #1:

This comment does not pertain to the adequacy of the environmental document, but the comment will be forwarded to the Board of Supervisors and Department of Transportation for their consideration.

RESPONSE TO COMMENT #2:

This comment does not pertain to the adequacy of the environmental document, but the comment will be forwarded to the Board of Supervisors and Department of Transportation for their consideration.

RESPONSE TO COMMENT #3:

This comment does not pertain to the adequacy of the environmental document, but the comment will be forwarded to the Board of Supervisors and the Department of Transportation for their consideration.

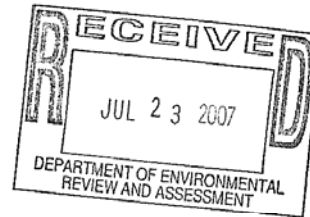
LETTER #2 CITY OF ELK GROVE

Letter 2

8401 LAGUNA PALMS WAY • ELK GROVE, CALIFORNIA 95758
 TEL: 916.683.7111 • FAX: 916.691.2001 • www.elkgrovecity.org

DEVELOPMENT SERVICES

BUILDING SAFETY & INSPECTION (916) 478-2235
 PLANNING (916) 478-2265
 PUBLIC WORKS (916) 478-2263



July 20, 2007

County of Sacramento
 Department of Environmental
 Review and Assessment
 827 7th Street, Room 220,
 Sacramento, CA 95814

RE: Comments for North Vineyard Station Specific Plan Roadway Improvements Draft EIR

To Whom It May Concern:

City of Elk Grove reviewed the North Vineyard Station draft EIR and below is the City's comment:

1. During the design and construction of the improvements adjacent to the City of Elk Grove (Elk Grove-Florin Road, Bradshaw Road and Excelsior Road) appropriate coordination, including but not limited to plan review, design of appropriate transition and traffic control, is required. **1**

If you have any question, I can be reached at 478-3604.

Sincerely,

A handwritten signature in black ink, appearing to read "Dorothy Kam".

Dorothy Kam
 Design Engineer
 City of Elk Grove, Public Works



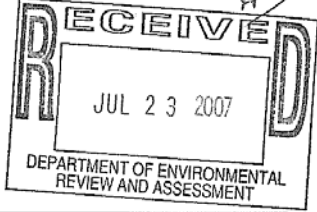

CC: Taro Echiburu, City of Elk Grove
 File

COMMENTS RECEIVED FROM CITY OF ELK GROVE, JULY 20, 2007.

RESPONSE TO COMMENT #1:

This comment does not pertain to the adequacy of the environmental document, but the comment will be forwarded to the Board of Supervisors and Department of Transportation for their consideration.

LETTER #3 CITY OF SACRAMENTO

	Letter 3	 
CITY OF SACRAMENTO CALIFORNIA		
DEVELOPMENT SERVICES DEPARTMENT ENVIRONMENTAL CLEARINGHOUSE COMMITTEE	2101 ARENA BOULEVARD SUITE 200 SACRAMENTO, CA 95834 ENVIRONMENTAL PLANNING SERVICES 916-808-8458 FAX 916-566-3968	
 July 18, 2007		
 Joyce Horizumi Department of Environmental Review and Assessment, County of Sacramento 827 7 th Street, Room 220 Sacramento, CA 95814		
 SUBJECT: Draft Supplemental EIR for North Vineyard Station Specific Roadway Improvements		
 Dear Ms. Horizumi,		
 Thank you for the opportunity to comment on the draft supplemental EIR for the North Vineyard Station Specific Plan Roadway Improvements project. At this time the City does not have any comments, but we would like to remain on the list for all noticing of this project in the future. Thank you.		
 Sincerely,		
		
John Law Environmental Planning Services		
 cc: ECC 07-010		

COMMENTS RECEIVED FROM CITY OF SACRAMENTO, JULY 18, 2007.

RESPONSE TO COMMENT #1:

The City of Sacramento shall remain on the DERA mailing list for any future notices and project-related mailings. This comment will be forwarded to the Department of Transportation for their mailing lists as well.

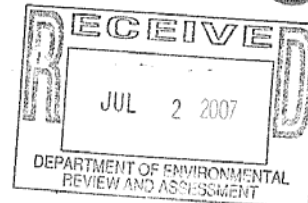
LETTER #4 DEPARTMENT OF FISH AND GAME



State of California - The Resources Agency
DEPARTMENT OF FISH AND GAME
<http://www.dfg.ca.gov>
 North Central Region
 1701 Nimbus Road, Suite A
 Rancho Cordova, CA 95670
 (916) 358-2900

ARNOLD SCHWARZENEGGER, Governor

Letter 4



June 26, 2007

Ms. Joyce Horizumi, Director
 County of Sacramento
 Department of Environmental Review and Assessment
 827 7th Street, Room 220
 Sacramento, CA 95814

Dear Ms. Horizumi:

The Department of Fish and Game (DFG) has reviewed the draft Supplemental Environmental Impact Report (SEIR) for the Vineyard Station Specific Plan Roadway Improvements project (SCH#200611210). The project consists of a plan to improve roadways in the North Vineyard Station Specific Plan area. Specifically, Jackson Highway, Elder Creek Road, Florin Road, Gerber Road, Calvine Road, Elk Grove Florin Road, South Watt Avenue, Bradshaw Road, Vineyard Road, and Excelsior Road. The project is located east of Highway 99, in Sacramento County.

Wildlife habitat resources consist of a variety of habitat types throughout the North Vineyard Station Specific Plan. These include vernal pool grasslands, agricultural lands, valley foothill riparian, and freshwater marsh. Significant natural resources of the project includes habitat for sensitive species including state and federal-listed threatened or endangered species.

We are concerned that in addition to the mitigation proposed in the SEIR, the applicant must obtain the appropriate take authorization under and State and Federal Endangered Species acts.

1. We recommend revising Mitigation Measure BR-2 to include a requirement that if plant surveys disclose the presence of the state-listed endangered Boggs lake hedge-hyssop (*Gratiola heterosepala*), the DFG must be notified, and "take" authorization obtained under section 2081 of the Fish and Game Code prior to disturbing this plant. 1
2. We recommend revising Mitigation Measure BR-5 to include a provision that the DFG be included in any consultation with the U.S. Fish and Wildlife Service (FWS) regarding the dual-listed giant garter snake (*Thamnophis gigas*). If the FWS issues a Biological Opinion related to the proposed project, then under section 2080.1 of the Fish and Game Code, DFG must be notified and take authorization obtained. 2

Conserving California's Wildlife Since 1870

Ms. Horizumi
June 26, 2007
Page Two

This project will have an impact to fish and/or wildlife habitat. Assessment of fees under Public Resources Code Section 21089 and as defined by Fish and Game Code Section 711.4 is necessary. Fees are payable by the project applicant upon filing of the Notice of Determination by the lead agency.

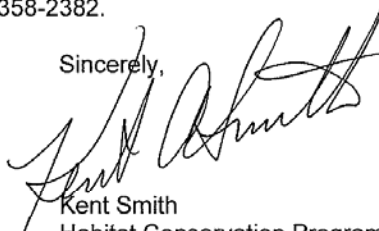
3

Pursuant to Public Resources Code Sections 21092 and 21092.2, the DFG requests written notification of proposed actions and pending decisions regarding this project. Written notifications should be directed to this office.

4

Thank you for the opportunity to review this project. If the DFG can be of further assistance, please contact Mr. Dan Gifford, Staff Environmental Scientist, at (209) 369-8851 or, myself at (916) 358-2382.

Sincerely,



Kent Smith
Habitat Conservation Program Manager

Cc: U.S. Fish and Wildlife Service
2800 Cottage Way, Room W2605
Sacramento, CA 95825-1888

Mr. Dan Gifford
Department of Fish and Game
1701 Nimbus Road, Suite A
Rancho Cordova, CA 95670

COMMENTS RECEIVED FROM DEPARTMENT OF FISH AND GAME, JUNE 26, 2007.

RESPONSE TO COMMENT #1:

Mitigation measure BR-2 was edited to include the requirement to obtain a “take” authorization if special status plant species are encountered and will be impacted by the project. See BR-2 on page 7-37 of the FSEIR.

RESPONSE TO COMMENT #2:

A mitigation measure has been added to address Department of Fish and Game consultation on GGS in the “Biological Resources” chapter. See BR-11 on page 7-44 of the FSEIR.

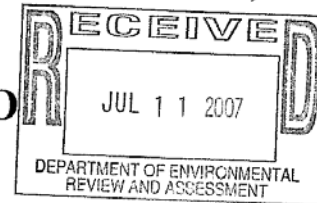
RESPONSE TO COMMENT #3:

Comment noted.

RESPONSE TO COMMENT #4:

Text has been added under the section, California Department of Fish and Game Requirements on page 7-5 to specify the requirement for written notification as projects are presented for construction.

LETTER #5 SACRAMENTO COUNTY DEPARTMENT OF TRANSPORTATION

Letter 5 *Draft R7***COUNTY OF SACRAMENTO***Inter-Department Correspondence*

July 10, 2007

TO: Joyce Horizumi
Department of Environmental Review and Assessment

FROM: Matt Darrow *MGD*
Department of Transportation

**SUBJECT: COMMENTS FOR THE DRAFT ENVIRONMENTAL IMPACT REPORT
FOR NORTH VINEYARD STATION SPECIFIC PLAN
ROADWAYIMPROVEMENTS (06-0194)**

Thank you for the opportunity to comment on the Draft Environmental Impact Report (DEIR) for this project. We have no comments at this time. If you have any questions, please feel free to contact me at 874-7052.

1

MGD:mgd

C: Dan Shoeman
Dean Blank
Steve Hong

COMMENTS RECEIVED FROM SACRAMENTO COUNTY DEPARTMENT OF
TRANSPORTATION, JULY 10, 2007.

RESPONSE TO COMMENT #1:

Comment noted.

LETTER #6 SACRAMENTO METROPOLITAN AIR QUALITY DISTRICT

Letter 6



Larry Greene
AIR POLLUTION CONTROL OFFICER

July 25, 2007

Mr. Tim Hawkins
Sacramento County Department of Environmental Review and Assessment
827 7th Street, Room 220
Sacramento, CA 95814

**Subject: Draft Supplemental Environmental Impact Report for the North Vineyard Station
Specific Plan Roadway Improvements**
Control Number: 06-PWE-0194
AQMD Number: SAC200601074

Dear Mr. Hawkins:

Thank you for submitting the **Draft Supplemental Environmental Impact Report for the North Vineyard Station Specific Plan Roadway Improvements** (Roadway Improvements DSEIR) to the Sacramento Metropolitan Air Quality Management District (District) for review. District staff comments follow.

Construction Mitigation

The Roadway Improvements DSEIR tiers off a 1998 FEIR for the North Vineyard Station Specific Plan (Specific Plan). Although the air quality impacts as a result of the construction of the Roadway Improvements were not specifically identified in the Specific Plan FEIR, nor were they specifically identified in the current DSEIR, the District's standard construction mitigation is required of all projects within the Specific Plan area per page 2-8 of the Specific Plan FSEIR. Air quality should be listed as a significant impact in Table 2-1 (Executive Summary of Impacts and Mitigation) of the Roadway Improvements FEIR. The previously-identified standard mitigation measures AQ-1, AQ-2 and AQ-3 of the MMRP for the Specific Plan are attached. Mitigation measure AQ-4 also applies to this project.

1

Global Warming Discussion

Increased ambient temperatures lead to increased ozone formation. Because the District is charged with achieving the federally mandated health-based ozone standard, we are particularly interested in activities that may affect global warming.

While we understand the difficulty that all local jurisdictions are facing regarding how to address climate change issues in environmental documents, the Attorney General on June 19, 2007, released a comment letter to the City of San Jose on the Coyote Valley Specific Plan DEIR (attached, hereafter, AG's letter). The AG's letter provides the most specific recommendations to date on how best to approach this daunting topic. The Climate Change section of the Roadway Improvements DSEIR could benefit from guidance and recommendations provided in the AG's letter.

777 12th Street, 3rd Floor ■ Sacramento, CA 95814-1908
916/874-4800 ■ 916/874-4899 fax
www.airquality.org

The Roadway Improvements DSEIR states that "...part of the problem with...proposing mitigation is that global warming... is not a localized phenomenon." While it is true that global warming itself is not a localized phenomenon, greenhouse gases are emitted locally and mitigation measures designed to reduce a project's greenhouse gas impact can be imposed by local governments even without a threshold. The lack of a threshold should not bar a jurisdiction from imposing greenhouse gas mitigation measures upon a project. **2**

The DSEIR also states that "[m]ost of the strategies that would result in the greatest reductions in greenhouse gas emissions are outside local control..." Local land use jurisdictions (i.e., cities and counties) have the authority to make land use decisions. The resulting built environment has a direct affect on the transportation modes (i.e., single occupant vehicles versus public transit, walking, or bicycling). The transportation mode in turn greatly affects the extent of transportation-related greenhouse gas emission levels; indeed, many city and county-level greenhouse gas analyses show that the transportation sector contributes greatly to the greenhouse gas burden (for example, approximately 50 percent in Marin County¹). **3**

In addition to the decisions affecting a jurisdiction's overall land use and transportation patterns, there are project-level measures within the control of local government that can reduce greenhouse gas emissions. The District recommends that DERA review the attached AG's letter and determine which mitigation measures should be applied to this project. **4**

Again, thank you for the opportunity to comment. Please do not hesitate to contact me at 916.874.4876 or rdubose@airquality.org if you have any questions.

Sincerely,



Rachel DuBose
Air Quality Planner/Analyst

Attachments:

NVSSP MMRP (air quality section)
Comments on the Draft Environmental Impact Report for the Coyote Valley Specific Plan
(City of San Jose)

C: Larry Robinson, Sacramento Metropolitan Air Quality Management District
Toni Barry, Sacramento County Department of Environmental Review and Assessment

¹ County of Marin, Greenhouse Gas Reduction Plan. October 2006. Countywide Emissions Analysis, 2000.

DERA MMRP

02-RZB-SDB-SVB-0293

Mitigation Measures: Air Quality

AQ-1. The project shall provide a plan for approval by the County of Sacramento and SMAQMD demonstrating that the heavy-duty (>50 horsepower) off-road vehicles to be used in the construction project, including owned, leased and subcontractor vehicles, will achieve a project wide fleet-average 20 percent NOx reduction and 45 percent particulate reduction compared to the most recent CARB fleet average; and

AQ-2. The project representative shall submit to the County of Sacramento and SMAQMD a comprehensive inventory of all off-road construction equipment, equal to or greater than 50 horsepower, that will be used an aggregate of 40 or more hours during any portion of the construction project. The inventory shall include the horsepower rating, engine production year, and hours of use or fuel throughput for each piece of equipment. The inventory shall be updated and submitted monthly throughout the duration of the project, except that an inventory shall not be required for any 30-day period in which no construction activity occurs. At least 48 hours prior to the use of subject heavy-duty off-road equipment, the project representative shall provide SMAQMD with the anticipated construction timeline including start date, and name and phone number of the project manager and on-site foreman.

AQ-3. The project shall ensure that emissions from all off-road diesel powered equipment used on the project site do not exceed 40 percent opacity for more than three minutes in any one hour. Any equipment found to exceed 40 percent opacity shall be repaired immediately, and the County of Sacramento and SMAQMD shall be notified within 48 hours of identification of non-compliant equipment. A visual survey of all in-operation equipment shall be made at least weekly, and a monthly summary of the visual survey results shall be submitted throughout the duration of the project, except that the monthly summary shall not be required for any 30-day period in which no construction activity occurs. The monthly summary shall include the quantity and type of vehicles surveyed as well as the dates of each survey. The SMAQMD and/or other officials may conduct periodic site inspections to determine compliance. Nothing in this section shall supersede other SMAQMD or state rules or regulations.

AQ-4. The following construction-related measures apply to construction activities within the Specific Plan area:

- a. Water exposed, graded surfaces at least two times per day and if possible, keep soil moist at all times.
- b. Properly maintain diesel and/or gas fueled construction equipment.
- c. Water haul roads at least two times per day
- d. Use low VOC architectural coatings

AQ-5. Comply with the adopted AQ-15 Plan, which is included in Section .7.6 (Travel Demand Reduction Measures) of the NVSSP text.
MMRP-7

EDMUND G. BROWN JR.
Attorney General

State of California
DEPARTMENT OF JUSTICE



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June 19, 2007

Via Electronic Mail and Facsimile

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RE: Comments on Draft Environmental Impact Report for Coyote Valley Specific Plan
SCH# 2005062017

Dear Messrs. Hart and Boyd:

The Attorney General submits these comments on the Draft Environmental Impact Report (DEIR) for the Coyote Valley Specific Plan (CVSP or Project) pursuant to the California Environmental Quality Act (CEQA).¹ The Project proposes the development of a new community of up to 80,000 people in an existing rural area south of the City of San José (City). By the City's own calculation, once built, the Project will emit over 500,000 metric tons of greenhouse gases each year.

We commend the City for creating an accessible environmental document that discusses the problem of global warming in a clear, succinct manner and for making an effort to quantify at least some of the Project's substantial greenhouse gas (GHG) emissions. As discussed below, we are, however, concerned that the City has not undertaken a more thorough accounting of the emissions during all phases of the Project. More importantly, we note that the City has avoided its fundamental responsibility under CEQA to determine whether this Project's contribution to

¹The Attorney General provides these comments pursuant to his independent power and duty to protect the natural resources of the State from pollution, impairment, or destruction in furtherance of the public interest. (See Cal. Const., art. V, § 13; Cal. Gov. Code, §§ 12511, 12600-12; *D'Amico v. Board of Medical Examiners*, 11 Cal.3d 1, 14-15 (1974)). These comments are made on behalf of the Attorney General and not on behalf of any other California agency or office.

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the quintessentially cumulative problem of global warming is significant and, if so, to require changes or mitigation that will avoid or reduce these impacts.

Given the City's responsibilities as a lead agency under CEQA, the fact that we are reaching a climate change "tipping point" caused by incremental contributions of GHGs, and that prompt and dramatic emissions reductions are required to avoid the most catastrophic environmental outcomes, it is inappropriate for the City to find, as it did in the DEIR, that it is excused from making a significance determination under CEQA.

Emissions Reductions: Avoiding the Tipping Point

Emissions of GHG on the Earth's surface accumulate in the atmosphere: the increased atmospheric concentration of these same gases in turn adversely affects the climate.² The atmospheric concentration of carbon dioxide (CO₂), the leading GHG, is now 379 parts per million (ppm), higher than any time in the preceding 650,000 years.³ According to some experts, an atmospheric concentration of CO₂ "exceeding 450 ppm is almost surely dangerous" because of the climate changes it will effect, "and the ceiling may be even lower."⁴

Currently, atmospheric GHG concentrations are far from stable. "The recent rate of change is dramatic and unprecedented[.]"⁵ Over just the last 17 years, atmospheric concentrations of CO₂ have risen 30 ppm, a rate of change that, in pre-industrial times, would have taken 1,000 years.⁶ Experts are clear that if we continue our "business as usual" emissions trend, atmospheric concentrations of CO₂ will likely exceed 650 ppm by the end of the century.⁷

In short, our past and current GHG emissions have pushed us to a climatic "tipping point." If we

²(Intergovernmental Panel on Climate Change, Fourth Assessment Report (IPCC 4th) (2007), Working Group (WG) I, Frequently Asked Question 2.1, *How do Human Activities Contribute to Climate Change and How do They Compare with Natural Influences?* http://ipcc-wg1.ucar.edu/wg1/Report/AR4WG1_Pub_FAQs.pdf.)

³(IPCC 4th, WG I, Frequently Asked Question 7.1, *Are the Increases in Atmospheric Carbon Dioxide and Other Greenhouse Gases During the Industrial Era Caused by Human Activities?* http://ipcc-wg1.ucar.edu/wg1/Report/AR4WG1_Pub_FAQs.pdf.)

⁴(http://www.nasa.gov/centers/goddard/news/topstory/2007/danger_point.html.)

⁵(IPCC 4th, WG I, Frequently Asked Question 7.1, *Are the Increases in Atmospheric Carbon Dioxide and Other Greenhouse Gases During the Industrial Era Caused by Human Activities?* http://ipcc-wg1.ucar.edu/wg1/Report/AR4WG1_Pub_FAQs.pdf.)

⁶(*Id.*)

⁷(<http://www.epa.gov/climatechange/science/futureac.html>.)

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continue our business-as-usual emissions trajectory, dangerous climate change will become unavoidable. According to NASA's James Hansen, proceeding at the emissions rate of the past decade will result in "disastrous effects, including increasingly rapid sea level rise, increased frequency of droughts and floods, and increased stress on wildlife and plants due to rapidly shifting climate zones."⁸ And, the experts tell us, we have less than a decade to take decisive action.⁹

The need to make substantial cuts in emissions drives the global targets embodied in the Kyoto Protocol and the State's targets established by Governor Schwarzenegger's Executive Order S-3-05, and AB 32, California's Global Warming Solution Act of 2006. In California, by these authorities, we are committed to reducing emissions to 1990 levels by 2020, and 80% below 1990 levels by 2050. To achieve the 2020 target, California must reduce its current emissions by 25%.¹⁰

Summary of the CVSP Project and DEIR

The CVSP will govern development of a new community in southern San José, approximately 12 miles from the City's downtown. The community may house up to 70,000 to 80,000 people and create up to 50,000 new jobs on 3,700 acres. The City proposes to build the Project over a 25- to 50-year period, depending on economic and market conditions.

The new community will include residential, retail, commercial, and mixed-use development. It will require new transportation infrastructure, including new roadways, and will include an internal Bus Rapid Transit system with a connection to a proposed Caltrain station. The Project also includes schools, a library, a community center, parks and a greenbelt, trails, recreational areas, and all necessary services and utilities.

Lead agency City of San José states that the Project is a reflection of the "City's desire to create a model community based on innovative planning and design" (DEIR, Sec. 2 at p. 14). According to the City, "the CVSP is based on a new approach, which involves a shift from a land planning driven process to one that evolves from the existing natural environment or Environmental Footprint." (*Id.*)

⁸(<http://www.giss.nasa.gov/research/news/20070530/>; see also Hansen *et al.*, *Dangerous Human-Made Interference with Climate* (2007) 7 Atmos. Chem. Phys. 2287-2312 (http://pubs.giss.nasa.gov/docs/2007/2007_Hansen_et_al_1.pdf).

⁹(*Id.*) For further discussion of dangerous climate change, see IPCC 4th, WG III, Ch. 1 at pp. 6-7 (http://www.mnp.nl/ipcc/pages_media/FAR4docs/chapters/CH1_Introduction.pdf).

¹⁰(Office of the Governor, *Gov. Schwarzenegger Signs Landmark Legislation to Reduce Greenhouse Gas Emissions*, Press Release (Sept. 27, 2006) (<http://gov.ca.gov/index.php?/press-release/4111/>).

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The City describes the Project, alternatives to the Project, and potential impacts of and mitigation for the Project, in a three-volume DEIR. The City clearly has made every effort to make the environmental document easy to use and accessible to the public, providing all parts of the document at its website, including numerous maps and all technical appendices.

In recognition of the serious nature of global warming, the City has also taken the wholly appropriate and responsible step of creating a special section focused on this potentially catastrophic environmental impact. (DEIR, Sec. 4.15.) In a nutshell, the DEIR succinctly defines climate change, notes the scientific consensus that global climate change is real, underway and very likely caused by humans. The DEIR also summarizes some of the impacts that California should expect, including a diminishing Sierra snowpack, coastal erosion, saltwater intrusion into the Delta, and rising temperatures, and summarizes the existing legal and regulatory framework, including AB 32.

The DEIR states that "the primary sources of CVSP greenhouse gas emissions are anticipated to be combustion of fossil fuels from grid-delivered electricity use and from vehicles." (DEIR at p. 417.) According to the DEIR, the approximate total CO₂-equivalent emissions (including methane and nitrous oxide) from electricity use is 183,292 metric tons per year, and from vehicle use, approximately 324,690 metric tons per year. (*Id.*) The combined total for these two sources is approximately 507,982 metric tons per year, which the DEIR states is "roughly 0.001% of California's total 2004 emissions" (*Id.*)¹¹ The DEIR also states that "[a]dditional unknown quantities of greenhouse gases would be emitted as part of the CVSP construction process from the manufacture and transport of building materials and the operation of construction equipment." (*Id.* at p. 418.)

After the preceding discussion, the climate change section of the DEIR states that the CVSP will not have an individually discernable effect on global climate change, reasoning that "it is more appropriate to conclude the substantial CVSP greenhouse gas emissions will combine with emissions across California, the U.S., and the globe to cumulatively contribute to global climate change." (*Id.* at p. 420.) The section then summarily ends, the City concluding that because there is no existing numerical, regulatory threshold against which to gauge the cumulative significance of global warming impacts, making a determination of significance for the CVSP project "would be speculative." (*Id.*)

¹¹The City summarily states elsewhere in the Global Climate Change section that "the greenhouse gases generated [by CVSP] are related to growth that will occur elsewhere in the region, if not in the Coyote Valley." (DEIR at p. 418.) It is not clear how this statement, addressing hypothetical, alternative development, fits into the DEIR's emissions discussion or whether the City believes it is relevant under CEQA. In any event, such conclusory statements, unsupported by facts or analysis, are insufficient under CEQA. (See *Laurel Heights Improvement Assn. v. Regents of Univ. of Cal.* (1988) 47 Cal.3d 376, 403-405.)

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The City as Lead Agency is Required to Determine Significance

CEQA assigns to a lead agency the responsibility to determine whether an impact is significant. This is a fundamental and essential task: the finding triggers the lead agency's obligation to analyze and require feasible mitigation.¹²

"For each significant effect identified in the EIR, the agency must make one or more of the following findings: (1) that changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen the effect; (2) that the lead agency lacks jurisdiction to make the change, but that another agency does have such authority; and/or (3) that specific economic, social, or other considerations make infeasible the mitigation measures or project alternatives identified in the final EIR."¹³ The agency must ensure that measures to mitigate or avoid significant effects on the environment are fully enforceable and must adopt a monitoring program to ensure that the mitigation measures are implemented.¹⁴

The City notes in the DEIR that AB 32's implementing regulations are forthcoming, but not yet promulgated. (DEIR at p. 415.) The City then uses this fact to excuse itself from the obligation to determine significance under CEQA, stating:

To determine whether the proposed CVSP project would have a significant impact associated with global climate change, in light of the fact that there exists no numerical threshold for such an impact, would be speculative. For this reason, a determination of significance cannot be made.

(DEIR at p. 420.)

While the City is correct that there are currently no regulatory thresholds for significance relating to global warming impacts, this does not relieve a lead agency of its statutory obligation under CEQA to determine whether or not a project's impacts are significant. As the CEQA Guidelines note, "[a]n ironclad definition of significant effect is not always possible"¹⁵ In the future, there may well be "an approved plan or mitigation program which provides specific requirements that will avoid or substantially lessen the cumulative problem" of GHG emissions and global

¹²(Pub. Res. Code, § 21002.1, subd. (b).)

¹³(*Sacramento Old City Assn. v. City Council* (1991) 229 Cal.App.3d 1011, 1034 [citing Pub. Res. Code, § 21081]; see also *County of San Diego v. Grossmont-Cuyamaca Community College Dist.* (2006) 141 Cal.App.4th 86, 100.)

¹⁴(*Federation of Hillside and Canyon Assns. v. City of Los Angeles* (2000) 83 Cal.App.4th 1252, 1261 [citing Pub. Res. Code, § 21081.6].)

¹⁵(Cal. Code Regs., tit. 14, § 15064, subd. (b).)

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warming impacts,¹⁶ but until that time, lead agencies must rely only on their own "careful judgment ... based to the extent possible on scientific and factual data"¹⁷ in determining whether a project's global warming-related impacts are significant.

To comply with CEQA, the City must revise the DEIR to make a determination of whether CVSP's contribution to the problem of global warming is cumulatively considerable.

California's Requirements for Reduction of GHG Emissions set a Reasonable Benchmark for Determining the Cumulative Significance Global Warming Impacts

CEQA and its implementing regulations require that an EIR address the cumulative impacts of a project when its incremental effect is cumulatively considerable. "[C]umulatively considerable" means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects."¹⁸

Courts have rejected the argument that a project has no cumulatively considerable impacts simply because it is contributing only a relatively small percentage to a larger environmental problem.¹⁹ To take an example, in the seminal case of *Kings County Farm Bureau v. City of Hanford*, the Fifth Appellate District Court of Appeal court rejected the conclusion in a DEIR that a project's contributions to ozone levels in the area would be insignificant because they would be "relatively minor ... compared to the total volume of [ozone] precursors emitted in Kings County."²⁰ The court noted that the DEIR impermissibly used "the magnitude of the current ozone problem in the air basin in order to trivialize the project's impact."²¹ In the court's words:

The point is not that, in terms of ozone levels, the proposed Hanford project will result in

¹⁶(See Cal. Code Regs., tit. 14, § 15064, subd. (h)(3).) Even with such a program in place, a lead agency must determine whether a project's effects may still be cumulatively considerable. (*Id.*)

¹⁷(Cal. Code Regs., tit. 14, § 15064, subd. (b).)

¹⁸(Cal. Code Regs., tit. 14, § 15130, subd. (a).)

¹⁹(*Communities for a Better Environment v. Cal. Resources Agency* (2002) 103 Cal.App.4th 98, 119-120.) This does not mean, however that contributing "one molecule" to an existing environmental problem necessarily creates a significant cumulative impact. (*Id.*)

²⁰(*Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 718.)

²¹(*Id.*)

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the ultimate collapse of the environment into which it is placed. The significance of an activity depends on the setting.... The relevant question to be addressed in the EIR is not the relative amount of precursors emitted by the project when compared to preexisting emissions, but whether any additional amount of precursor emissions should be considered significant in light of the serious nature of the ozone problems²²

Global warming is a quintessentially cumulative impact, caused by the added effects of countless individual projects at the local, regional, state, national and international level.²³ As discussed, we must expect potentially catastrophic consequences unless decision makers take specific action to change our current "business as usual" emissions trajectory. The relevant question is whether any additional contribution to the problem should be considered significant in light of these serious consequences.

Executive Order S-3-05 and the passage of AB 32, the Global Warming Solutions Act of 2006, which set State targets to reduce emissions to 1990 levels by 2020, and to 80% below 1990 levels by 2050, provide a relevant benchmark for determining significance. Where a project's direct and indirect GHG-related effects, considered in the context of the existing and projected cumulative effects, may interfere with California's ability to achieve its GHG reduction requirements, the project's global warming-related impacts must be considered cumulatively significant.

The City should in its revised document evaluate whether the global warming impacts of the CVSP will be significant. We acknowledge that the determination is for the City, as lead agency, to make in the first instance. We note, however, that by any objective standard, 500,000 metric tons per year would appear to be a considerable contribution. By comparison, many of the "early action measures" for reducing greenhouse gases identified by the California Air Resources Board are in the range of, or substantially less than, 500,000 metric tons.²⁴ Moreover, the City's estimate may understate the Project's emissions, as it excludes other potentially important

²²(*Id.* [citation omitted].)

²³The City asserts that "the ultimate solution is a national policy addressing greenhouse gas emissions and global climate change, rather than piecemeal state-by-state or city-by-city approaches. (DEIR at p. 419.) While a national GHG emissions policy is certainly overdue, the fact that there is inaction at the federal level does not excuse a lead agency from its obligation under State law to address cumulative impacts related to global warming. And, as the U.S. Supreme Court has noted, "massive problems" generally are not resolved in "one fell regulatory swoop." (*Mass. v. EPA* (2007) __ U.S. __, 127 S.Ct. 1438, 1457.)

²⁴(See http://www.climatechange.ca.gov/climate_action_team/reports/2007-04-20_ARB_early_action_report.pdf.)

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sources of emissions, e.g., emissions during the construction phase related to equipment operation and building and road materials. In determining whether the incremental effects of the Project are cumulatively considerable, the City should not limit its consideration only to vehicle emissions and electricity at build-out.²⁵ We attach to this letter a chart setting forth publicly available modeling tools that may be useful in estimating a project's emissions.

If the Global Warming-Related Impacts of the CVSP Project are Cumulatively Significant, the City Must Impose Feasible Mitigation Measures

If the City of San José determines that the global warming-related impacts of the CVSP are cumulatively significant, it must discuss those impacts in the DEIR and "examine reasonable, feasible options for mitigating or avoiding the project's contribution" to the problem.²⁶ A lead agency must "mitigate or avoid the significant effects on the environment of projects that it carries out or approves *whenever it is feasible to do so*."²⁷ The agency must ensure that "measures to mitigate or avoid significant effects on the environment are fully enforceable through permit conditions, agreements, and other measures."²⁸

Assuming that the global warming-related impacts of the Project are significant, the DEIR, as written, does not satisfy CEQA. While the DEIR contains a one-page section entitled "Strategies to Reduce Greenhouse Gas Emissions" (DEIR at p. 419), it states in very general terms only what *could* be done – "the City could prepare a Global Warming Mitigation Program for the CVSP project describing required efforts to reduce energy consumption" – rather than what *will* be done. The DEIR notes a few non-enforceable conservation measures, stating, for example, that the Project "encourages" solar energy and other non-fossil fuel energy sources. It also states summarily that the Project has been designed to promote non-auto modes of transportation, but does not discuss in any detail whether and how the new community will help California move away from a "business as usual" emissions trajectory and toward the State's 25% emissions reduction requirement by 2020.

Clearly, there are a number of practical and feasible mitigation measures that could reduce this Project's contribution to the problem of global warming. As the City suggests (see DEIR at p.

²⁵(Cal. Code Regs., tit. 14, § 15126 ["All phases of a project must be considered when evaluating its impact on the environment: planning, acquisition, development, and operation."])

²⁶(Cal. Code Regs., tit. 14, § 15130, subd. (b)(5).)

²⁷(*City of Marina Board of Trustees* (2006) 39 Cal.4th 341, 360 [emphasis added]; see also Pub. Res. Code § 21002.1, subd. (b).)

²⁸(Pub. Res. Code, § 21081.6; *Federation of Hillside and Canyon Associations*, *supra*, 83 Cal.App.4th at p. 1261.)

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419), it may be that some of the mitigation measures imposed for other impacts, for example, those discussed for transportation and traffic, could also serve to mitigate in part the Project's global warming-related impacts. If that is the case, the City should identify those measures and specifically discuss how and to what extent they mitigate greenhouse gas emissions. We attach to this letter a non-exhaustive list of measures that local agencies may take or require to reduce GHG emission, and of some of the many publically available resources that may assist local agencies in the fight against global warming.

Conclusion

The City has noted that "this is truly a situation where San José can 'think globally, and act locally' and lead by example in adopting policies and programs to limit the production of greenhouse gases associated with the CVSP." (DEIR at p. 419.) We agree and believe that the CVSP, through design and mitigation, could be a bellwether community, setting an example for California and the nation.

We appreciate the opportunity to comment on the document and would be happy to meet with City staff to discuss these comments.

Sincerely,



JANILL L. RICHARDS
Deputy Attorney General

For EDMUND G. BROWN JR.
Attorney General

Attachments:

Modeling Tools to Estimate Climate Change Emissions Impacts of Projects/Plans
Mitigation Measures and Global Warming Resources

Modeling Tools to Estimate Climate Change Emissions Impacts of Projects/Plans

Tool	Availability	Scope Local/Regional	Scope Transp/Buildings	Data Input Requirements	Data Output
URBEMIS	<ul style="list-style-type: none"> Download Public domain (free) 	<ul style="list-style-type: none"> Local project level 	<ul style="list-style-type: none"> Transportation Some building (area source) outputs Construction 	<ul style="list-style-type: none"> Land use information Construction, area source, and transportation assumptions 	<ul style="list-style-type: none"> VMT per day (convert to CO₂ and methane) Mitigation impacts
Clean Air and Climate Protection (CACP) Software	<ul style="list-style-type: none"> Download Available to public agencies (free) 	<ul style="list-style-type: none"> Local project level 	<ul style="list-style-type: none"> Buildings Communities Governments 	<ul style="list-style-type: none"> Energy usage Waste generation and disposal Transportation usage 	<ul style="list-style-type: none"> eCO₂ (tons per year)
Sustainable Communities Model (SCM)	<ul style="list-style-type: none"> Custom model 	<ul style="list-style-type: none"> Regional, scalable 	<ul style="list-style-type: none"> Transportation Master planned communities 	<ul style="list-style-type: none"> Location and site specific information Transportation assumptions On-site energy usage 	<ul style="list-style-type: none"> eCO₂ (tons per year)
I-PLACE³S	<ul style="list-style-type: none"> Web-based Small access fee Full model now available in eight CA counties 	<ul style="list-style-type: none"> Regional, scalable to site level 	<ul style="list-style-type: none"> Transportation Buildings Infrastructure (wastewater, street lights, etc.) 	<ul style="list-style-type: none"> Parcel level land use data (can work with less data) Project-level data for alternative comparisons 	<ul style="list-style-type: none"> CO₂ (any quantity over any time) Provides for immediate comparison of alternatives
EMFAC	<ul style="list-style-type: none"> Download Public domain (free) 	<ul style="list-style-type: none"> Statewide Regional (air basin level) 	<ul style="list-style-type: none"> Transportation Emission factors 	<ul style="list-style-type: none"> Used with travel demand and other models to calculate CO₂ impacts of projects. 	<ul style="list-style-type: none"> CO₂ and methane (grams per mile) emission factors
Climate Action Registry Reporting On-Line Tool (CARROT)	<ul style="list-style-type: none"> Web-based Available to Registry members 	<ul style="list-style-type: none"> Regional, scalable to entity and facility level 	<ul style="list-style-type: none"> General Specific protocols for some sectors 	<ul style="list-style-type: none"> Uses inputs such as fuel and electricity use, VMT to estimate emissions of each GHG 	<ul style="list-style-type: none"> Each GHG and eCO₂ (tons per year)

VMT = Vehicle miles traveled.

Criteria pollutants = Nitrogen oxides (NO_x), reactive organic gases (ROG), carbon dioxide (CO), sulfur dioxide (SO₂), particulate matter (PM)eCO₂ = Carbon dioxide equivalent emissionsNote: This is *not* meant to be a definitive list of modeling tools to estimate climate change emissions impacts. Other tools may be available.

(May 2007)

1

Descriptions of Modeling Tools

URBEMIS. The Urban Emissions Model (URBEMIS) is currently being used extensively during the CEQA process by local air districts and consultants to determine criteria pollutant impacts of local projects. URBEMIS uses the ITE Trip Generation Rate Manual and the Air Resources Board's (ARB) motor vehicle emissions model (EMFAC) for transportation calculations. Area source outputs include natural gas use, landscaping equipment, and fireplaces. It also estimates construction impacts and impacts of mitigation options. An updated version with CO2 outputs may be available soon. In the interim, CO2 factors (pounds per mile) provided by ARB could be used to convert VMT per day into CO2 per day. Web site: <http://www.urbemis.com>.

Clean Air and Climate Protection (CACP) Software. This tool is available to state and local governments and members of ICLEI, NACAA, NASEO and NARUC to determine greenhouse gas and criteria pollutant emissions from government operations and communities as a whole. The user must input aggregate information about energy (usage), waste (quantity and type generated, disposal method, and methane recovery rate) and transportation (VMT) for community analyses. More detailed, site-specific information is necessary to calculate emissions from governmental operations. CACP uses emission factors from EPA, DOE, and DOT to translate the energy, waste and transportation inputs into greenhouse gas (in carbon dioxide equivalents) and criteria air pollutant emissions. If associated energy, waste and transportation reduction are provided, the model can also calculate emission reductions and money saved from policy alternatives. Web site: <http://cacpssoftware.org>.

Sustainable Communities Model (SCM). This model quantifies total eCO2 emissions allowing communities the ability to optimize planning decisions that result in the greatest environmental benefit for the least cost. SCM has been used by a number of master planned communities, but it could also be used for neighborhoods and smaller developments. Total eCO2 emissions are based on emissions from energy usage, water consumption and transportation. SCM uses published data sets for data input such as ARB's EMFAC for transportation calculations. The model provides a comparison of various scenarios to provide environmental performance, economic performance, and cost benefit analysis. Web site: http://www.cic-net.com/energetics/News/News_SCM.html

I-PLACE³S is an internet-accessed land use and transportation model designed specifically for regional and local governments to help understand how their growth and development decisions can contribute to improved sustainability. It estimates CO2, criteria pollutant and energy impacts on a neighborhood or regional level for existing, long-term baseline and alternative land use plans. I-PLACE³S is currently being used in San Diego, San Luis Obispo, and the six-county Sacramento region to assist both the public participation process and technical analyses efforts for regional planning. The data input requirements are extensive and require a fiscal commitment from local government. The benefits include a tool that can provide immediate outputs to compare various alternatives during public meetings, as well as provide access for local development project CEQA analyses. Possible future modifications could include a stand-alone tool that would allow project-level analyses of land uses (buildings) without extensive regional data input requirements. Web site: <http://www.energy.ca.gov/places/>; <http://places.energy.ca.gov/places>

EMFAC. The Air Resources Board's Emission Factors (EMFAC) model is used to calculate emission rates from all motor vehicles (passenger cars to heavy-duty trucks) in California. The model includes emission factors for CO2, methane, and criteria pollutants. The emission factors are combined with data on vehicle activity (miles traveled and average speeds) to assess emission impacts. California local governments use EMFAC in concert with their travel demand models to assess impacts of transportation plans. The URBEMIS model described above uses EMFAC to calculate the transportation emission impacts of local projects. Web site: <http://www.arb.ca.gov/mse/tonroad/tonroad.htm>

Climate Action Registry Reporting On-Line Tool (CARROT). The California Climate Action Registry uses the Climate Action Registry Reporting On-Line Tool (CARROT) for registry members to report their greenhouse gas emissions. It calculates GHG emissions from energy, fuel use, and travel estimates made by the user. While use of the tool is only available to members, the Registry makes its protocols available to the public. The general reporting protocol is available at <http://www.climateregistry.org/docs/PROTOCOLS/GRP%20V2.1.pdf>. Specific reporting protocols are also available for reporting by the cement, forestry, and power/utility sectors and are being developed for additional sectors. Website: <http://www.climateregistry.org/CARROT/>

(May 2007)

2

Mitigation Measures and Global Warming Resources

(1) Global Warming Mitigation Measures

The following are some examples of the types mitigation that local agencies may consider under the California Environmental Quality Act (CEQA) to offset or reduce global warming impacts. The list, which is by no means exhaustive or obligatory, includes measures and policies that could be undertaken directly by the local agency, incorporated into the agency's own "Climate Action Plan," or funded by "fair share" mitigation fees; measures that could be incorporated as a condition of approval of an individual project; and measures that may be outside the jurisdiction of the local agency to impose or require but still appropriate for consideration in an agency's environmental document.

While the lead agency must determine which particular mitigation measures, or suite of measures, is appropriate and feasible for a particular project, proponents of individual private projects are encouraged to take an active role in developing and presenting to lead agencies new and innovative ways to address the impacts of global warming.

Transportation

- Coordinate controlled intersections so that traffic passes more efficiently through congested areas. Where signals are installed, require the use of Light Emitting Diode (LED) traffic lights.¹
- Set specific limits on idling time for commercial vehicles, including delivery and construction vehicles.
- Require construction vehicles to use retrofit emission control devices, such as diesel oxidation catalysts and diesel particulate filters verified by the California Air Resources Board (CARB).²
- Promote ride sharing programs *e.g.*, by designating a certain percentage of parking spaces for high-occupancy vehicles, providing larger parking spaces to accommodate vans used for ride-sharing, and designating adequate passenger loading and unloading and waiting areas.
- Create car-sharing programs. Accommodations for such programs include providing parking spaces for the car-share vehicles at convenient locations accessible by public transportation.³
- Require clean alternative fuels and electric vehicles.
- Develop the necessary infrastructure to encourage the use of alternative fuel vehicles (*e.g.*, electric vehicle charging facilities and conveniently located alternative fueling stations).⁴
- Increase the cost of driving and parking private vehicles by imposing tolls, parking fees, and residential parking permit limits.

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- Develop transportation policies that give funding preference to public transit.⁵
- Design a regional transportation center where public transportation of various modes intersects.
- Encourage the use of public transit systems by enhancing safety and cleanliness on vehicles and in and around stations.
- Assess transportation impact fees on new development in order to facilitate and increase public transit service.⁶
- Provide shuttle service to public transit.
- Offer public transit incentives.
- Incorporate bicycle lanes into street systems in regional transportation plans, new subdivisions, and large developments.
- Create bicycle lanes and walking paths directed to the location of schools and other logical points of destination and provide adequate bicycle parking.⁷
- Require commercial projects to include facilities on-site to encourage employees to bicycle or walk to work.
- Provide public education and publicity about public transportation services.⁸

Energy Efficiency and Renewable Energy

- Require energy efficient design for buildings.⁹ This may include strengthening local building codes for new construction and renovation to require a higher level of energy efficiency.
- Adopt a "Green Building Program" to promote green building standards.¹⁰
- Fund and schedule energy efficiency "tune-ups" of existing buildings by checking, repairing, and readjusting heating, ventilation, air conditioning, lighting, hot water equipment, insulation and weatherization. (Facilitating or funding the improvement of energy efficiency in existing buildings could offset in part the global warming impacts of new development.)
- Provide individualized energy management services for large energy users.
- Require the use of energy efficient appliances and office equipment.¹¹
- Fund incentives and technical assistance for lighting efficiency.¹²
- Require that projects use efficient lighting. (Fluorescent lighting uses approximately 75% less energy than incandescent lighting to deliver the same amount of light.)
- Require measures that reduce the amount of water sent to the sewer system. (Reduction in water volume sent to the sewer system means less water has to be treated and pumped to the end user, thereby saving energy.)¹³
- Incorporate on-site renewable energy production (through, *e.g.*, participation in the California Energy Commission's New Solar Homes Partnership). Require project proponents to install solar panels, water reuse systems, and/or other systems to capture energy sources that would otherwise be wasted.¹⁴

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- Streamline permitting and provide public information to facilitate accelerated construction of solar and wind power.
- Fund incentives to encourage the use of energy efficient equipment and vehicles.¹⁵
- Provide public education and publicity about energy efficiency programs and incentives.

Land Use Measures

- Encourage mixed-use and high-density development to reduce vehicle trips, promote alternatives to vehicle travel and promote efficient delivery of services and goods. (A city or county could promote “smart” development by reducing developer fees or granting property tax credits for qualifying projects.¹⁶)
- Discourage “leapfrog” development. Enact ordinances and programs to limit sprawl.¹⁷
- Incorporate public transit into project design.¹⁸
- Require measures that take advantage of shade, prevailing winds, landscaping and sun screens to reduce energy use.
- Preserve and create open space and parks. Preserve existing trees and require the planting of replacement trees for those removed in construction.
- Impose measures to address the “urban heat island” effect by, *e.g.*, requiring light-colored and reflective roofing materials and paint; light-colored roads and parking lots; shade trees in parking lots; and shade trees on the south and west sides of new or renovated buildings.¹⁹
- Facilitate “brownfield” development. (Brownfields are more likely to be located near existing public transportation and jobs.)
- Require pedestrian-only streets and plazas within developments, and destinations that may be reached conveniently by public transportation, walking, or bicycling.²⁰

Solid Waste Measures

- Require projects to reuse and recycle construction and demolition waste.
- Implement or expand city or county-wide recycling and composting programs for residents and businesses.
- Increase areas served by recycling programs
- Extend the types of recycling services offered (*e.g.*, to include food and green waste recycling).
- Establish methane recovery in local landfills and wastewater treatment plants to generate electricity.²¹
- Provide public education and publicity about recycling services.

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(2) General Resources

The following web sites and organizations provide general information about mitigating global warming impacts at the local level. These sites represent only a small fraction of the available resources. Local agencies are encouraged to conduct their own research in order to obtain the most current and relevant materials.

- The U.S. Conference of Mayors' Climate Action Handbook contains valuable information for the many local agencies that are joining the fight against global warming. The Handbook is available at the City of Seattle's Climate Action Plan website: <http://www.cityofseattle.net/climate/docs/ClimateActionHandbook.pdf>.
- Local Governments for Sustainability, a program of International Cities for Local Environmental Initiatives (ICLEI), has initiated a campaign called Cities for Climate Protection (CCP). The membership program is designed to empower local governments worldwide to take action on climate change. Many California cities have joined ICLEI. More information is available at the organization's website: <http://www.iclei.org/>.

(3) Notes

1. For a discussion of the use of LED traffic lights, see the City of Berkeley's Resource Conservation and Global Warming Abatement Plan at <http://www.baagmd.gov/pln/GlobalWarming/BerkeleyClimateActionPlan.pdf>.
2. See www.arb.ca.gov/diesel/verdev/verdev.htm and www.epa.gov/ispd/pdf/emission_0307.pdf.
3. There are a number of car sharing programs operating in California, including City CarShare <http://www.citycarshare.org/>, Zip Car <http://www.zipcar.com/> and Flexcar <http://www.flexcar.com/>.
4. See the City of Santa Monica's Green Building Program at <http://www.greenbuildings.santa-monica.org/transportation/parkingcharging.html>.
5. San Francisco's "Transit First" Policy is listed in its Climate Action Plan, available at <http://www.sfenvironment.com/aboutus/energy/cap.htm>.
6. San Francisco assesses a Downtown Transportation Impact Fee on new office construction and commercial office space renovation within a designated district. The fee is discussed in the City's Climate Action plan. See Note 5.
7. See Marin County's Safe Routes to Schools program at <http://www.saferoutestoschools.org/>.

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8. The U.S. Conference of Mayors' Climate Action Handbook, cited above, lists education and outreach as key components to taking action against global warming.
9. Leadership in Energy and Environmental Design (LEED) administers a Green Building Ratings program that provides benchmarks for the design, construction, and operation of high-performance green buildings. More information about the LEED ratings system is available at <http://www.usgbc.org/DisplayPage.aspx?CategoryID=19>.
10. The City of Santa Monica has instituted a Green Building Program. See <http://www.greenbuildings.santa-monica.org/>.
11. Energy Star is a joint program of the U.S. Environmental Protection Agency and the U.S. Department of Energy that certifies energy efficient products and provides guidelines for energy efficient practices for homes and businesses. More information about Energy Star certified products is available at <http://www.energystar.gov/>.
12. As described in its Climate Action Plan, the City of San Francisco uses a combination of incentives and technical assistance to reduce lighting energy use in small businesses such as grocery stores, small retail outlets, and restaurants. The program offers free energy audits and coordinated lighting retrofit installation. In addition, the City offers residents the opportunity to turn in their incandescent lamps for coupons to buy fluorescent units. See Note 5.
13. The City of Berkeley's Resource Conservation and Global Warming Abatement Plan includes information about strategies for promoting the use of low flush toilets and shower heads. See Note 1.
14. At the direction of Governor Schwarzenegger, the California Public Utilities Commission (CPUC) approved the California Solar Initiative on January 12, 2006. The initiative creates a \$3.3 billion, ten-year program to install solar panels on one million roofs in the State. See <http://www.gosolarcalifornia.ca.gov/nshp/index.html>.
15. In March 2007, the League of California Cities (LOCC) Climate Change Working Group drafted proposed Climate Change Policies and Guiding Principles for the League. The draft principles (March 30, 2007) can be found on the LOCC website at http://www.cacities.org/resource_files/25656.EQ%20high3-07%20REVISED.pdf
16. The City of Berkeley has endorsed this strategy in its Resource Conservation and Global Warming Abatement Plan. See Note 1.
17. Samples of local legislation to reduce sprawl are set forth in the U.S. Conference of Mayors' Climate Action Handbook, cited above.

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18. The U.S. Conference of Mayors cites Sacramento's Transit Village Redevelopment as a model of transit-oriented development. More information about this project is available at <http://www.cityofsacramento.org/planning/projects/65th-street-village/>.
19. See Lawrence Berkeley National Laboratory's "Cool Roofing Materials Database" prepared by the Laboratory's Heat Island Project at <http://eetd.lbl.gov/coolroof/> and U.S. EPA's Heat Island site at www.epa.gov/heatisland/.
20. Palo Alto's Green Ribbon Task Force Report on Climate Protection recommends pedestrian streets under its proposed actions. See <http://www.city.palo-alto.ca.us/greenribbon/index.html>.
21. San Diego's Metropolitan Wastewater Department installed eight "digesters" at one of its wastewater treatment plants. Digesters use heat and bacteria to break down the organic solids removed from the wastewater to create methane. See <http://www.sandiego.gov/mwwd/facilities/ploma.shtml>.

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Global Warming Mitigation Measures
Updated: 06/15/07

COMMENTS RECEIVED FROM SACRAMENTO METROPOLITAN AIR QUALITY DISTRICT, JULY 25, 2007.

RESPONSE TO COMMENT #1:

The construction emissions impact analysis and mitigation measures from the prior EIR have been included in a new chapter (Chapter 11 Air Quality) for clarity.

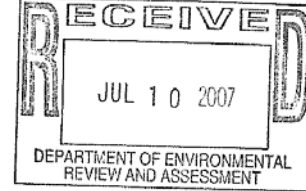
RESPONSE TO COMMENT #2 - 4:

The County has reviewed the comments from the SMAQMD and the attached letter from the State Attorney General regarding evaluation of greenhouse gas emissions and potential mitigation options to reduce those emissions. Chapter 10 has been re-written to provide a more thorough analysis of this topic and to provide feasible mitigation measures to reduce these emissions.

LETTER #7 SACRAMENTO MUNICIPAL UTILITY DISTRICT

*Lauf***Letter 7****SACRAMENTO MUNICIPAL UTILITY DISTRICT****Date:** 6/26/2007

DPG07-075

To: Tim Hawkins
County of Sacramento
827 7th Street
Sacramento, CA 95822**From:** Kevin Hudson (for SMUD Gas Pipeline)**Copy:** Ross Gould, Andrea Costa, David Crespo, Damon Smith, Roya Borman, Katherine Knourek**Subject:** North Vineyard Station Roadway Improvements Draft Supplemental Impact Report (Control Number 06-PWE-0194), Letter Dated June 11, 2007☐ Sent for your Review☐ For Your Files☐ For Your Signature☐ For Distribution☒ Other:☐ For Processing

Dear Tim Hawkins:

We have received and reviewed the notice of Draft Supplemental Environmental Impact Report noted above. We have determined that the SMUD gas pipeline does not cross the boundaries of your project and therefore we do not have a conflict with your project.

1

If you desire to contact us for further information or have any questions concerning the gas pipeline, please contact me at 916-732-6101 or Roya Borman at 916-732-7132.

If you need any information or have any questions regarding electric service conflicts, please contact David Brown at SMUD electric distribution at 916-732-6660.

Sincerely,

Kevin Hudson, PE *KH*
Sr. Project Manager
Power Generation
SMUD Gas Pipeline Operations

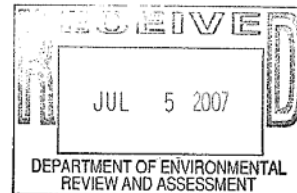
COMMENTS RECEIVED FROM SACRAMENTO MUNICIPAL UTILITY DISTRICT,
JUNE 26, 2007.

RESPONSE TO COMMENT #1:

This comment does not pertain to the adequacy of the environmental document, but the comment will be forwarded to the Board of Supervisors and Department of Transportation for their consideration.

LETTER #8 SOUTHGATE RECREATION AND PARK DISTRICT

Letter 8

Lant J8
83

July 3, 2007



Seldon
Administrative Headquarters
 6000 Orange Avenue
 Sacramento, CA 95823-3225
 Phone 916-428-1171
 Facsimile 916-428-7334
 www.southgaterecandpark.net

Board of Directors
 Rolfe P. Appel
 John E. Cockerham
 Edwin A. Smith
 Christine Thompson
 Shirley J. Wirth

General Manager
 Ward Winchell

Assistant General Manager
 Maureen Casey

Joyce Horizumi
 Director
 County of Sacramento
 Dept. of Environmental Review and Assessment
 827-7th Street, Room 220
 Sacramento, CA 95814

SUBJECT: Comments on the North Vineyard Station Specific Plan Roadway Improvements Draft Supplemental Environmental Impact Report Control #06-PWE-0194

Dear Joyce;

The District thanks the Department of Environmental Review and Assessment for the opportunity to review and comment on the North Vineyard Station Specific Plan Roadway Improvements Draft Supplemental Environmental Impact Report (SEIR). The proposed project location which is roughly bounded by Jackson Road to the north, Excelsior Road to the east, Calvine Road to the south, and Elk Grove-Florin Road/South Watt Avenue to the west, lies within the District's boundaries. The District requests that the following comments, which were approved by the Southgate Board of Directors at their July 2, 2007 special meeting, be considered and included in the final SEIR. Our comments are as follows:

CHAPTER 5 - PUBLIC SERVICES

Southgate Recreation & Park District will be responsible for the ownership and maintenance of park sites and landscaped corridors that have been identified within the North Vineyard Station Specific Plan Area. The District will also be responsible for the Gerber and Elder Creek Open Space Corridors, which will include a bicycle/pedestrian trail. Depending on final agency requirements and conditions, the District may also be responsible for maintenance and/or ownership of identified detention basins and other open space areas.

Coordination between the applicant and the District will be necessary for road improvements that involve bicycle/pedestrian trail crossings, bridge crossings, and street frontages along park sites, open space, and detention basins. The District also requests coordination with the applicant regarding street improvement standards and the development of pedestrian/landscape easements (landscape corridors) along the following

1

thoroughfares identified in this project, Bradshaw, Calvine, Elk Grove-Florin, Florin, Gerber, Vineyard Roads and South Watt Avenue. This coordination will ensure that continuous and consistent bicycle and pedestrian access is provided throughout the project and impacts to parks, open space, and bicycle/pedestrian facilities are less than significant.

CHAPTER 6 - NOISE

The District owns and operates the WildHawk Golf Club located at the southeast corner of the intersection of Gerber and Vineyard Roads. This project includes the following road improvements that will potentially impact the WildHawk Golf Club 1) the widening of Gerber road from 2 to 4 lanes from Elk Grove Florin Road to Vineyard Road 2) shoulders on Gerber Road from Vineyard Road to Excelsior Road 3) two lanes, a center two-way turn lane, curb, gutter, and sidewalks along Vineyard Road from Gerber Road to Florin Road 4) a new intersection at Gerber Road and Vineyard Road.

The traffic study prepared for the North Vineyard Station Specific Plan by Fehr and Peers Associates, Inc shows no expected increase in roadway capacity for the road segments adjacent to WildHawk Golf Club (Gerber Road – Bradshaw to Vineyard Roads, Gerber Road - Vineyard to Excelsior Roads, Vineyard – Gerber Road to Calvine Road) and the Federal Highway Administration Highway Traffic Noise Prediction Model was utilized to predict the future traffic noise levels. The resulting noise level data in Tables NS-5 and NS 11 show that “Sensitive Receptors are Outside 65 dB Noise Contour”. The District requests that the data tables show the predicted future traffic noise levels for these road segments. The District also requests coordination with the applicant during road improvement construction in order to minimize any adverse effects of noise impacts associated with construction.

2

3

CHAPTER 7 – BIOLOGICAL RESOURCES

Biological resources are a critical element of open space and park resources and enhance the natural scenic beauty of the lands that the District has been appointed to manage and protect. Impacts to these resources are of primary concern to the District.

Native Trees: The District suggests that the mitigation measure for loss of native trees include a recommendation to coordinate with Southgate Recreation & Park District to identify possible locations for tree replacement plantings throughout the project area within dedicated open space and open space corridors along Gerber and Elder Creeks. In the event the Gerber and Elder Creek open space corridors are not sufficient for mitigation, the District can assist the Developer with native tree mitigation within the nearby Laguna Creek Parkway open space corridor.

4

CHAPTER 10 – CLIMATE CHANGE

The North Vineyard Station Draft SEIR discussion about Assembly Bill 32 includes strategies that were provided by the California EPA Climate Action Team that include “**planting street trees**” and “**conserving and restoring open space**”. The District supports these strategies and restates our request in coordinating with the applicant on street improvement standards and the development of pedestrian/landscape easements (landscape corridors).

5

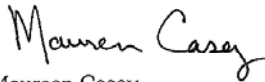
The District also requests that the Draft SEIR include a discussion about alternate transportation options and the importance of providing accessible bicycle and pedestrian facilities and creating connectivity throughout the project area.

6

Once again the District would like to thank the Department of Environmental Review and Assessment, for the opportunity to comment on the North Vineyard Station Specific Plan Roadway Improvements Draft Supplemental Environmental Impact Report. The District’s parks, open space, landscape corridors and the proposed trail system within the Gerber and Elder Creek open space corridor will interface with many of the proposed road improvements in this project area so it is essential that the applicant coordinate with the District to minimize adverse impacts and maximize the accessibility of these facilities throughout the project area and for the community.

The District looks forward to working with the County of Sacramento and Developers to minimize impacts related to parks, open space, and bicycle/pedestrian facilities. Please continue to forward documentation related to this project to the District. If you require additional information or assistance please do not hesitate to contact me at (916) 428-1171, ext. 29, or via e-mail at mcasey@southgaterecandpark.net.

Sincerely,



Maureen Casey
Assistant General Manager

COMMENTS RECEIVED FROM SOUTHGATE RECREATION AND PARK DISTRICT, JULY 3, 2007.

RESPONSE TO COMMENT #1:

This comment does not pertain to the adequacy of the environmental document, but the comment will be forwarded to the Board of Supervisors and Department of Transportation for their consideration.

RESPONSE TO COMMENT #2:

According to table NS-1, the acceptable noise level for golf courses is 75 dB. The analysis indicates that the golf course is outside the 65 dB noise contour. Therefore, the noise level at the golf course is more than 10 dB below the acceptable level established in the General Plan noise element.

RESPONSE TO COMMENT #3:

Noise impacts due to construction were found to be temporary in nature and are to occur during normal daytime working hours. As such, these activities are exempt from the County Noise Ordinance. Coordination between the applicant and the Park District typically would not take place in regard to this issue, however; this comment will be forwarded to the Board of Supervisors and Department of Transportation for their consideration.

RESPONSE TO COMMENT #4:

Mitigation measure BR-29 has been added to the Biology chapter on page 7-55. This measure calls for the inclusion of Southgate Recreation and Park District in identification of possible locations for tree replacement plantings.

RESPONSE TO COMMENT #5:

Comment noted.

RESPONSE TO COMMENT #6:

The Specific Plan's AQ-15 plan is reiterated in Chapter 10 Climate Change. These policies include provisions for alternate modes of transportation including public transit, bicycle, and pedestrian facilities.

LETTER #9 ANNA LALICH

Letter 9**Worrall, Lisa**

From: Maulit, Justin
Sent: Wednesday, July 25, 2007 3:01 PM
To: Worrall, Lisa
Subject: FW: Project Search Help N. Vinyard Station Spec. Plan Roadway Concerns

-----Original Message-----

From: ted@nilesbio.com [mailto:ted@nilesbio.com]
Sent: Wednesday, July 25, 2007 2:48 PM
To: DERA (Web Page)
Cc: ted Niles worralll@saccounty.net
Subject: Project Search Help N. Vinyard Station Spec. Plan Roadway Concerns

To: Sacramento County-DETA
From: Anna Lalich-9302 Elder Creek Rd

To whom it may concern,
 Don and myself have lived on 9302 Elder Creek Rd for over forty years. We planted our cedar trees, mulberry trees, and a hedge in front of our home for protection as well as a sound barrier against the ever increasing daily traffic. Our Walnut tree is majestic and was over twenty years old when we started here forty years ago. Our Walnut tree provides plenty of Walnuts.
 (enough for our family as well as some of our neighbors) Our trees provide shade and help keep our yard cool in the hot summer. We have three dry wells (septic) in our front yard which would interfere with the expanded road that you are proposing. Our home is our refuge from this noisy world that we all live in, and that is the reason why we bought our home here so we can enjoy country living. We hope you will take into consideration our reasons and will not widen the road.
 Sincerely

Anna Lalich

COMMENTS RECEIVED FROM ANNA LALICH, JULY 25, 2007.

RESPONSE TO COMMENT #1:

Improvements to Elder Creek Road adjacent to the subject property consist of the installation of paved shoulders. No additional lanes are proposed at this time. The Project Characteristics chapter has been corrected to reflect that upon completion of the project, Elder Creek Road will be two lanes with shoulders, instead of four lanes with shoulders as was stated in the Draft EIR. The County General Plan shows Elder Creek Road to eventually be a four-lane arterial. The proposed project does not identify need for that capacity at this time. Currently, there are dirt shoulders along this area of the roadway. It is possible, but appears unlikely that removal of trees from the front of the subject property would be necessary to achieve the proposed improvements. Should removal be necessary, compensation as outlined in the right-of-way acquisition process on page 4-12 would occur. Re-location of wells will also be a consideration during this process.

LETTER #10 TED NILES

Letter 10

Worrall, Lisa

From: Maulit, Justin
 Sent: Wednesday, July 25, 2007 8:39 AM
 To: Worrall, Lisa
 Subject: FW: Project Search Help/Comments on 06-PWE-0194

-----Original Message-----

From: ted@nilesbio.com [mailto:ted@nilesbio.com]
 Sent: Wednesday, July 25, 2007 8:23 AM
 To: DERA (Web Page)
 Cc: Ted Niles
 Subject: Project Search Help/Comments on 06-PWE-0194

I was looking for a link that is for public comments, but this is the closest link I can find. My wife and I have been at 9298 Elder Creek road since 1990. I understand we need more traffic capacity, but as I understand the proposal this roadway will include sidewalks, bike lanes and curbs. 1

These are all nice but the result is it will take out so much of our front yard that our 40 year old trees will all have to be removed. Our trees and hedge significantly reduce the amount of road noise heard in our home. I believe if the road moves twenty feet closer to my home and the vegetation is all removed I believe the road noise will be unbearable. Our septic system is also in the way of the proposal. The septic dry wells would have to be moved, but with the loss of front yard there is no longer enough yard to re-locate them. This Proposal will severely impact the value and salability of our property. 2

I understand the need for more traffic capacity. Bike lanes for my children could be nice, but moving a "freeway under my bedroom window," is going to be very difficult to live with. 3

Sincerely yours, Ted Niles 4

COMMENTS RECEIVED FROM TED NILES, JULY 25, 2007.

RESPONSE TO COMMENT #1 - 5:

Improvements to Elder Creek Road adjacent to the subject property consist of the installation of paved shoulders. No additional lanes are proposed at this time. The Project Characteristics chapter has been corrected to reflect that upon completion of the project, Elder Creek Road will be two lanes with shoulders, instead of four lanes with shoulders as was stated in the Draft EIR. The County General Plan shows Elder Creek Road to eventually be a four-lane arterial. The proposed project does not identify need for that capacity at this time. Currently, there are dirt shoulders along this area of the roadway. It is possible, but appears unlikely that removal of trees from the front of the subject property would be necessary to achieve the proposed improvements. Should removal be necessary, compensation as outlined in the right-of-way acquisition process on page 4-12 would occur. Re-location of wells will also be a consideration during this process.

The nearest sensitive receptor for noise along this stretch of Elder Creek Road was measured at 75 feet from the centerline. The home on the subject property measures approximately 90 feet from the centerline of Elder Creek Road. With the addition of rubberized asphalt, which provides a 4 dB noise reduction, the noise level at the nearest sensitive receptor will be 63.4 dB, which is below the acceptable noise standard of 65dB that was established in the General Plan Noise Element.

LETTER #11 PRENITA DEVI ON BEHALF OF MAYA AND GURBUX SINGH

Worrall, Lisa

From: Joyti singh [joyti14@hotmail.com]
 Sent: Saturday, July 28, 2007 10:51 AM
 To: Worrall, Lisa
 Cc: joyti14@hotmail.com

RE: North Vineyard Station Roadway Improvements

My name is Prenita Devi and I reside at 9296 Elder Creek Road, Sacramento, CA, 95829. I am responding on behalf of my parents Maya and Gurbux Singh. This project was brought to my attention this morning by our neighbor. We were not aware of this project because we did not receive the post card notice that our neighbor was referring to. He advice me to log on to your website for more information.

We understand that there is a need for traffic capacity, but the proposal for this roadway will include sidewalks, bike lanes, and curbs that will take away half of our front yard. Our fence, hedge, and trees that help in blocking noise will be taken away and if the road moves 20 feet close to our home, the noise will be unbearable. Two of our bedrooms are located parallel to the road way and four lanes traffic passing through so close to the bedroom windows will be a inconvenience. Our septic system is also in the way of the proposal, the septic dry wells would have to be moved, but with the loss of half the front yard there is no longer enough yard to re-locate them. We cannot move the septic dry wells to the back yard because it will be too close to our drinking water well. This proposal will tremendously affect the value and salability of our property.

Please take our concerns into consideration.

Thank You,
 Prenita Devi
 joyti14@hotmail.com
 (916) 387-9837

Need a brain boost? Recharge with a stimulating game. Play now!
http://club.live.com/home.aspx?icid=club_hotmailtextlink1

COMMENTS RECEIVED FROM PRENITA DEVI (MAYA AND GURBUX SINGH),
JULY 28, 2007.

RESPONSE TO COMMENT #1 - 3:

Improvements to Elder Creek Road adjacent to the subject property consist of the installation of paved shoulders. No additional lanes are proposed at this time. The Project Characteristics chapter has been corrected to reflect that upon completion of the project, Elder Creek Road will be two lanes with shoulders, instead of four lanes with shoulders as was stated in the Draft EIR. The County General Plan shows Elder Creek Road to eventually be a four-lane arterial. The proposed project does need for that capacity at this time. Currently, there are dirt shoulders along this area of the roadway. It is possible, but appears unlikely that removal of trees from the front of the subject property would be necessary to achieve the proposed improvements. Should removal be necessary, compensation as outlined in the right-of-way acquisition process on page 4-12 would occur. Re-location of wells will also be a consideration during this process.



SACRAMENTO COUNTY
DEPARTMENT OF ENVIRONMENTAL REVIEW AND ASSESSMENT
827 SEVENTH STREET, ROOM 220 SACRAMENTO, CALIFORNIA 95814
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15 INITIAL STUDY CHECKLIST

FOR NORTH VINEYARD STATION SPECIFIC PLAN ROADWAY
IMPROVEMENTS

CONTROL NUMBER: 06-PWE-0194

This checklist identifies physical, biological, social and economic factors that might be affected by the proposed project. The words "significant" and "significance" used throughout the following checklist are related to impacts as defined by the California Environmental Quality Act.

INITIAL STUDY CHECKLIST

	Potentially Significant ⁱ	Less Than Significant with Mitigation ⁱⁱ	Less Than Significant or No Impact ⁱⁱⁱ	Comments
1. LAND USE - Would the project:				
a. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including but not limited to a general plan, specific plan or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?			X	The only area of conflict is with the transportation plan in the Vineyard Community Plan. This plan is based on the 1982 General Plan Transportation Plan which identifies Bradshaw Road as a four lane arterial. This plan is outdated and the current General Plan's Transportation Plan identifies Bradshaw Road as a six lane thoroughfare, which the proposed project plans to construct.
b. Physically disrupt or divide an established community?			X	The project will not create physical barriers that substantially limit movement within or through the community.
2. POPULATION/HOUSING - Would the project:				
a. Induce substantial unplanned population growth in an area either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of infrastructure)?			X	The project proposes extension of infrastructure in the form of roadways, culverts and bridges. This extension of infrastructure is intended to service existing or planned development and will not induce substantial unplanned population growth.
b. Displace substantial amounts of existing housing, necessitating the construction of replacement housing elsewhere?			X	The project would result in the loss of nine houses. This loss is considered minor in relation to the total housing stock.
3. AGRICULTURAL RESOURCES - Would the project:				
a. Convert Prime Farmland, Unique Farmland, Farmland of Statewide Importance or areas containing prime soils to uses not conducive to agricultural production?			X	The project site is not considered Prime Farmland, Unique Farmland, or Farmland of Statewide Importance nor does it contain prime soils.
b. Conflict with any existing Williamson Act contract?			X	No Williamson Act contracts apply to the project site.
c. Introduce incompatible uses in the vicinity of existing agricultural uses?			X	Given the nature of the proposed project, incompatibility between the project and existing agricultural uses is not anticipated.

North Vineyard Station Specific Plan Roadway Improvements

4. AESTHETICS - Would the project:				
a. Substantially alter existing viewsheds such as scenic highways, corridors or vistas?			X	The project does not occur in the vicinity of any scenic highways, corridors, or vistas.
b. Substantially degrade the existing visual character or quality of the site and its surroundings?			X	Construction will not substantially degrade the visual character or quality of the project site.
c. Create a new source of substantial light, glare or shadow that would result in safety hazards or adversely affect day or nighttime views in the area?			X	The project would not result in substantial new sources of light, glare or shadow.
5. AIRPORTS - Would the project:				
a. Result in a safety hazard for people residing or working in the vicinity of an airport/airstrip?			X	Some of the project roadways are located within the safety zone of the Mather Airport; however the nature of the project would not result in a safety hazard for people residing or working in the vicinity of the airport/airstrip.
b. Expose people residing or working in the project area to aircraft noise levels in excess of applicable standards?			X	Some of the project roadways are located in the vicinity of Mather Airport; however, the nature of the project would not result in the exposure of people residing or working in the project area to aircraft noise.
c. Result in a substantial adverse effect upon the safe and efficient use of navigable airspace by aircraft?			X	Some of the project roadways are located in the vicinity of Mather Airport; however, the nature of the project would not affect navigable airspace by aircraft.
d. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?			X	The project does not involve or affect air traffic movement.
6. PUBLIC SERVICES - Would the project:				
a. Have an adequate water supply for full buildout of the project?			X	Upon completion of construction, the project will not create additional demand for water supply.
b. Have adequate wastewater treatment and disposal facilities for full buildout of the project?			X	Upon completion of construction, the project will not require wastewater treatment or disposal facilities.

North Vineyard Station Specific Plan Roadway Improvements

c. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			X	The Sacramento County Integrated Waste Management Plan provides for adequate waste disposal capacity to serve existing and anticipated development until the year 2010. The Keifer Landfill has capacity to accommodate solid waste until the year 2030.
d. Result in substantial adverse physical impacts associated with the construction of new water supply or wastewater treatment and disposal facilities or expansion of existing facilities?			X	The project would not require construction or expansion of new water supply, wastewater treatment, or wastewater disposal facilities.
e. Result in substantial adverse physical impacts associated with the provision of storm water drainage facilities?			X	Project construction would not require the addition of new stormwater drainage facilities; however, the extension of existing stormwater facilities would be necessary to accommodate the widened project roadways.
f. Result in substantial adverse physical impacts associated with the provision of electric or natural gas service?			X	Project construction would not require electric or natural gas service. However, existing service lines may need to be relocated to accommodate project roadway improvements.
g. Result in substantial adverse physical impacts associated with the provision of emergency services?			X	The project is not anticipated to increase demand for emergency services.
h. Result in substantial adverse physical impacts associated with the provision of public school services?			X	The project will not require the use of public school services.
i. Result in substantial adverse physical impacts associated with the provision of park and recreation services?			X	The project will not affect the provision of park services.
7. TRANSPORTATION/TRAFFIC - Would the project:				
a. Result in a substantial increase in peak hour vehicle trip-ends that could exceed, either individually or cumulatively, a level of service standard established by the County?			X	The project is consistent with existing zoning and will not increase the trip generation capacity of the project site.
b. Result in a substantial adverse impact to access and/or circulation?			X	The project will be required to comply with applicable access and circulation requirements of the County Improvement Standards and the Uniform Fire Code. Upon compliance, impacts are considered less than significant.
c. Result in substantial adverse impact due to inadequate parking capacity?			X	No parking is required.

North Vineyard Station Specific Plan Roadway Improvements

d. Result in a substantial adverse impact to public safety on area roadways?			X	Access and roadway improvements associated with the project will not substantially affect public safety on area roadways.
e. Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?			X	No conflicts with adopted policies, plans, or programs supporting alternative transportation have been identified.
8. AIR QUALITY - Would the project:				
a. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard?	X			The projects proposed uses will significantly increase the amount of vehicle emissions for the site over that expected with site development in conformance with existing zoning. The project's vehicle emissions will significantly exceed the Sacramento metropolitan Air Quality Management District's recommended significance thresholds for ROG, NOx, and particulates (PM10). Worst case cumulative plus project traffic with associated congestion at build out of the proposed planning area will cause the eight hour State and Federal carbon monoxide standard to be exceeded at four of the eight intersections analyzed.
b. Expose sensitive receptors to pollutant concentrations in excess of standards?			X	There are no sensitive receptors (i.e., schools, nursing homes, hospitals, daycare centers, etc.) adjacent to the project site.
c. Create objectionable odors affecting a substantial number of people?			X	Objectionable odors are not expected from the proposed project.
9. NOISE - Would the project:				
a. Result in exposure of persons to, or generation of, noise levels in excess of standards established by the local general plan, noise ordinance or applicable standards of other agencies?		X		See "Noise" chapter in the SEIR.
b. Result in a substantial temporary increase in ambient noise levels in the project vicinity?			X	Project construction will result in a temporary increase in ambient noise levels in the project vicinity. This impact is considered less than significant due to the temporary nature of these activities, limits on the duration of noise, and evening and nighttime restrictions imposed by the County Noise Ordinance (Chapter 6.68 of the County Code).
10. HYDROLOGY AND WATER QUALITY - Would the project:				
a. Substantially deplete groundwater supplies or substantially interfere with groundwater recharge?			X	The project will not rely on groundwater supplies and will not substantially interfere with groundwater recharge.

North Vineyard Station Specific Plan Roadway Improvements

b. Substantially alter the existing drainage pattern of the project area and/or increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?			X	The project will not result in flooding on- or off-site through substantial alteration of the existing drainage pattern of the project area and/or by increasing the rate or amount of surface runoff.
c. Develop within a 100-year floodplain as mapped on a federal Flood Insurance Rate Map or within a local flood hazard area?			X	Sections of the project roadways are within a 100-year floodplain and/or local floodplain. Refer to the Public Services section in the Supplemental Environmental Impact Report.
d. Place structures that would impede or redirect flood flows within a 100-year floodplain?			X	Improvements associated with the project will not impede or redirect flows within a 100-year floodplain.
e. Expose people or structures to a substantial risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?			X	The project will not expose people or structures to a substantial risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.
f. Create or contribute runoff that would exceed the capacity of existing or planned stormwater drainage systems?			X	The project will not create or contribute runoff that would exceed the capacity of existing or planned stormwater drainage systems.

North Vineyard Station Specific Plan Roadway Improvements

g. Create substantial sources of polluted runoff or otherwise substantially degrade ground or surface water quality?			X	<p>Sacramento County has been issued a National Pollutant Discharge Elimination System (NPDES) Stormwater Permit by the Central Valley Regional Water Quality Control Board which requires the County to reduce pollutants in stormwater discharges to the maximum extent practicable. The County complies with this permit by developing and enforcing ordinances and requirements to reduce the discharge of sediments and other pollutants in runoff from newly developing and redeveloping areas of the County. These requirements apply to both private and public projects. Along with other efforts, the County enforces the Stormwater Ordinance and Land Grading and Erosion Control Ordinances (Chapters 15.12 and 14.44 of the County Code respectively). These ordinances prohibit the discharge of non-stormwater to the stormwater conveyance system and surface waters and require erosion and sediment control measures for construction sites disturbing one or more acres.</p> <p>In addition to complying with the County's ordinances and requirements, construction sites disturbing one or more acres are required to comply with the State's General Stormwater Permit for Construction Activities. Select industrial and commercial activities must also comply with the State's General Stormwater Permit for Industrial Activities; the requirements of which may affect site layout and design. The General Stormwater Permits are enforced by the Central Valley Regional Water Quality Control Board. Both require preparation and implementation of a Stormwater Pollution Prevention Plan for the site.</p>
11. GEOLOGY AND SOILS - Would the project:				
a. Expose people or structures to substantial risk of loss, injury or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?			X	<p>Sacramento County is not within an Alquist-Priolo Earthquake Fault Zone. Although there are no known active earthquake faults in the project area, the site could be subject to some ground shaking from regional faults. The Uniform Building Code contains applicable construction regulations for earthquake safety that will assure less than significant impacts.</p>
b. Result in substantial soil erosion, siltation or loss of topsoil?			X	<p>The project will not result in substantial soil erosion, siltation, or loss of topsoil.</p>

North Vineyard Station Specific Plan Roadway Improvements

c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, soil expansion, liquefaction or collapse?			X	The project is not located on an unstable geologic or soil unit.
d. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available?			X	The project does not require the use of a public sewer system.
e. Result in a substantial loss of an important mineral resource?			X	Although located in an area with known mineral resources, the proposed project would not significantly impact future use of important mineral resources located on site.
f. Directly or indirectly destroy a unique paleontological resource or site?			X	No known paleontological resources (e.g. fossil remains) or sites occur at the project location.

North Vineyard Station Specific Plan Roadway Improvements

12. BIOLOGICAL RESOURCES - Would the project:				
a. Have a substantial adverse effect on any special status species?		X		See "Biological Resources" chapter in the SEIR.
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community?		X		See "Biological Resources" chapter in the SEIR.
c. Have a substantial adverse effect on wetlands designated as jurisdictional waters of the United States as defined by Section 404 of the Clean Water Act?		X		See "Biological Resources" chapter in the SEIR.
d. Have a substantial adverse effect on the movement of any native resident or migratory fish or wildlife species?		X		See "Biological Resources" chapter in the SEIR.
e. Adversely affect or result in the removal of native or landmark trees?		X		See "Biological Resources" chapter in the SEIR.
f. Conflict with any local policies or ordinances protecting biological resources?			X	The project is consistent with local policies/ordinances protecting biological resources.
g. Conflict with the provisions of an adopted Habitat Conservation Plan or other approved local, regional, state or federal plan for the conservation of habitat?			X	There are no known conflicts with any approved plan for the conservation of habitat.
13. CULTURAL RESOURCES - Would the project:				
a. Cause a substantial adverse change in the significance of an historical resource?			X	No historical resources have been identified on the project site. Refer to the Cultural Resources section of the Supplemental Environmental Impact Report.
b. Have a substantial adverse effect on an archaeological resource?			X	An archaeological survey was conducted on the project site and no archaeological resources were identified on the project site. Refer to Cultural Resources section of the Supplemental Environmental Impact Report.
c. Disturb any human remains, including those interred outside of formal cemeteries?			X	No known human remains exist on the project site. Nonetheless, mitigation has been recommended to insure appropriate treatment should remains be uncovered during project implementation.

14. HAZARDS AND HAZARDOUS MATERIALS - Would the project:				
a. Create a substantial hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?			X	See "Hazardous Materials" discussion in the SEIR.
b. Expose the public or the environment to a substantial hazard through reasonably foreseeable upset conditions involving the release of hazardous materials?			X	See "Hazardous Materials" discussion in the SEIR.
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school?			X	See "Hazardous Materials" discussion in the SEIR.
d. Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, resulting in a substantial hazard to the public or the environment?			X	See "Hazardous Materials" discussion in the SEIR.
e. Impair implementation of or physically interfere with an adopted emergency response or emergency evacuation plan?			X	The project would not interfere with any known emergency response or evacuation plan.

SUPPLEMENTAL INFORMATION

LAND USE CONSISTENCY	Current Land Use Designation	Consistent	Not Consistent	Comments
General Plan	Thoroughfare, Arterial	X		The roadway designations are consistent with the General Plan Transportation Plan.
Community Plan	Thoroughfare, Arterial	X		The roadway designations are consistent with applicable Community Plans with the exception of the Vineyard Community Plan (See “Land Use” chapter in the SEIR).
Land Use Zone	N/A			N/A

- ⁱ **Potentially Significant** indicates there is substantial evidence that an effect MAY be significant. If there are one or more “Potentially Significant” entries and Environmental Impact Report (EIR) is required. Further research of a potentially significant impact may reveal that the impact is actually less than significant or less than significant with mitigation.
- ⁱⁱ **Less than Significant with Mitigation** applies where an impact could be significant but specific mitigation has been identified that reduces the impact to a less than significant level.
- ⁱⁱⁱ **Less than Significant or No Impact** indicates that either a project will have an impact but the impact is considered minor or that a project does not impact the particular resource.

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West of Bradshaw Implementation Group (WBIG)

Sacramento County

Municipal Services Agency

Department of Transportation (SacDOT)

FINAL
ENVIRONMENTAL IMPACT REPORT
Response to Comments

NORTH VINEYARD
STATION SPECIFIC PLAN

FEBRUARY 1998

County Control Number: 93-SFB-0238
State Clearinghouse Number: SCH #96032057

Sacramento County
Department of Environmental
Review and Assessment





**COUNTY OF SACRAMENTO
DEPARTMENT OF ENVIRONMENTAL REVIEW
AND ASSESSMENT**

**DENNIS E. YEAST
DIRECTOR**

February 25, 1998

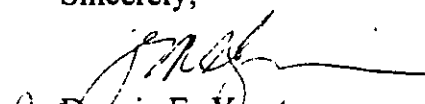
TO: ALL INTERESTED PARTIES

**SUBJECT: FINAL ENVIRONMENTAL IMPACT REPORT: RESPONSE TO
COMMENTS FOR NORTH VINEYARD STATION SPECIFIC PLAN
(SCH No. 96032057; County Control No. 93-SFB-0238)**

The subject Final Environmental Impact Report (FEIR) is attached for your information. The first of a series of hearings on the proposed project will be held before the Sacramento County Board of Supervisors on February 25, 1998 at 2:30 P.M. A hearing on the FEIR is currently scheduled for March 25, 1998 at 2:30 P.M. Several subsequent public hearings on the project are anticipated in April and May, 1998. Please call the Clerk of the Board at 874-5451 to verify the date, time and place of these hearings.

Please contact Ms. Sabrina Okamura-Johnson AICP or Ms. Joyce Horizumi of this office at (916) 874-7914 if you have questions concerning the FEIR.

Sincerely,


for Dennis E. Yeast
Director

DEY:jh:soj:



FINAL

Environmental Impact Report: Response to Comments

for

NORTH VINEYARD STATION SPECIFIC PLAN

AMENDMENT AND REZONE

Control Number: 93-SFB-0238

Assessor's Parcel Numbers: Various

This Environmental Impact Report has been prepared pursuant to the California Environmental Quality Act of 1970 (Public Resources Code Division 13). An Environmental Impact Report is an information document which, when its preparation is required by this division shall be considered by every public agency prior to its approval or disapproval of a project. The purpose of an Environmental Impact Report is to provide public agencies with detailed information about the effect which a proposed project is likely to have on the environment; to list ways in which any adverse effects of such a project might be minimized; and to suggest alternatives to such a project.

**Prepared by the
COUNTY OF SACRAMENTO
DEPARTMENT OF ENVIRONMENTAL REVIEW AND ASSESSMENT
827 Seventh Street, Room 220
Sacramento, California 95814**

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- ▶ **Final Technical Appendices: Volume I**
(Separate Document Released February 1998)
- ▶ **Final Technical Appendices: Volume II**
(Separate Document Released February 1998)
- ▶ **Final Technical Appendices: Volume III**
(Separate Document Released February 1998)
- ▶ **Draft EIR (With Technical Appendices Volumes I & II)**
(Separate Document Released July 1997)

PREFACE

Policy Planning Commission Action

On July 22, 1997, a Draft Environmental Impact Report (DEIR) for the proposed North Vineyard Station Specific Plan project was released for public review and comment. Public hearings on the proposed project and the DEIR began with the Policy Planning Commission in regular session on September 10, 1997. The second Public hearing was set for October 14, 1997. At this session the Policy Planning Commission closed public review of the DEIR, and directed staff and the applicant to report back on issues raised during the public hearing. On October 22nd, staff and applicant reported back to the Commission and the project was again continued. On November 25, 1997 the North Vineyard Station Specific Plan Financing Strategy was presented to the Commission by County Public Infrastructure Planning and Financing staff. The Commission also considered an additional land use alternative known as the "Dispersed Core Alternative" and the project was continued to December 10th.

On December 10, 1997, the Policy Planning Commission met in regular session and voted to make the following recommendations to the Board of Supervisors:

- **General Plan Amendment - Land Use Diagram.** Adopted Resolution No. 97-PO-005 recommending approval of the General Plan Amendment to amend the Land Use Diagram per Exhibit CC (see Plate PD-CC of this FEIR).
- **General Plan Amendment - Transportation Diagram.** Adopted Resolution No. 97-PO-005 recommending approval of the General Plan Amendment to amend the Transportation Diagram.
- **Community Plan Amendment.** Recommend approval of the Community Plan Amendment per Exhibit "J" to change land use designations of 1,595.5 acres from AG-20 and AG-20(F) to AR-10 and AR-10(F) to the North Vineyard Station Specific Plan.
- **Specific Plan.** Recommend approval of the Specific Plan Land Use Diagram per Exhibit AA (see Plate PD-AA of this FEIR) with the following exceptions:
 - 1) Shift the Waterman Road alignment at its north end such that 3 traffic lanes would be on the east side and 1 traffic lane on the west side of the property line;
 - 2) Eliminate the park and ride land use designation and substitute with open space on the restricted land (transmission corridor) and RD-3 to RD-5 on the balance of the

park and ride site. Future park and ride area could be developed in open space/restricted land;

3) Amend Specific Plan residential Land Use Policy #5 to read: 'Design and architecture of proposed residential projects shall consider the Design Guidelines included in the Specific Plan'; and

4) Amend Open Space Policy #5 to read: 'Where residential development abuts Parkways and Drainage Parkways, fences shall adhere to the following design: six(6) feet in height, consisting of three(3) feet wrought iron on top of three(3) feet of masonry wall. The Planning Commission may waive this requirement where privacy is an issue adjacent to a bicycle path.

- **Zoning Ordinance Amendment.** Recommend approval of the Zoning Ordinance Amendment to establish alternative code requirements for the North Vineyard Station Specific Plan.
- **Public Infrastructure/Facilities Financing Plan.** Recommend approval of the Specific Plan Financing Strategy.

In addition, the commission instructed DERA staff to respond to comments (both written and oral testimony) received on the DEIR and to prepare the Final EIR for the project.

Final EIR

The Final EIR (FEIR) consists of comments received on the DEIR, and responses to those comments, as well as the Final Technical Appendices Volume I, II and III. The Final Technical Appendices contain the final version, or most current revision, of all technical studies and reports. The Final Technical Appendices with latest revision date are listed below. (Dates that are underlined identify technical studies that were not previously distributed or have been updated since the issuance of the DEIR.):

Final Technical Appendices Volume I

- **Noise Analysis** (December 4, 1996)
- **Biotic Resources** (May 3, 1997 & January 6, 1997).
- **Arborist Reports** (Various dates 1995-96)
- **Cultural Resources** (December 18, 1995 & January 14, 1997)

Final Technical Appendices Volume II

- **Drainage Study** (revised January 30, 1998)
- **UNET Analysis** (January 1997)
- **Water Supply Plan** (revised December 1997).

- **Sewer Study** (January 30, 1998)
- **Hazardous Materials Assessment** (revised March 8, 1996)
- **Geotechnical Engineering Report** (May 31, 1995)

Final Technical Appendices Volume III

- **Transportation Analysis** (revised January 30, 1998, previously in Vol. I)
- **Supplemental Transportation Analysis** (February 6, 1998).

This FEIR document includes a Summary of EIR Findings (Chapter 1), Mitigation Measures (Chapter 2), Project Description and Alternatives (Chapter 3). Chapter 4 is the addendum Traffic and Circulation section that addresses traffic impacts of a commercial core alternative developed during the Planning Commission public hearings (see Volume III, Technical Appendices for Supplemental Traffic Analysis). Chapter 5 summarizes the Public Facilities Financing Strategy and Capital Improvement Program (Attachment 3).

Responses to comments received on the Draft EIR is found in Chapter 6. Changes to the text of the DEIR prompted by the response to comments are included in the "Errata" section as Attachment 2.

This FEIR: Response to Comments document, and Final Technical Studies Volume I, II and III, as well as the previously released DEIR (and related Technical Studies Volume I and II) constitute the complete environmental document for the subject project pursuant to CEQA.

Specific Plan Proponents - Revised

The Specific Plan Proponents, also known as the participating property owners or petitioners, for the project now include: Winncrest Homes, US Home, Florin Investors, and Cal Maple Development. The Saca Properties, Morvai and East Bradshaw Gerber Associates are no longer participating owners. A revised listing of the North Vineyard Station Property Owners Group and their representative, or contacts, was provided by George E. Phillips (September 5, and October 22, 1997 letters to DERA).

1998 NVSSP Property Owners Group

Winncrest Homes
9985 Folsom Boulevard
Sacramento, CA 95827
Contact: Mike Winn

North Vineyard Investors, US Home Corp.
2366 Gold Meadow Suite 100
Gold River, CA 95827
Contact: Brian Bombeck

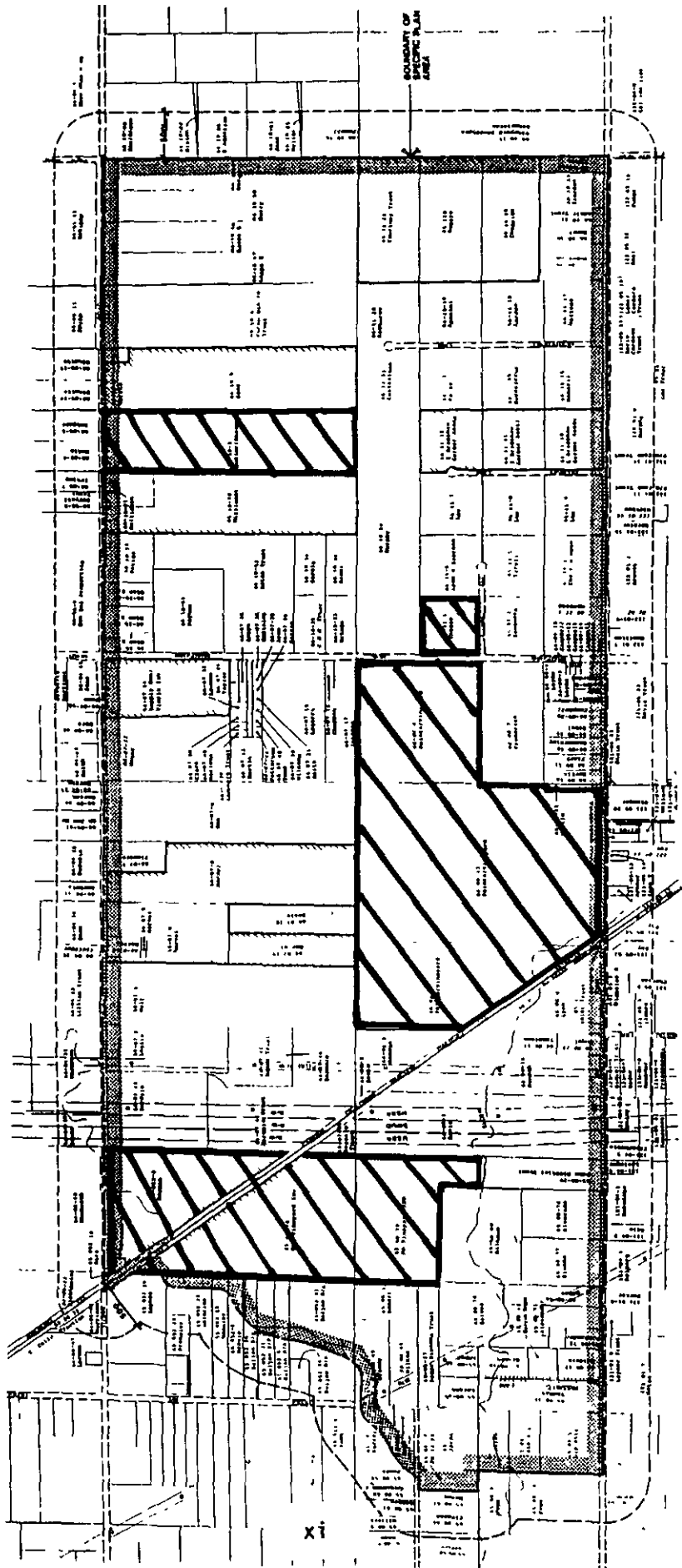
Florin Investors
9985 Folsom Boulevard
Sacramento, CA 95827
Contact: John Reynen

Cal Maple Development
P.O. Box 19034
Sacramento, CA 95819
Contact: Phil Courey

NVSSP Representative
Law Offices of George E. Phillips
555 University Avenue Suite 100
Sacramento, CA 95825
Contact: George Phillips

Specific Plan Program Manager
County Planning & Community
Development Department
827 7th Street, Room 230
Sacramento, CA 95814
Contact: Dave Pevny

Plate PRF-A is the revised "Location & Property Ownership Map" for the project area (revised Figure 1.7 of the public review draft Specific Plan document). These minor changes in the Specific Plan project document and related references in the DEIR do not affect the content or conclusions of the EIR.



 PETITIONER'S PARCELS

LOCATION & PROPERTY OWNERSHIP MAP
October 1997

SPECIFIC PLAN
NORTH VINEYARD STATION

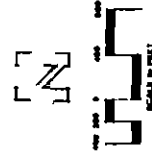


Plate PRF-A
Property Ownership Map (rev. 10/97)
NVSSP EIR(93-0238)

SUMMARY OF EIR FINDINGS

Introduction

This Master Environmental Impact Report (EIR) assesses the potential environmental effects of the proposed North Vineyard Station Specific Plan (NVSSP) pursuant to the California Environmental Quality Act of 1970 (CEQA, as amended). This EIR assesses the expected individual and cumulative impacts of the ultimate environmental changes resulting from development taking place in conformance with the proposed Specific Plan, identifies means of minimizing potential adverse impacts, and evaluates reasonable alternatives to the proposed project.

This Final volume containing the response to comments received on the Draft EIR along with the original Draft EIR released on July 22, 1997, and three technical appendices constitute the Final EIR for the project.

The EIR will be used as an informational document to the public and by the Sacramento Board of Supervisors in evaluating the proposed project and rendering a decision to approve, deny, or modify the requested General Plan and Community Plan amendments, Transportation Plan diagram Amendment, Zoning Ordinance Amendment, Capital Improvement Program, Drainage Master Plan, Water Supply Master Plan, and Sewer Master Plan.

In addition the EIR will be used as an informational document for the public and other responsible agencies including, but not limited to: the Local Agency Formation Commission (LAFCo) and the Board of Directors for: the Sacramento County Water Agency; the Sacramento Regional County Sanitation District; and the County Sanitation District No. 1.

Significant Effects Which Cannot Be Avoided If The Project Is Implemented

Traffic and Circulation.

Even after implementation of the proposed improvements, the following impacts were found to be significant and unavoidable:

1. The proposed project would result in significant and unavoidable impacts on Bradshaw Road between Florin Road and Elder Creek Road since the project volume of 58,500 VPD would exceed the capacity of 54,000 VPD for a six-lane

roadway.

2. Implementation of the project under cumulative conditions will result in significant and unavoidable impacts at the following intersections:

- South Watt Avenue/Elder Creek Road
- Bradshaw Road/Elder Creek Road
- Elk Grove-Florin/Florin Road
- Bradshaw Road/Florin Road
- Elk Grove-Florin Road/Gerber Road

Regional and Local Air Quality.

Sacramento County currently violates state and federal ambient air quality standards, and is presently classified as a non-attainment area by the Environmental Protection Agency (EPA) and the State. In Sacramento, pollutants of greatest concern are ozone precursors [reactive organic gases (ROG) and nitrogen oxides (NO_x)], carbon monoxide (CO), particulate matter (PM₁₀), and other visibility reducing matter. In Sacramento, vehicular sources are the primary contributor of carbon monoxide, reactive organic gases and nitrogen oxides.

The project's proposed uses will significantly increase the amount of vehicle emissions for the site over that expected with site development in conformance with existing zoning. The project's vehicle emissions will significantly exceed the Sacramento Metropolitan Air Quality Management District's recommended significance thresholds for ROG NO_x and particulates (PM₁₀). Worst case cumulative plus project traffic with associated congestion at build out of the proposed planning area will cause the eight hour State and Federal carbon monoxide standard to be exceeded at four of the eight intersections analyzed.

Traffic Noise Impacts to Existing Receptors.

Significant increases in traffic noise will occur along the major thoroughfares and arterial roadways serving the project area under development of the Preferred Plan or any of the Alternative Plans due to the significant increase in traffic volumes. Impacts to existing sensitive noise receptors (homes and other noise-sensitive uses) located along those roads experiencing substantial noise increases are considered significant and unavoidable. Although future roadway widening projects would be subject to CEQA review and mitigation is imposed at the time of construction, impacts to existing residents may not be fully mitigable due to existing site constraints. Noise barriers or other noise attenuating measures may not be feasible in situations such as front-on lots where the driveway access cannot be blocked by a solid wall or where proposed roadway modifications result in minimal setbacks leaving no space for a wall.

Cumulative Loss of Wildlife Habitats.

Development of the proposed Specific Plan would result in the loss of nearly 1,600 acres of habitats used by a variety of more common (non-listed) wildlife species. Given the magnitude of this change, the loss is considered a cumulatively significant and unavoidable impact of the project. Preservation of wetland/wildlife habitat on site as required by the Wetland Preservation Plan (Environmentally Superior Alternative) would reduce this impact by at least 200 acres, however, the impact would remain cumulatively significant and unavoidable.

Cumulative Ground Water Decline (Interim Impact).

Implementation of the North Vineyard Station Specific Plan Water Master Plan, as outlined by MacKay and Somps, would result in less than significant water supply impacts. However, the implementation of the NVSSP Water Master Plan is contingent on the implementation of the Water Master Plan for Areas Adjacent to the Zone 40 Water Supply Master Plan Update's Study Area, as well as fulfillment of the City of Sacramento American River Place of Use (POU). Until all agreements are in place to wheel "firm" surface water supplies to the Specific Plan area, the project will contribute to the incremental decline in ground water levels. This incremental decline and the dewatering of private wells is a regional issue, beyond the scope of this current project. However, the project will add to the significant adverse cumulative impacts that regional development has on ground water supplies until a firm surface water source is established.

**Significant Effects Which Could Be Avoided With
Implementation of Mitigation Measures**

Land Use.

The Preferred Plan and Alternatives may not meet several General Plan goals, objectives and policies which are intended to maximize efficiency in land use and improve community identity as the projected growth needs of the County are accommodated during the 20-year planning horizon. The densities and land use patterns proposed are similar to the low density development typical other suburban communities. The Preferred Plan and Alternatives are land consumptive and auto-oriented, which tends to exacerbate traffic and air quality impacts; however, these impacts were acknowledged during update of the County General Plan when the subject Specific Plan area was designated for growth. In order to minimize further environmental degradation, it is essential that the projected growth needs of the

General Plan are met within approved urban growth areas. If the designated growth areas are not developed to their full potential, direct, adverse physical impacts to the environment could occur through the further loss of agricultural lands and open space/natural habitat areas.

In conclusion, potential land use compatibility impacts associated with holdover agricultural-residential or general agricultural uses located both within and just outside the Urban Development Area can be mitigated to less than significant levels through implementation of General Plan policies, proposed Specific Plan policies and established Zoning Code development standards. Land use impacts resulting from non-compliance with General Plan goals, objectives and policies are considered potentially significant and adverse. Mitigation of potential land use impacts to a less than significant level would required redesign of the Plan area to be consistent with the intent of the General Plan for new growth areas. This issue is discussed further in the Alternatives section of this document.

Short Term (Construction-Related) Air Quality Impacts.

Short-term increases in ambient air pollutant concentrations as a result of construction-related emissions are considered potentially significant. Unmitigated dust emissions from earthmoving activities would be likely to create short-term violations of ambient PM_{10} standards and to generate emissions exceeding the 275 pounds per day significance threshold. PM_{10} emissions would be a significant impact of the project. Preparation and implementation of a dust control plan would reduce the identified impact to less than significant.

Traffic Noise Impacts to Future Development.

Noise impacts to future development along Plan area roadways are potentially significant under all plan scenarios but would be mitigated through implementation of noise attenuation measures at the time of development. Future projects will be subject to CEQA review and compliance with noise standards. Therefore, traffic related noise impacts to future development could be mitigated to less than significant levels.

Hydrology and Flooding.

Development of the proposed project could result in potentially significant flooding and surface water quality impacts. Flooding impacts can be reduced to a less than significant level by the timely implementation of the proposed North Vineyard Station Specific Plan Drainage Master Plan (DMP) improvements, including construction of downstream Detention Basin E20, and flood control improvements which eliminate or reduce the

existing overflow condition from Gerber Creek into the Specific Plan area. Surface water quality impacts can be reduced to a less than significant level by implementing Best Management Practices for the treatment of urban runoff, such as the water quality treatment facilities proposed within the DMP detention basins, and compliance with the County's Land Grading and Erosion Control Ordinance. Construction of the proposed DMP improvements will result in land alteration activities which will significantly impact wetlands and special status species habitat. In addition, although well developed riparian zones are not present on the project site, there are short reaches of riparian scrub species along the creek corridors which would be affected by construction of the DMP improvements. These impacts upon biological resources can be reduced to a less than significant level by: (a) implementing a wetland mitigation plan which achieves no net loss of wetland habitat acreage and values; (b) implementing a special status species mitigation plan developed in cooperation with regulatory resource agencies designed to reduce impacts on any special status species identified through determinate surveys to a less than significant level; and (c) providing in-kind replacement plantings on an inch-for-inch basis for any native trees six-inches dbh (diameter at breast height) or larger which must be removed.

Water Supply (Long Term).

Conjunctive use water supply for the County of Sacramento and surrounding regions is a very complex and multi-faceted matter that has received intense attention in the last few years from all of the areas water purveyors, environmental interests and governments. The ongoing efforts by the Sacramento County Water Agency for surface water supply is now coming to fruition.

Interim solutions enhancing water supply have been implemented. Temporary surface water supplies are now being provided to areas which were entirely dependent upon ground water. Agreements are being completed which will provide significant long-term surface water supplies. This Central Valley Project PL 101-514 water supply contracts of up to 22,000 acre-feet of surface water is approaching reality with the draft EIS/EIR just released in July 1997. It is therefore possible that long-term surface water contracts providing an adequate surface water supply will be in place prior to start of development within the Specific Plan Area or soon thereafter. However, initial water supply may be dependent upon groundwater. Wells would be constructed to become an integral part of the ultimate water delivery system to supplement surface water supply.

Biological Resources.

Wetlands: Development of the project will result in the loss of 51 acres of on-site vernal pools and seasonal wetlands and an additional 7.53 off-site acres (58.83 acres total). The

project will also result in the loss of 18.68 acres (15 acres on-site; 3.68 acres off-site) of perennial creeks, freshwater marsh and drainage swales. Without mitigation, these losses will cumulatively contribute to the loss of wetlands habitat which has already occurred in significant proportions throughout the Central Valley. Mitigation measures have been proposed to fully compensate for the lost wetlands through an off-site mitigation plan or a combination of on-site preservation and off-site compensation.

Fairy Shrimp: Although determinate surveys have yet to be conducted throughout the plan area, some vernal pools and seasonal wetlands affected by the project are known to contain vernal pool fairy shrimp (*Branchinecta lynchi*) and/or vernal pool tadpole shrimp (*Lepidurus packardii*). The species are listed as threatened and endangered, respectively, under the Federal Endangered Species Act. A mitigation plan using preservation and/or creation component will be devised to the satisfaction of the U.S. Fish and Wildlife Service.

Swainson's Hawk: Development of the project will result in the loss of as much 1600 acres of suitable foraging habitat for the Swainson's hawk, listed as a threatened species under the State Endangered Species Act. The loss of foraging habitat will contribute to the cumulatively significant losses experienced regionally. Mitigation standards for compensation of lost foraging habitat as determined by the California Department of Fish and Game will be implemented.

Trees: There are maybe existing mature trees throughout the Plan Area which will be affected by urbanization. To date only the participating owners properties have been surveyed. The only native species identified are black walnuts and black willows. Native oaks and other significant trees may occur in the area that have yet to be identified. The Specific Plan text (6.3.4 Natural Resource Preservation Policies) contains several measures to protect and preserve native oaks during development. The General Plan policy (CO- 130) calling for the preservation of non-oak natives is also included in the Specific Plan policies.

Cultural Resources.

Adoption of any of the proposed project alternatives could result in possible future disturbance of known and unknown prehistoric and/or historic resources. This impact is considered potentially significant since cultural resources are non-renewable resources that may provide important information about past cultures or have cultural and/or religious importance to living populations. Future construction activities related to the implementation of the Specific Plan could be designed to avoid important cultural resources and therefore minimize such impacts. Measures can also be taken to mitigate impacts which result from the accidental discovery of cultural resources during construction activities. Implementation of recommended mitigation measures would reduce potentially significant impacts to cultural

resources to less than significant levels.

Hazardous Materials.

The technical analysis has identified hazardous materials impacts that are potentially significant: soil contamination from use of agricultural chemicals; PCB contamination; friable asbestos; and well contamination. All impacts are considered potentially significant under any of the proposed project alternatives. Incorporation of recommended mitigation measures into the Specific Plan Policies and Development Criteria and implementation of existing government regulations will reduce potentially significant impacts relative to hazardous materials to less than significant levels.

Impacts Found to be Less Than Significant

Public Services.

The increased demands created by the project on the following services can be accommodated through compliance with requirements of the service agencies and no significant environmental impacts are expected:

Energy Facilities and Services

Fire Protection

Sheriff's Services

Schools

Library Facilities

Parks and Recreation

Solid Waste Disposal

Transit Service

Sewer Service.

Development of the proposed NVSSP project and upstream areas will contribute an estimated 16.92 million gallons per day of peak wet weather sewage flows to the regional sewer system. There is an existing 102-inch sewer interceptor located in Elk Grove-Florin Road, approximately ½ mile west of the Specific Plan area, but this facility is nearing capacity. However, the Bradshaw Interceptor is planned for construction in 1997-1998 through the western portion of the Specific Plan area which will provide sufficient capacity to accommodate the proposed project's sewage flows. Specific Plan development will be required to construct the trunk and lateral facilities needed to convey project

sewage flows to the Bradshaw Interceptor. Because planned facilities will be sufficient to accommodate

sewage flows from the proposed land uses, the project's impacts upon sewer service are considered to be less than significant and no mitigation measures are required.

Growth Inducing Impacts

There may be some growth inducing potential associated with the project in that extension and upgrade of urban infrastructures and services will facilitate development of surrounding properties. However, the Plan Area and most of its surrounding lands were committed to urbanization with the adoption of the 1993 General Plan. As discussed in the Land Use section of this document, the Plan Area interfaces to the northeast and east represent the most potential for land use compatibility concerns and thus, the greatest potential for growth inducement would be in those same directions. Those potentially affected lands are shown on the General Plan Land Use Diagram for non-urban land uses: Recreation (along the creek), Agricultural Urban Reserve, General Agriculture and Agricultural Residential. These lands are outside the Urban Policy Area which is defined in the General Plan as that "area expected to receive urban levels of public infrastructure and services within the 20-year planning period." By virtue of being outside the Urban Policy Area, the General Plan policies would not support near term urbanization of those lands. Furthermore, there are lands contiguous to the Plan Area that are within the designated growth area that would be given much higher priority for accommodating growth needs before any additional lands outside the Urban Policy Area are committed for urbanization. For these reasons, the growth inducing potential of the project on lands not otherwise designated for urbanization during the next 20 years is considered less than significant.

Irreversible Environmental Changes

The project, under all alternatives, will result in the irreversible loss of agricultural-residential designated properties and the loss of a rural lifestyle and bucolic scenery. Once land is converted to higher density urban uses and infrastructure is in place, it is highly unlikely that the land would revert back to rural uses. The commitment to urban uses will be permanent.

Cumulative Impacts

Cumulative impacts of the project were fully analyzed throughout this document along with project-specific, singularly significant impacts.

MITIGATION MEASURES

Below is a summary of the environmental mitigation measures identified in the EIR. CEQA requires public agencies to impose all feasible mitigation measures to substantially reduce or eliminate significant adverse project impacts. (CEQA § 21002)

Land Use Mitigation Measures.

In order to ensure consistency between the proposed project and the County General Plan Policy Document and related General Plan Land Use Diagram the following Land Use mitigation measures are recommended:

- LU-1 The final General Plan Diagram should be modified to include at least one General Plan TOD land use designations/locations.
- LU-2 Consideration should be given to designating a higher density multi-family residential category such as MFR/23-30 which still falls with the General Plan Medium Density Residential category (13-30 du/ac).
- LU-3 The final General Plan Diagram shall be modified to include a Recreation/Open Space designation that corresponds to the proposed drainage parkway areas, storm detention basin sites, and the Bradshaw Ranch Golf Course on Bradshaw Road, in order to ensure consistency between the proposed land use plans and the proposed General Plan diagrams with regard to Recreation/Open Space land uses.
- LU-4 **The General Plan Diagram will be modified in respect to some park locations, with the Southgate Park District determining exact park locations. The Community Park site shall not be located under power lines and shall be modified to create neighborhood park sites in areas of the plan which are deficient in park land in substantial compliance with the Alternate Land Use Plan dated November 1, 1996, which was developed in cooperation with County Planning and the North Vineyard land owners group.**

NOTE: These recommended mitigation measures must be accomplished as direct changes to the proposed Specific Plan documents.

Public Facilities Financing Mitigation Measure.

The Financing Plan is tangible to environmental impacts in that it provides the mechanism

to ensure that needed improvements to mitigate traffic, drainage, water supply and other infrastructure/service impacts can be implemented in a timely manner. To insure that no maps and/or rezones are approved prior to the approval of a Public Facilities Financing Plan for the North Vineyard Station Specific Plan area, the Public Infrastructure Planning and Financing Section is recommending the following mitigation:

PFF-1 No rezone shall be approved until a Public Facilities Financing Plan for the North Vineyard Station Specific Plan area has been approved by the Board of Supervisors and no final map shall be recorded until the financing mechanisms identified in the Public Facilities Financing Plan have been implemented.

NOTE: This recommended mitigation measures must be accomplished as direct change to the proposed Specific Plan document.

Traffic and Circulation Mitigation Measures:

Proposed Project (Preferred Plan) and Project Alternatives

The following improvements are required to enhance operating conditions or to eliminate the projected deficiencies under **Existing with Project** condition:

- TR-1 Widen the section of Elk Grove-Florin/South Watt Avenue from Gerber Road to SR 16 from two to four lanes.
- TR-2 Widen the section of Bradshaw Road from Gerber Road to SR 16 from two to four lanes.
- TR-3 Widen the section of Florin Road from south Watt Avenue to Bradshaw Road from two to four lanes.
- TR-4 Widen the section of Gerber Road from Elk Grove-Florin Road to Bradshaw Road from two to four lanes.
- TR-5 Widen the section of SR 16 from South Watt Avenue to Bradshaw Road from two to four lanes. This improvement should be constructed when the daily volume on this segment reaches 16,200 VPD or 90 percent of urban arterial capacity.
- TR-6 Widen Elder Creek Road between South Watt Avenue and Excelsior Road to include 12-foot travel lanes and minimum 6-foot shoulders to meet Sacramento County design standards for rural arterials.

- TR-7 Widen Excelsior Road between Jackson Road and Calvin Road to include 12-foot travel lanes and minimum 6-foot shoulders to meet Sacramento County design standards for rural arterials.
- TR-8 Widen Florin Road between Bradshaw Road and Excelsior Road to include 12-foot travel lanes and minimum 6-foot shoulders to meet Sacramento County design standards for rural arterials.
- TR-9 Widen Gerber Road Bradshaw Road and Excelsior Road to include 12-foot travel lanes and minimum 6-foot shoulders to meet Sacramento County design standards for rural arterials.
- TR-10 Widen Vineyard Road between Gerber Road and Calvin Road to include 12-foot travel lanes and minimum 6-foot shoulders to meet Sacramento County design standards for rural arterials.
- TR-11 Widen Calvin Road between approximately 1,300 feet east of Waterman Road to Excelsior Road to include 12-foot travel lanes and minimum 6-foot shoulders to meet Sacramento County design standards for rural arterials. (The section of Calvin Road from Elk Grove-Florin Road to approximately 1,300 feet east of Waterman Road will be widened from two to four lanes as part of a funded project included in Sacramento County's *1996 Transportation Improvement Plan*.)
- TR-12 Modify the intersection of South Watt Avenue at Jackson Road to include a separate left turn lane, two through lanes, and a separate right turn lane on all approaches.
- TR-13 Modify the Bradshaw Road/Jackson Road intersection to include the following lane configurations:
- Dual left turn lanes, two through lanes, and a separate right turn lane on the northbound and southbound approaches; and
 - One left turn, one through lanes, and a separate right-turn on the eastbound and westbound approaches.
- TR-14 Modify the Bradshaw Road/Elder Creek Road intersection to include the following lane configurations:
- One left turn lanes, two through lanes, and a separate right turn lane on the southbound approach;

- One left turn lanes, one through lane, and a shared through/right-turn lane on the northbound approach;
- One left turn and one shared through/right-turn lane on the eastbound approach; and
- One shared left-turn/through lane and one separate right turn lane on the westbound approach.

TR-15 Modify the Bradshaw Road/Florin Road intersection to include the following lane configurations:

- Dual left turn lanes, two through lanes, a separate right turn lane on the northbound and southbound approaches; and
- One left turn lane, two through lanes, and a separate right-turn lane on the eastbound and westbound approaches.

TR-16 Modify the Elk Grove-Florin Road/Gerber Road intersection to include the following lane configurations:

- Dual left turn lanes, two through lanes, and a separate right turn lane on the northbound and southbound approaches;
- One left turn lanes, one through lane, and a separate right-turn lane on the eastbound approach; and
- One left turn lane, one through lane, and a shared through/right-turn lane on the westbound approach.

The provision of northbound dual left turn lanes will require widening of the westbound departure leg on Gerber Road to two lanes before merging to a single travel lane in each direction. The length and merging distance for these lanes shall be approved by Sacramento County Transportation Division staff.

TR-17 Modify the Bradshaw Road/Gerber Road intersection to include the following lane configurations:

- Dual left turn lanes, ~~two~~ one through lanes, and a separate right turn lanes on the eastbound and westbound approaches; and

- One left turn lane, two through lanes, and a separate right-turn lane on the northbound and southbound approaches.

The provision of **two** southbound ~~dual left turn~~ through lanes and a **dual westbound left-turn lanes** will require widening of the ~~eastbound southbound~~ departure leg on ~~Gerber~~ Bradshaw Road to two lanes before merging to a single travel lane in each direction. The length and merging distance for these lanes shall be approved by Sacramento County Transportation Division staff.

- TR-18 Install a signal at the South Watt Avenue/Elder Creek Road intersection and modify the lane configurations to the satisfaction of the Sacramento County Transportation Division.
- TR-19 Install a signal at the Elk Grove-Florin Road/Florin Road intersection and modify the lane configurations to the satisfaction of the Sacramento County Transportation Division.

The following improvements are required to improve operating conditions under **Cumulative With Project** conditions:

- TR-20 Access on Bradshaw Road shall be strictly limited between Florin Road and Elder Creek Road. With the exception of signalized intersections, limited driveway access shall be permitted along this roadway segment.
- TR-21 Widen Elder Creek Road between South Watt Avenue and Excelsior Road to include 12-foot travel lanes and minimum 6-foot shoulders to meet Sacramento County design standards for rural arterials.
- TR-22 Widen Excelsior road between Jackson Road and Calvine Road to include 12-foot travel lanes and minimum 6-foot shoulder to meet Sacramento County design standards for rural arterials.
- TR-23 Widen Gerber Road between Vineyard Road and Excelsior Road to include 12-foot travel lanes and minimum 6-foot shoulders to meet Sacramento County design standards for rural arterials.
- TR-24 Construct dual right turn lanes on the eastbound approach and triple left turn lanes on the northbound approach of the Bradshaw Road/Jackson Road intersection. Installation of these improvements should occur when the V/C ratio exceeds 1.00 or the peak hour volume for either movement exceeds roughly 950 vehicles.

TR-25 Modify the northbound and southbound approaches to the Jackson Road/Excelsior Road intersection to include a second through lane. Since the northbound departure leg of this intersection is planned to accommodate two lanes, this improvement would only require modifications to Excelsior Road south of Jackson Road. The southbound departure leg would have to be widened to accommodate two lanes before merging into a single southbound lane. The length and merging distance for the second southbound lanes shall be approved by Sacramento County Transportation Division staff.

Alternative Core Alternative

Mitigation Measures TR-1 through TR-3, TR-5 through TR-14, and TR-16 through TR-19 (identified for the Preferred Plan) would all be required for the Alternative Core. Mitigation Measure TR-15A would replace TR-15, and TR-20A is a new required Mitigation Measure.

TR-15A: Modify the Bradshaw Road/Florin Road intersection to include the following lane configurations:

- Dual left turn lanes, two through lanes, and a separate right-turn lane on the northbound approach;
- Dual left turn lanes, *three* through lanes, and a separate right-turn lane on the southbound approach; and
- One left turn lane, two through lanes, and a separate right-turn lane on the eastbound and westbound approaches.

The provisions of southbound dual left turn lanes will require widening of the eastbound departure legs on Florin Road to two lanes before merging to a single travel lane. The length and merging distance for these lanes will be approved by Sacramento County Transportation Division staff. The westbound departure leg will be widened as part of Mitigation Measure TR-3.

Provisions of three southbound lanes will require widening of Bradshaw Road to its ultimate width immediately south of Florin Road. The third southbound lane could be converted to an exclusive right-turn lane at the next downstream intersection or it could be designed to merge into the second through lane. The final configuration will be approved by Sacramento County Transportation Division staff.

These improvements would improve operations at this intersection to LOS

C and LOS E in the a.m. and p.m. peak hours, respectively. Improvements should be implemented when the intersection operates unacceptably based on Sacramento County standards.

TR-20A: Modify the Florin Road/Waterman Road intersection to include the following lane configurations:

- **Two through lanes and a separate right-turn lane on the eastbound approach; and**
- **Two through lanes and a separate left-turn lane on the westbound approach.**

The provision of two through lanes in the east-west direction is consistent with Measure TR-3 (widening of Florin Road between Elk Grove-Florin Road and Bradshaw Road from two to four lanes).

These Mitigation Measure improvements would improve operations at this intersection to LOS A and LOS B in the a.m. and p.m. peak hours, respectively. Improvements should be implemented when the intersection operates unacceptably based on Sacramento County standards.

Dispersed Core Alternative

Mitigation Measures TR-1 through TR-14, and TR-17 through TR-19 (identified for the preferred project) would all be required for the Dispersed Core. Mitigation Measures TR-15D and TR-16D would replace TR-15 and TR-16, respectively.

TR-15D: Modify the Bradshaw Road/Florin Road intersection to include the following lane configurations:

- **Dual left turn lanes, two through lanes, and a separate right-turn lane on the northbound approach;**
- **Dual left turn lanes, *three* through lanes, and a separate right-turn lane on the southbound approach; and**
- **One left turn lane, two through lanes, and a separate right-turn lane on the eastbound and westbound approaches.**

The provisions of southbound dual left turn lanes will require widening of the eastbound departure legs on Florin Road to two lanes before merging to a single travel lane. The length and merging distance for these lanes will be approved by Sacramento County Transportation Division staff.

The westbound departure leg will be widened as part of Mitigation Measure TR-3.

Provision of three southbound lanes will require widening of Bradshaw Road to its ultimate width immediately south of Florin Road. The third southbound lane could be converted to an exclusive right-turn lane at the next downstream intersection or it could be designed to merge into the second through lane. The final configuration will be approved by Sacramento County Transportation Division staff. (This is the same as Mitigation Measure TR-15A).

These modifications would improve operations at this intersection to LOS C and LOS D in the a.m. and p.m. peak hours, respectively. Improvements should be implemented when the intersection operates unacceptably based on Sacramento County standards.

TR-16D: Modify the Elk Grove-Florin Road/Gerber Road intersection to include the following lane configurations.

- dual left turn lanes, two through lanes, and a separate right-turn lane on the northbound and southbound approaches;
- One left turn lane, one through lane, and *dual right-turn lanes* on the eastbound approach; and
- One left turn lane, one through lane, and a shared through/right-turn lane on the westbound approach.

The provision of northbound dual left turn lanes and two westbound through lanes will require widening of the westbound departure leg on Gerber Road to two lanes before merging to a single travel lane in each direction. The length and merging distance for these lanes will be approved by Sacramento County Transportation Division staff.

These Mitigation Measure improvements would improve operations at this intersection to LOS D in both the a.m. and p.m. peak hours. Traffic Mitigation Measures should be implemented when the intersection operates unacceptably based on Sacramento County standards.

NOTE: These recommended mitigation measures must be accomplished as direct changes to the proposed Specific Plan documents.

Air Quality Construction Impact Mitigation Measures:

To insure construction related air quality impacts for the Plan area are minimized and addressed at the earliest stages of proposed development, the following air quality “institutional” or policy mitigation measures shall be incorporated into the proposed NVSSP Policy Plan: Specific Plan Policies and Development Criteria (NOP Attachment ‘P’; FEIR Attachment I) and/or the proposed Public Review Draft Specific Plan document.

- AQ-1 Prepare and implement a dust control plan that includes:
- the use of water or chemical palliatives on disturbed soils;
 - the stabilization of soil piles with vegetation or by covering;
 - allowing two feet of freeboard and the covering of haul trucks loads;
 - conducting no grading during period of high winds exceeding 25 miles per hour
- AQ-2 Maintain construction equipment and vehicles in proper running order. Construction contractors shall be required to show written evidence of appropriate maintenance prior to bring equipment on site.

NOTE: These recommended mitigation measures must be accomplished as direct changes to the proposed Specific Plan documents .

Noise Mitigation Measures:

The following mitigation measures shall be added as a development guideline in the Specific Plan to ensure that noise impacts for the Plan Area are minimized and addressed at the earliest stages of proposed development:

- NS-1 Future noise sensitive residential land uses proposed for development within the future 60 dB L_{dn} traffic or railroad operation noise contours shall be required to prepare an acoustical analysis and to implement identified noise attenuation measures necessary to ensure compliance with the noise standards of the County General Plan Noise Element.

NOTE: This recommended mitigation measure must be accomplished as direct changes to the proposed Specific Plan documents.

Hydrology and Flooding Mitigation Measures:

Implementation of the following mitigation measures will reduce the project's impacts related to hydrology and flooding to a less than significant level.

- HY-1. The NVSSP land use plan shall be revised to reflect the drainage parkway corridor and detention basin locations shown on the NVSSP Drainage Master Plan (DMP) contained in the Drainage Study for the North Vineyard Station Specific Plan (MacKay and Soms Engineers, February 1997) (see Plate HY-E of this EIR).
- HY-2. In order to ensure that the intended plans for the buffer area portion of the drainage parkway (outside of the drainage channels) are implemented, the NVSSP text shall be revised to clearly specify the funding source or mechanism for acquisition of the buffer area lands (i.e., through CIP financing, land dedication by individual abutting property owners, or some other measure), and to clearly specify the funding source or mechanism for construction of the buffer area landscaping improvements (i.e., through CIP financing, by individual abutting property owners, by the Park District, or some other measure). Future development within the NVSSP area shall ensure that plans for the buffer area portions of the drainage parkways are implemented, consistent with the methods prescribed in the finally adopted NVSSP.
- HY-3. Future development within the NVSSP area shall implement the proposed NVSSP Drainage Master Plan (DMP) improvements, including construction of Detention Basin E20 downstream of the Specific Plan area, and construction of a mitigating solution for the existing Gerber Creek overflow condition upstream of the Specific Plan area, as described in the Drainage Study for the North Vineyard Station Specific Plan (MacKay and Soms Engineers, February 1997) (see Plate HY-E of DEIR). Detailed plans for the design and construction of all proposed drainage and water quality facilities, consistent with the NVSSP DMP, shall be submitted to the County Water Resources Division (WRD) for review and approval.

Construction of the NVSSP DMP improvements may be phased, subject to the approval of the County WRD, so long as the project proponent(s) provide hydrologic/hydraulic analyses which demonstrate that the phased improvements will provide adequate urban flood protection to the proposed on-site development, and will not increase flood risks in downstream areas. Such analyses shall verify that the phased improvements will result in no **substantial** increase in peak 100-year flows on Elder Creek at the City/County boundary, and no significant increased 100-year out-of-bank flows in the existing improved channel downstream of the Specific Plan area. **Any phasing must also provide the**

necessary system reliability and be approved by the Water Resources Division.

- HY-4. Future development shall comply with the County Land Grading and Erosion Control Ordinance.
- HY-5. Future development shall provide stormwater quality source and treatment control measures consistent with Volume 5 of the Draft City/County Drainage Manual. The final design of such source and treatment control measures shall be subject to the approval of the County WRD.
- HY-6. Implementation of the proposed NVSSP Drainage Master Plan (DMP) improvements, including construction of Detention Basin E20 and construction of a mitigating solution for the existing Gerber Creek overflow condition upstream of the Specific Plan area, shall not occur until the following items have been submitted to the **Water Resources Division and the Sacramento County Board of Supervisors** for review and approval.
 - a. A wetland delineation for the improvement area verified by the U.S. Army Corps of Engineers.
 - b. A detailed mitigation plan for wetlands to be impacted by the proposed improvements which specifically describes the measures which will be implemented to achieve no net loss in wetland habitat acreage and values.
 - c. Determinate surveys for the improvement area for potentially occurring special status species.
 - d. A detailed mitigation plan developed in cooperation with the regulatory resource agencies (U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service and California Department of Fish and Game) which is designed to reduce impacts of the proposed improvements on any special status species identified in the determinate surveys to a less than significant level.
 - e. A tree survey for the improvement area which identifies all native trees six-inches dbh (diameter at breast height) or larger.
 - f. A detailed tree replacement planting plan which describes the tree plantings/relocation measures to be implemented to provide in-kind replacement plantings on an inch-for-inch basis for any native trees six-inches dbh or larger which will be impacted by the proposed improvements.

HY-7. Implementation of the proposed NVSSP DMP improvements, including construction of Detention Basin E20 and construction of a mitigating solution for the existing Gerber Creek overflow condition upstream of the Specific Plan area, shall not occur until all necessary permits and/or agreements for the proposed improvements have been obtained from the U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service and California Department of Fish and Game.

NOTE: Mitigation measures HY-1 through HY-5 must be accomplished as direct changes to the proposed Specific Plan documents. Mitigation Measure HY-6 and HY-7 will be subject to the Mitigation Monitoring and Reporting Program noted below.

Biological Resources Mitigation Measures.

BR-1. If off-site mitigation is adopted by the Board of Supervisors, an Off-site Mitigation Plan for each development will be required as described below.

Off-site Mitigation Plan. In consultation within the U.S. Army Corps of Engineers and the U.S. Fish and Wildlife Service, an Off-site Wetland Mitigation Plan shall be prepared for each development project within the Specific Plan area. All vernal pools and seasonal wetlands shall be mitigated off-site at an agency approved mitigation bank or other property approved by the regulatory agencies. The Plan shall incorporate the following components.

- a. A detailed wetland delineation verified by the U.S. Army Corps of Engineers;
- b. The location of the wetland creation site(s) and the acquisition site(s);
- c. A detailed map of the wetland creation site(s) showing the acreage, distribution and type of wetlands to be created;
- d. Vernal pool and seasonal wetlands compensation at ratios sufficient to ensure no net loss of vernal pool and seasonal wetlands acreage, values, and functions. The mitigation ratio for each wetland type shall be specified. Compensation vernal pools and seasonal wetlands shall:
 - be supported primarily by direct rainfall, and shall be designed to
 - meet or exceed the hydrophytic conditions and operating functions of the existing vernal pools and seasonal wetlands proposed for impact.

- mitigate the loss of special-status species 'habitat, including fairy shrimp, as required by the U.S. Fish and Wildlife Service. For every acre of fairy shrimp habitat impacted, the applicant shall construct one acre of new habitat and purchase two acres of fairy shrimp habitat preservation credits at an agency approved mitigation bank.
- e. A wetland monitoring and maintenance program prepared according to the requirements of the U.S. Army Corps of Engineers and the U.S. Fish and Wildlife Service.

Monitoring: Monitoring shall be designed to determine that sufficient water is available to produce the required periods of inundation and subsequent soil saturation to support a desired biological community. In addition, the monitoring shall determine the need for remedial action in the form of pool modification, including excavation, fill, and/or modification of hydrologic connections, required to improve the pool water balance. Specific performance standards for determining success of the created wetlands shall be proposed. Monitoring shall occur for at least 5 years, or as required by the U.S. Army Corps of Engineers and the U.S. Fish and Wildlife Service.

Short-term monitoring requirements will be established by the Corps Section 404 permit authorization. If the Corps, in consultation with the USFWS, the U. S. Environmental Protection Agency, and the CDFG, determines that wetland development is successful at the end of the prescribed monitoring period (normally 5 years), no further monitoring will be required. Should short-term monitoring indicate that performance standards are not met, plan modifications will be submitted to the Corps for approval. Approved modifications shall be implemented and monitoring will continue until success criteria are met.

Maintenance: A mechanism satisfactory to the Corps shall be formed to fund long-term maintenance of compensation areas to assure that the wetlands are maintained in a natural state. Long-term maintenance shall include restricted recreational use, erosion control, and maintenance trails, or other similar structures.

At the time the applicant obtains a permit to impact wetlands, alternative strategies may have been adopted to mitigate for wetland impacts. The above measures do not preclude the implementation of these new alternatives. The final acreage of offsite mitigation will be determined by the U.S. Army Corps of Engineers and the U.S. Fish and Wildlife Service when specific development projects are permitted by those agencies.

- BR-2. If the On-site Wetland Preserve is approved, an On-site Wetland Preservation Plan shall be prepared that preserves at least 200 contiguous acres as a wetland preserve east of Bradshaw Road. Preservation shall focus on those wetlands with the highest habitat values. A map showing the wetland preserve boundaries shall be prepared, including the rationale for the preserve boundaries. The plan shall address all aspects of wetland preservation including buffering of incompatible land uses, access, maintenance, monitoring, and mitigation banking. The required Plan shall be submitted to the Sacramento County Department of Environmental Review and Assessment, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service and California Department of Fish and Game for approval prior to its implementation..

All vernal pools and seasonal wetlands outside the preserve area shall be mitigated offsite at an agency approved mitigation bank to the satisfaction of the U.S. Army Corps of Engineers and the U.S. Fish and Wildlife Service.

- BR-3. A Wetland Mitigation Plan for Elder and Gerber Creeks shall be prepared and incorporated into the Specific Plan. This plan shall address phasing of channel modifications, establishment of wetlands (i.e., passive, active, combination), species composition, maintenance and monitoring. The plan shall require channel bottom and bank materials to be substantially the same as comparable natural streams. Natural arrays of riffles, runs and pools shall be incorporated into the design of the creek channels. The required Plan shall be submitted to the Sacramento County Department of Environmental Review and Assessment, **County Water Resources Division**, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service and California Department of Fish and Game for approval prior to its implementation.

- BR-4. ~~To mitigate for the potential loss of 1600± acres of Swainson's hawk foraging habitat, implement one of the following alternatives:~~ **Prior to the approval of Improvement Plans or Building Permits, whichever occurs first, implement one of the following options to mitigate for the loss of 1,595± acres of Swainson's hawk foraging habitat:**

- a. The project proponent shall preserve 0.50 acre of similar habitat for each acre lost within a 10-mile radius of the project site. This land shall be protected through fee title or conservation easement (acceptable to the California Department of Fish and Game);
- b. The project proponent shall enter in the formal consultation with the California Department of Fish and Game pursuant to ~~the Fish and Game Code~~, Section 2081 **of the California Fish and Game Code..** A California Endangered Species Act (CESA) Memorandum of Understanding (MOU) and Management

Agreement shall be completed prior to issuance of any building permits for the site.

- c. **The project proponent shall submit payment of a Swainson's hawk impact mitigation fee per acre impacted to the Department of Planning and Community Development in the amount as set forth in Chapter 16.130 of the Sacramento County Code as such may be amended from time to time and to the extent that said Chapter remains in effect.**
- ed. Should the County Board of Supervisors adopt a Swainson's hawk mitigation policy/program (which may include a mitigation fee) ~~payable prior to issuance of building permits~~ prior to the implementation of one of the measures above, the project proponent may be subject to that program instead.

Note: Actual habitat loss will occur when rezones and related land use entitlements are granted. Implementation of this mitigation measure will occur on a project -by-project basis with each rezone application.

BR-5. Using protocol acceptable to the regulatory agencies with authority over these species, determinate surveys for potentially-occurring special-status species or their habitat shall be conducted prior to development and permitting within the Specific Plan area. If any of the species or their habitat are indicated, project/plan-specific mitigation measures shall be developed in consultation with Sacramento County, the California Department of Fish and Game, and/or the U.S. Fish and Wildlife Service to mitigate those impacts to less than significant levels, if possible. The mitigation plan(s) developed for species or habitat preservation shall emphasize a multi-species approach, to the maximum extent possible.

- Where impacts include taking of a federally-listed species, a Section 10, Incidental Take permit, or a Biological Opinion resulting from Section 7 Consultation with another federal agency shall be obtained, and permit conditions implemented.
- Where impacts include taking of a California-listed species, a Section 2081 Management Agreement shall be negotiated with the California Department of Fish and Game, and conditions of that management agreement implemented.

BR-6. In conjunction within the required Wetland Mitigation Plan for the creeks, a Drainage Parkway Plan for Elder and Gerber Creeks shall be prepared. This plan shall provide the following information:

- a. A map that depicts the configuration of the creek corridors, including overall width, low-flow channel width, bank slopes, and buffer widths;
- b. The location of all trails, bikeways, maintenance roads and channel access points, street crossings, water quality basins and other structures within the corridors;
- c. Designations of all lands uses, including recreation (passive or active), mitigation, natural area, water quality, storm water detention, etc.,
- d. Policies addressing public access into the corridors, including limitations on use;
- e. A policy statement requiring the use native plants within the corridor, including a planting palette of acceptable species;
- f. Maintenance and monitoring requirements for the creek channels and mitigation areas;
- g. An appropriate funding mechanism to establish, operate and maintain the creek corridors, and;
- h. All requirements of State and Federal regulatory agencies pertaining to the preservation and management of special status species.

If the proposed project is approved, the corridor width shall be in substantial compliance with that proposed in the Specific Plan (150 to **420** feet). Adoption of the Alternative Drainage Corridor Policies would increase the corridor width to 600 feet. Widths of this alternative may be reduced based on unavoidable physical constraints, however, the minimum width shall be 150 feet on each side of the drainage channel bottom. These alternatives are not intended to preclude other alternatives for the drainage parkway corridors. Such changes may involve combinations of different channel widths, corridor configurations and policies. The Drainage Parkway Plan shall be submitted to the **County Water Resources Division and the Sacramento County Board of Supervisors** for approval, prior to approval of development of the Specific Plan area.

Note: These biological mitigation measures will be subject to a Mitigation Monitoring and Reporting Program as noted below.

Cultural Resources Mitigation Measures:

Adoption of the proposed project could result in future disturbance of known and unknown prehistoric and/or historic resources. These impacts are considered potentially significant. As noted above, the County of Sacramento has an environmental review process for projects involving discretionary permits that requires cultural resource reports to be prepared in situations where development is proposed in areas known to be sensitive for cultural (archaeological and historic) resources. Since future development within the Plan area will require additional entitlements such development will also be subject to further discretionary review. Potential construction-related impacts to cultural resources will be addressed at that time. However, to ensure impacts to cultural resources are minimized and addressed at the earliest stages of proposed development, the following measures shall be incorporated into the North Vineyard Station Specific Plan, Draft Policy Plan and development standards and/or design guidelines.

- CR-1. Encourage the retention of important cultural features in the design of future projects.
- CR-2. Cultural resource surveys will be required in areas not previously subject to intensive investigation (that portion of the Plan Area not currently identified as the proponent's parcels). If ground disturbing activities are planned within or adjacent to the boundaries of any identified archaeological sites, the following shall be required:
 - (a) The site area will be inspected by a qualified, professional archaeologist to assess the condition of the property and the determine the current status of the deposit.
 - (b) Based on this review and, as appropriate, a subsurface testing program will be developed and implemented to determine if the property meets criteria specified in Appendix K of CEQA to qualify as an important archaeological resource. The course of the testing program should be clearly delineated in a research design which outlines prehistory of the area; research domains, questions, and data requirements; research methods inclusive of field and laboratory studies; report preparation; and significance criteria.
 - (c) Following field investigations, a technical report describing the evaluation program should be prepared. At a minimum this report shall include the elements discussed in the research design, as well as

a description of the recovered site assemblage and a significance evaluation. If, based on the results of the testing program, a site is not determined to be an important archaeological resource, then effects to it would have been reduced to less than significant.

- (d) If the site is determined to be an important archaeological resource, then additional mitigation measures, namely data recovery investigations may be necessary to reduce impacts to less than significant.
- (e) As Native American archaeological resources are involved, *identification and treatment shall be conducted in consultation with the local Native American community.*
- (f) Archaeological investigations shall be conducted by a qualified, professional archaeologist who either meets the federal standards as stated in the Code of Federal Regulations (36 CFR 61) or is certified by the Society of Professional Archaeologists (SOPA).

CR-3. An historic architectural study shall be performed by a qualified, professional architectural historian if historic structures or buildings are present on the particular parcel subject to development. This inventory should comply with NEPA and/or CEQA and include consultation with the NCIC and the Sacramento County Historical Society. The resulting report should include results of the background literature search and field survey, an historic context statement, an analysis of the potential significance of noted resources, and recommendations for their preservation and/or mitigation.

CR-4. Should any cultural resources, such as structural features, unusual amounts of bone or shell, artifacts, human remains, or architectural remains be encountered during any future development activities, work shall be suspended. Depending on the location of the activities, the appropriate Lead Agency shall be immediately contacted. This agency will coordinate any necessary investigation of the find with appropriate specialists as needed. The project proponent shall be required to implement any mitigation deemed necessary for the protection of the cultural resources. In addition, pursuant to Section 5097.97 of the State Public Resources Code and Section 7050.5 of the State Health and Safety Code, in the event of the discovery of human remains, all work is to stop and the County Coroner shall be immediately notified. If the remains are determined to be

Native American, guidelines of the Native American Heritage Commission shall be adhered to in the treatment and disposition of the remains.

NOTE: These recommended mitigation measures must be accomplished as direct changes to the proposed Specific Plan documents.

Hazardous Materials Mitigation Measures:

To ensure hazardous materials impacts for the Plan Area are minimized and addressed at the earliest stages of proposed development, the following hazardous materials “institutional” or policy mitigation measures shall be incorporated into the proposed Specific Plan Policies and Development Criteria (Attachment 4?) and/or the proposed Public Review Draft Specific Plan document.

- TX-1 Future development on non-proponent properties identified as requiring a “site reconnaissance” on Table HM-1 shall prepare and submit a site-specific field reconnaissance or preliminary site assessment according to State and County requirements. If contamination is identified, remediation and disposal procedures shall be undertaken by qualified personnel in accordance with all applicable regulations, and in coordination with all applicable agencies.
- TX-2 Future development and/or demolition of pre-1979 structures shall prepare and submit an asbestos survey according to State and County requirements. If asbestos contamination is identified, remediation and disposal procedures shall be undertaken by qualified personnel in accordance with all applicable regulations, and in coordination with all applicable agencies.
- TX-3 Future development shall identify existing septic tanks and/or water wells to be abandoned and abandon them according to State and County requirements.
- TX-4 Future development on properties identified as requiring proper “debris removal” on Table HM-4 shall remove all debris, trash, rubble, refuse and abandoned, discarded and/or out-of-service items from the affected properties and dispose of or recycle off-site according to State and County requirements.

NOTE: These recommended mitigation measures must be accomplished as direct changes to the proposed Specific Plan documents .

Mitigation Measures Are Not Required For Following Impact Areas.

Public Services impacts identified as less than significant do not require mitigation. The following public services are impacted to a less than significant level:

- Energy Facilities/ Services, including impacts to SMUD and PG&E
- Fire Protection
- Sheriff's Patrol Services
- Schools, including Elk Grove Unified School District
- Library Services
- Parks and Open Space, including impacts to Southgate Recreation & Park District
- Solid Waste Disposal
- Sewer Service, including impacts to SRCSD and CSD-1

Mitigation Monitoring and Reporting Program (MMRP).

Specific Plans serve as an application tool to implement the Sacramento County General Plan on an area-specific basis. The proposed Specific Plan project once adopted will serve as both a policy and regulatory document for development of the plan area.

Approval of the proposed Specific Plan will result in a number of significant and adverse environmental impacts. As noted above, many of these significant impacts can either be reduced or minimized in magnitude, or can be reduced to a less than significant level of impact through compliance with identified mitigation measures. Due to the nature of the Specific Plan project, many of these measures are institutional, or policy-related, which, if to be implemented, should be accommodated through changes in the Specific Plan itself.

The policy mitigation measures will typically require actual revisions to the proposed Specific Plan documents, including but not limited to: the 5/97 Public Review Draft NVSSP document (text, tables, exhibits, etc.), the 11/97 Draft Financing Strategy and related Capital Improvement Program (CIP). Where policy mitigation measures are complied with as a result of document revisions (i.e. folded into the project) no MMRP will be required.

If adopted, the following policy mitigation measures are to be incorporated into the final Specific Plan project documents themselves:

- Land Use Measures LU-1 through LU-4
- Public Facilities Financing Measure PFF-1
- Traffic & Circulation Measures TR-1 through TR-25

- Air Quality Construction Measure AQ-1 through AQ-2
- Hydrology & Flooding Measures HY-1 through HY-5
- Noise Measure NS-1
- Cultural Resources Measures CR-1 through CR-4
- Hazardous Materials Measures TX-1 through TX-4

Some mitigation measures set specific performance benchmarks which do not lend themselves to being incorporated into the Specific Plan. These mitigation measures primarily involve impacts related to drainage improvements, biological resources and completion of the Financing Plan/CIP.

An MMRP is required where mitigation measures are not, or can not, be complied with through Specific Plan revisions. Pursuant to Section 21081.6 of the Public Resources Code and Chapter 20.02 of the Sacramento County Code, an MMRP must be implemented to assure diligent and good faith compliance with the remaining mitigation measures recommended in this EIR.

In order to identify any remaining environmental mitigation measures at the earliest stages of proposed development, and to eliminate the need for the recordation of a separate Mitigation Monitoring and Reporting Program (MMRP) for the Specific Plan project itself, the proposed Specific Plan document shall be modified to include the following text revision to section "11.5 Mitigation Monitoring".

Note: the following new EIR text is presented in a different font (Universal) to distinguish it as new EIR text that is to be incorporated into the text of the final NVSSP Specific Plan document. The bold font (**Universal**) denotes new Specific Plan text. The strike out font (~~Universal~~) denotes deleted Specific Plan text.

11.5 Mitigation Monitoring.

The California Environmental Quality Act requires all state and local agencies to establish reporting and monitoring programs for projects approved by a public agency whenever approval involves adoption of either a mitigated negative declaration or specified environmental findings related to environmental impact reports. For Sacramento County, the appropriate department for establishing and maintaining this program is the Department of Environmental Review and Assessment.

The Mitigation Monitoring and Reporting Program (MMRP) is intended to satisfy the requirements of CEQA as they relate to the final Environmental Impact Report for the North Vineyard Station Specific Plan, prepared by Department of

Environmental Review and Assessment. This monitoring program is intended to be used by County staff and the project developers in ensuring compliance with adopted mitigation measures during project implementation.

Monitoring and documenting the implementation of mitigation measures will be coordinated by DERA staff. DERA staff will monitor mitigation implementation as outlined in the ~~recorded-adopted~~ MMRP for the North Vineyard Station Specific Plan which follows.

11.6 NVSSP MMRP

Pursuant to Section 21081.6 of the Public Resources Code and Chapter 20.02 of the Sacramento County Code, the following Mitigation Monitoring and Reporting Program has been established for this Specific Plan area. The purpose of this program is to assure diligent and good faith compliance with the Mitigation Measures which have been recommended in the environmental document, and adopted as part of the project or made conditions of project approval, in order to avoid or mitigate potentially significant effects on the environment.

All public improvement and private development projects within the plan area will be subject to an MMRP compliance review by DERA staff during the initial CEQA review period to determine which, if any, of the following adopted mitigation measures are applicable to the proposed project.

Hydrology & Flooding Mitigation Measures:

HY-6 Implementation of the proposed NVSSP Drainage Master Plan (DMP) improvements, including construction of Detention Basin E20 and construction of a mitigating solution for the existing Gerber Creek overflow condition upstream of the Specific Plan area, shall not occur until the following items have been submitted to the Sacramento County Board of Supervisors for review and approval.

- (a) A wetland delineation for the improvement area verified by the U.S. Army Corps of Engineers.
- (b) A detailed mitigation plan for wetlands to be impacted by the proposed improvements which specifically describes the measures which will be implemented to achieve no net loss in wetland habitat acreage and values.
- (c) Determinate surveys for the improvement area for potentially

occurring special status species.

- (d) A detailed mitigation plan developed in cooperation with the regulatory resource agencies (U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service and California Department of Fish and Game) which is designed to reduce impacts of the proposed improvements on any special status species identified in the determinate surveys to a less than significant level.
- (e) A tree survey for the improvement area which identifies all native trees six-inches dbh (diameter at breast height) or larger.
- (f) A detailed tree replacement planting plan which describes the tree plantings/relocation measures to be implemented to provide in-kind replacement plantings on an inch-for-inch basis for any native trees six-inches dbh or larger which will be impacted by the proposed improvements.

HY-7. Implementation of the proposed NVSSP DMP improvements, including construction of Detention Basin E20 and construction of a mitigating solution for the existing Gerber Creek overflow condition upstream of the Specific Plan area, shall not occur until all necessary permits and/or agreements for the proposed improvements have been obtained from the U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service and California Department of Fish and Game.

Biological Mitigation Measures:

BR-1. If off-site mitigation is adopted by the Board of Supervisors, an Off-site Mitigation Plan for each development will be required as described below.

Off-site Mitigation Plan. In consultation within the U.S. Army Corps of Engineers and the U.S. Fish and Wildlife Service, an Off-site Wetland Mitigation Plan shall be prepared for each development project within the Specific Plan area. All vernal pools and seasonal wetlands shall be mitigated off-site at an agency approved mitigation bank or other property approved by the regulatory agencies. The Plan shall incorporate the following components.

- a. A detailed wetland delineation verified by the U.S. Army Corps of

Engineers;

- b. The location of the wetland creation site(s) and the acquisition site(s);
- c. A detailed map of the wetland creation site(s) showing the acreage, distribution and type of wetlands to be created;
- d. Vernal pool and seasonal wetlands compensation at ratios sufficient to ensure no net loss of vernal pool and seasonal wetlands acreage, values, and functions. The mitigation ratio for each wetland type shall be specified. Compensation vernal pools and seasonal wetlands shall:
 - be supported primarily by direct rainfall, and shall be designed to
 - meet or exceed the hydrophytic conditions and operating functions of the existing vernal pools and seasonal wetlands proposed for impact.
 - mitigate the loss of special-status species 'habitat, including fairy shrimp, as required by the U.S. Fish and Wildlife Service. For every acre of fairy shrimp habitat impacted, the applicant shall construct one acre of new habitat and purchase two acres of fairy shrimp habitat preservation credits at an agency approved mitigation bank.
- e. A wetland monitoring and maintenance program prepared according to the requirements of the U.S. Army Corps of Engineers and the U.S. Fish and Wildlife Service.

Monitoring: Monitoring shall be designed to determine that sufficient water is available to produce the required periods of inundation and subsequent soil saturation to support a desired biological community. In addition, the monitoring shall determine the need for remedial action in the form of pool modification, including excavation, fill, and/or modification of hydrologic connections, required to improve the pool water balance. Specific performance standards for determining success of the created wetlands shall be proposed. Monitoring shall occur for at least 5 years, or as required by the U.S. Army Corps of Engineers and the U.S. Fish and Wildlife Service.

Short-term monitoring requirements will be established by the Corps Section 404 permit authorization. If the Corps, in consultation with the USFWS, the U. S. Environmental Protection Agency, and the CDFG, determines that wetland development is successful at the end of the prescribed monitoring period (normally 5 years), no further monitoring will be required. Should short-term monitoring indicate that performance standards are not met, plan modifications will be submitted to the Corps for approval. Approved modifications shall be implemented and monitoring will continue until success criteria are met.

Maintenance: A mechanism satisfactory to the Corps shall be formed to fund long-term maintenance of compensation areas to assure that the wetlands are maintained in a natural state. Long-term maintenance shall include restricted recreational use, erosion control, and maintenance trails, or other similar structures.

At the time the applicant obtains a permit to impact wetlands, alternative strategies may have been adopted to mitigate for wetland impacts. The above measures do not preclude the implementation of these new alternatives. The final acreage of offsite mitigation will be determined by the U.S. Army Corps of Engineers and the U.S. Fish and Wildlife Service when specific development projects are permitted by those agencies.

- BR-2.** If the On-site Wetland Preserve is approved, an On-site Wetland Preservation Plan shall be prepared that preserves at least 200 contiguous acres as a wetland preserve east of Bradshaw Road. Preservation shall focus on those wetlands with the highest habitat values. A map showing the wetland preserve boundaries shall be prepared, including the rationale for the preserve boundaries. The plan shall address all aspects of wetland preservation including buffering of incompatible land uses, access, maintenance, monitoring, and mitigation banking. The required Plan shall be submitted to the Sacramento County Department of Environmental Review and Assessment, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service and California Department of Fish and Game for approval prior to its implementation..

All vernal pools and seasonal wetlands outside the preserve area shall be mitigated offsite at an agency approved mitigation bank to the satisfaction of the U.S. Army Corps of Engineers and the U.S. Fish and Wildlife Service.

- BR-3. A Wetland Mitigation Plan for Elder and Gerber Creeks shall be prepared and incorporated into the Specific Plan. This plan shall address phasing of channel modifications, establishment of wetlands (i.e., passive, active, combination), species composition, maintenance and monitoring. The plan shall require channel bottom and bank materials to be substantially the same as comparable natural streams. Natural arrays of riffles, runs and pools shall be incorporated into the design of the creek channels. The required Plan shall be submitted to the Sacramento County Department of Environmental Review and Assessment, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service and California Department of Fish and Game for approval prior to its implementation.**
- BR-4. Prior to the approval of Improvement Plans or Building Permits, whichever occurs first, implement one of the following options to mitigate for the loss of 1,595± acres of Swainson's hawk foraging habitat:**
- a. The project proponent shall preserve 0.50 acre of similar habitat for each acre lost within a 10-mile radius of the project site. This land shall be protected through fee title or conservation easement (acceptable to the California Department of Fish and Game);**
 - b. The project proponent shall enter in the formal consultation with the California Department of Fish and Game pursuant to Section 2081 of the California Fish and Game Code.. A California Endangered Species Act (CESA) Memorandum of Understanding (MOU) and Management Agreement shall be completed prior to issuance of any building permits for the site.**
 - c. The project proponent shall submit payment of a Swainson's hawk impact mitigation fee per acre impacted to the Department of Planning and Community Development in the amount as set forth in Chapter 16.130 of the Sacramento County Code as such may be amended from time to time and to the extent that said Chapter remains in effect.**
 - d. Should the County Board of Supervisors adopt a Swainson's hawk mitigation policy/program (which may include a mitigation fee) prior to the implementation of one of the**

measures above, the project proponent may be subject to that program instead.

Note: Actual habitat loss will occur when rezones and related land use entitlements are granted. Implementation of this mitigation measure will occur on a project -by-project basis with each rezone application.

BR-5. Using protocol acceptable to the regulatory agencies with authority over these species, determinate surveys for potentially-occurring special-status species or their habitat shall be conducted prior to development and permitting within the Specific Plan area. If any of the species or their habitat are indicated, project/plan-specific mitigation measures shall be developed in consultation with Sacramento County, the California Department of Fish and Game, and/or the U.S. Fish and Wildlife Service to mitigate those impacts to less than significant levels, if possible. The mitigation plan(s) developed for species or habitat preservation shall emphasize a multi-species approach, to the maximum extent possible.

- Where impacts include taking of a federally-listed species, a Section 10, Incidental Take permit, or a Biological Opinion resulting from Section 7 Consultation with another federal agency shall be obtained, and permit conditions implemented.
- Where impacts include taking of a California-listed species, a Section 2081 Management Agreement shall be negotiated with the California Department of Fish and Game, and conditions of that management agreement implemented.

BR-6. In conjunction within the required Wetland Mitigation Plan for the creeks, a Drainage Parkway Plan for Elder and Gerber Creeks shall be prepared. This plan shall provide the following information:

- a. A map that depicts the configuration of the creek corridors, including overall width, low-flow channel width, bank slopes, and buffer widths;
- b. The location of all trails, bikeways, maintenance roads and channel access points, street crossings, water quality basins and other structures within the corridors;
- c. Designations of all lands uses, including recreation (passive or

active), mitigation, natural area, water quality, storm water detention, etc.;

- d. Policies addressing public access into the corridors, including limitations on use;
- e. A policy statement requiring the use native plants within the corridor, including a planting palette of acceptable species;
- f. Maintenance and monitoring requirements for the creek channels and mitigation areas;
- g. An appropriate funding mechanism to establish, operate and maintain the creek corridors, and;
- h. All requirements of State and Federal regulatory agencies pertaining to the preservation and management of special status species.

If the proposed project is approved, the corridor width shall be in substantial compliance with that proposed in the Specific Plan (150 to 420 feet). Adoption of the Alternative Drainage Corridor Policies would increase the corridor width to 600 feet. Widths of this alternative may be reduced based on unavoidable physical constraints, however, the minimum width shall be 150 feet on each side of the drainage channel bottom. These alternatives are not intended to preclude other alternatives for the drainage parkway corridors. Such changes may involve combinations of different channel widths, corridor configurations and policies. The Drainage Parkway Plan shall be submitted to the Sacramento County Board of Supervisors for approval, prior to approval of development of the Specific Plan area.

PROJECT DESCRIPTION AND ALTERNATIVES

Project Characteristics

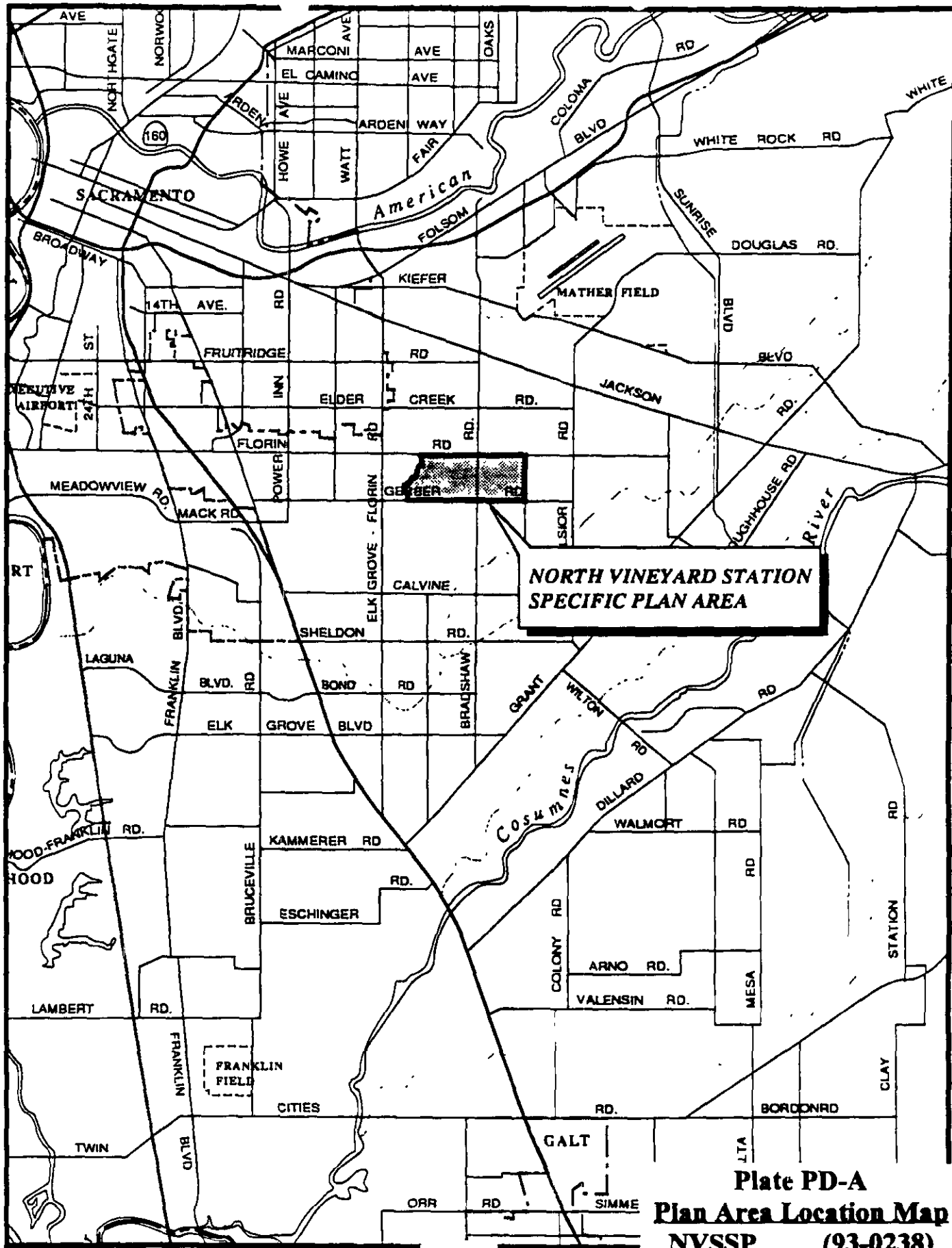
Background.

The North Vineyard Station Specific Plan (Control Number 93-SFB-0238) was initiated by the Board of Supervisors on January 19, 1994. The North Vineyard Station Specific Plan (NVSSP) project includes both written and graphic descriptions of how all land within the Plan Area will ultimately be used and developed as **proposed in the May 28, 1997 North Vineyard Station Specific Plan document**. In addition, the proposed Specific Plan includes both written and graphic descriptions of the location, extent, and cost (1996 dollars) of public facilities and infrastructure required to serve ultimate development of the Plan Area if approved.

A Specific Plan is an application tool to implement the Sacramento County General Plan on an area-specific basis. The proposed Specific Plan will serve as both a policy and regulatory document for the project/Plan Area. The proposed Plan includes policy direction and development concepts for development of the Plan Area, generally consistent with the County's General Plan. The Plan also includes development standards and design guidelines which address unique situations within the Plan Area.

The project/Plan Area encompasses 1,590± acres of the Vineyard Community Planning Area. The Plan Area is bounded by Florin Road to the north, Gerber Road and/or Gerber Creek on the south, the northerly extension of Vineyard Road on the east, and generally by Elder Creek on the west (see Plate PD-A).

The NVSSP project is a joint effort of the Sacramento County Planning and Community Development Department and individual property owners within the Plan Area represented by attorney, George E. Phillips. (The list of individual property owners affiliated with this project and location of their property is **disclosed in the Preface**). Numerous workshops in the community have been conducted to involve other local citizens and property owners in the preparation of the proposed specific plan land use plan for the project area. The land use plan prepared during this process was presented to the County Board of Supervisors in July 1995. The Board endorsed this as the Preferred Specific Plan, but also directed that three project alternative plans be prepared for consideration during the environmental review and public hearing process.



Proposed Specific Plan & Project Alternatives.

The following section describes the proposed “Preferred Specific Plan”, and three project plan alternatives prepared in response to the Board of Supervisors direction (see Plates PD-B through PD-E). **In addition this section will describe the two additional alternatives prepared in response to the Policy Planning Commission 1997 public hearings (see Plates PD-AA and PD-BB) . The five project plan alternatives now include: a 10% Residential Density Reduction Alternative, a 15% Residential Density Reduction Alternative, a Modified Core Alternative, a Dispersed Core Alternative, and an Alternative Core Alternative, as described below.**

The distinction between the 10% density reduction alternative and 15% density reduction alternative occurs in the holding capacity for low density single family (1-5 units per acre). In the 10% reduction plan, the holding capacity for single family residential (1-5 units) is 5 units per acre; in the 15% reduction plan, the holding capacity for single family residential is 4.5 units per acre. This difference in holding capacity accounts for the difference in the units between 10% and 15% density alternatives.

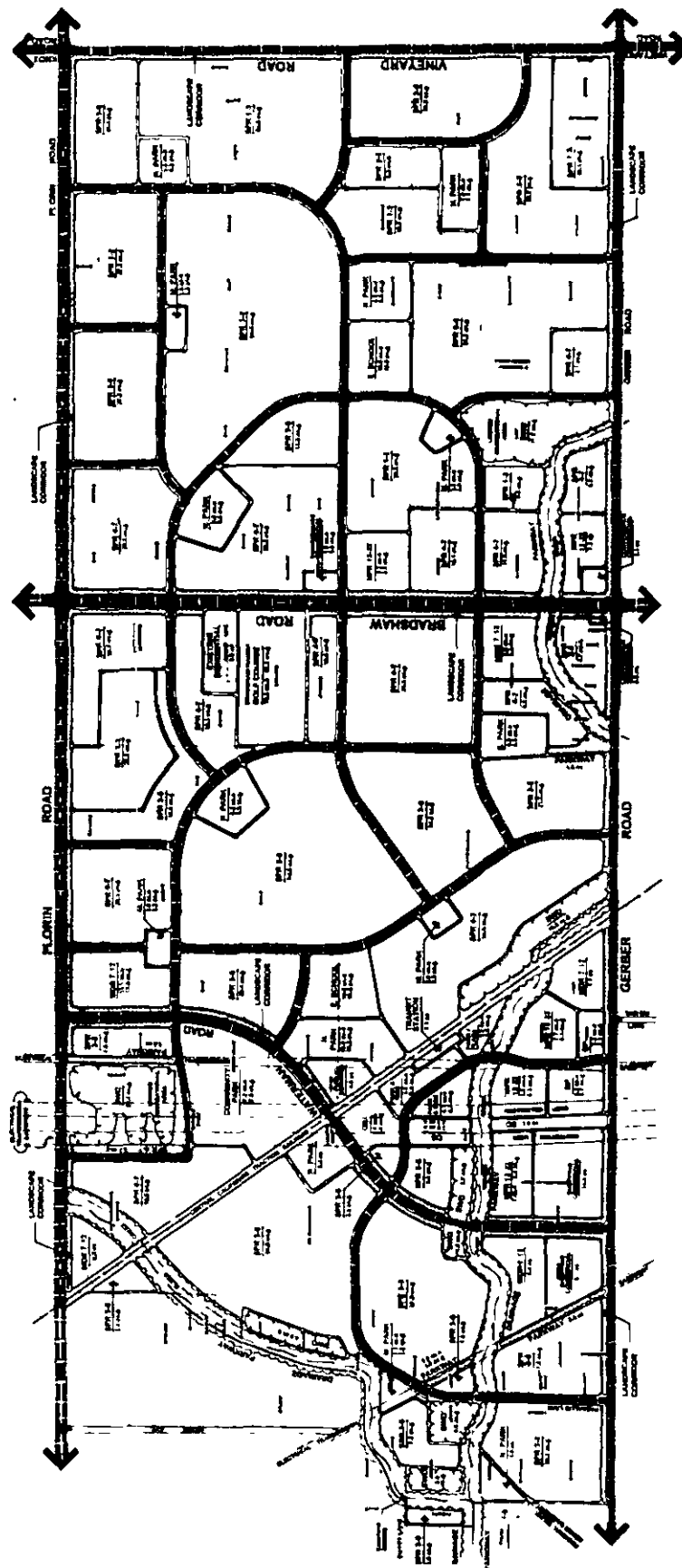
Preferred Specific Plan.

The proposed plan is the Preferred Specific Plan developed by the project co-sponsors. The Preferred Specific Plan consists of a 6,339-dwelling unit (DU) residential land use plan with supporting commercial, business professional, park, school, and open space uses. The urban core and focus area of the Preferred Plan, is located on the north side of Gerber Road and west of the Central California Traction Railroad, along a portion of Gerber Creek. The Preferred Plan urban core and focus area includes commercial, business professional, and multi-family residential uses located in proximity to the railroad tracks and Gerber Creek. Proposed urban core and focus area uses include a transit station, park and ride lots, a park plaza and a drainage parkway and related amenities along Gerber Creek. The Preferred Plan includes two elementary school sites, one on each side of Bradshaw Road, and several community and neighborhood parks. The Preferred Specific Plan: Land Use Plan (graphic) is shown on Plate PD-B.

10% Density Reduction Specific Plan Alternative (-10% Alternative).

The 10% Density Reduction Specific Plan Alternative, or “-10% Alternative”, is in response to direction by the Board of Supervisors to prepare a land use plan that proposes a ten percent reduction in residential dwelling unit yield from that depicted on the Preferred Plan. The -10% Alternative plan land use pattern is essentially the same as the Preferred Plan, but with reduced residential densities. The reduction in overall residential densities is

Plate PD-B
Preferred Specific Plan
NVSSP (93-0238)



LEGEND

LEGEND	DESCRIPTION
1	COMMERCIAL
2	INDUSTRIAL
3	RESIDENTIAL
4	RECREATION
5	TRANSPORTATION
6	UTILITY
7	WATER
8	WASTE
9	WATER
10	WASTE

LEGEND	DESCRIPTION
11	WATER
12	WASTE
13	WATER
14	WASTE
15	WATER
16	WASTE
17	WATER
18	WASTE
19	WATER
20	WASTE



Figure 3.2
Specific Plan Land Use Diagram

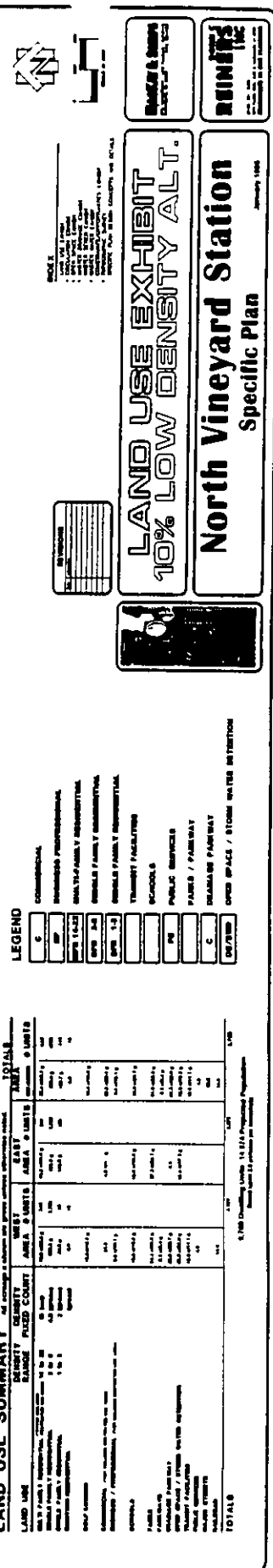
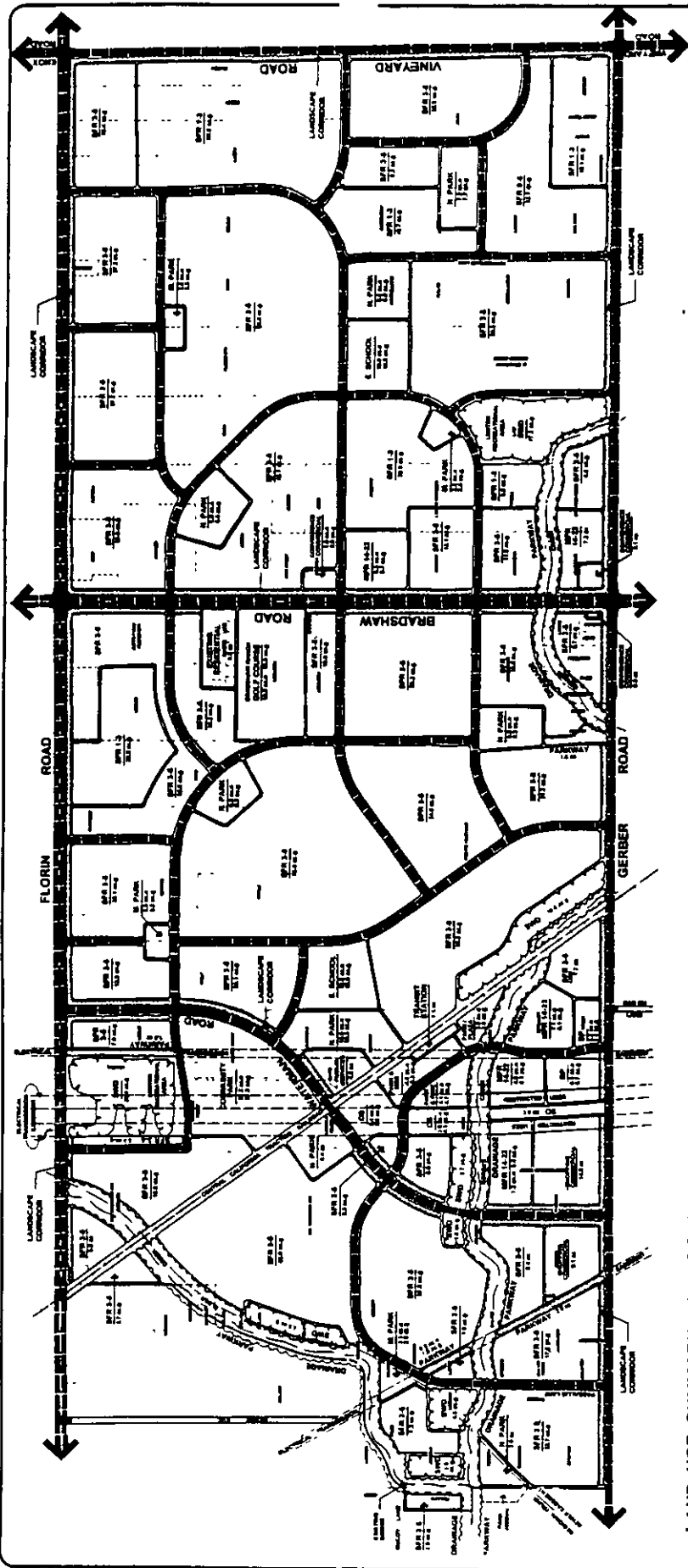


Plate PD-C
-10% Alternative Specific Plan
NVSSP (93-0238)

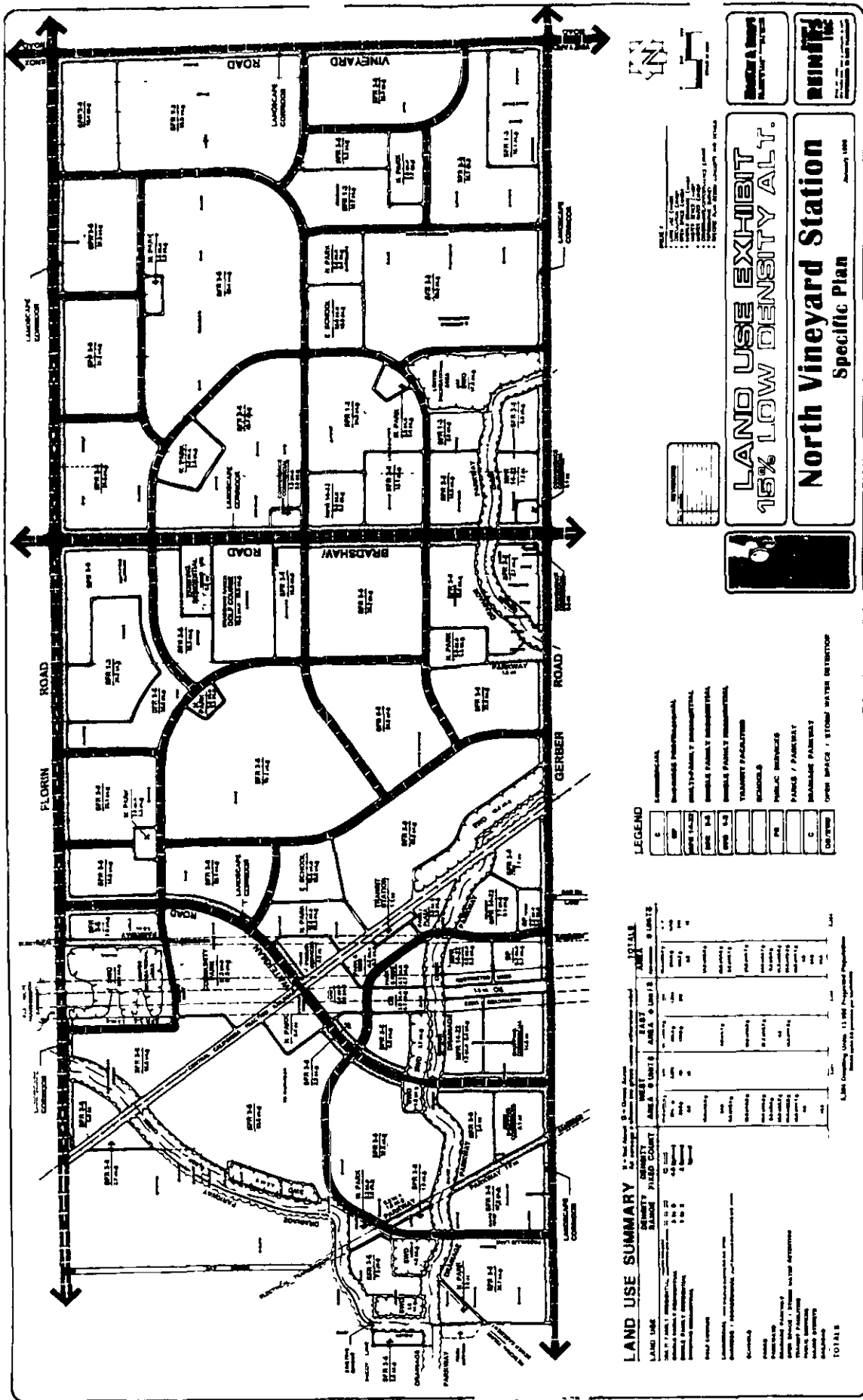
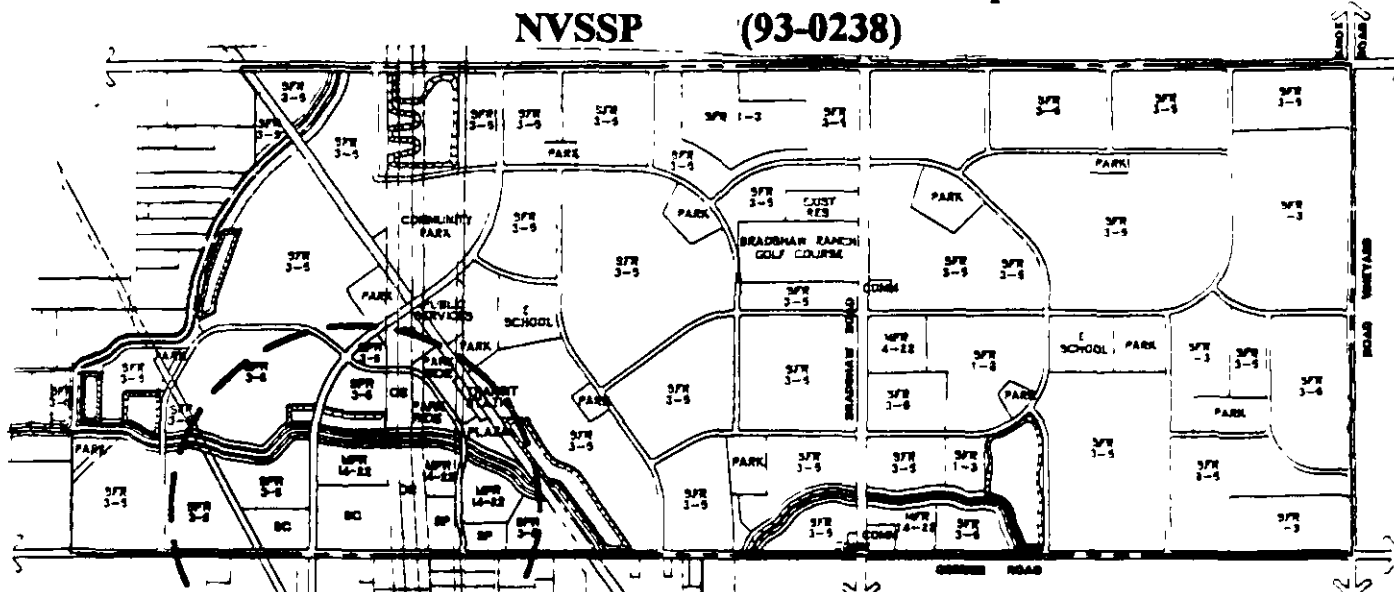


Plate PD-D
-15% Alternative Specific Plan
NVSSP (93-0238)

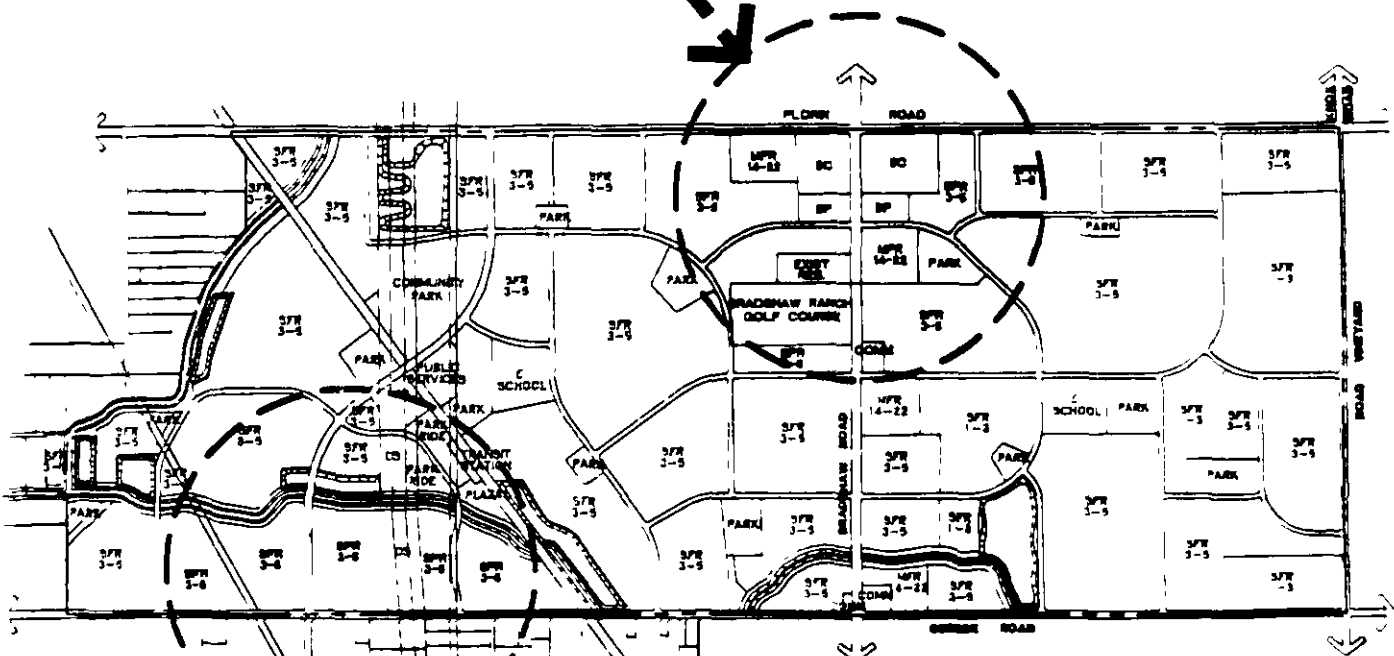


Plate PD-E.2
Modified Core: -10% & -15% Alternative Specific Plan
NVSSP (93-0238)



**10% & 15% LOW DENSITY
ALTERNATIVE**

**MOVE CORE AREA
FROM GERBER &
WATERMAN TO FLORIN
& BRADSHAW**



**REPLACE CORE AREA
WITH SINGLE FAMILY
RESIDENTIAL USES.**

**10% & 15% LOW DENSITY
ALTERNATIVE
CORE AREA ALTERNATIVE**

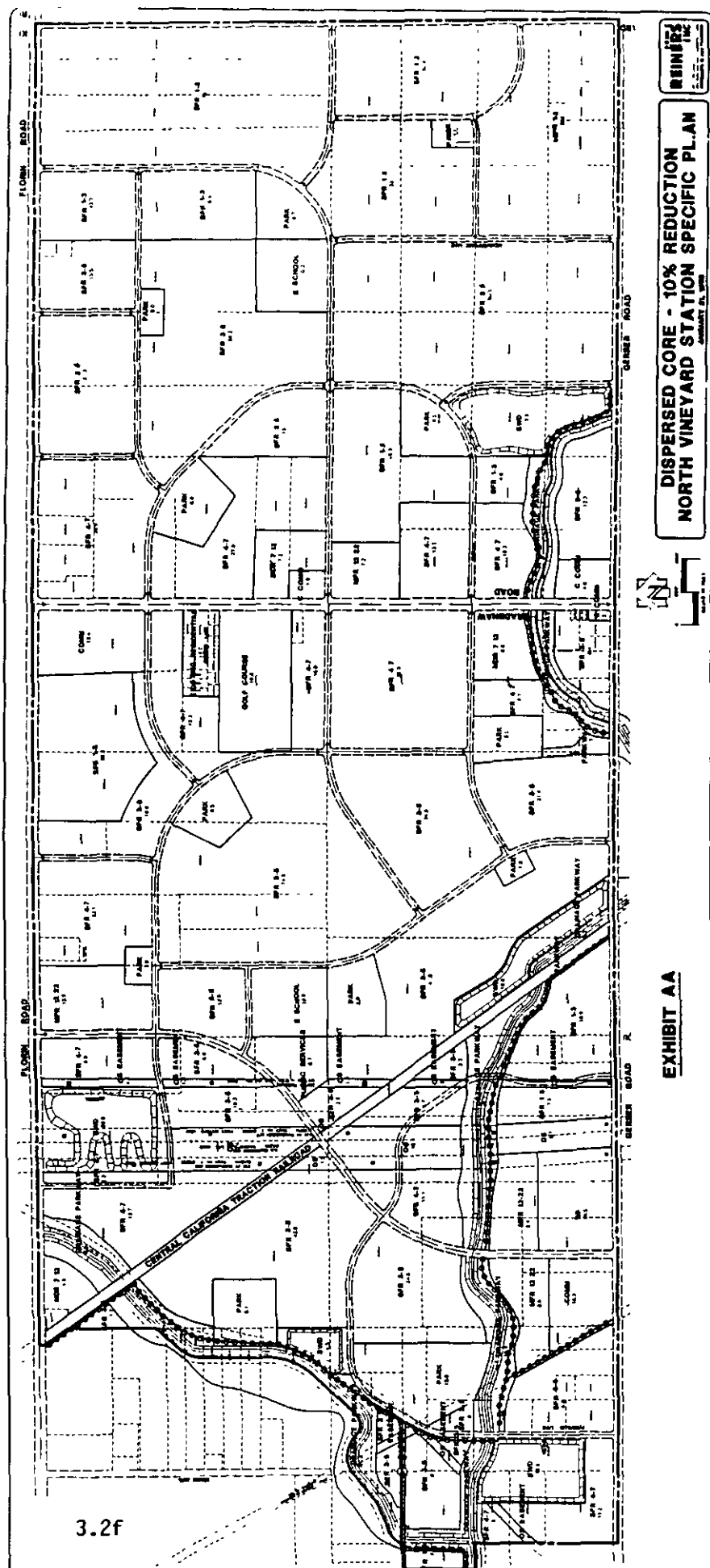
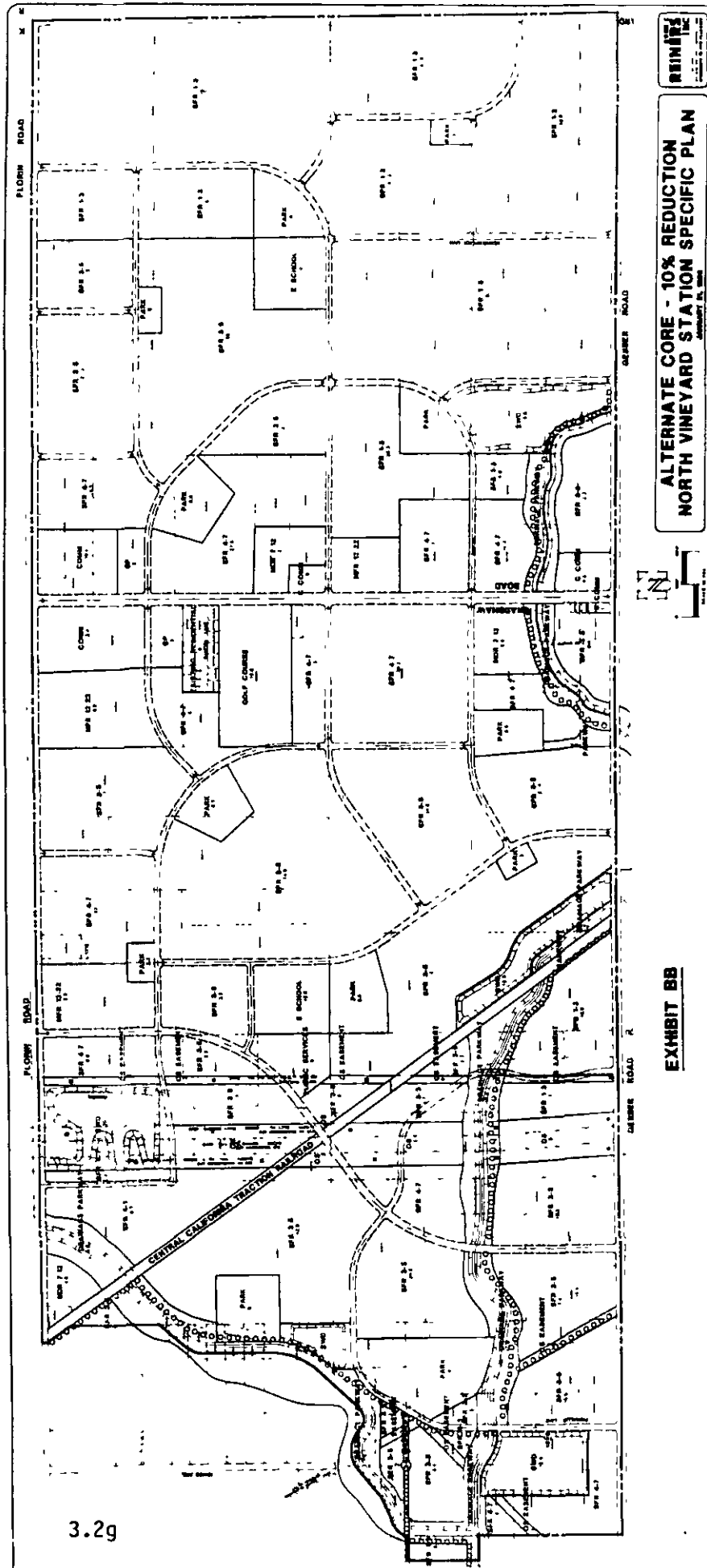


Plate PD-BB
Alternative Core Alternative Exhibit BB
NVSSP EIR(93-0238)



accomplished by converting 45.4 acres of medium density residential uses and 287.3 acres of single family low density residential uses of 4 to 7 dwelling units per acre to single family density of 1 to 5 dwelling units per acre. In addition, approximately 8.5 acres of 'Park' acreage is also converted to single family low density residential use of 1 to 5 dwelling units per acre.

The overall residential capacity of the -10% Alternative Plan is 5,759 dwelling units, 580 units less than the Preferred Plan. There is no medium density (4-7 du/ac) residential use in the -10% Alternative Plan. The urban core and focus area acreages remain generally the same as the preferred plan. The -10% Alternative is presented on Plate PD-C. Table PD-1.1 provides an acreage and/or dwelling unit (DU) comparison summary of the Preferred Plan and the -10% Alternative Plan land uses, as well as the -15% Alternative Plan..

15% Density Reduction Specific Plan Alternative (-15% Alternative).

The general character of the 15% Density Reduction Specific Plan Alternative is a plan that provides a 15 percent reduction of the overall residential capacity of the Preferred Plan as requested by the Board of Supervisors. Similar to the -10% Plan, the land use pattern is generally the same as the Preferred Plan, but with further reduction of the Preferred Plan residential densities. The reduction in overall residential densities is accomplished by converting 45.4 acres of medium density residential uses and 287.3 acres of single family low density residential uses of 4 to 7 dwelling units per acre to single family density of 1 to 5 dwelling units per acre. In addition, approximately 12 acres of 'Park acreage is also converted to single family low density residential use of 1 to 5 dwelling units per acre.

The overall residential capacity of the -15% Alternative Plan is 5,384 dwelling units, 991 units less than the Preferred Plan and 403 units less than the -10% Alternative Plan. There are no medium density (4-7 du/ac) units included in the -15% Alternative just as in the -10% Alternative Plan. The -15% Plan is presented on Plate PD-D. Table PD-1.1 provides an acreage and/or dwelling unit (DU) comparison summary of the Preferred Plan and the -15% Alternative Plan, as well as the -10% Alternative Plan.

Modified Core Specific Plan Alternative (Florin-Bradshaw Core Alternative).

The Modified Core Specific Plan Alternative or Core Relocations Alternative (Plate PD-E.1 and Plate PD-E.2), proposes relocation of the core area's mix of commercial, business professional, and multi-family residential uses from the south-west Plan Area (Waterman Road, Gerber Road/Creek area) to the north-central Plan Area (Bradshaw Road and Florin Road). However, the transit station, park and ride lots, and park plaza remain adjacent to the Central California Traction Railroad. The modified core area contains the same relative mix of commercial, business professional, multi-family residential, and public/quasi-public land

Table PD-1.1 (rev)
Land Use Summary
Preferred Plan; -10% and -15% Alternatives

Land Use	Preferred Plan		-10% Alt.		-15% Alt.	
	Acres	Units	Acres	Units	Acres	Units
<hr/>						
Residential						
Multi Family (14-22 du/ac)	39.7	637	39.7	637	39.7	637
Medium Density (7 to 12 du/ac)	45.4	442	-	-	-	-
Single Family (4-7 du/ac)	287.3	1,724	-	-	-	-
Single Family (3 to 5 du/ac)	644.5	3,222	980.4	4,796	984.0	4,423
Single Family (1 to 3 du/ac)	150.4	301	155.7	311	155.7	311
Existing Residential	6.0	13	6.0	13	6.0	13
Commercial	28.6	-	28.6	-	28.6	-
Business Professional	10.1	-	10.1	-	10.1	-
Schools	21.7	-	21.7	-	21.7	-
Parks	104.7	-	96.2	-	92.7	-
Parkways	6.4	-	6.4	-	6.4	-
Golf Course	19.9	-	19.9	-	19.9	-
Drainage Parkway	62.0	-	62.0	-	62.0	-
Open Space/Storm Water Detention	79.2	-	79.2	-	79.2	-
Transit Facilities	11.1	-	11.1	-	11.1	-
Public Services	4.9	-	4.9	-	4.9	-
Major Streets	58.0	-	58.0	-	58.0	-
Railroad	14.6	-	14.6	-	14.6	-
<hr/>						
Totals	1,594.5	6,339	1,594.5	5,759	1,594.5	5,384
<hr/>						
General Plan holding capacity is 7,200±						
(GP holding capacity - proposed density)		(-861)	(-1,441)		(-1816)	
Preferred Plan holding capacity is 6,339						
(SP holding capacity - alternative density)		-0-	(-580)		(-991)	

uses as the Preferred Plan core area. However the modified core alternative does not include any drainage parkway features or improvements adjacent to the urban core and focus area as does the Preferred Plan. The Modified Core Specific Plan Alternative may be combined or overlayed with the Preferred Specific Plan, the -10% Alternative, or the -15% Alternative.

Dispersed Core and Alternate Core Specific Plan Alternatives

Two additional land use plan alternatives were developed during the public hearings at the Policy Planning Commission. These two alternatives primarily involved relocating and dispersing the commercial core area away from existing residential development along Gerber Road. These two new alternatives are known as the Dispersed Core Alternative (“Dispersed Core”), and the Alternative Core Alternative (“Alternative Core”).

The Dispersed Core involves relocation of approximately 13 acres of retail commercial uses to the Bradshaw Road/Florin road intersection (see Plate PD-AA). The Alternative Core includes the relocation of most of the commercial and business-professional uses, and approximately 300 multi-family dwelling units to Florin Road and Bradshaw (see Plate PD-BB). During the public hearings the Planning Commission added a 10% density reduction to both alternatives. Due to the overlay of a 10% density reduction and the loss of 11.5 acres resulting from realigning the western edge of the plan area to be coterminous with existing Elder Creek, the holding capacity of the Alternative Core fell from 6,339 dwelling units (DUs) to 5,768 DUs, and the Dispersed Core fell to 5,667 DUs.

The Alternative Core includes only half as much acreage designated for business-professional uses as compared to the Dispersed Core and the Preferred Plan (7.1 acres vs. 14.5 acres and 10.1 acres, respectively). Table PD-1.2 provides an acreage and/or dwelling unit (DU) comparison summary of the Preferred Plan and the Dispersed Core at 6,339 and 5,667 DUs, as well as the Alternative Core at 6,339 and 5,768 DUs.

Amendments to Existing Plans.

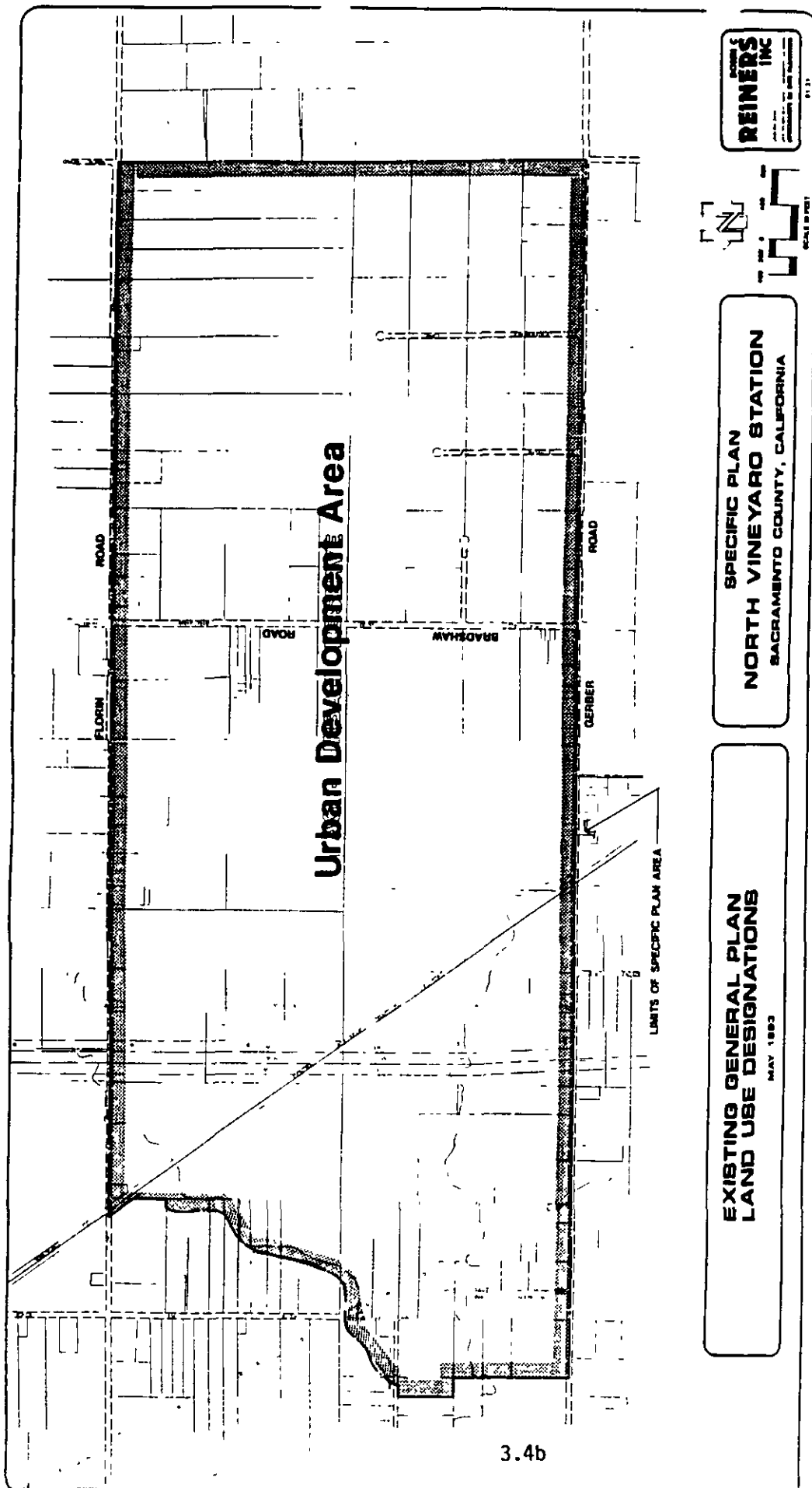
General Plan Land Use Diagram Amendment.

The existing General Plan designation for the entire Plan Area is “Urban Development Area” (see Plate PD-F). Amendments to the County General Plan Land Use Diagram are necessary for the proposed land uses and residential densities shown on the Preferred Specific Plan Land Use Plan and each of the alternative plans, if adopted. Plate PD-G shows the proposed General Plan designation for the Preferred Plan. Plates PD-H and PD-I

Table PD-1.2 (rev)
Land Use Summary Preferred Plan;
Dispersed Core(AA):Alternative Core(BB)
NVSSP EIR(93-0238)

	Preferred Plan 6,339 units (NOP)		AA Plan 10% Reduction (Planning Comm)		BB Plan 10% Reduction		AA Plan 6,339 units		BB Plan 6,339 units	
	Acres	Units	Acres	Units	Acres	Units	Acres	Units	Acres	Units
Residential										
Multi Family (13-22 du/ac)	39.7	637	37.4	673	37.0	666	37.4	673	37.0	666
Medium Density (7 to 12 du/ac)	45.4	442	19.9	199	19.9	199	19.9	199	19.9	199
Single Family (4-7 du/ac)	287.3	1,724	233.4	1,400	216.3	1,297	233.4	1,400	218.3	1,272
Single Family (3-5 du/ac)	644.5	3,222	550.3	2,751	603.7	3,018	772.4	3,888	823.8	4,079
Single Family (1-3 du/ac)	150.4	301	315.7	631	287.5	575	83.4	166	55.2	110
Existing Residential	6.0	13	6.0	13	6.0	13	6.0	13	6.0	13
Commercial	28.6		30.1		29.8		30.1		29.8	
Business Professional	10.1		14.5		7.1		14.5		7.1	
Schools	21.7		20.0		20.0		20.0		20.0	
Parks	104.7		73.1		73.1		83.3		83.3	
Parkways	6.4		2.6		2.6		2.6		2.6	
Golf Course	19.9		19.8		19.8		19.8		19.8	
Drainage Parkway	62.0		78.7		78.7		78.7		78.7	
Open Space/Storm Water Detention	79.2		102.2		102.2		102.2		102.2	
Transit Facilities	11.1		0.0		0.0		0.0		0.0	
Public Services	4.9		6.7		6.7		6.7		6.7	
Major Streets	58.0		58.0		58.0		58.0		58.0	
Railroad	14.6		14.6		14.6		14.6		14.6	
Total	1,594.5	6,339	1,583.0	5,667	1,583.0	5,768	1,583.0	6,339	1,583.0	6,339

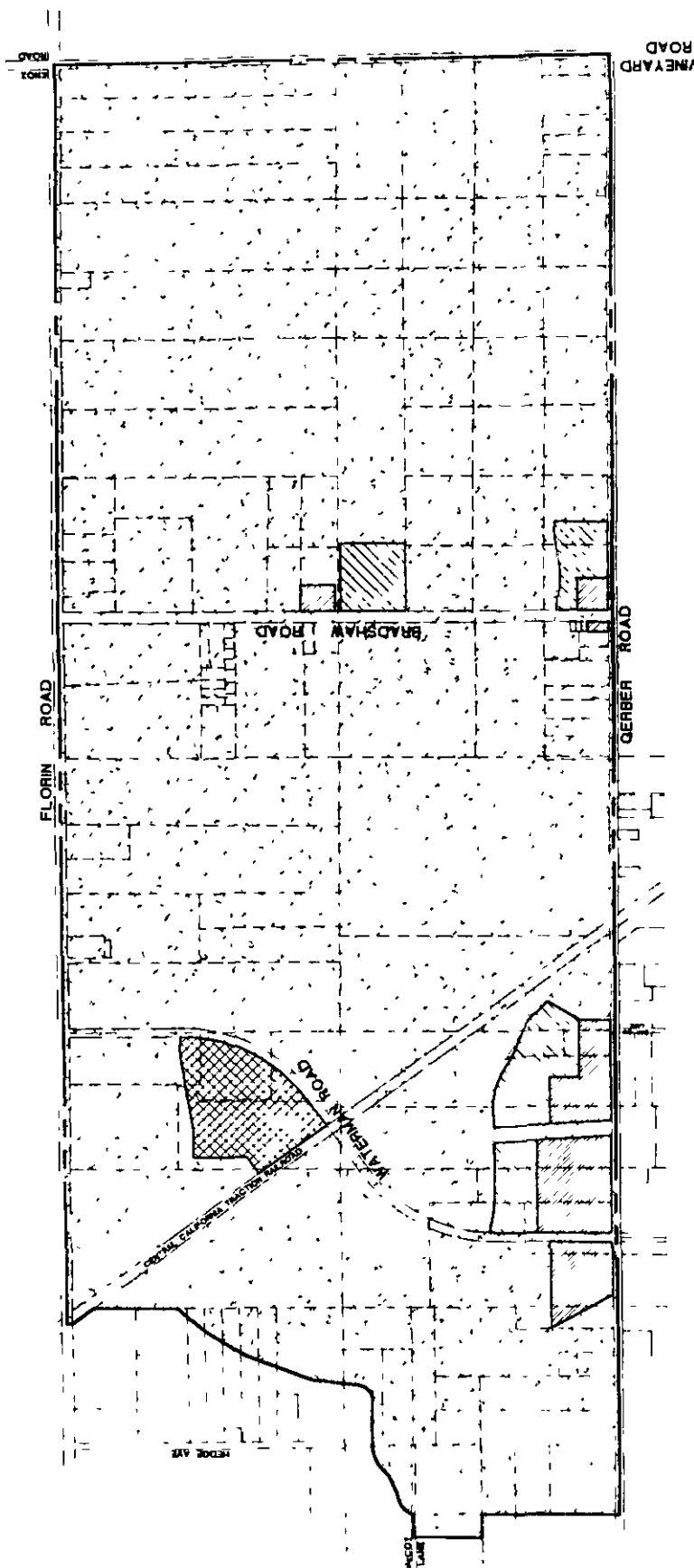
3.4a



3.4b

Plate PD-F
Existing General Plan
NVSSP (93-0238)

Plate PD-G
Preferred SP General Plan
NVSSP (93-0238)



LEGEND

[Pattern: White]	LOW DENSITY RESIDENTIAL
[Pattern: Horizontal Lines]	MEDIUM DENSITY RESIDENTIAL
[Pattern: Diagonal Lines]	COMMERCIAL & OFFICE
[Pattern: Cross-hatch]	RECREATION



NOT TO SCALE

Figure 3.1.C
Proposed General Plan Land Use Designations

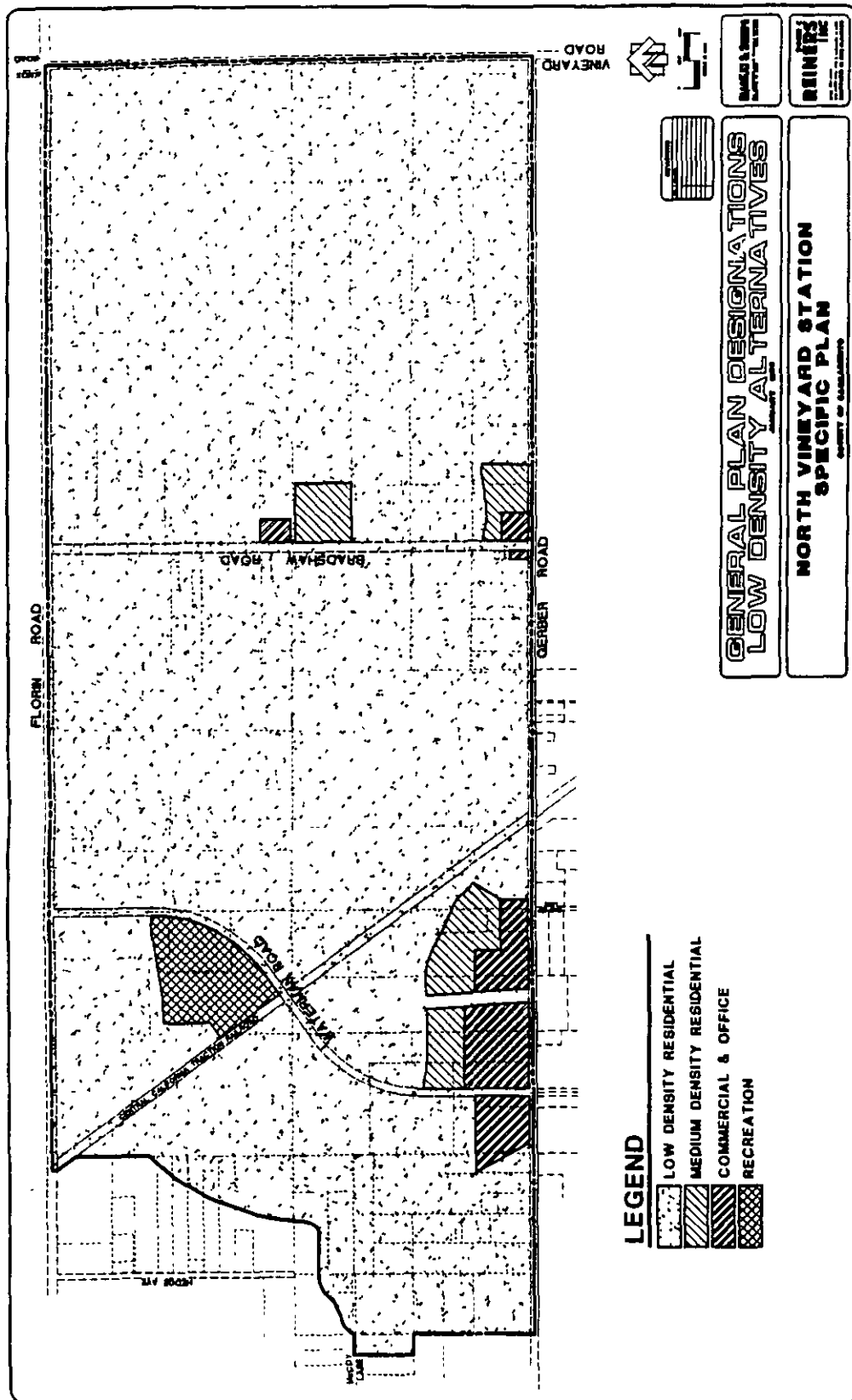


Plate PD-H
-10% Alternative SP General Plan
NVSSP (93-0238)

Plate PD-I
-15% Alternative SP General Plan
NVSSP (93-0238)

show the proposed designations for the -10% Alternative Plan and the -15% Alternative Plan, respectively. Plates PD-J.1 and PD-J.2 shows the proposed General Plan designations for the Modified Core Alternative under either the Preferred Specific Plan or the -10% and the -15% Alternative Plans. **Plate PD-CC shows the proposed General Plan for the Dispersed Core Alternative endorsed by the Policy Planning Commission.** Table PD-2.1 summarizes the County General Plan Designation acreages for the Preferred Plan, the -10% Alternative, and the -15% Alternative. **Table PD-2.2 summarizes the County General Plan Designation acreages for the Preferred Plan, the -10% Alternative, and the -15% Alternative.**

It should be noted that Specific Plan residential categories are different from those of the General Plan. The General Plan designation of "Medium Density" Residential at 13 to 30 units per acre is much higher than the "Medium Density" designation of the Specific Plan at 7 to 12 du/ac. This density range is considered "Low Density" under the General Plan. The Multi Family" designation of the Specific Plan at 14 to 22 du/ac is consistent with the "Medium Density" category of the General Plan.

General Plan Transportation Plan Diagram Amendment.

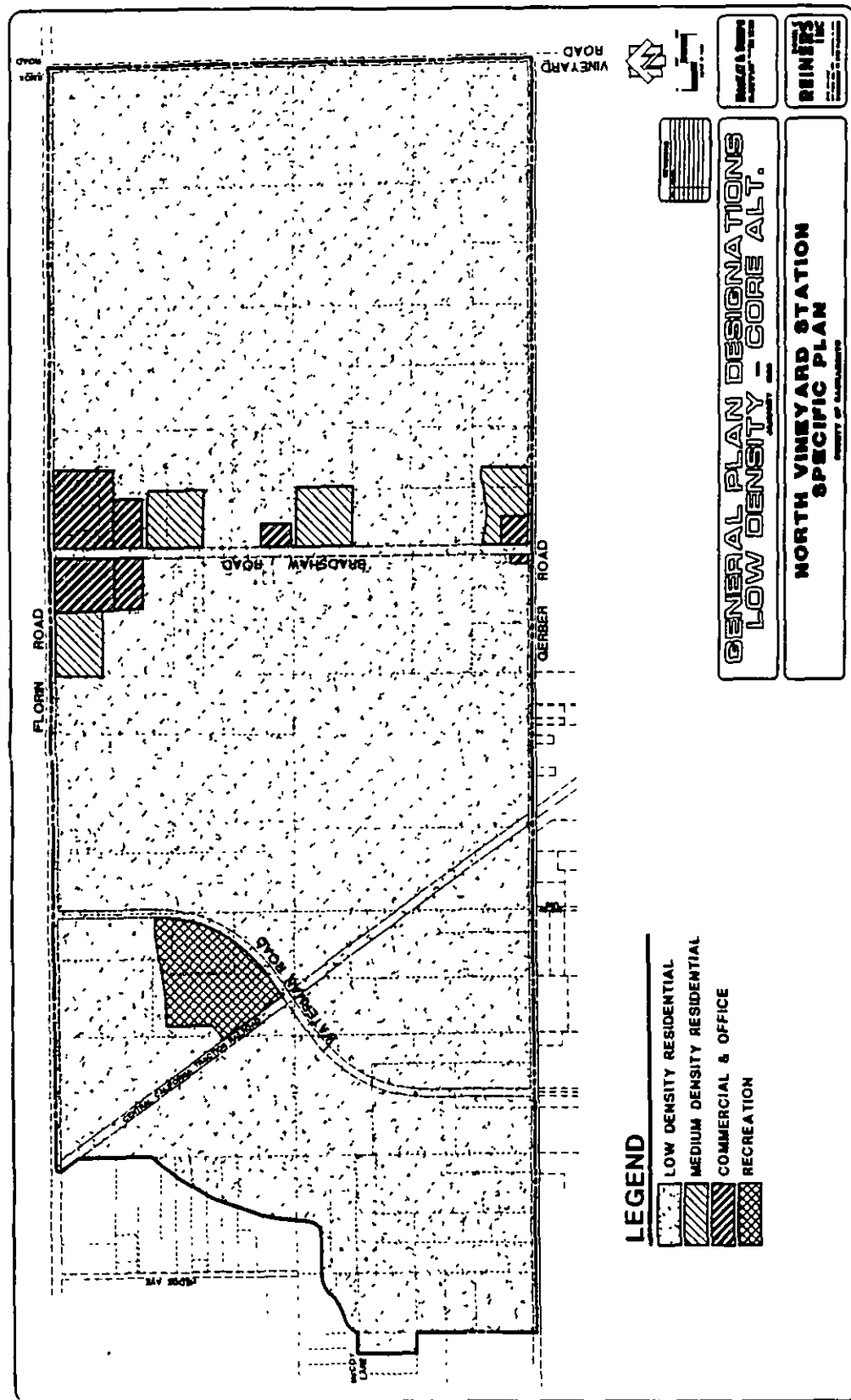
The proposed roadway network is depicted on (Plate PD-K) Transportation Diagram. The existing General Plan Transportation Diagram must be amended to accommodate the needed improvements for the project. Table PD-3 summarizes planned roadway improvements listed in the General Plan. The Transportation Diagram of the General Plan identifies the Central California Traction Railroad right-of-way as transportation corridor.

The circulation pattern associated with the Preferred Plan and each alternative is shown on the corresponding land use plan. The circulation pattern in each of the land use alternatives is similar to that of the Preferred Plan. Within the project bounds, Waterman Road will be extended from its current terminus at Gerber Road to Florin Road. The NVSSP project includes one at-grade crossing of the Central California Traction Railroad tracks at Waterman Road, approximately one-half mile south of Florin Road. Improvement of the two existing at-grade crossings at Florin Road and Gerber Road is also anticipated.

It should be noted that the Policy Planning Commission recommended the approval of the Preferred Plan circulation diagram with the exception that Waterman Road alignment be shifted at it's north end such that 3 traffic lanes would be on the east side and 1 traffic lane on the west side of the property line. The Commission recommended approval of the General Plan Transportation Diagram Amendment consistent with Plate PD-DD).



3.5a



3.5b

Plate PD-J.2
Modified Core: -10% & -15% Alternative SP
NVSSP (93-0238)

Table PD-2.1 (rev)
General Plan Designation Acreage Calculation
for Preferred Plan; -10% an -15% Alternatives

General Plan Designation Land Use	County General Plan Existing Acreage ±	NVSSP Preferred Plan Acreage ±	NVSSP -10% Alt. Acreage ±	NVSSP -15% Alt. Acreage±
Urban Development	1,594.5	0	0	0
Low Density Residential (1-12 du/ac)	1,442.8	1,488.2	1,488.2 (+45.4)	(+45.4)
Medium Density Residential (13-30 du/ac)	0	85.1	39.7 (-45.4)	39.7 (-45.4)
Commercial & Office	0	38.7	38.7	38.7
Recreation	0	27.9	27.9	27.9
Total	1,594.5	1,594.5	1,594.5	1,594.5

(+ more acreage than preferred plan)
 (- less acreage than preferred plan)

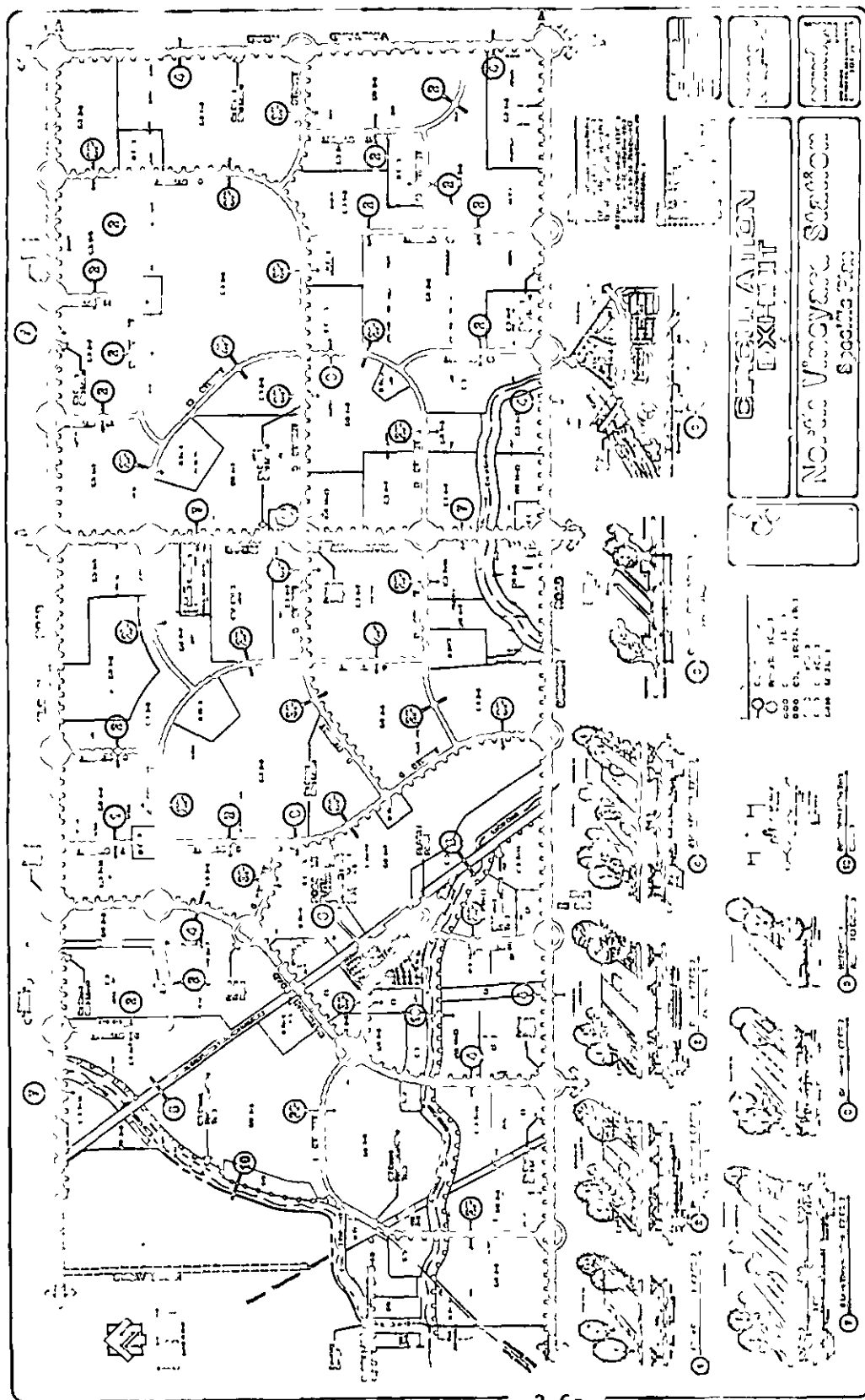
**Table PD-3
Major Roadways
Planned Improvements**

Roadway	Segment	Current Lanes	Planned Improvements	
			Pre-2010	Post 2010
Gerber Road	Hedge Avenue to Vineyard Road	2	4	4
Vineyard Road	Gerber Road to Florin Road	N/A	-	4
Florin Road	Vineyard Road to Hedge Avenue	2	6	6
Bradshaw Road	Gerber Road to Florin Road	2	6	6
Central California Traction Railroad	Gerber Road to Florin Road	N/A	-	Trunk Line Network
Gerber Road	Hedge Avenue to Vineyard Road	N/A	Feeder Line Network	-
Florin Road	Vineyard Road to Hedge Avenue	N/A	Feeder Line Network	-

Source: Sacramento County General Plan Transportation Map.

Vineyard Community Plan Amendment.

Plate PD-L shows the existing Vineyard Community Plan land use designations (and existing zoning) for the Plan Area. The existing Community Plan designations within the project area are AG-20/AG-20(F) and AR-10/AR-10(F). A Community Plan Amendment to a designation of "SP" (Specific Plan) will be required for the project (Plate PD-M). Allowed uses for any given area would be prescribed by both the written and graphic descriptions within the proposed Specific Plan document.

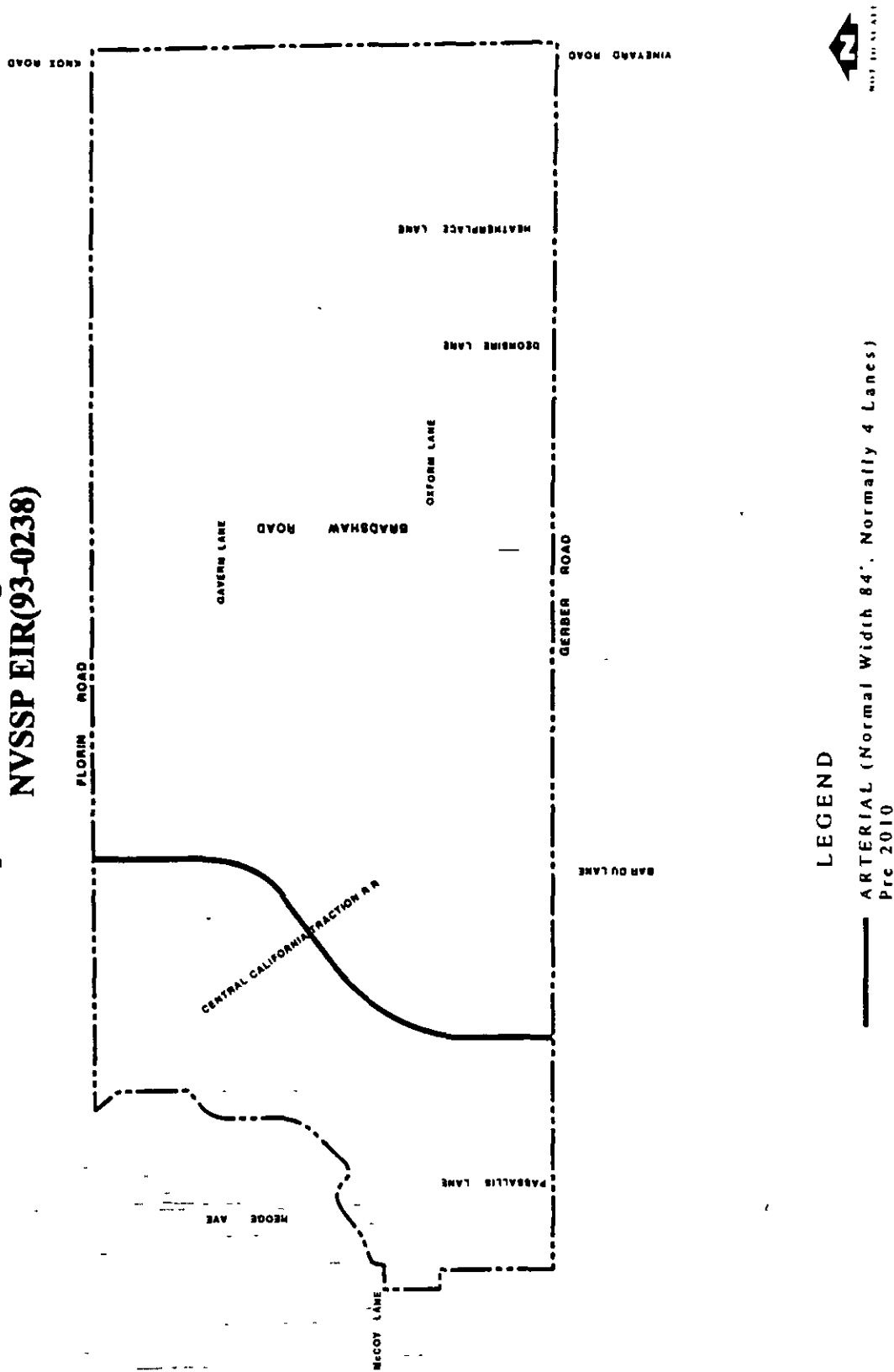


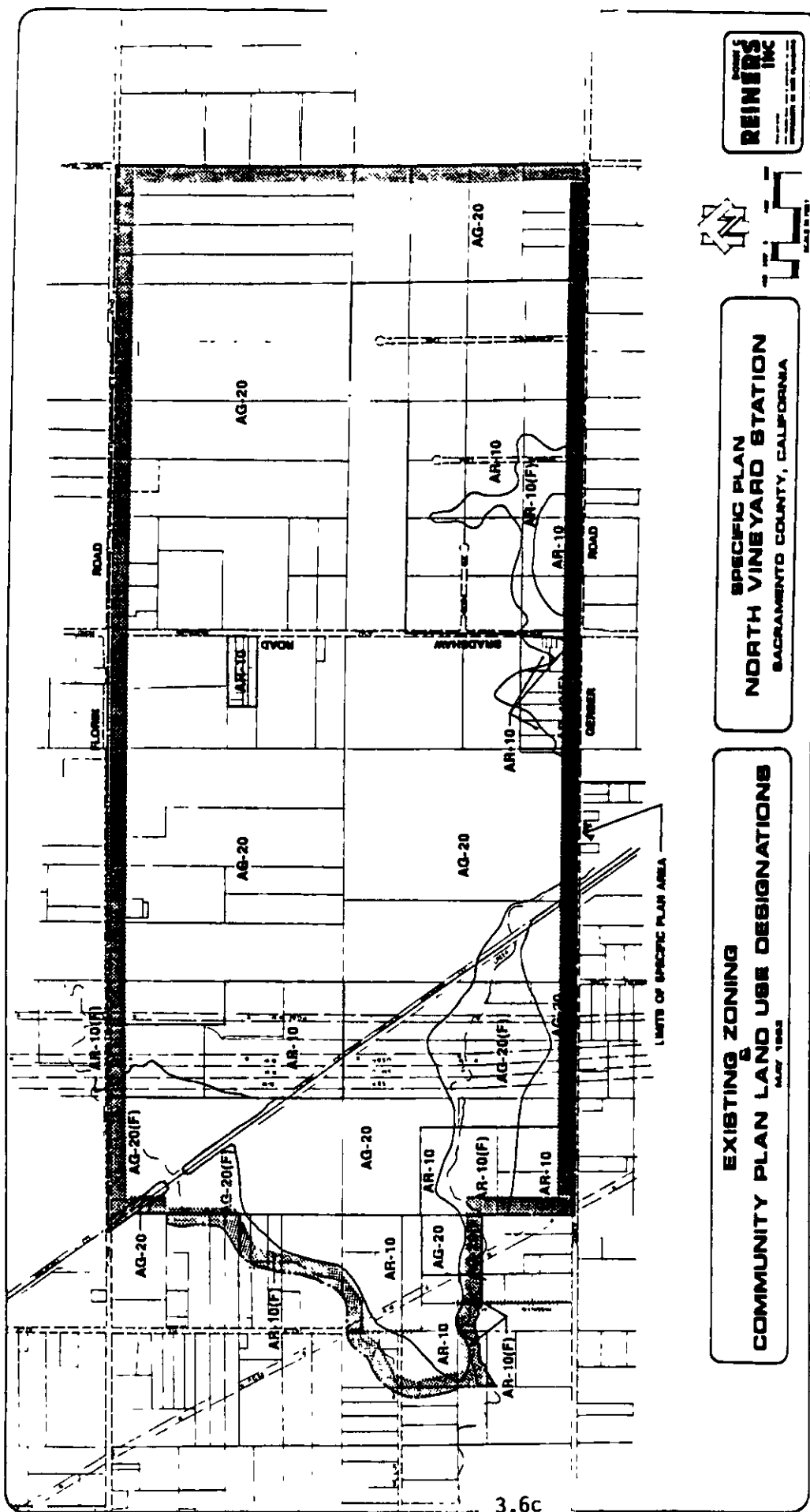
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North Vinograd Station
 Station Exhibit

NORTH VINEYARD STATION AMENDMENT TO THE TRANSPORTATION PLAN DIAGRAM

Plate PD-DD Transportation Plan Diagram Amendment NVSSP EIR(93-0238)





SPECIFIC PLAN
NORTH VINEYARD STATION
 SACRAMENTO COUNTY, CALIFORNIA

EXISTING ZONING
COMMUNITY PLAN LAND USE DESIGNATIONS
 MAY 1994

Plate PD-L
Existing Community Plan/Zoning
NVSSP (93-0238)

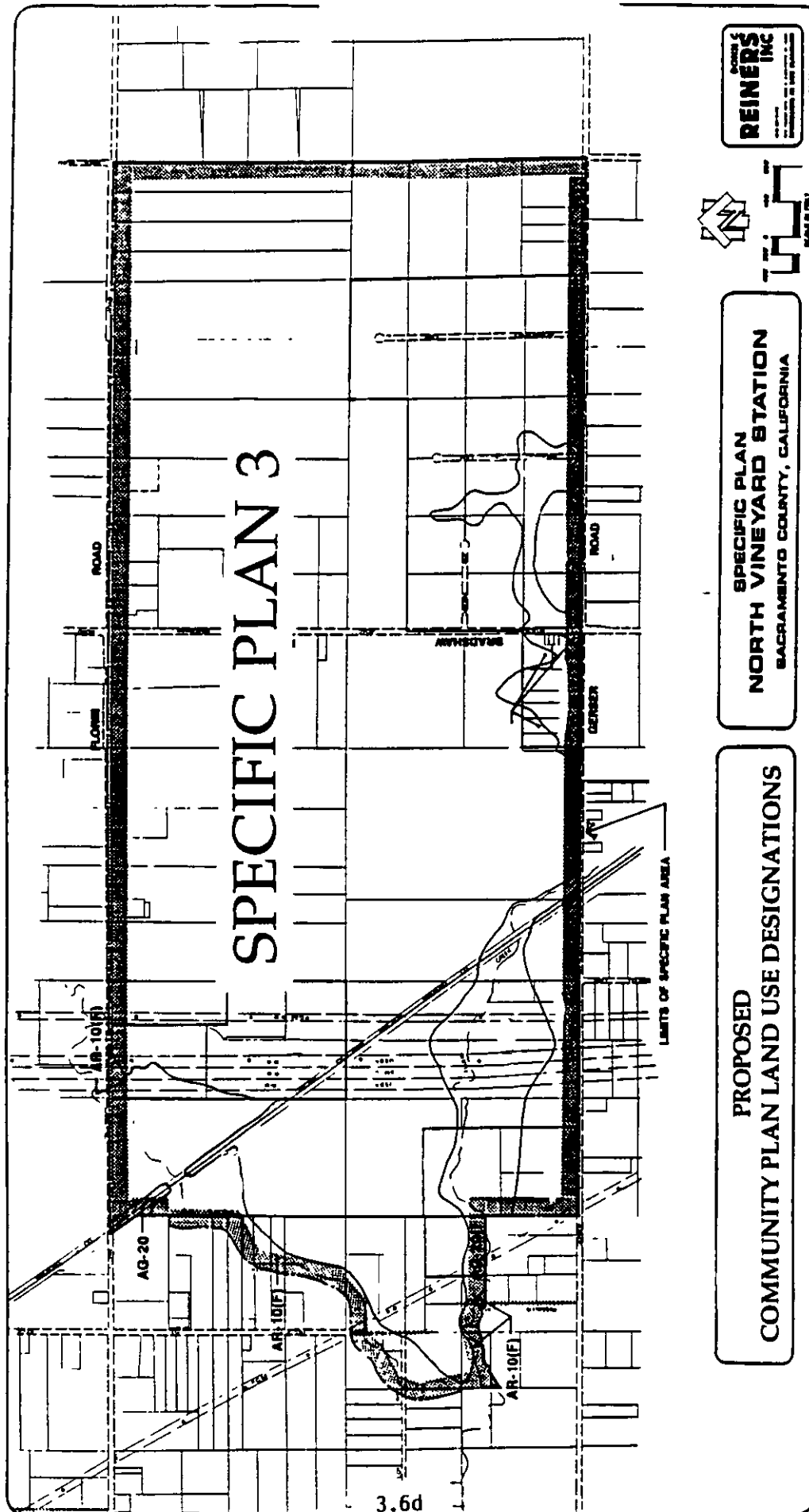


Plate PD-M
Proposed Community Plan
NVSSP (93-0238)

NVSSP Policy Plan & Specific Plan Document.

The March 4, 1996, NVSSP Policy Plan and subsequent May 28, 1997, Public Review Draft North Vineyard Station Specific Plan document has been published under separate cover by the Sacramento County Planning and Community Development Department, and is hereby incorporated by reference. Copies of the Draft Specific Plan document and Policy Plan are available from the County Planning Department at 827 Seventh Street, Room 230, Sacramento CA, 95814.

The NVSSP Policy Plan was prepared for the North Vineyard Station Specific Plan to provide a framework to guide the implementation of the Plan. The Policy Plan, together with the text of the Specific Plan document and its development standards and design guidelines, is intended to guide the long-term growth and development of the North Vineyard Station Specific Plan area. (The NVSSP Policy Plan was also published in the EIR NOP environmental document released in March 1996.)

During the 1997 public hearings, the Policy Planning Commission recommended NVSSP Land Use Policy #5 be amended to read: 'Design and architecture of proposed residential projects shall consider the Design Guidelines included in the Specific Plan'; and Open Space Policy #5 be amended to read: 'Where residential development abuts Parkways and Drainage Parkways, fences shall adhere to the following design: six(6) feet in height, consisting of three(3) feet wrought iron on top of three(3) feet of masonry wall. The Planning Commission may waive this requirement where privacy is an issue adjacent to a bicycle path. The revised NVSSP policies endorsed by the Commission are included as Attachment 4 of this document.

The Specific Plan document includes a written text, exhibits, graphics and appendices, including technical reports utilized in the preparation of this EIR. The proposed Specific Plan document will serve as both a policy and regulatory document if the plan is approved and adopted. The Specific Plan includes guiding principles permitted uses, development standards, and design guidelines for the various land uses identified on the proposed Preferred Specific Plan depicted on Plate PD-B. The Specific Plan document includes the land use plan that establishes the type and densities of land uses in the Plan Area. The Specific Plan document contains the following major elements:

- A. Opportunities and Constraints Analysis
- B. Description of Land Uses
- C. Development Standards and Permitted Uses
- D. Design Guidelines
- E. Transportation and Circulation Plan.

- F. Public Services and Facilities
- G. Infrastructure Master Plans (Sewer, Water, Drainage)
- H. Specific Plan Policies
- I. General Plan Consistency Analysis
- J. Technical Appendices

The "Technical Appendices" (element 'J' above) includes the following technical studies that have been completed and are currently included as separate volumes of this EIR. Each of the following technical studies and/or reports were utilized in preparation of the Specific Plan document and this EIR:

- 1. Arborist Reports, Tree Care, Inc.
- 2. Cultural Resource Assessment, Peak & Associates.
- 3. Acoustical Analysis, Brown-Buntin Associates, Inc.
- 4. Transportation Analysis, Fehr & Peers Associates.
- 5. Preliminary Geotechnical Engineering Report, Wallace-Kuhl & Associates.
- 6. Toxics/Site Assessment, Wallace-Kuhl & Associates.
- 7. Elder/Gerber Drainage Study, MacKay & Soms.
- 8. Water Master Plan, West Yost & Associates (for County Water Resources).
- 9. Sanitary Sewer Study, MacKay & Soms.
- 10. Wetland Delineation and Mitigation Plan, Sugnet & Associates.
- 11. Determinate Invertebrate Surveys, Sugnet & Associates.
- 12. Special Status Bird Surveys, Sugnet & Associates.
- 13. Special Status Reptile Surveys, Sugnet & Associates.
- 14. Special Status Amphibian Surveys, Sugnet & Associates.
- 15. **Basin E20 technical analyses**
- 16. **Evaluation of Groundwater Impacts, County WRD**

Zoning Ordinance Amendment.

In some cases, the proposed Specific Plan development regulations deviate from the adopted County Zoning Ordinance. To allow for the proposed Specific Plan deviations, a Zoning Ordinance Amendment is also proposed as part of the project actions necessary to codify the North Vineyard Station Specific Plan development standards in to the County Zoning Ordinance.

In December 1997, the Policy Planning Commission recommended approval of the Zoning Ordinance Amendment to establish alternative code requirements for the North Vineyard Station Specific Plan.

Financing Strategy/Capital Improvement Program.

A Financing Strategy and associated Capital Improvement Program (CIP) has been prepared which identifies the infrastructure improvements necessary to support the Specific Plan's proposed level of development. The Specific Plan CIP and the associated Financing Strategy defines the methods of financing the needed infrastructure and provides a description of infrastructure phasing of development. Separate actions will be necessary to establish assessment districts, fee programs and/or other funding programs consistent with the proposed Specific Plan CIP. The final CIP and related Financing Plan will be subject to subsequent environmental review.

In December 1997, the Policy Planning Commission recommended approval of the Specific Plan Financing Strategy.

Public Infrastructure and Services.

Drainage Improvements.

In conjunction with the Specific Plan, a Drainage Master Plan (DMP) has been developed for the Plan Area. The NVS Drainage Master Plan identifies existing drainage facilities and flooding patterns and analyzes alternatives to recommend preferred flood control and conveyance facilities to serve the drainage needs of the Plan Area. The DMP includes recommendations for Stormwater Quality Management Facilities and a framework for mitigation of wetlands impacted by recommended drainage improvements. Finally, the proposed NVS Drainage Master Plan identifies estimated costs of recommended drainage improvements.

The DMP proposes off-site improvements necessary to accommodate runoff associated with Specific Plan development, including:

1. Modification of downstream section of Elder Creek for a distance of approximately 5,000 feet.
2. An alternative off site detention facility located west of Elk Grove Florin Road.
3. Modification to an up stream section of Elder Creek for a distance of approximately 1,400 feet.
4. Modification of an off-site portion of Gerber Creek.

The proposed DMP includes a number of channel design and alignment alternatives as well as several storm water district basin location alternatives. Several of the DMP alternatives have been developed by members of the environmental community and local residents.

Water Supply Improvements.

The Plan Area lies within the sphere of influence boundaries of Zone 40 of the Sacramento County Water Agency. Water supply to the Specific Plan Area has been master planned according to Zone 40 Master Plans. In accordance with the Water Supply Planning Act (SB 901) the Sacramento County Water Resources Division studied alternatives for supplying the Specific Plan and surrounding areas with water. The NVS Specific Plan Water Supply Plan includes project-specific locations and sizing of water transmission facilities. Extension of off-site regional water transmission and storage facilities may require additional, separate environmental documentation.

Sanitary Sewer Improvements.

In conjunction with the Specific Plan, a Sanitary Sewer Master Plan has been developed for the Plan Area. The NVS Specific Plan Sewer Master Plan identifies provisions for accommodating project flows and flows upstream of the Plan Area. The proposed Specific Plan includes location and sizing of sanitary sewer facilities within the Plan Area.

Project Location

The NVSSP planning area ("Plan Area") is located in the south-central unincorporated area of Sacramento County, at the western edge of the Vineyard community. The City of Sacramento's Central Business District is located approximately eleven miles to the northwest. The Plan Area lies entirely within Sections 4 and 5 of Township 7 North, Range 6 East and within the USGS Elk Grove quadrangle map.

The Plan Area encompasses 1,595± acres of the Vineyard Community Planning Area. The Plan Area is bounded by Florin Road to the north, Gerber Road to the south, the northerly extension of Vineyard Road on the east, and generally by Elder Creek's north and south forks (see Plate PD-A). Bradshaw Road transects the Plan Area in a north/south alignment.

The right-of-way of the Central California Traction Railroad transects the western portion of the planning area.

Environmental Setting

Existing Plan Area Land Use.

The NVSSP project area is predominantly utilized for agricultural-residential uses, however, urban development has occurred within the surrounding Vineyard area, primarily the area east of Elk Grove-Florin Road and in the Vintage Park/Churchill Downs area. The project site is characterized by grassy fields and pastures. Many rural single-family residential dwellings are located within the planning area, along with barns and other out buildings. The small amount of agricultural activity that occurs in the area is generally limited to dry farming. The majority of the site has been subdivided over a period of several years into 147 parcels, most of which are from one-half to 30 acres in size. **Plate PD-N (now Plate PRF-A) identifies the participating property owners as of October 1997.**

The Draft Specific Plan document provides the following description of the existing land uses and facilities in the Plan Area:

Residential Uses.

Numerous residences and agricultural out buildings are located within the Plan area, principally along Florin, Gerber, and Bradshaw roads. Most of the homes are thirty years or older in age. The principal exception is the small cluster of newer custom homes located on Heather Place Lane. Many of the older homes include small-scale dry farming or home occupations. The small neighborhood of homes on Gavern Lane are on roughly 6,000-square foot lots.

Commercial Uses.

The Bradshaw Golf Center occupies a 20-acre parcel on the west side of Bradshaw Road, one-third mile south of Florin Road. A convenience store/gas station/bar is located on the northwest corner of Bradshaw and Gerber roads. A feed store and an equestrian center are located on Bradshaw Road, and a small nursery is in operation on Gerber Road, near Passallis Lane.

Electrical and Natural Gas Utilities.

Tower-mounted high voltage power lines within five separate easements traverse the

western side of the Plan area, approximately one mile west of Bradshaw Road. Three of the easements are contiguous and are oriented in a north-south direction. These three easements, owned by U.S. Bureau of Reclamation (USBR) and Sacramento Municipal Utility District (SMUD), total 400 feet in width and contain 230-kilovolt (kv) transmission systems. Two of these systems use truss towers operated by the Western Area Power Authority (WAPA) for the USBR. The WAPA easements are 125 feet wide. The WAPA tower systems straddle a SMUD-owned steel pole system which exists within a 150-foot easement. SMUD's facilities within this easement also include a 69 kv line on wood poles.

Pacific Gas and Electric Company (PG&E) operates a 230-kv truss tower system in a 75-foot easement located approximately 400 feet east of, and roughly parallel with, the WAPA/SMUD corridor. Also, PG&E has another 230-kv truss tower transmission line in a 75-foot wide easement running diagonally through the western-most portion of the Plan area.

The easements granted for these transmission line corridors include restrictions in land use character (e.g., new buildings are not allowed, and the height of landscaping is restricted). However, the easements may be used for a variety of land uses, including parking lots, low-height vegetation, and certain recreational uses.

Petroleum Pipeline.

A high pressure, 10-inch petroleum transmission pipeline, which belongs to Santa Fe Pacific Pipeline Partners L.P., is located within the Bradshaw Road right-of-way.

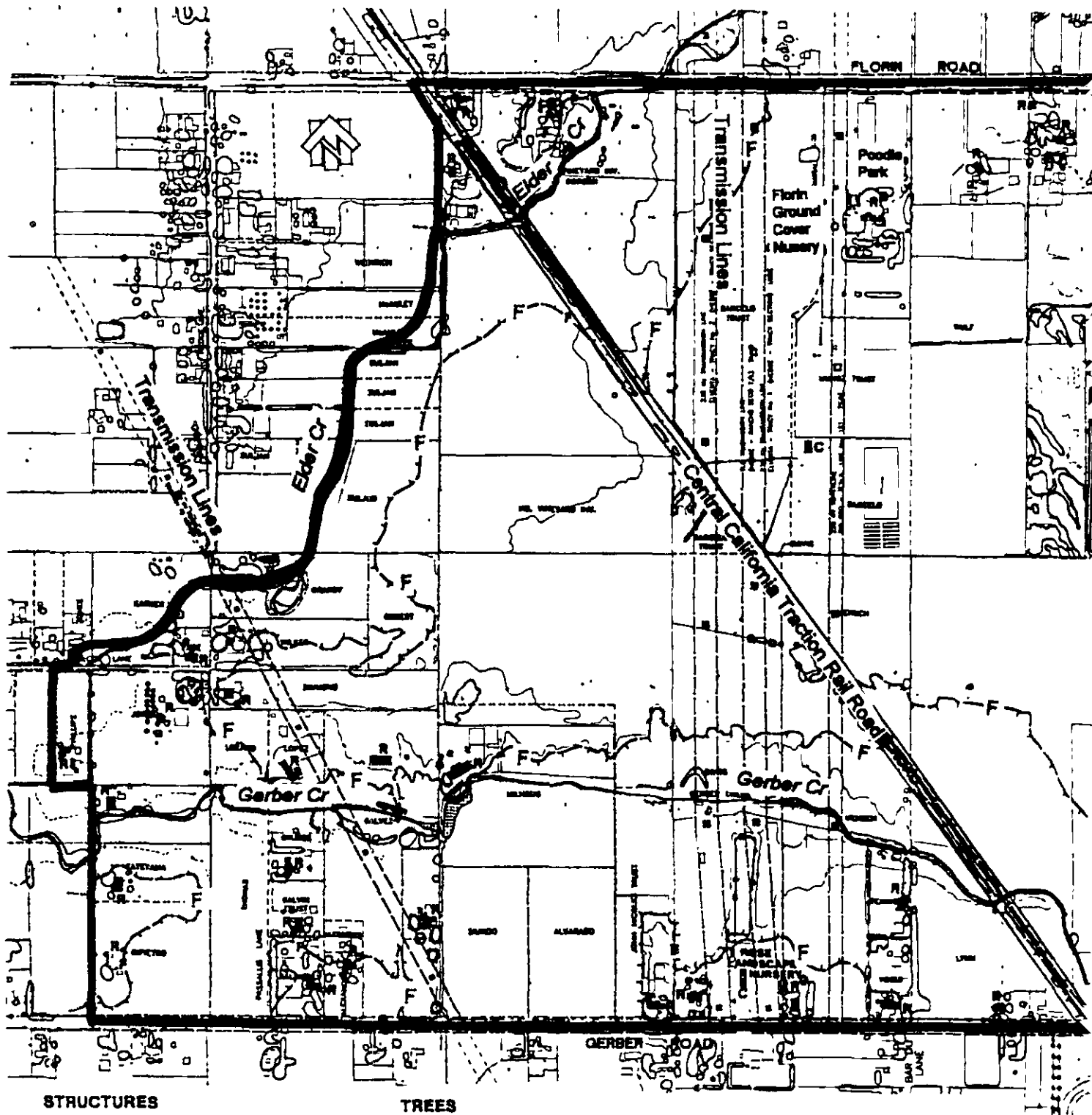
Railroad.

The Central California Traction Railroad occupies a 100-foot wide right-of-way that traverses the Plan area diagonally in a northwest-southeast direction. Currently, the tracks within the right-of-way are used by trains twice daily. There are two at-grade crossings - one at Florin Road and one at Gerber Road.

These existing land uses and facilities are depicted for the west, central, and east portion of the Plan Area on Plates PD-O.1, PD-O.2, and PD-O.3 respectively.

Adjacent Land Use.

Existing land uses surrounding the Plan Area are predominantly agricultural-residential (5-acre or larger lots). However, there are pockets of lower density development (2- to 3-acre

**STRUCTURES**

- Accessory
- Single Family Residential
- Commercial / Business

EASEMENTS/RIGHT-OF-WAYS

- Overhead Electrical
- Railroad

FLOODPLAIN

- 100 Year

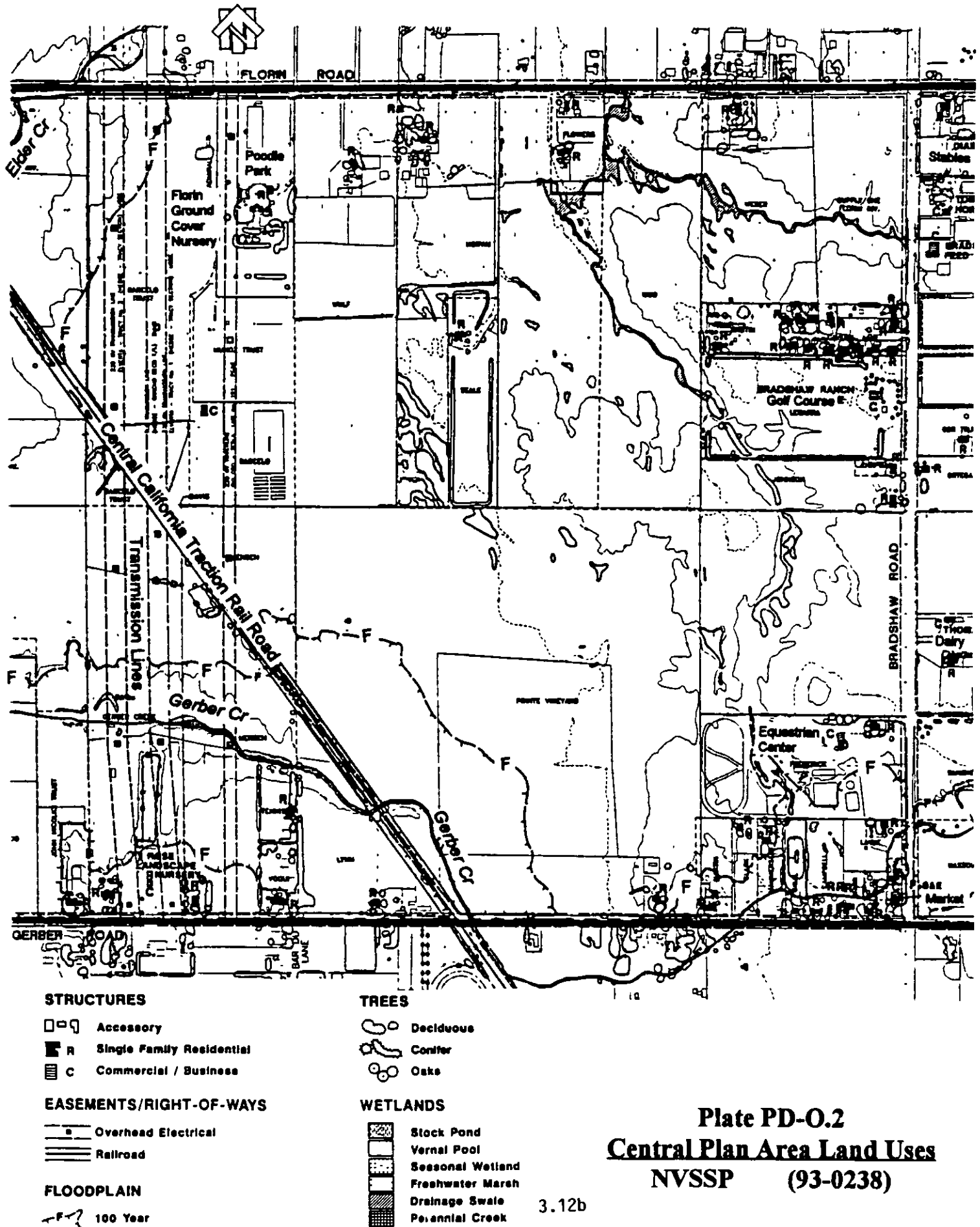
TREES

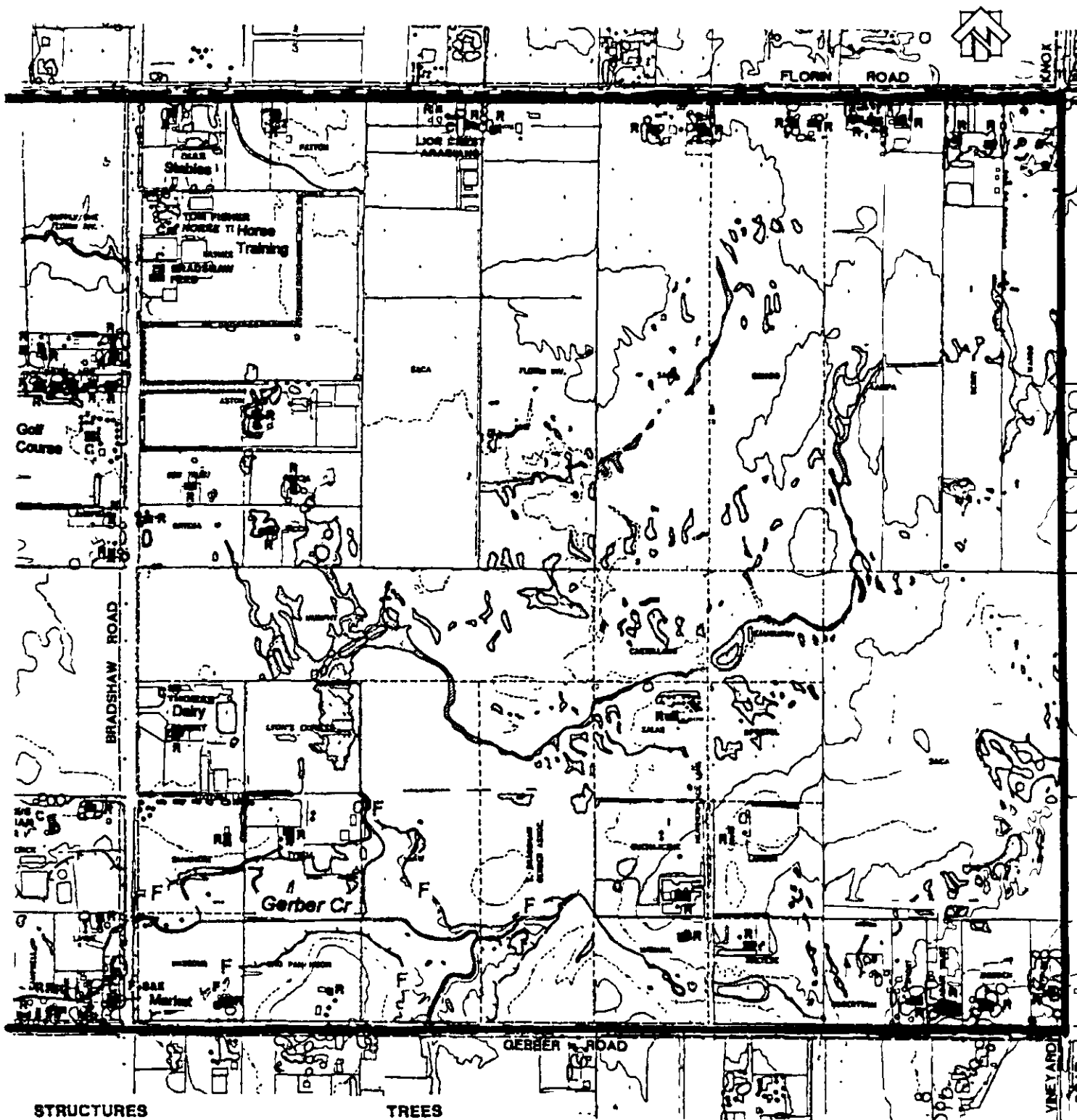
- Deciduous
- Conifer
- Oaks

WETLANDS

- Stock Pond
- Vernal Pool
- Seasonal Wetland
- Freshwater Marsh
- Drainage Swale
- Perennial Creek

Plate PD-O.1
West Plan Area Land Uses
NVSSP (93-0238)



**STRUCTURES**

- Accessory
- R Single Family Residential
- C Commercial / Business

EASEMENTS/RIGHT-OF-WAYS

- Overhead Electrical
- Railroad

FLOODPLAIN

- 100 Year

TREES

- Deciduous
- Conifer
- Oaks

WETLANDS

- Stock Pond
- Vernal Pool
- Seasonal Wetland
- Freshwater Marsh
- Drainage Swale
- Perennial Creek

3.12c

Plate PD-O.3
East Plan Area Land Uses
NVSSP (93-0238)

lots) in the vicinity. Most of the existing development in the vicinity is located west and southwest of the Plan Area.

There are three existing residential areas on the perimeter of the Plan Area. Immediately west of the Plan area boundary are McCoy Avenue and Hedge Avenue. Development along McCoy Avenue consists of older homes on 2- to 10-acre parcels. Dwellings on these properties are often accompanied by minor agricultural uses. Development along Hedge Avenue is similar to that on McCoy Avenue. The Bar Du Lane neighborhood is located south of Gerber Road and west of the railroad. Bar Du Lane includes well-maintained single family dwellings on 2- to 3-acre parcels.

The largest suburban development in the area is Churchill Downs, which is located west of Bradshaw Road and approximately one-half mile south of Gerber Road. The residential density in this newer development is generally 5 to 6 dwelling units per acre, comparable to much of the proposed development in the North Vineyard Station Specific Plan.

Land to the east is primarily undeveloped and is designated Agricultural-Residential (1-10 ac/du). The undeveloped land to the north of the eastern half of the Plan area is designated General Agriculture (20 acre). Land north of the western half is designated Natural Reserve (and contains the Elder Creek recreation area) and Agricultural-Urban Reserve combined with Aggregate Resource Area. Land north of the Plan area has been used primarily for grazing.

Existing Site Conditions.

Topography.

Except for slight undulations in some locations in the eastern portion, east of Bradshaw Road, the Plan area appears visually flat. The highest elevation on the site is 81 feet above sea level and occurs near the eastern boundary, while the lowest elevation is 42 feet and occurs near the western boundary. There is evidence that the local topography has been changed over the years as a result of agricultural practices and parcelization. This is particularly noticeable in areas where wetlands abruptly end at property lines.

Drainage is directed toward the two creeks on the site - Gerber Creek and Elder Creek - both of which are located in the western portion of the Plan area. The confluence of the two creeks is located near the westernmost point of the Plan area.

Soils, Geologic and Seismic Conditions.

A large portion of the Plan Area is underlain by the lower member of the Quaternary-aged Riverbank formation and the remainder is underlain by the Tertiary-aged Laguna formation. The Riverbank formation represents dissected alluvial fans and is generally composed of alluvial gravel, sand and silt derived from the western slopes of the Sierra Nevada Range. The Laguna formation represents eroded alluvial fans composed of alluvial gravel, sand and silt also derived from the western slopes of the Sierra Nevada Range.

No active or potentially active faults are known to pass through or near the Plan Area, as indicated by published geologic maps.

According to the Soil Survey of Sacramento County, California (SSSCC), approximately 75 percent of the site is covered by soils classified as San Joaquin silt loam with slopes between 0 and 8 percent. Approximately 10 percent of the site is mapped as Red Bluff loam, possessing slopes between 0 and 2 percent. These soils are located in irregularly-shaped areas in the northern and eastern sections of the site. Two areas, covering approximately 10 percent of the site, are classified as Redding loam and Redding gravelly loam, typified by slopes ranging from 0 to 8 percent. These soils are located in the south central portion of the site.

The remainder of the site is covered by four additional soil types. The first soil type is the San Joaquin-Durixeralfs complex, composed of 55 percent San Joaquin soil and 35 percent Durixeralfs soil. This soil type is located in two small areas near the center of the site. The second soil type is the San Joaquin-Galt complex composed of 45 percent San Joaquin soil and 40 percent Galt soil. This soil is located in one irregularly shaped area in the eastern portion of the site. The third soil type, located in the central portion of the site, is the San Joaquin-Xerarents complex with 45 percent San Joaquin soil and 40 percent Xerarents soil. The fourth soil type listed by the SSSCC is Hedge loam between 0 and 2 percent slopes. This soil has been mapped as a small area in the south-central portion of the site.

The SSSCC rates some of the soils with high clay content to possess moderate to high shrink-swell characteristics. The shallow depth to cemented soil strata result in poor permeability properties. These conditions result in the soils having possible limitations with respect to site development. Undisturbed natural soils at shallow depths are capable of supporting anticipated residential and commercial structural loads.

According to the Map of Ground Water Elevations, Spring 1995, for Sacramento County (Water Resources Division), ground water elevations beneath the Plan area are between 75 and 130 feet below ground surface. However, temporary "perched" high ground water conditions may exist shortly after intense rains and during or following the winter months

due to the presence of relatively shallow and fairly impermeable cemented soils that underlie the site.

Surface Hydrology.

Elder Creek and Gerber Creek flow through the Plan Area. Elder Creek forms the northwestern boundary of the Plan Area and has a watershed of approximately 5,000 acres at its confluence with Gerber Creek at the western boundary of the Plan area. Approximately 500 acres of that shed are within the boundary of the Plan area. Gerber Creek has a drainage area of approximately 3,100 acres, approximately 960 acres of which are within the Plan Area. The creek crosses Gerber Road several times, flowing in and out of the Plan Area before draining into Elder Creek at the western boundary of the Plan area.

Some reaches (or segments) of each of these creeks have been modified or relocated along property lines, possibly in connection with agricultural practices. The two creeks are generally shallow and broad. Significant rainfall results in widespread, but generally shallow, flooding. Floodplain depths range from one-half foot to one and one-half feet. This local flooding is attributed to a number of factors, including 1) inadequate channel capacity, 2) inadequate capacity of roadway culverts, and 3) the presence of numerous private roadway/driveway crossings of the channels with inadequate culvert capacities. An additional flooding factor is the Laguna Creek shed jump, which occurs during high flow events in that creek. In such events, approximately 580 cubic feet per second jumps from Laguna Creek at the Central Traction Railroad and travels north along the railroad to Gerber Creek.

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map for the County of Sacramento, several large areas surrounding the two creeks on the site are listed as "Special Flood Hazard Areas inundated by 100-Year Flood." These areas include the major portion of the site west of the railroad tracks crossing the site and an area approximately 500 feet to the east of the railroad tracks. A flood area approximately 500 feet wide follows Elder Creek across the site and exits across the western boundary of the site.

Wetlands and Other Waters.

There are five categories of wetlands and waters of the United States within the Plan Area, including vernal pool, seasonal wetland, freshwater marsh, drainage swale, and perennial creek, totaling approximately 51 acres. Stock ponds also occur in several locations within the Plan area. Following are descriptions of the wetland resources found in the Plan Area.

Vernal pools are depressions within the grassland landscape which pond during the wet winter months and dry out during spring. They are generally small, but can exist in a wide range of depths (several inches to several feet) and sizes (several square feet to several

thousand square feet). Vernal pools can occur as isolated basins or as depressions within swales. Maturation of various plant species is from late winter to late spring. These wetlands occur throughout the grassland areas, but are most abundant in the eastern half of the Plan Area.

Approximately 18 acres of vernal pools have been identified within the Plan area. Vernal pools support a specialized plant community. Vegetation is dominated by native non-grass species.

Seasonal wetlands are typically shallow and do not pond as deep as vernal pools, although their effective saturation period is about the same. Approximately 18 acres of seasonal wetlands have been identified within the Plan area. Seasonal wetlands are generally more variable than vernal pools with regard to hydrology in that they can occur in basins or on slopes. Vegetation is typically non-native grasses and forbs.

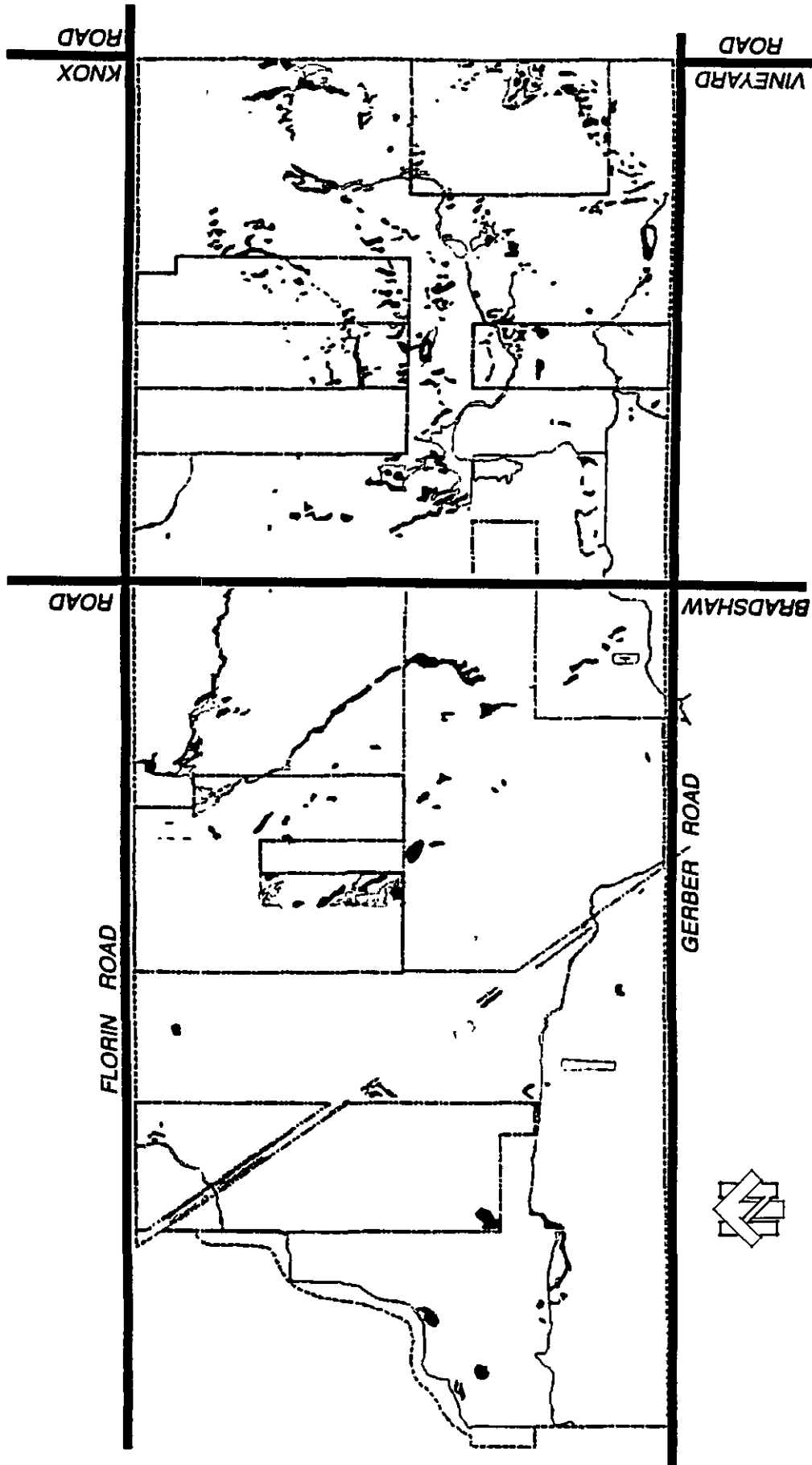
Freshwater marsh is typically deeper than seasonal wetlands and vernal pools. Freshwater marsh occurs on approximately seven acres and is characterized as having a longer wet period (usually well into the summer).

Two *intermittent creeks* occur within the Plan Area and cover approximately six acres. Elder Creek crosses the northwestern corner, and Gerber Creek is located along the southern boundary, near Gerber Road. Elder Creek is the larger of the two, both in size and flow. Both creeks are relatively low volume and would be seasonal in flow duration if not for irrigation and urban water runoff. Supplemental water has extended the flows of these creeks (particularly Elder Creek, which is intermittently wet throughout the year) into the dry season. Within each channel, isolated pools persist throughout the year.

Several *man-made ponds* (stock ponds) occur in the plan area. These features occur in several forms including impoundments of drainage swales, excavations within drainages, or excavation on uplands. Water level in the stock ponds fluctuates widely through the year, typically filling in winter and drying out or declining to lowest levels in fall. Vegetation within these ponds also varies widely depending on water regime and level of disturbance.

Drainage swales are sloped seasonal wetlands, that is, water conveyance systems for local watersheds. They are saturated for slightly lesser periods of time than seasonal wetlands but tend to support a similar flora. Drainage swales, which constitute approximately two acres of the total wetland area, are similar to seasonal wetlands except they convey water on a shallow gradient. The Plan Area supports few of these features because of its overall flat topography.

Wetland resource distribution for the Plan Area is depicted on Plates PD-P.



3.16a

Plate PD-P
Plan Area Wetland Resources
NVSSP - (93-0238)

Vegetation.

The Plan Area vegetation is characterized primarily by annual grasses and forbs. Very few native woody plant species occur, except for where water is at or near the surface. Following are descriptions of the principal terrestrial habitats within the Plan area:

The dominant habitat type in the Plan Area is non-native annual grassland. These areas are typically not irrigated and occur in several forms including historically disturbed fallow ground, dry pasture (primarily used for cattle and horses), and "buffer" areas along roads and near houses. Flood irrigation of pastures occurs during the dry months in many parts of the Plan area. Plant species (forage) consists of a mixture of typical dryland species, as well as many species that occupy the margins of wetlands.

Numerous trees are scattered throughout the Plan area, typically associated with homesites or situated along fence lines. A tree survey of the **original** participating properties was conducted by Tree Care Inc. While the survey did not address all parcels within the Plan area (participating parcels account for 36.4 percent of the total area), it accurately characterizes the general nature of the tree cover of the entire Plan area. The survey included native oaks 4-inch diameter at breast height (DBH) and non oak trees of 18-inch DBH. The survey revealed a total of 48 trees with a combined diameter of 1,470 inches. Predominant species were eucalyptus (814 inches total combined diameter), black walnut (121 inches), and fruitless mulberry (168 total inches). Other species include Italian stone pine, catalpa, Modesto ash, box elder, Japanese black pine, silver maple, London plane, weeping willow, and Monterey pine. All trees surveyed were in fair to poor condition. Most of the vegetation around the residences consists of ornamental species. These areas support most of the trees and shrubs.

Table PD-3 is a tree summary for all current participating property owners noted in the preface.

Wildlife.

Throughout the Plan area, wildlife use is associated with that of urban (developed areas) or cropland (pastures and fallow fields) habitats. Wildlife associated with urban habitat includes birds such as American crow, European starling, house finch, and house sparrow. Mammals typical of this habitat include raccoon, striped skunk, and Virginia opossum. Wildlife associated with cropland habitat include birds such as ring-necked pheasant, mourning dove, brewer's blackbird, and western meadowlark. Mammals typically associated

Table PD-3
Tree Summary for
Participating Property Owners (10/17/97)
NVSSP EIR(93-0238)

Includes native oaks 4" DBH and any significant non oak trees 18" DBH and larger.

Summary

<u>Participating Property Owner</u>	<u>Number of Trees</u>	<u>Total Inches</u>
US Home	7	143
Florin Investors	4	83
Winncrest	4	124
Courey	2	40
Total	17	390

Property Tag Species Diameter Cond Recommendation

US Home APN 065-0052-02, 04 and 065-0080-079

US Home	21	London Plane	22	Fair	Prune and deep root fertilize
US Home	22	Black Walnut	18	Fair	Prune
US Home	23	Black Walnut	28	Fair	Prune and remove deadwood
US Home	24	Black Walnut	18	Poor	Remove
US Home	25	Black Walnut	19	Poor	Remove
US Home	26	Black Walnut	20	Fair	Prune, install cable.
US Home	27	Black Walnut	18	Fair	Prune to thin
Total Inches			143		

Florin Investors APN 66-100-03

Florin Inv	1	Fruitless Mulberry	20	Fair	Clean out crown
Florin Inv	2	Fruitless Mulberry	22	Fair	None
Florin Inv	3	Fruitless Mulberry	20	Fair	Clean out crown
Florin Inv	4	Fruitless Mulberry	21	Fair	Clean out crown
Total Inches			83		

Winncrest APN 66-080-04,06,13

Winncrest	18	Weeping Willow	36	Fair	Clean out crown
Winncrest	19	Weeping Willow	30	Fair	Clean out crown/reduce weight
Winncrest	20	Eucalyptus	23	Poor	Remove
Winncrest	21	Eucalyptus	35	Fair	Clean out crown
Total Inches			124		

Courey APN 066-0070-004, 05, 08, 19

Courey 20	Monterey Pine	22	Fair	Reduce weight, fertilize
Courey 21	Monterey Pine	18	Fair	Prune thin, reduce weight, fertilize
Total Inches		40		

with cropland habitats include black-tailed jackrabbit and California ground squirrel. Raptors such as red-tailed hawk and turkey vulture have been observed foraging over open cropland areas.

There are six special-status plant species that they potentially be found the Plan Area, all associated with wetland habitat. Five of these species are primarily found in vernal pools: Grenies legenere, Boggs Lake hedge hyssop, ahart's dwarf rush, Sacramento Orcutt grass and slender Orcutt grass. The sixth, Sanford's arrowhead, is associated with still or slow moving water that occurs in ponds and ditches from late spring through summer. Based on determinant surveys conducted on lands of Plan participants, no special-status species were observed.

Surveys conducted within the Plan Area participating properties revealed that there are three special-status invertebrate species that may occur within the Plan area. Among the participating properties, vernal pool fairy shrimp and vernal pool tadpole shrimp were observed. No elderberry shrubs, primary host plant of the Valley Elderberry Longhorn Beetle (federally "threatened"), have been observed within the Plan Area.

There are two special-status reptiles that may occur within the Plan area. Within the Plan area, habitat for northwestern pond turtle is restricted to Elder Creek and Gerber Creek, which flow through the western and southern portions, respectively. Habitat for giant garter snake does not exist in Elder Creek within the Plan area, but may exist along Gerber Creek. Surveys conducted for the northwestern pond turtle and giant garter snake revealed one northwestern pond turtle along the Elder Creek corridor.

Special-status birds that may occur within the Plan area can be grouped into three categories: potential nesting species, non-nesting species (no suitable nesting substrate is present), and potential winter residents (do not nest in this region but winter-over). On the basis of special-status bird surveys, there are four special-status species which may potentially nest or forage within the participating properties: northern barrier, Burrowing owl, loggerhead Strike, tricolored blackbird. Suitable nesting sites are present within the non-participant properties of the Plan area; however, no determinate surveys were conducted within those parcels. Burrowing owls and foraging tricolored blackbirds have been actually observed in the Plan area.

The presence of special-status mammals species within the Plan Area is highly unlikely due to current and historic land-use practices (i.e., agricultural, rural residential, etc.),

Cultural Resources.

The Eastern Miwok and the Plains Miwok occupied the lower reaches of the Mokelumne, Cosumnes and Sacramento rivers, including the area of south Sacramento County surrounding the Plan area, for a considerable period of time. A study of known village sites in the region indicates that small villages away from the major rivers appear to concentrate on the collection of fish species that inhabited slow-moving waters. There are no known villages in the immediate vicinity of the Plan area, and no prehistoric artifacts or evidence of prehistoric use of the Plan area was found. It is possible that Native American people may have utilized the Plan Area for seasonal resource collection, but did not inhabit it on a permanent basis.

There is no indication that any important events or activities occurred in the Plan area in the early history of the region. The primary historical use of the area has been for agriculture, beginning after the gold rush in the early 1850s. The first lands to be farmed were the rich bottom lands along the major watercourses. By the mid-1860s, the prime farm land had been claimed, leaving lands with poorer soils and less available water, such as the Plan area. With irrigation, the soils in the area were found to be suitable primarily for the raising fruits such as strawberries, grapes, peaches, and apples. The service center for the farmers of the area was the town of Florin, which formed in 1875 about three miles from the northwest quarter of the Plan area along the Central Pacific railroad. Florin served as the shipping point for the farm products of the region.

The Central California Traction Railroad (CCT) was organized in 1905. The 53-mile CCT main line connected Sacramento with Stockton, with a branch from the main line to Lodi. The section from Sheldon to Sacramento through the Plan area was completed in 1910. Passenger service was eliminated in 1933, and in 1946 the use of electricity was discontinued in favor of diesel service. One historic period archeological site was discovered near the railroad tracks in the northwest portion of the Plan area. It consists of a small scatter of 1930s/40s era refuse that was primarily domestic in nature. No existing structures, or structures shown on historic period maps or other documentary sources, were located anywhere near this refuse deposit.

None of the surviving structures within the Plan Area represent the early years of pioneer settlement in this area. The earliest structures date to about the turn of the century. There are several structures dating within the 1900-1920 era, representing small rural residence types and agricultural utility buildings common for this period. Examples range from well preserved to poorly maintained to remodeled beyond recognition. None of the extant buildings are associated with important individuals or events.

Noise Environment.

The Sacramento County Noise Element establishes a land use compatibility criterion of 60 dB L_{dn} for exterior noise levels in outdoor residential activity areas affected by transportation-related noise sources. An exterior noise level of up to 65 dB L_{dn} is allowed only after a practical application of the best available noise-reduction technology is included in the design. In addition, an interior noise level criterion of 45 dB L_{dn} is applied to residential land uses with windows and doors closed.

The existing ambient, or background, noise environment in the Plan Area is defined primarily by traffic on local roadways, railroad operations, and occasional aircraft overflights. The contributions from each of these noise sources to the overall ambient noise environment is described below.

During two 24-hour monitoring periods, three train operations occurred during each 24-hour period, resulting in L_{dn} noise measurements of 61.2 dB and 61.1 dB. If the noise levels due to the train events for these two days are subtracted from the hourly average noise levels during which the train operations occurred, the resulting ambient noise (L_{dn}) values for the two days are 53.3 dB and 54.3 dB.

Noise level measurements were conducted along the Central California Traction Railroad at a distance of approximately 50 feet from the railroad tracks. The noise level measurements indicated that between two and three operations occur per day along the tracks. Currently up to four train operations may occur during a 24-hour period, resulting in 60 dB and 65 dB L_{dn} railroad noise contours at distances of 78 feet and 36 feet respectively from the tracks. According to railroad staff, historically up to eight train operations occurred during a 24-hour period, and in the past five years traffic has doubled along the railroad line. There were no estimates of future operations.

During the field review in the summer of 1995, no aircraft operations were noted as flying directly over the Plan area. The new guiding document for determining potential future noise impacts associated with the Mather Airport is entitled *Mather Airport Comprehensive Land Use Plan Update, May 1996, Draft*. Based upon this document, the Plan area is located outside the 60 dB CNEL contour and thus, is not substantially affected by aircraft overflight noise.

Hazardous Materials.

No obvious evidence of significant hazardous materials contamination was observed during preliminary field reconnaissances of the Plan area. Some observed evidence and/or features indicate that some sites have the potential for hazardous materials contamination; however,

no obvious evidence of contamination was observed.

No potential or confirmed state or federal "Superfund" sites are known to exist within the Plan area. However, the B & E Market, located at the northwest corner of Bradshaw and Gerber roads, is listed as a site where an unauthorized hazardous materials release is known to have occurred.

The Plan area has consisted of fallow land or has supported dry farming, natural grass grazing, and irrigated pasture land uses since the 1940s. These agricultural uses typically require little to no applications of environmentally persistent pesticides. Prior to the 1940s, the area was used for row crops and vineyards. While higher value row crops and vineyards have a somewhat increased potential for the past application of persistent pesticides, the vast length of time (more than 50 years) between the former vineyard and row crop cultivation negates potential concern for any significant levels of persistent pesticide residuals in existing surficial soils of the Plan Area. Therefore, the potential for residual agricultural chemical concentrations in existing surficial soils of the Plan Area is low.

Current strawberry cultivation within the Plan area is not anticipated to involve the use of environmentally persistent pesticides. Nearly all of the persistent agricultural chemicals of the organochlorine pesticide variety have been banned since the time of their prevalence in the 1950s, 1960s, and early 1970s.

Numerous pole-mounted electrical transformers exist within the Plan area. No obvious evidence of transformer leakage was observed on accessible sites. Sites within the Plan area that developed in the early 1980s and later are unlikely to contain PCB-containing transformers. However, many transformers within the Plan area most likely predate 1979 and are not tagged with respect to PCB content. These transformers are therefore of unknown PCB content.

Because the federal government banned nearly all uses of friable asbestos in building materials by 1978/79, existing structures within the Plan area built subsequent to 1979 are not likely to contain asbestos in their building materials. However, most of the existing structures within the Plan area predate 1979 and potentially contain asbestos in their building materials.

Numerous water supply wells are located within the Plan area, some of which are currently in an improperly abandoned condition. However, since there are no large quantity agricultural wastewater producers, industrial facilities, or commercial facilities that discharge wastewater to land within the Plan area and the existing dairy within the Plan area is a relatively small-scale operation, groundwater contamination potential is considered low.

Several stored and abandoned vehicles and other materials and debris are located behind the structures of the Rose Nursery. In 1993, underground gasoline tanks were removed from the B & E Market site, located on the northwest corner of Bradshaw and Gerber roads. Although petroleum residues were detected in subsurface soils, the potential for groundwater contamination is low. This facility is also discussed in the Superfund Sites section, since it is an agency-listed facility.

As previously noted, a buried liquid petroleum pipeline, owned, operated and maintained by Santa Fe Pacific Pipeline Partners, L.P., lies beneath the western edge of the Bradshaw Road right-of-way. No leaks, ruptures or problems are known to have occurred along the pipeline course adjacent to or in the vicinity of the Plan area. The section of pipeline within the Plan area does not appear on the regulatory agency databases as an identified contamination or spill site.

Project Objectives

The overall goal of the North Vineyard Station Specific Plan is to provide for the orderly and systematic development of the planning area through the establishment of a comprehensive planning program that is consistent with the Sacramento County General Plan and to respond to opportunities and constraints in the local community area. The North Vineyard Station Land Use Plan has been developed in accordance to this objective and compliance with adopted goals, policies and diagrams of the Sacramento County General Plan, as adopted December 15, 1993. Staff from the Planning Department assisted the North Vineyard Station Citizens Advisory Committee (CAC) in the formation of a development strategy to characterize the type and form of development within the study area. This development strategy was articulated in the form of guiding principles. These principles were developed to ensure that a high quality land use plan would be developed to provide for the orderly and systematic development of the planning area that meets the objectives of the General Plan. These guiding principles are as follows:

1. Plan, develop and maintain a comprehensive, balanced, integrated, safe and efficient transportation system to ensure mobility for all residents.
2. Promote efficient traffic patterns and effective levels of transit service, which connects the project area to surrounding neighborhoods and provide access to larger market areas throughout the County while minimizing congestion on residential streets.

3. Prepare a Comprehensive Drainage Master Plan to mitigate the threat of flooding within the project area.
4. Provide and maintain an adequate level of public services to the project area including water, sewer, parks, schools, police, fire and library services
5. Promote the location of desirable land uses to minimize land use compatible conflicts
6. Locate desirable future land uses to maximize the opportunity to create an overall pattern of planned orderly development containing a system of land use adequately and sufficiently served by a balanced system of transportation and community services and facilities.
7. The project area should have a center focus that combines commercial, civic, cultural and recreational uses.
8. As many activities as possible should be located within easy walking distance of transit stops or within core area.
9. All planning should be in the form of complete and integrated communities containing housing, shops, work places, parks and civic facilities essential to the daily life of the residents.
10. Provide a diversity of housing types to enable citizens from a wide range of economic levels and age groups to live within the area.
11. Encourage a housing production mix the sizes, types and price range of units and allow for innovative housing construction technologies to provide amenities requested by area residents, including large garages and larger homes.
12. Provide a well defined edge, such as agricultural green belts or wetland corridors, and avoid urban encroachment to such areas
13. Allow for agricultural residential use as a buffer between urban areas and agricultural or constrained areas such as floodplain and wetland resource areas
14. The area should contain an ample supply of specialized open space in the form of squares, greens and parks whose frequent use is encouraged through placement and design.

15. Provide opportunities for open space, recreation and visual relief by planning for parks, trails and parkways. Establish a loop trail that encircles the area and promote open space and recreation use of the areas creeks and sloughs.
16. Whenever possible, the natural terrain, drainage & vegetation of the area should be utilized in conjunction with parks, greenbelt & open space.
17. Counter increasing crime/perception of crime through design improvements and crime prevention activities to increase the safety of residents, business, employees and customers and to maintain and promote neighborhood patronage.
18. Incorporate crime prevention techniques in the urban design of all new developing area within the community. Development plans shall address crime prevention measures including increased visibility and interaction between uses.
19. Encourage the concentration of employment and activity centers, particularly in relation and proximity with higher density residential areas, in order to facilitate shorter travel distances and the use of non-auto modes of travels.
20. Streets, pedestrian paths and bike paths should contribute to a system of fully connected routes to all destinations. Their design should encourage pedestrian and bicycle use by being small and spatially defined by buildings, trees and lighting.
21. Establish development standards that foster compatible design solutions and are aimed at improving how new development projects will fit into the area with the overall intent of defining the area's character.
22. Ensure that a Public Infrastructure Plan and an Infrastructure Financing Plan is adopted, as a component of the Specific Planning program, prior to the occurrence of any new urban development within the area.
23. Public facilities constructed and completed timely with the construction of new residential projects.
24. Improve the quality of life for current and future residents of the project area by ensuring that adequate level of public services are provided.

EIR Alternatives

According to the CEQA Guidelines, an EIR must describe a reasonable range of alternatives to the project, or to the location of the project, which would feasibly attain the basic project objectives. The feasible alternatives to be considered must focus on alternatives that are capable of eliminating or substantially reducing significant adverse impacts caused by the proposed project. Alternatives to the “whole of the project” rather than the project’s component parts should be presented in the EIR. The comparative merits of these alternatives must be described and evaluated. The CEQA Guidelines require that “no project alternative” be evaluated, and that an environmentally superior alternative be designated. If the alternative with the fewest or least severe environmental impacts is the “no project alternative”, one of the other alternatives should be designated environmentally superior.

This Alternatives section describes the “No Project Alternative” along with a “Increased Density/TOD/Wetlands Preserve Alternative” to address the significant adverse impacts identified for the proposed project while still meeting the basic objectives of the proposed Plan (see Project Objectives section). A relocation or alternate site alternative is not being considered because the project site was deemed an Urban Development Area under the 1993 General Plan. Any alternate site considered would also have to be located within the Urban Development Area designation in order to accomplish the objectives of the project. Consideration of project sites outside of the designated Urban Development Area would likely result in worse impacts. The other project alternatives, 10% Residential Density Reduction Alternative, 15% Residential Density Reduction Alternative, and Modified Core Alternative, were given equal-level consideration throughout this document and were judged to have the same impacts as the Preferred Plan. In other words, these project alternatives do not substantially mitigate any of the impacts identified for the Preferred Plan.

The significant environmental impacts that the Alternatives will seek to eliminate or reduce are:

- Traffic congestion
- Air quality degradation
- Lost opportunities for high level transit service
- Special status species losses
- Loss of opportunity for housing diversity
- Loss of affordable housing opportunities
- Costly infrastructure expansion
- Potential loss of more open space and agricultural lands
- Noise impacts existing receptors
- Loss of important cultural and historic resources

Plate PD-EE
Increased Density/TOD/Wetland Preserve Alternative
Conceptual Diagram

Increased Density/TOD

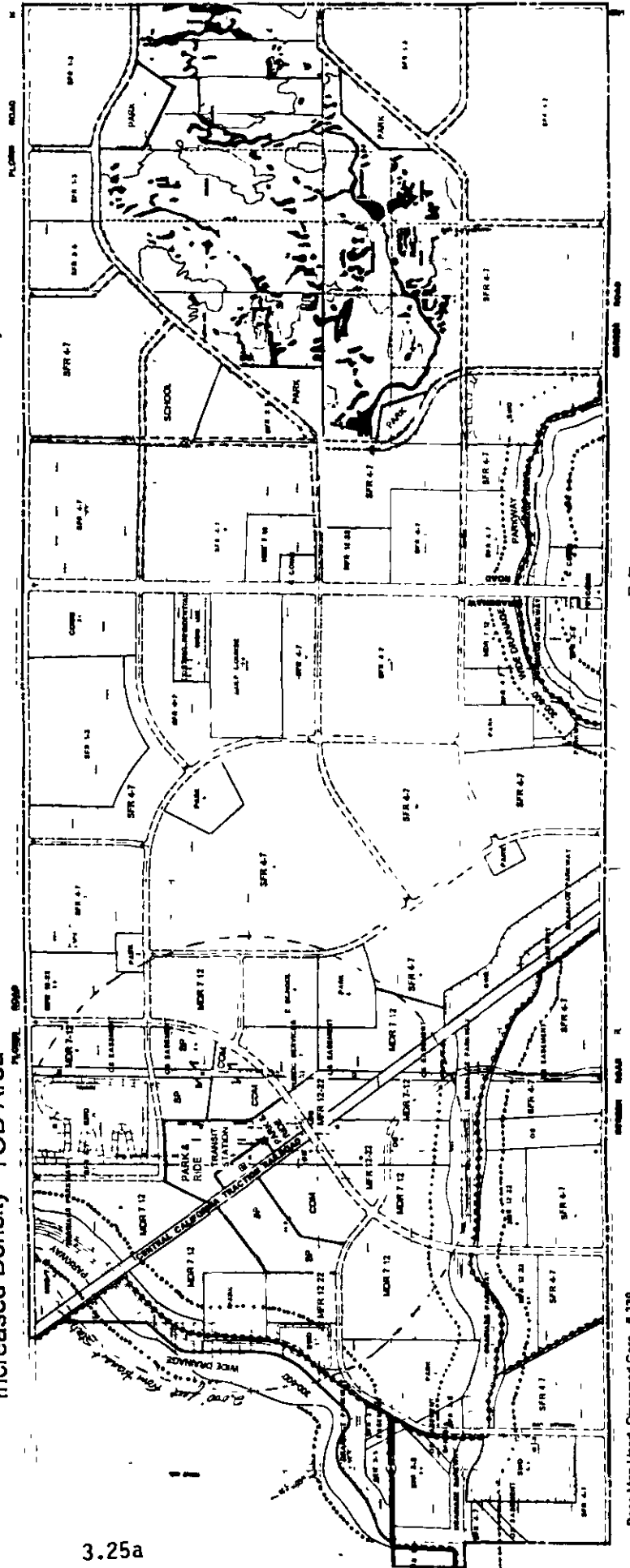
- Transit Station: NW of Waterman Rd. extension
- Park & Ride area adjacent to transit station
- Commercial Core: more BP & Commercial uses
- MDR 7-12 & MFR 12-22 density in urban core
- SFR 4-7 density increased W/of Bradshaw Rd.

Increased Density/Wetland Preserve

- 200+ acres Wetland Preserve E/of Bradshaw
- Suggested road pattern reconfiguration
- Suggested park sites E/of Bradshaw Rd..
- Suggested school site E/of Bradshaw
- SFR 4-7 density increased E/of Bradshaw Rd.

Increased Density- TOD Area

Increased Density- Wetland Preserve Area



3.25a

No Project Alternative.

The No Project Alternative would keep the existing zoning of the Plan Area in place. The area could then be built to the maximum densities allowed in the AR-2, AR-10, and AG-20 zones (plus a very small parcel of GC zoned land). The existing development entitlements would limit the area to staying very rural in character. Much of the project site could be retained in its present condition and the adverse impacts associated with the Preferred Plan and Proposed Alternatives would be avoided.

From the stand point of avoiding direct physical impacts to the environment, the No Project Alternative appears to be the environmentally superior alternative. However, the No Project Alternative does not meet General Plan goals, objectives and policies in that the North Vineyard Station Specific Plan Area was designated an Urban Development Area for the expressed purpose of accommodating, in part, the growth projected for the County during the 20- year planning horizon. By not accommodating projected growth at this site, the growth needs are likely to be displaced elsewhere to another location that may not be as appropriately situated. The environmental implications of displacing growth may be greater than those impacts associated with the subject project. This would be particularly true if the displaced development was to occur outside of the Urban Policy Area or, worse yet, outside the Urban Services Boundary where no development is envisioned during the next 20 years. Furthermore, the No Project Alternative does not meet the project objectives which, in sum, are intended to guide the formulation of a comprehensive land use plan for an intended growth area. For these reasons, the No Project Alternative is not the environmentally superior alternative.

Increased Density/TOD/Wetlands Preserve Alternative.

This alternative attempts to reduce the numerous significant impacts of the proposed project (see Plate PD-EE). It is primarily shaped by compliance with General Plan policies, particularly those in the Land Use Element, Housing Element, and Conservation Element. The Land Use section of this document identifies several inconsistencies the project has with adopted General Plan policies. The Biological Resources section of this document points out the project's inconsistencies with the Conservation Element policies (as well as US Fish and Wildlife Service guidelines) for failure to consider avoidance of wetlands, that is, on-site preservation, as its first priority for mitigation of impacts to wetlands and special status species. The project alternative described in this section will provide remedies for seemingly dissimilar impacts of the project.

Many of the project inconsistencies with the Land Use Element and Housing Element stem from the fact that the Specific Plan densities are overall low compared to densities estimated as appropriate during update of the General Plan in 1993, and do not promote the efficient use of land to sustain a compact urban area that is readily serviceable fully by public transit. The overall growth strategies outlined during the last General Plan Update process seek to:

...address the county's most pressing problems: urban sprawl, escalating traffic congestion, non-attainment of regional air quality standards, and growing demand for housing opportunities which meet the needs of an increasingly diverse population. These growth strategies also recognize that reliance upon typical patterns of low density urban development will not address these problems, and new forms of urban development are needed during the county's next twenty years of growth. Consistent with these concerns, the Land Use Element has established the following guiding principles:

- Maximize the use of existing urbanized areas.
- Reduce consumption of non-urban areas.
- Link land use with transit
- Reduce the number of auto trips and regional Vehicle Miles Traveled (VMT).
- Reduce air pollutant emissions
- Provide a diversity of housing types.
- Design the urban area efficiently

(TOD Design Guidelines, Calthorpe Associates, September 1990)

The Transit Oriented Development (TOD) concept was embraced during the General Plan Update process as the key growth strategy to implement the guiding principles of the Land Use Element. Under the TOD concept, new medium and high density housing, public uses, and a majority of neighborhood commercial uses are intended to be concentrated in mixed-use developments located at strategic points along the regional transit system. The Vineyard Area Conceptual Plan (Plate LU-F) of the County General Plan shows plausible TOD sites for the project area. The TOD Design Guidelines state:

This linkage between land use and transit is designed to result in an efficient pattern of development that supports a regional transit system and makes significant progress in reducing traffic congestion and air pollutants. The TOD's mixed-use clustering of land uses within a pedestrian-friendly area connected to transit provides for growth with minimum environmental and social costs.

The implementation TOD design concept would also bring the project into compliance with the Regional Transit (RT) Master Plan. RT's concerns about the lack of transit opportunities in the Plan Area are disclosed at length in the Land Use section of this document.

Increasing residential densities throughout the plan area to implement the TOD design concept will have a corresponding beneficial effect on mitigating the identified adverse impacts of the project on existing wetlands and special status species. The Biological Resources section of this document suggests an on-site wetland preserve plus avoidance measures as an option to the proposed 100% off-site mitigation plan. While total preservation or avoidance of wetlands in an area designated for urban growth is not practical, a 200-acre preserve (the minimum size considered to be viable per *Sacramento County Vernal Pools* report) could be accommodated. Under this preserve/avoidance scenario, consideration can be given to a wider drainage corridor alternative (discussed in the Hydrology and Flooding section of this report) suggested by NOP reviewers along with accompanying drainage corridor policies for Elder and Gerber Creeks. Although the wider drainage corridors are not needed to sustain a functional drainage system, the wider corridors would increase open space to help avoid wetland impacts.

The increased acreage devoted to open space in the plan area could be offset by increasing average residential densities in the developable portions, thereby resulting in no net loss in the holding capacity of the Plan Area. The logical location for a 200-acre wetland preserve is east of Bradshaw Road where vernal pool concentrations are the highest. The Specific Plan Land Use Diagram indicates that the area that may be displaced by a wetlands preserve is primarily designated for Single Family Residential 1-3 and 3-5 units per acre (SFR 1-3 and SFR 3-5). Since these are the two lowest density residential categories proposed in the Specific Plan, the displaced housing units could be recouped by proportionately increasing residential densities in the other residential categories.

Pursuant to the CEQA Guidelines, the "Increased Density/TOD/Wetlands Preserve Alternative" is deemed the environmentally superior alternative because it could reduce many of the adverse impacts caused by the proposed project.

Traffic and Circulation Impacts of Commercial Core Alternatives

Two additional land use plan alternatives were developed during the public hearings at the Policy Planning Commission. These two alternatives primarily involved relocating and dispersing the commercial core area away from existing residential development along Gerber Road. These two new alternatives are known as the Alternative Core Alternative ("Alternative Core") and the Dispersed Core Alternative ("Dispersed Core").

The Alternative Core includes the relocation of most of the commercial and business-professional uses, and approximately 300 multi-family dwelling units to Florin Road and Bradshaw (see Plate TR-N). The Dispersed Core involves relocation of approximately 13 acres of retail commercial uses to the Bradshaw Road/Florin road intersection (see Plate TR-O). During the public hearings the Planning Commission added a 10% density reduction to both alternatives (see Planning Commission Exhibits AA Dispersed Core and Exhibits BB Alternative Core). Due to the overlay of a 10% density reduction and the loss of 11.5 acres resulting from realigning the western edge of the plan area to be coterminous with existing Elder Creek, the holding capacity of the Alternative Core fell from 6,339 dwelling units (DUs) to 5,768 DUs, and the Dispersed Core fell to 5,667 DUs.

The original (October 1996) transportation analysis prepared by Fehr and Peers Associates could not be used to fully disclose the traffic impacts associated with the two new alternatives. In order to evaluate the worst case traffic impacts of the Alternative Core and Dispersed Core Alternatives, a supplemental traffic analysis was conducted by applying the maximum holding capacity of the Preferred Plan of 6,339 DUs. A Supplemental Transportation Analysis was conducted by Fehr & Peers and completed February 6, 1998. The supplemental analysis and the original traffic analysis are included in the Final Technical Appendices Volume III. The findings of the supplemental analysis are discussed below.

Impacts.

The supplemental traffic analysis determined that the Alternative Core and Dispersed Core will generate total numbers of daily and peak hour external vehicle trips that are within three percent of the number of trips generated by the Preferred Plan. Slight variations in trip generation result from differences in the size of commercial and business-professional parcels and differences in dwelling unit intensity. In particular, the Alternative Core includes only half as much acreage designated for business-professional uses as compared to the Dispersed Core and the Preferred Plan (7.1 acres vs. 14.5 acres

**ALTERNATE CORE - 6339 UNITS
NORTH VINEYARD STATION SPECIFIC PLAN**

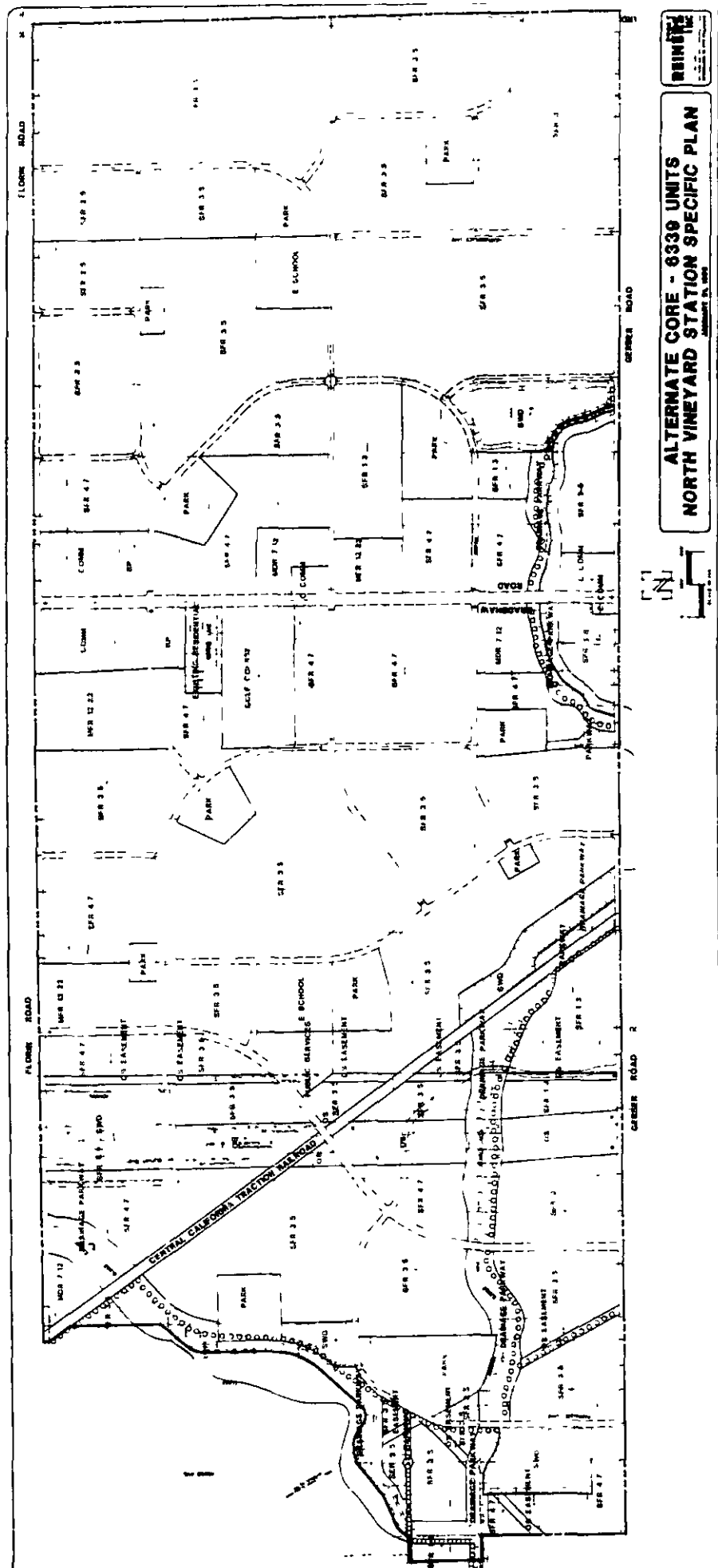
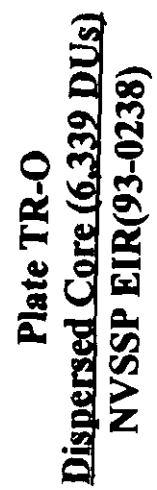


Plate TR-N
Alternative Core (6,339 DUs)
NVSSP EIR(93-0238)



and 10.1 acres, respectively).

Existing Conditions

The analysis of the proposed alternatives under existing conditions shows that each alternative will result in the same impacts and mitigation measures as the Preferred Plan except for the following:

Alternative Core

- 1) Impact EP-4 would not occur and Mitigation Measure TR-4 (widening of Gerber Road between Elk Grove-Florin Road and Bradshaw Road) would not be required;
- 2) Mitigation Measure TR-15 would have to be modified to include three southbound lanes on Bradshaw Road instead of two (referred to as Mitigation Measure TR-15A); and
- 3) A new impact at the Florin Road/Waterman Road intersection would occur (Impact EP-20A) and would require two through lanes on the eastbound and westbound approaches (referred to as Mitigation Measure RT-20A). This is consistent with Mitigation Measure TR-3 which widens Florin Road between Elk Grove-Florin Road and Bradshaw Road from two to four lanes.

Dispersed Core

- 1) Mitigation Measure TR-15 would have to be modified to include three southbound lanes at the Bradshaw Road/Florin Road intersection instead of two (referred to as Mitigation Measure TR-15D); and
- 2) Mitigation Measure TR-16 would have to be modified to include dual right-turn lanes on the eastbound approach of the Elk Grove-Florin Road/Gerber road intersection (referred to as Mitigation Measure TR-16D).

Cumulative Conditions

The analysis shows that implementation of either the Alternative Core or Dispersed Core alternatives under cumulative conditions will result in exactly the same roadway segment and intersection impacts as the Preferred Plan. Therefore, no changes to the mitigation measures presented in the October 1996 transportation analysis would be required for either alternative under cumulative conditions.

The projected traffic volumes on roadways within the plan area will vary less than 3,000 vehicles per day in the vicinity of the relocated land uses. Except for major arterials, the east-west collector street crossing Bradshaw Road south of Florin road would experience the highest increases in traffic since the relocated retail commercial and business-professional uses will likely include driveways on this roadway. No additional special street treatments (i.e., landscape and access restrictions) or additional collector streets will be required to adequately serve traffic within the plan area.

Mitigation Measures.

Alternative Core

Mitigation Measures TR-1 through TR-3, TR-5 through TR-14, and TR-16 through TR-19 (identified for the Preferred Plan) would all be required for the Alternative Core. Mitigation Measure TR-15A would replace TR-15, and TR-20A is a new required Mitigation Measure.

TR-15A: Modify the Bradshaw Road/Florin Road intersection to include the following lane configurations:

- Dual left turn lanes, two through lanes, and a separate right-turn lane on the northbound approach;
- Dual left turn lanes, *three* through lanes, and a separate right-turn lane on the southbound approach; and
- One left turn lane, two through lanes, and a separate right-turn lane on the eastbound and westbound approaches.

The provisions of southbound dual left turn lanes will require widening of the eastbound departure legs on Florin Road to two lanes before merging to a single travel lane. The length and merging distance for these lanes will be approved by Sacramento County Transportation Division staff. The westbound departure leg will be widened as part of Mitigation Measure TR-3.

Provisions of three southbound lanes will require widening of Bradshaw Road to its ultimate width immediately south of Florin Road. The third southbound lane could be converted to an exclusive right-turn lane at the next downstream intersection or it could be designed to merge into the second through lane. The final configuration will be approved by Sacramento County Transportation Division staff.

These improvements would improve operations at this intersection to LOS C and LOS E in the a.m. and p.m. peak hours, respectively. Improvements should be implemented when the intersection operates unacceptably based on Sacramento County standards.

TR-20A: Modify the Florin Road/Waterman Road intersection to include the following lane configurations:

- Two through lanes and a separate right-turn lane on the eastbound approach; and
- Two through lanes and a separate left-turn lane on the westbound approach.

The provision of two through lanes in the east-west direction is consistent with Measure TR-3 (widening of Florin Road between Elk Grove-Florin Road and Bradshaw Road from two to four lanes).

These Mitigation Measure improvements would improve operations at this intersection to LOS A and LOS B in the a.m. and p.m. peak hours, respectively. Improvements should be implemented when the intersection operates unacceptably based on Sacramento County standards.

Dispersed Core

Mitigation Measures TR-1 through TR-14, and TR-17 through TR-19 (identified for the preferred project) would all be required for the Dispersed Core. Mitigation Measures TR-15D and TR-16D would replace TR-15 and TR-16, respectively.

TR-15D: Modify the Bradshaw Road/Florin Road intersection to include the following lane configurations:

- Dual left turn lanes, two through lanes, and a separate right-turn lane on the northbound approach;
- Dual left turn lanes, *three* through lanes, and a separate right-turn lane on the southbound approach; and
- One left turn lane, two through lanes, and a separate right-turn lane on the eastbound and westbound approaches.

The provisions of southbound dual left turn lanes will require widening of the eastbound departure legs on Florin Road to two lanes before merging to a single travel lane. The length and merging distance for these lanes will be approved by Sacramento County Transportation Division staff. The westbound departure

leg will be widened as part of Mitigation Measure TR-3.

Provision of three southbound lanes will require widening of Bradshaw Road to its ultimate width immediately south of Florin Road. The third southbound lane could be converted to an exclusive right-turn lane at the next downstream intersection or it could be designed to merge into the second through lane. The final configuration will be approved by Sacramento County Transportation Division staff. (This is the same as Mitigation Measure TR-15A).

These modifications would improve operations at this intersection to LOS C and LOS D in the a.m. and p.m. peak hours, respectively. Improvements should be implemented when the intersection operates unacceptably based on Sacramento County standards.

TR-16D: Modify the Elk Grove-Florin Road/Gerber Road intersection to include the following lane configurations.

- dual left turn lanes, two through lanes, and a separate right-turn lane on the northbound and southbound approaches;
- One left turn lane, one through lane, and *dual right-turn lanes* on the eastbound approach; and
- One left turn lane, one through lane, and a shared through/right-turn lane on the westbound approach.

The provision of northbound dual left turn lanes and two westbound through lanes will require widening of the westbound departure leg on Gerber Road to two lanes before merging to a single travel lane in each direction. The length and merging distance for these lanes will be approved by Sacramento County Transportation Division staff.

These Mitigation Measure improvements would improve operations at this intersection to LOS D in both the a.m. and p.m. peak hours. Traffic Mitigation Measures should be implemented when the intersection operates unacceptably based on Sacramento County standards.

Public Facilities Financing

A land use plan has been prepared to accommodate future development in the North Vineyard Station urban growth area while corresponding public facility master plans have been prepared to identify the major facilities required for the Plan Area to develop. This chapter discusses the recently completed NVSSP Financing Strategy which identifies the major infrastructure improvements necessary to support the proposed level of development, analyzes phasing constraints, provides the costs per acre for infrastructure categories, and identifies existing and potential funding sources. The February 17, 1998 draft NVSSP Financing Strategy (Volumes I and II) are provided as Attachment 3 of this document. Volume I is the Financing Strategy draft report. Volume II is the February 11, 1998 draft NVSSP Capital Improvement Programs, or CIP.

State Planning and Zoning Laws (California Government Code) require specific plans to identify in detail the essential infrastructure and services needed to support the land uses described in the plan, as well as a program of implementation and financing measures necessary to carry out those improvements (Section 65451).

The project site is not included in any existing Public Facilities Financing Plan area and will therefore require a financing plan and associated implementation to fund public facilities needed to serve new development in the Plan Area. The requirement to prepare a financing plan new development in urban growth areas is established by Policy LU-8 of the County General Plan, which states:

Policy LU-8. Infrastructure financing plans which specify the extent, timing, and estimated cost of all necessary infrastructure shall be approved by the Board of Supervisors, together with the approval of zoning for any urban uses in urban growth areas. The resulting financing mechanisms shall be implemented prior to the approval of all entitlements in urban growth areas.

It is important to note that at this stage of the project, only a “financing strategy” outlining options for financing facilities has been prepared as a prelude to the actual “financing plan” to follow. A complete financing plan detailing methods for implementing financing mechanisms will be required prior to approval of any rezones pursuant to Policy LU-8. Because the NVSSP does not include any rezoning requests, a financing plan is not required to be part of the project at this stage.

Toward fulfilling the requirement to establish a funding mechanism for public facilities within the Plan Area, the proposed Specific Plan includes a financing strategy that establishes a policy framework for the funding of public improvements and infrastructure required to serve new development in the Plan Area. The purpose of the proposed financing strategy is

to lay the ground work for the NVSSP Public Facilities Financing Plan (PFFP), and to give the Board of Supervisors sufficient information to make the General Plan/Community Plan amendment decision. The financing plan to follow will expand upon the financing strategy and provide greater detail on the phasing of improvements and analyze recommended financing mechanisms.

The Public Infrastructure Planning and Financing Section (PIPFS) has provided input during the formulation of the Financing Strategy. After subsequent cooperative review by the Department of Planning & Community Development and Public Works Agency, the Financing Strategy began its public hearing process as a component of the Specific Plan project during the 1997 Policy Planning Commission hearings on the NVSSP proposal..

Financing Strategy.

Specific Plan Document (5/27/97 Public Review Draft)

The February 17, 1998 draft Financing Strategy (Attachment 3), is a stand-alone document and will be considered by the Board of Supervisors along with the Specific Plan. The analysis and conclusions presented in the Financing Strategy will be summarized in Chapter 10 of the Specific Plan document. As outlined in the Specific Plan document (p. 10-2), the purpose of the Financing Strategy is to:

- a) establish a policy framework for financing the required major public infrastructure;
- b) identify the major roadway, storm drainage, sanitary sewer, water supply, park improvement, fire protection, library, school, and transit facilities required for the specific plan area to develop;
- c) estimate the costs for the identified required major facilities;
- d) present the cost per acre and the cost per dwelling unit equivalent for each facility category;
- e) identify phasing constraints of the required major facilities;
- f) identify existing funding sources to finance the required major infrastructure and identify the infrastructure components that currently do not have a funding source;
- g) identify a range of potential strategies to fund the unfunded major

required public facilities.

As further discussed in the Specific Plan (pp. 10-2 & 10-3) the major components of the Financing Strategy are as follows:

Capital Improvement Programs (CIP) - The draft Financing Strategy includes a draft CIP which is separated into major public facilities categories (see Attachment 3). The portion of the CIP for each public facilities category lists the major public facilities necessary for development of the Specific Plan area and the associated costs. The individual CIPs also include exhibits showing the location of projects listed in the CIPs. The CIP projects are derived from the detailed technical studies that were prepared for the Specific Plan.

Phasing - The approach that the PFFP will take in examining the phasing of facilities is described in the draft Financing Strategy. The Financing Strategy discusses phasing issues for each facility category and how they may affect the financing decision. Critical phasing constraints that limit possible funding strategies have been identified.

Costs - The Financing Strategy summarizes the Specific Plan land uses in terms of the total acres and potential development base per land use category. The cost per acre and the cost per dwelling unit equivalent for each facility category will be presented.

Public Facilities Financing Plan Matrix - The Financing Strategy includes the Public Facilities Financing Plan Matrix which is an overall summary of the financing plan that shows the major facility categories, the costs for each major facility category, and existing and proposed funding sources.

Analysis of Proposed Financing Mechanisms - The Financing Strategy identifies a range of potential funding sources for facility components for which there is no identified funding sources. The Financing Strategy also discuss potential solutions for any identified constraints to facilities to be funded by existing programs. Potential funding sources that described in the Financing Strategy include, but are not limited to, development fee programs, a Mello-Roos Community Facilities District, an Assessment District, and participation in other funding sources including local, state, and federal programs.

Financing Strategy (2/17/98 Public Review Draft)

The underlying premise of the recommended financing strategy is that backbone

infrastructure should be funded through impact and connection fees unless timing considerations and cost require the sale of municipal bonds in order to provide the required infrastructure. The following summarizes the recommended NVSSP financing strategy:

- Establish NVSSP project-specific fees to fund all of the major backbone facilities not included in existing fee programs.
- Establish bond financing districts as necessary to provide up-front funding.

The Financing Strategy proposes the following Specific Plan Financing Strategy/CIP policies for the long-term implementation of the financing strategy:

- **Infrastructure should be funded on a pay-as-you-go basis.** To the extent possible, development of project-related facilities should be funded on a pay-as-you-go basis through the payment of development impact fees or private financing. Implementation of this policy will require development of detailed phasing plans for major public facilities.
- **The use of public bonding should be minimized.** The use of public financing districts—such as Mello-Roos CFD's or Assessment Districts (ADs)—should be utilized when pay-as-you-go fee funding is not sufficient to fund required public facilities.
- **Non-developing landowners will be excluded from any public financing districts.** While the development impact fee districts will include the entire Specific Plan area, public financing districts will exclude non-developing landowners. Properties receiving discretionary land use approvals subsequent to the formation of any financing districts should be required to annex into these districts if they benefit from district facilities. (Note: In addition, project-specific fees will only be levied when building permits are pulled; therefore, non-developing landowners who do not pull building permits will not be required to pay fees.)

The Financing Strategy was based on the Preferred Plan with a dwelling unit yield of 6,339 units. In addition to the Preferred Plan, the NVSSP project includes two lower density alternative land use plans (-10% and -15% Alternatives). Each of these plans would reduce the dwelling unit yield. Similarly, the Alternative Core and Dispersed Core alternatives could also result in lower dwelling unit yields if either is approved in combination with the -10% or -15% Alternatives. The overall financing strategy is not affected by these alternative land use plans; however, the lower-density land use alternatives could result in proportionately higher development impact fees per dwelling unit to the extent that Specific Plan facilities needs are not equally reduced. Any changes related to decreased density will

be addressed in the future Financing Plan.

Build out of the Specific Plan will require construction of additional major backbone infrastructure (e.g., roads, water, sewer, and drainage) and facilities to provide additional public services (e.g., fire, libraries, parks, and schools). The following is a list of the major facilities requirements for the Preferred Plan and the estimated facilities costs in 1997 dollars:

<u>Major Public Infrastructure</u>	<u>1997 Dollars</u>
Major Roadways	\$28,005,000
Internal Roadways (along public lands)	\$1,552,000
Sanitary Sewer	\$5,212,000
Drainage	\$33,182,000
Water	\$29,184,000
Park and Recreation Facilities	\$6,904,000
Fire Protection Equipment	\$1,795,000
Library (contribution)	\$896,000
Transit Facilities	\$2,138,000
Public Schools	<u>\$67,712,000</u>
TOTAL	\$176,580,000

The Park and Recreation Facilities cost includes \$792,000 for development of pedestrian/bike paths and landscaping within the linear parkway and the drainage parkway.

The Financing Strategy (2/17/98 Public Review Draft) presented in Attachment 3 of this document is substantially consistent with the framework discussed in the DEIR of the then being prepared Financing Strategy.

Future Financing Plan.

A financing plan will be required prior to the approval of any rezone within the NVSSP area. The Financing Plan will build upon the Financing Strategy and will include the following:

Phasing Analysis - Phasing requirements for the identified major public facilities will be addressed. The phasing analysis will identify the priority of CIP items in relation to each other and the level of development at which each CIP project is required. Critical facility requirements that are potential constraints to development will also be identified.

Land Use - The Financing Plan will also describe the Specific Plan land uses in terms of the total development base. A projected absorption schedule for each land use category will be included.

Analysis and Recommendation of Financing Mechanisms - Based upon the facilities costs identified, the nature of the facility, the land uses, projected absorption, and phasing requirements, the Financing Plan will recommend the implementation of one or several funding strategies.

Impacts.

The Specific Plan contains the following policy to address the issue of public services and infrastructure needs:

NVS-74. Provide and maintain an adequate level of public service, through the preparation of an Infrastructure Master Plan and a Capital Improvement Plan, to meet the needs of local residents.

The project includes three land use alternatives for the Specific Plan Area representing residential holding capacities of 6,339 dwelling units (Preferred Specific Plan), 5,759 units (-10% Alternative Plan), and 5,384 units (-15% Alternative Plan) as well as the Planning Commission alternatives known as the Disbursed Core alternative and the Alternative Core alternative. The Financing Strategy was prepared based on the Preferred Plan and the Preferred Drainage Master Plan (the Drainage Master Plan has facilities not consistent with the Preferred Land Use Plan) and not the alternatives, though much of the identified capital improvement requirements for the project will be required of the Preferred Plan or any of the alternatives. However, the Financing Strategy is not an infrastructure financing plan. As discussed in the Land Use section, an Infrastructure Financing Plan is required prior to the approval of zoning for the Plan Area. At a minimum, the NVSSP Financing Plan is expected to recommend its funding mechanisms for all development projects that will ultimately be approved within the Plan Area, whether for the Preferred Plan, the -10 % Alternative Plan, or the -15% Alternative Plan, or any of the core relocation alternatives.

The Financing Plan is tangible to the environmental impacts identified in the EIR in that it provides the mechanism to ensure that needed improvements to mitigate traffic, drainage, water supply and other infrastructure/service impacts can be implemented in a timely manner.

To insure that no rezones are approved prior to the approval of a Public Facilities Financing

Plan for the North Vineyard Station Specific Plan area (in addition to General Plan Policy LU-8), the Public Infrastructure Planning and Financing Section is recommending the following mitigation:

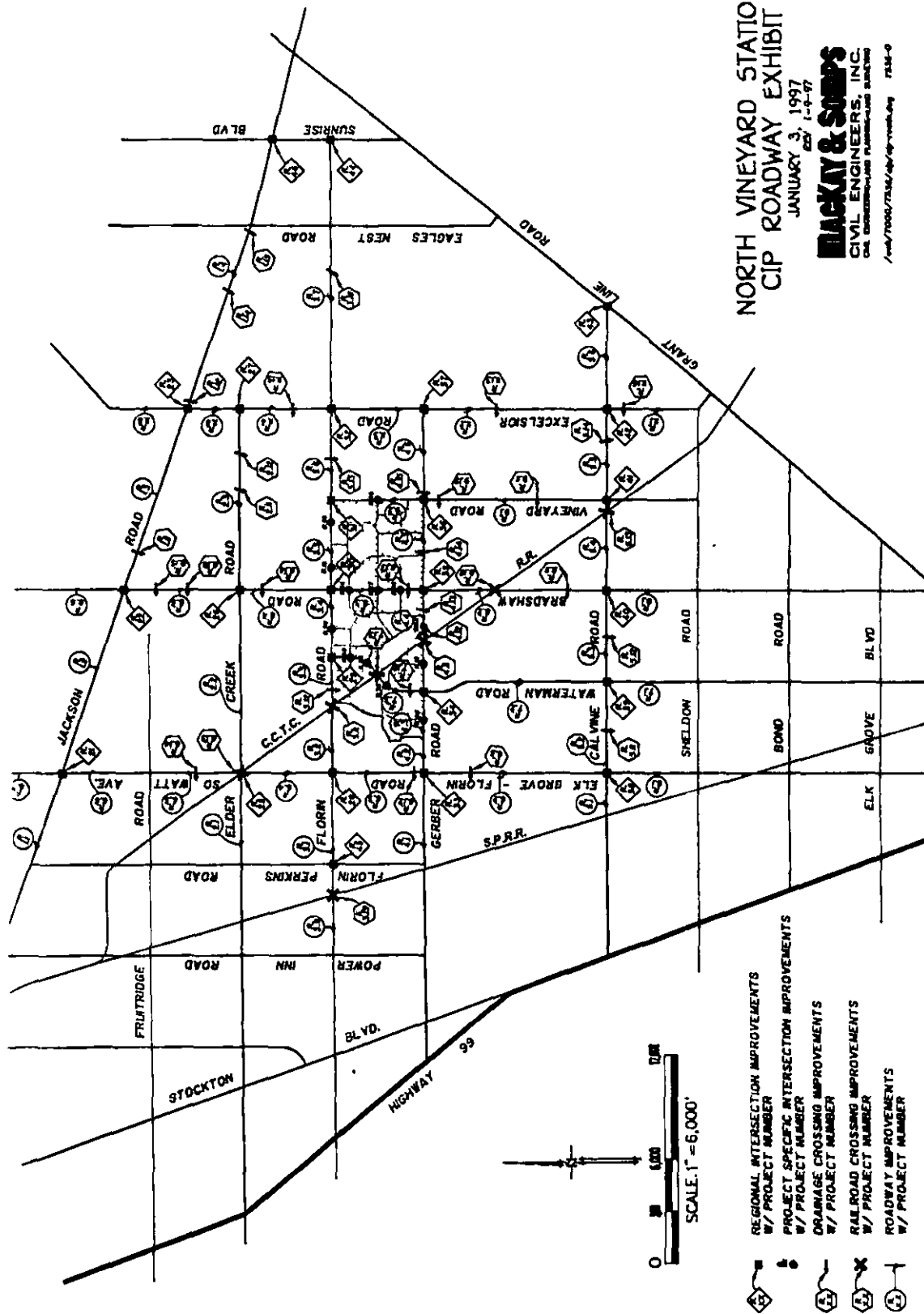
No rezone shall be approved until a Public Facilities Financing Plan for the North Vineyard Station Specific Plan area has been approved by the Board of Supervisors and no final map shall be recorded until the financing mechanisms identified in the Public Facilities Financing Plan have been implemented.

Mitigation Measures.

The following policy mitigation measures shall be incorporated into the text of the Specific Plan document and/or the related NVSSP Policy Plan to ensure that public facilities and financing impacts for the Plan Area are minimized and addressed at the earliest stages of proposed development:

PFF-1 No rezone shall be approved until a Public Facilities Financing Plan for the North Vineyard Station Specific Plan area has been approved by the Board of Supervisors and no final map shall be recorded until the financing mechanisms identified in the Public Facilities Financing Plan have been implemented.

NOTE: This recommended mitigation measure must be accomplished as direct change to the proposed Specific Plan document.

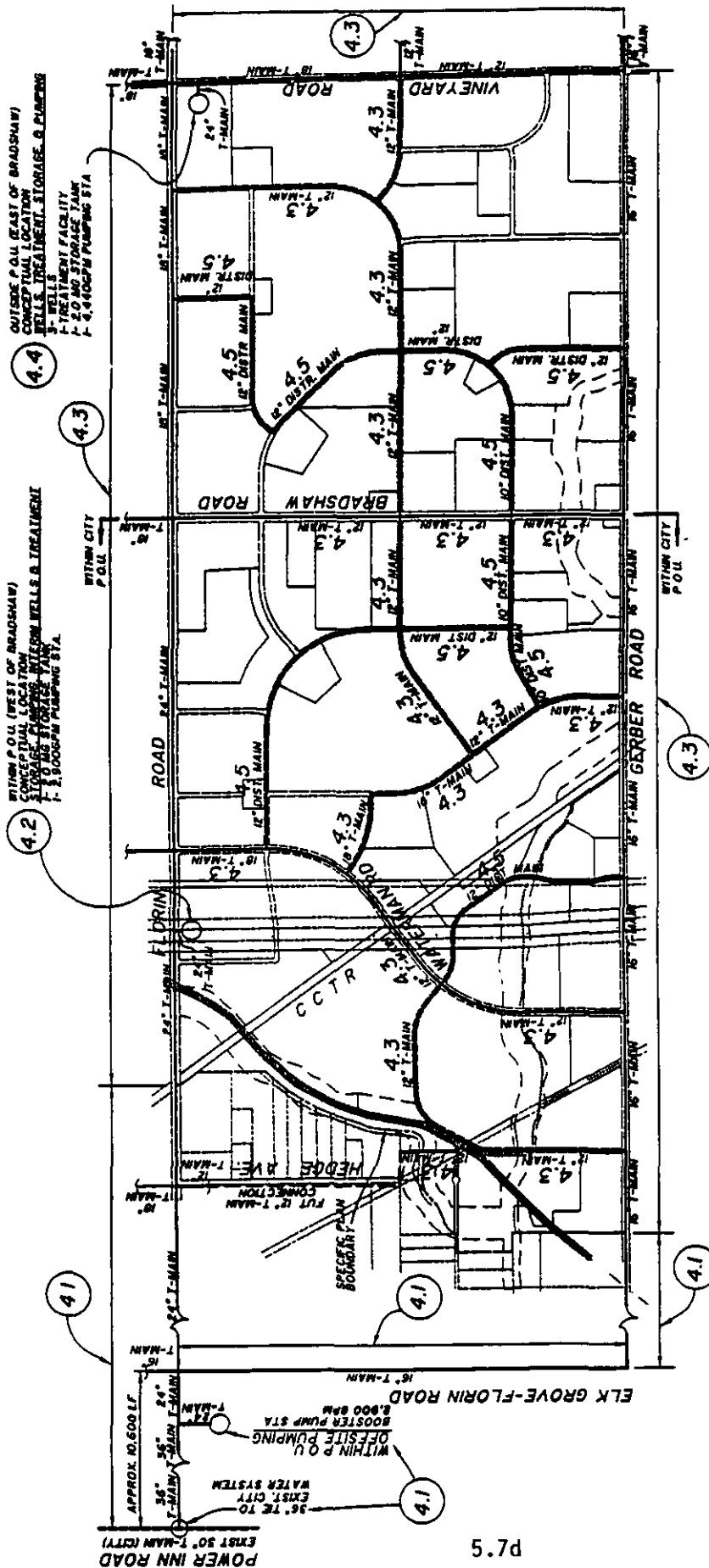


NORTH VINEYARD STATION CIP ROADWAY EXHIBIT

JANUARY 3, 1997
E25 1-4-97

BACKAY & SONS
CIVIL ENGINEERS, INC.
ONE CONSTRUCTION PLANNING AND DESIGN BUILDING
14047/10000/7233/40/40/40/40/40 7233-0

Plate PF-A (rev)
CIP Roadway Exhibit
NVSSP EIR(93-0238)



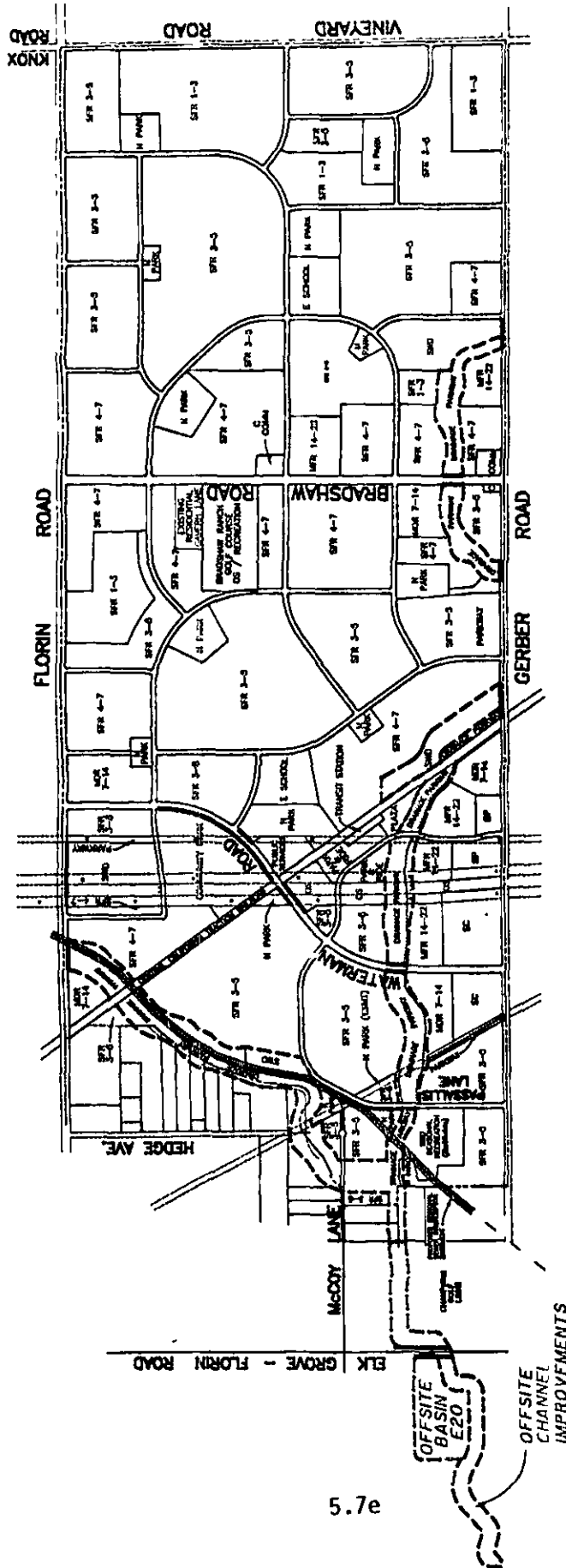
**North Vineyard Station
Capital Improvement Program
WATER FACILITIES**

Sacramento, California MAY 1997

Plate PF-D (rev)

**CIP Water Facilities Exhibit
NVSSP EIR(93-0238)**

Plate PF-E
**CIP Park/Open Space/Drainage Facility/
 Parkway/Frontage @ Arterials Exhibit**
NVSSP EIR(93-0238)



5.7e

LEGEND

— PARK/OPEN SPACE/DRAINAGE FACILITY/
 PARKWAY FRONTAGE IMPROVEMENTS
 FUNDED BY ROADWAY FEE

NOTE: SEE LAND USE PLAN FOR LAND USE LEGEND

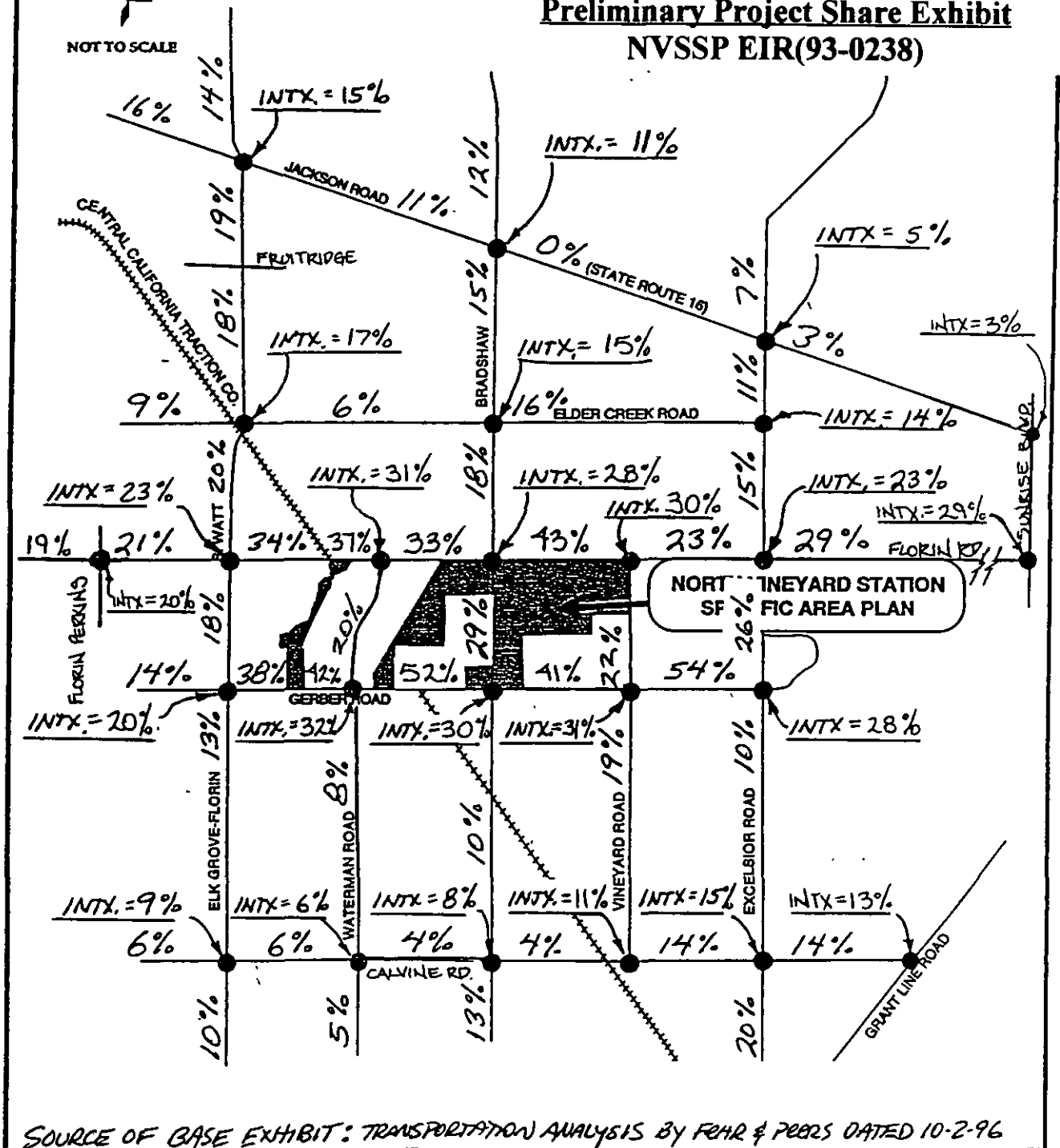


SCALE 1"=1200'

North Vineyard Station
Capital Improvement Program
PARK/ OPEN SPACE/ DRAINAGE FACILITY/ PARKWAY
FRONTAGE AT ARTERIAL ROADWAYS
 Sacramento, California
 January, 1998

BLACK & VEATCH
 CIVIL ENGINEERS, INC.
 1000 J STREET, SUITE 100
 SACRAMENTO, CALIFORNIA 95811
 TEL: (916) 441-1111
 FAX: (916) 441-1112

Plate PF-F
CIP Phase I Roadway
Segment & Intersection
Preliminary Project Share Exhibit
NVSSP EIR(93-0238)

**FIGURE 1****PROJECT LOCATION MAP**

fp Fehr & Peers Associates, Inc.
 Transportation Consultants

5.7f

FOR BASIS OF % PROJECT
 SHARE, SEE PROJECT SHARE
 CALCULATION SPREADSHEET
 DATED 1-8-97

MACKAY & SOMPS
 CIVIL ENGINEERING • LAND PLANNING • LAND SURVEYING
 SACRAMENTO CA

Mackay Samps
Job No: 7536-0

NORTH VINEYARD STATION SPECIFIC PLAN
CIP
ROADWAY
SUMMARY

Table PF-1.1 (rev)
CIP Roadway Summary
NVSSP EIR(93-0238)
2/2/95

ATTACHMENT MEASURE	Project Number	Roadway Segment/Item	Project Description	On-site or Off-site	Detail Sheet	Quantity	Unit	Unit Price	Total Estimated Cost	% Funded by Other Sources	Other Funding Sources	Reimb. Available	Conservative Total Estimated Net Cost
TR-3	R3.3	North Road-CCTC RR (Project Boundary) to Walsman	6 Lane 108' R/W center sect. w/ med. (excludes outside 11' prmt. & R/W)	On	No	2,350	L.F.	\$370	\$870,000	0.00%		\$0	\$870,000
TR-3	R3.11	North Road-CCTC RR Crossing	Reconstruct at-grade RR crossing (108' R/W)	On	No	1	L.S.	\$225,000	\$225,000	0.00%		\$0	\$1,095,000
TR-3	R3.12	North Road-Crossing at Elder Creek	New Bridge Construction (108' R/W)	On	Yes	1	L.S.	\$859,000	\$859,000	0.00%		\$0	\$1,953,000
	R39	North Rd. at Walsman Rd.	6 X 4 Intersection Widening & Signalization, 3-way (incl. 450' htc. leg imps.)	On	No	1	L.S.	\$559,000	\$559,000	0.00%		\$0	\$2,542,000
	R6.12	Ex. Grove-Road Road- Elder Creek Crossing	New Bridge Construction (108' R/W)	On	Yes	1	L.S.	\$801,000	\$801,000	0.00%		\$0	\$3,343,000
TR-4	R4.3	Garber Road- Project Boundary to Walsman	4 Lane 64' R/W center sect. w/ med. (excludes outside 11' prmt. & R/W)	On	No	2,150	L.F.	\$285	\$570,000	0.00%	50% Reimb. from Vineyard Springs	\$285,000	\$3,628,000
	R4.3	Garber Rd. at Walsman Rd.	4 X 4 Intersection Widening & Signalization, 4-way (incl. 450' htc. leg imps.)	On	No	1	L.S.	\$680,000	\$680,000	0.00%	50% Reimb. from Vineyard Springs	\$340,000	\$3,968,000
	R80	Garber Rd. at Collector	4 X 2 Intersection Signalization, 3-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$4,108,000
	R4.3.1	Part Frontage Imps.-Garber Road- (Project Bndry to Walsman)	11' Pavement, 3' C&G, 6' Sidewalk = 20'	On	Yes	100	L.F.	\$91	\$9,000	0.00%		\$0	\$4,117,000
	R4.3.2	Ex. Road- Fggs. Imps.-Garber Rd. (Proj. Bndry to Walsman, No Side Only)	4 Lane 64' R/W center sect. w/ med. (excludes outside 11' prmt. & R/W)	On	Yes	350	L.F.	\$150	\$53,000	0.00%		\$0	\$4,170,000
	R7.3	Walsman Road- Garber (Project Bndry) to North (Project Bndry)	11' Pavement, 3' C&G, 6' Sidewalk = 20'	On	No	5,200	L.F.	\$265	\$1,378,000	0.00%		\$0	\$5,548,000
	R7.12	Walsman Road- Garber Creek Crossing	Const. new at-grade RR crossing (64' R/W)	On	Yes	1	L.S.	\$159,000	\$159,000	0.00%		\$0	\$5,707,000
	R7.3.1	Drain Parkway Frontage Imps.-Walsman Road- (Garber to North)	11' Pavement, 3' C&G, 6' Sidewalk = 20'	On	Yes	500	L.F.	\$91	\$46,000	0.00%		\$0	\$5,953,000
	R7.3.2	Open Space Frontage Imps.-Walsman Road- (Garber to North)	11' Pavement, 3' C&G, 6' Sidewalk = 20'	On	Yes	450	L.F.	\$91	\$41,000	0.00%		\$0	\$6,198,000
	R7.3.3	Part Frontage Imps.-Walsman Road- (Garber to North)	11' Pavement, 3' C&G, 6' Sidewalk = 20'	On	Yes	2,250	L.F.	\$91	\$205,000	0.00%		\$0	\$6,403,000
	R53	Walsman Rd. at Collector	4 X 2 Intersection Signalization, 4-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$6,543,000
	R54	Walsman Rd. at Collector	4 X 2 Intersection Signalization, 3-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$6,683,000
	R55	Walsman Rd. at Collector	4 X 2 Intersection Signalization, 4-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$6,823,000
TR-2	R56	Walsman Rd. at Collector	4 X 2 Intersection Signalization, 4-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$6,963,000
TR-2	R57	Walsman Rd. at Collector	4 X 2 Intersection Signalization, 4-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$7,103,000
TR-2	R58	Walsman Rd. at Collector	4 X 2 Intersection Signalization, 4-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$7,243,000
TR-2	R59	Walsman Rd. at Collector	4 X 2 Intersection Signalization, 4-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$7,383,000
TR-2	R60	Walsman Rd. at Collector	4 X 2 Intersection Signalization, 4-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$7,523,000
TR-2	R61	Walsman Rd. at Collector	4 X 2 Intersection Signalization, 4-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$7,663,000
TR-2	R62	Walsman Rd. at Collector	4 X 2 Intersection Signalization, 4-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$7,803,000
TR-2	R63	Walsman Rd. at Collector	4 X 2 Intersection Signalization, 4-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$7,943,000
TR-2	R64	Walsman Rd. at Collector	4 X 2 Intersection Signalization, 4-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$8,083,000
TR-2	R65	Walsman Rd. at Collector	4 X 2 Intersection Signalization, 4-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$8,223,000
TR-2	R66	Walsman Rd. at Collector	4 X 2 Intersection Signalization, 4-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$8,363,000
TR-2	R67	Walsman Rd. at Collector	4 X 2 Intersection Signalization, 4-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$8,503,000
TR-2	R68	Walsman Rd. at Collector	4 X 2 Intersection Signalization, 4-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$8,643,000
TR-2	R69	Walsman Rd. at Collector	4 X 2 Intersection Signalization, 4-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$8,783,000
TR-2	R70	Walsman Rd. at Collector	4 X 2 Intersection Signalization, 4-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$8,923,000
TR-2	R71	Walsman Rd. at Collector	4 X 2 Intersection Signalization, 4-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$9,063,000
TR-2	R72	Walsman Rd. at Collector	4 X 2 Intersection Signalization, 4-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$9,203,000
TR-2	R73	Walsman Rd. at Collector	4 X 2 Intersection Signalization, 4-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$9,343,000
TR-2	R74	Walsman Rd. at Collector	4 X 2 Intersection Signalization, 4-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$9,483,000
TR-2	R75	Walsman Rd. at Collector	4 X 2 Intersection Signalization, 4-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$9,623,000
TR-2	R76	Walsman Rd. at Collector	4 X 2 Intersection Signalization, 4-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$9,763,000
TR-2	R77	Walsman Rd. at Collector	4 X 2 Intersection Signalization, 4-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$9,903,000
TR-2	R78	Walsman Rd. at Collector	4 X 2 Intersection Signalization, 4-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$10,043,000
TR-2	R79	Walsman Rd. at Collector	4 X 2 Intersection Signalization, 4-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$10,183,000
TR-2	R80	Walsman Rd. at Collector	4 X 2 Intersection Signalization, 4-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$10,323,000
TR-2	R81	Walsman Rd. at Collector	4 X 2 Intersection Signalization, 4-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$10,463,000
TR-2	R82	Walsman Rd. at Collector	4 X 2 Intersection Signalization, 4-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$10,603,000
TR-2	R83	Walsman Rd. at Collector	4 X 2 Intersection Signalization, 4-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$10,743,000
TR-2	R84	Walsman Rd. at Collector	4 X 2 Intersection Signalization, 4-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$10,883,000
TR-2	R85	Walsman Rd. at Collector	4 X 2 Intersection Signalization, 4-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$11,023,000
TR-2	R86	Walsman Rd. at Collector	4 X 2 Intersection Signalization, 4-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$11,163,000
TR-2	R87	Walsman Rd. at Collector	4 X 2 Intersection Signalization, 4-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$11,303,000
TR-2	R88	Walsman Rd. at Collector	4 X 2 Intersection Signalization, 4-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$11,443,000
TR-2	R89	Walsman Rd. at Collector	4 X 2 Intersection Signalization, 4-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$11,583,000
TR-2	R90	Walsman Rd. at Collector	4 X 2 Intersection Signalization, 4-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$11,723,000
TR-2	R91	Walsman Rd. at Collector	4 X 2 Intersection Signalization, 4-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$11,863,000
TR-2	R92	Walsman Rd. at Collector	4 X 2 Intersection Signalization, 4-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$12,003,000
TR-2	R93	Walsman Rd. at Collector	4 X 2 Intersection Signalization, 4-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$12,143,000
TR-2	R94	Walsman Rd. at Collector	4 X 2 Intersection Signalization, 4-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$12,283,000
TR-2	R95	Walsman Rd. at Collector	4 X 2 Intersection Signalization, 4-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$12,423,000
TR-2	R96	Walsman Rd. at Collector	4 X 2 Intersection Signalization, 4-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$12,563,000
TR-2	R97	Walsman Rd. at Collector	4 X 2 Intersection Signalization, 4-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$12,703,000
TR-2	R98	Walsman Rd. at Collector	4 X 2 Intersection Signalization, 4-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$12,843,000
TR-2	R99	Walsman Rd. at Collector	4 X 2 Intersection Signalization, 4-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$12,983,000
TR-2	R100	Walsman Rd. at Collector	4 X 2 Intersection Signalization, 4-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$13,123,000
TR-2	R101	Walsman Rd. at Collector	4 X 2 Intersection Signalization, 4-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$13,263,000
TR-2	R102	Walsman Rd. at Collector	4 X 2 Intersection Signalization, 4-way	On	No	1	Each	\$140,000	\$140,000	0.00%			

Mackey Sompas
Job No. 7536-0

NORTH VINEYARD STATION SPECIFIC PLAN
CIP
ROADWAY
SUMMARY

Itemization Measure	Project Number	Roadway Segment/Item	Project Description	On-site or Off-site	Detail Sheet	Quantity	Unit	Unit Price	Total Estimated Cost	% Funded by Other Sources	Other Funding Sources	Reimb. Available	Commutative Total Estimated Net Cost
TR-1	R4.1F	Garber Road-Elder Road- Front- (Wetman to Bradshaw, South side only)	Outside Travel Lane, 11' pavement width with 6' shoulders, at Existing Residential	On	No	1,100	LT	\$59	\$65,000	0.00%	100% Reimb. from Vineyard Sprngs/ESNV	\$65,000	\$14,859,100
TR-4	R4.2	Garber Road- Elder Road- Garber to Footh	6 Lane 106' R/W center sect. w/ med. (excludes outside 11' prmt. & R/W)	On	No	4,400	LT	\$370	\$1,628,000	60.00%	Sec. Co. Reimb. from Vineyard Sprngs/ESNV	\$0	\$15,164,700
TR-16	R4.2	Garber Road- Elder Road- Footh to Project Bndry	4 Lane 64' R/W center sect. (excludes outside 11' prmt. & R/W)	On	No	1,650	LT	\$285	\$477,000	0.00%	60% Reimb. from Vineyard Sprngs/ESNV	\$218,500	\$15,403,200
	R4.2F	Garber Road-Elder Road- Elder Road- Footh to Project Bndry	Outside Travel Lane, 11' pavement width with 6' shoulders, at Existing Residential	On	Yes	450	LT	\$59	\$27,000	100.00%	James A. Dyer Fee, 0.51, Per Spec. 5.1.10	\$0	\$15,403,200
	R4.2F	Vineyard Road- Garber (Project Bndry) to Footh (Project Bndry)	4 Lane 64' R/W center sect. w/ med. (excludes outside 11' prmt. & R/W)	On	No	4,400	LT	\$285	\$1,266,000	0.00%	60% Reimb. from Vineyard Sprngs/ESNV	\$0	\$16,662,700
	R3.6	Garber Rd. at Vineyard Rd.	4 X 4 Intersection Widening & Signalization, 3-way (incl. 450' inc. leg imp.)	On	No	1	LT	\$680,000	\$680,000	0.00%	60% Reimb. from Vineyard Sprngs/ESNV	\$340,000	\$16,662,700
	R3.1	Footh Rd. at Vineyard Rd.	4 X 4 Intersection Widening & Signalization, 3-way	On	No	1	LT	\$589,000	\$589,000	0.00%		\$0	\$17,511,700
	R3.6	Vineyard Rd. at Collector	6 Lane 106' R/W center sect. w/ med. (excludes outside 11' prmt. & R/W)	On	No	4,400	LT	\$370	\$1,628,000	0.00%		\$0	\$19,279,700
	R3.1	Footh Rd. at Collector	4 X 2 Intersection Signalization, 3-way	On	No	1	LT	\$140,000	\$140,000	0.00%		\$0	\$19,419,700
	R3.6	Footh Rd. at Collector	4 Lane 64' R/W center sect. w/ med. (excludes outside 11' prmt. & R/W)	On	No	4,400	LT	\$285	\$1,266,000	0.00%	60% Reimb. from Vineyard Sprngs/ESNV	\$66,615	\$20,142,700
	R4.5	Garber Road- Bradshaw to Vineyard (Project Bndry)	2-6' X 6' Box Culverts With Headwalls (64' R/W)	On	Yes	1	LT	\$179,000	\$179,000	23.00%	23% Durr-Fee Reimb. from Vineyard Sprngs/ESNV	\$0	\$20,211,615
	R4.14	Garber Road- Elder Road- Crossing No. 2	6 Lane 106' R/W center sect. w/ med. (excludes outside 11' prmt. & R/W)	On	No	10,400	LT	\$270	\$2,808,000	100.00%	Unidentified	\$0	\$20,211,615
	R4.5 1	Drain Parkway- Frontage Imp.-Garber Road- (Bradshaw to Vineyard)	11' Pavement, 3' C&G, 6' Sidewalk = 20'	On	Yes	160	LT	\$91	\$15,000	0.00%		\$0	\$20,226,615
	R4.5 2	Detention Basin- Frontage Imp.-Garber Road- (Bradshaw to Vineyard)	11' Pavement, 3' C&G, 6' Sidewalk = 20'	On	Yes	370	LT	\$91	\$34,000	0.00%		\$0	\$20,260,615
	R3.3 1	Detention Basin- Frontage Imp.-Footh Road- (CCTC RR to Wetman)	11' Pavement, 3' C&G, 6' Sidewalk = 20'	On	Yes	865	LT	\$91	\$78,000	0.00%		\$0	\$20,338,615
	R3.3 2	Detention Basin- Frontage Imp.-Footh Road- (CCTC RR to Wetman)	6 X 4 Intersection Widening, no. & no. bound only (incl. 450' inc. leg imp.)	On	No	1	LT	\$353,000	\$353,000	100.00%	Unidentified	\$0	\$20,338,615
TR-25	R4.6	Garber Road- Vineyard (Project Boundary) to Escalator	Widen shoulders to provide minimum pavement width	On	Yes	4,850	LT	\$100	\$485,000	0.00%	60% Reimb. from Vineyard Sprngs/ESNV	\$242,500	\$20,581,115
TR-23	R4.15	Garber Road- Elder Road- Crossing No. 1	Bridge/Culvert improvements	On	No	1	LT	\$461,000	\$461,000	0.00%	60% Reimb. from Vineyard Sprngs/ESNV	\$230,500	\$20,811,615
TR-7, TR-22	R4.15	Escalator Road- Garber to Footh	Widen shoulders to provide minimum pavement width	On	Yes	4,850	LT	\$100	\$485,000	0.00%		\$0	\$21,317,615
TR-4	R3.6	Footh Road- Vineyard (Project Boundary) to Escalator	Bridge/Culvert improvements	On	No	1	LT	\$66,000	\$66,000	0.00%		\$0	\$21,383,615
TR-10	R3.13	Footh Road- Trolleyway No. 1 to Garber Creek Crossing	Widen shoulders to provide minimum pavement width	On	No	9,700	LT	\$100	\$970,000	0.00%	100% Reimb. from Vineyard Sprngs/ESNV	\$970,000	\$21,443,615
TR-4, TR-21	R2.3	Escalator Road- Bradshaw to Escalator	Widen shoulders to provide minimum pavement width	On	No	10,150	LT	\$100	\$1,015,000	0.00%		\$0	\$22,458,615
TR-7, TR-22	R11.14	Escalator Road- Footh to Elder Creek	Widen shoulders to provide minimum pavement width	On	Yes	4,850	LT	\$100	\$485,000	0.00%		\$0	\$23,343,615
TR-11	R11.16	Escalator Road- Trolleyway to Elder Creek Crossing	Bridge/Culvert improvements	On	No	1	LT	\$66,000	\$66,000	0.00%		\$0	\$23,409,615
TR-7, TR-22	R11.5	Escalator Road- Vineyard to Escalator	Widen shoulders to provide minimum pavement width	On	No	4,400	LT	\$100	\$440,000	0.00%	100% Reimb. from Vineyard Sprngs/ESNV	\$440,000	\$23,429,615
TR-7, TR-22	R11.2	Escalator Road- Elder Creek to Jackson	Widen shoulders to provide minimum pavement width	On	Yes	2,450	LT	\$100	\$245,000	0.00%		\$0	\$23,674,615
TR-4, TR-21	R11.2	Escalator Road- Elder Creek to Jackson	Widen shoulders to provide minimum pavement width	On	No	10,150	LT	\$100	\$1,015,000	0.00%	100% Reimb. from Vineyard Sprngs/ESNV	\$1,015,000	\$24,689,615
TR-11	R5.3	Cathie Road- Elder Road- East of Wetman to Bradshaw	Widen shoulders to provide minimum pavement width	On	No	9,700	LT	\$100	\$970,000	0.00%		\$0	\$25,659,615
TR-11	R5.4	Cathie Road- Elder Road- East of Wetman to Bradshaw	Widen shoulders to provide minimum pavement width	On	No	3,100	LT	\$100	\$310,000	0.00%	100% Reimb. from Vineyard Sprngs/ESNV	\$310,000	\$25,969,615
	R4.4A	Footh Rd. at Sunset Blvd.	Widen shoulders to provide minimum pavement width	On	No	4,400	LT	\$100	\$440,000	0.00%	100% Reimb. from Vineyard Sprngs/ESNV	\$440,000	\$26,409,615
	R4.4B	Footh Rd. at Sunset Blvd.	Widen shoulders to provide minimum pavement width	On	No	1	LT	\$207,000	\$207,000	75.00%	Sec. Aggre. from Vineyard Sprngs/ESNV	\$0	\$26,616,615
	R12	Offsite Aerial Frontage Improvements	Ultimate Intersection Improvements, 3-way (incl. 450' inc. leg imp.)	On	No	1	LT	\$666,000	\$666,000	0.00%	Sanitar/Douglas Com. Plan Spec. Plan	\$0	\$27,282,615
	R101	Right of Way Acquisition for Onsite Aerials	Class "A" Frontage Improvements	On	No	1	LT	\$624,000	\$624,000	0.00%		\$0	\$27,906,615
	R100	Right of Way Acquisition for Onsite Aerials	ROW land acquisition	On	Yes	1	LT	\$1,554,000	\$1,554,000	0.00%		\$0	\$29,460,615
	R100	Preparation of P.F.F.P. and Technical Studies	ROW land acquisition	On	Yes	1	LT	\$1,101,000	\$1,101,000	0.00%		\$0	\$30,561,615
Grand Total Roadway									\$35,811,000			\$6,782,915	\$29,028,085

Note: Roadway segment lengths exclude 450' intersection leg widening included in CIP Regional Identified Intersections. (except where intersection projects have not made the cut off (above the thick line))

NORTH VINEYARD STATION SPECIFIC PLAN CIP
INTERNAL ROADWAYS
SUMMARY

NORTH VINEYARD STATION SPECIFIC PLAN PRELIMINARY CAPITAL IMPROVEMENT ITEMS LISTING Internal Roadway Improvements Listing & Cost Estimate									
Project Number	Item	Project Description	On-site or Off-site	Detail Sheet Linked?	Quantity	Unit	Unit Price	Total Estimated Cost	
Internal Collector Frontage Improvements at Parka, Open Space, Drainage Parkway & Facilities									
IPR1	Park 1/2 Street Pkg. Imps -Onsite Collector Roads-8' R/W	Complete Half Section - 21' Pavement, 3' C&G, 8' Sidewalk = 30'	On	Yes	6,780	L.F.	\$110	\$745,800	
IPR2	Park 1/2 Street Pkg. Imps -Onsite Collector Roads-8' R/W	Complete Half Section - 18' Pavement, 3' C&G, 8' Sidewalk = 27'	On	Yes	2,100	L.F.	\$103	\$216,300	
IPR3	Drain Parkway/Det. Basin 1/2 Street Pkg. Imps -Onsite Collector Roads-8' R/W	Complete Half Section - 21' Pavement, 3' C&G, 8' Sidewalk = 30'	On	Yes	4,000	L.F.	\$110	\$440,000	
IPR4	Drain Parkway/Det. Basin 1/2 Street Pkg. Imps -Onsite Collector Roads-8' R/W	Complete Half Section - 18' Pavement, 3' C&G, 8' Sidewalk = 27'	On	Yes	865	L.F.	\$103	\$89,100	
IPR5	Open Space Parkway 1/2 Street Pkg. Imps -Onsite Collector Roads-8' R/W	Complete Half Section - 21' Pavement, 3' C&G, 8' Sidewalk = 30'	On	Yes	550	L.F.	\$110	\$60,500	
IPR6	Right of Way Acquisition for Collector Frontage Improvements		On	No	0	Acres	\$70,000	\$0	
	Total for Internal Collector Frontage Improvements				14,995	L.F.		\$1,682,000	
Total Internal Roadway Facilities									
								\$1,682,000	

Table PF-1.3 (rev)
CIP Roadway (Internal) Summary
NVSSP EIR(93-0238)

NORTH VINEYARD STATION SPECIFIC PLAN

CIP

SEWER SUMMARY

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NORTH VINEYARD STATION SPECIFIC PLAN PRELIMINARY SEWER CAPITAL IMPROVEMENT ITEMS LISTING							
Project Number	Project Name	On-site or Off-site	Project Description	Detail Sheet Linked	Total		
SANITARY SEWER IMPROVEMENTS							
Trunk Systems Carrying 1 MGD or Greater							
2.1	TRUNK SANITARY SEWER - FLORIN ROAD, SHED C						
2.1a	TRUNK SS - FLORIN ROAD (INTERCEPTOR TO WATERMAN)	On	36" 27' TRUNK SAN SEWER CONST.	Yes	\$256,000		
2.1b	TRUNK SS - FLORIN ROAD (WATERMAN TO BRADSHAW)	On	27" TRUNK SAN SEWER CONST.	Yes	\$750,000		
2.1c	TRUNK SS - FLORIN ROAD (BRADSHAW TO VINYARD)	On	24" 18' TRUNK SAN SEWER CONST.	Yes	\$820,000		
2.2	TRUNK SANITARY SEWER - GERBER ROAD, SHED A						
2.2a	TRUNK SS - GERBER ROAD (INTERCEPTOR TO WATERMAN)	On	42" 36" TRUNK SAN SEWER CONST.	Yes	\$905,000		
2.2b	TRUNK SS - GERBER ROAD (WATERMAN TO BRADSHAW)	On	39" 33" TRUNK SAN SEWER CONST.	Yes	\$1,482,000		
2.2c	TRUNK SS - GERBER ROAD (BRADSHAW TO VINYARD)	On	24" TO 16" TRUNK SAN SEWER CONST.	Yes	\$974,000		
Sub total Trunk Systems Carrying 1 MGD or Greater							
					\$5,187,000		
Lateral Sewer Systems Carrying Less Than 1 MGD							
2.3	LATERAL SS - PASSILLIS LANE (AT INTERCEPTOR)	On	LATERAL SAN SEWER CONST. (INTERCEPTOR CONNECT.)	Yes	\$25,000		
Subtotal Lateral Systems Carrying Less Than 1 MGD							
					\$25,000		
Total Sanitary Sewer Costs							
					\$5,212,000		

Table PF-2.1 SEWER (rev)
CIP Sewer, Water, Drainage Summary
NVSSP EIR(93-0238)

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Table PF-2.2 WATER (rev)
CIP Sewer, Water, Drainage Summary
NVSSP EIR(93-0238)

NORTH VINEYARD STATION SPECIFIC PLAN
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2/12/98DRAINAGE
SUMMARY

NORTH VINEYARD STATION SPECIFIC PLAN DRAINAGE CAPITAL IMPROVEMENT ITEMS SUMMARY				Detail Sheet	
Project Number	Project Name	On-site or Off-site	Project Description	Linked	Total
DRAINAGE IMPROVEMENTS					
(See also Roadway Section for Additional Bridges/Culverts)					
Channel Related Items					
3.1	Elder Creek Reach 3 (Improved Channel to W. Bndry)				
3.1.1 A	ELDER CREEK REACH 3A - OFF-SITE CHANNEL IMPROV.	Off	OFF-SITE CHANNEL CONSTR. (APPROX. 1,830 L.F.)	Yes	\$947,000
3.1.1 B	ELDER CREEK REACH 3B - OFF-SITE CHANNEL IMPROV.	Off	OFF-SITE CHANNEL CONSTR. (APPROX. 3,020 L.F.)	Yes	\$1,572,000
3.2	Elder Creek Reach 1A (W. Bndry to Florin Rd.)				
3.2.1 A	ELDER CREEK REACH 1A (a) - CHANNEL IMPROV'S.	On	CHANNEL CONSTR. (APPROX. 2,850 L.F.)	Yes	\$1,183,000
3.2.1 B	ELDER CREEK REACH 1A (b) - CHANNEL IMPROV'S.	On	CHANNEL CONSTR. (APPROX. 2,910 L.F.)	Yes	\$1,300,000
3.2.2	ELDER CREEK REACH 1A - DRAINAGE PARKWAY	On	CHANNEL PARKWAY CONSTR. (APPROX. 5,560 L.F.)	Yes	\$132,000
3.2.3	ELDER CREEK REACH 1A (a) - McCOY LANE CROSSING	On	(3) 8"x8" BOX CULVERT CONSTR. w/ HEADWALLS (4'-40" RW)	Yes	\$152,000
3.2.4	ELDER CREEK REACH 1A (b) - CCTC RR BRIDGE CROSSING	On	CONST. NEW BRIDGE @ ELDER CREEK & CCTC RR CROSSING	Yes	\$387,000
3.3	Elder Creek Reach 1B (Upstream of Florin Rd.)				
3.3.1	ELDER CREEK REACH 1B - OFF-SITE CHANNEL IMPROV'S.	Off	CHANNEL CONSTR. (APPROX. 1,400 L.F.)	Yes	\$750,000
3.4	Left Blank For Additions				
3.5	Gerber Creek Reach 2A (W. Bndry to Gerber Rd. Crossing No. 4)				
3.5.1 A	GERBER CREEK REACH 2A (a) - CHANNEL IMPROV'S.	On	CHANNEL CONSTR. (APPROX. 3,350 L.F.)	Yes	\$1,659,000
3.5.1 B	GERBER CREEK REACH 2A (b) - CHANNEL IMPROV'S.	On	CHANNEL CONSTR. (APPROX. 3,750 L.F.)	Yes	\$1,859,000
3.5.2	GERBER CREEK REACH 2A - DRAINAGE PARKWAY	On	CHANNEL PARKWAY CORR. CONSTR. (APPROX. 7,100 L.F.)	Yes	\$185,000
3.5.3	GERBER CREEK REACH 2A (a) - PASSALIS LN. CROSSING (WEST)	On	(3) 8"x8" BOX CULVERT CONSTR. w/ HEADWALLS (36' RW)	Yes	\$187,000
3.5.4	GERBER CREEK REACH 2A (b) - PASSALIS LN. CROSSING (EAST)	On	(3) 8"x8" BOX CULVERT CONSTR. w/ HEADWALLS (36' RW)	Yes	\$187,000
3.5.5	GERBER CREEK REACH 2A (b) - CCTC RR BRIDGE CROSSING	On	CONST. NEW BRIDGE @ ELDER CREEK AND CCTC RR	Yes	\$294,000
3.6	Gerber Creek Reach 2B (Gerber Rd. Crossing 4 to Crossing 3)				
3.6.1	GERBER CREEK REACH 2B - OFF-SITE CHANNEL IMPROV'S.	Off	CHANNEL CONSTR. (APPROX. 2,030 L.F.)	Yes	\$984,000
3.7	Gerber Creek Reach 2C (Gerber Rd. Crossing 3 to Crossing 2)				
3.7.1	GERBER CREEK REACH 2C CHANNEL IMPROVEMENTS	On	CHANNEL CONSTR. (APPROX. 3,680 L.F.)	Yes	\$1,331,000
3.7.2	GERBER CREEK REACH 2C - DRAINAGE PARKWAY	On	DRAINAGE PARKWAY CORR. CONSTR. (APPROX. 3,680 L.F.)	Yes	\$87,000
3.8	Arterial Roadway Drainage Crossings (see Identified in Roadway CIP)	Off	Portion of Arterial Roadway Drainage Crossings (Roadway Proj. No. 4.14)	No	\$41,000
Subtotal Channel Related Items					
					\$12,816,000

Table PF-2.3 DRAINAGE (rev)
CIP Sewer, Water, Drainage Summary
NVSSP EIR(93-0238)

DRAINAGE SUM

NORTH VINEYARD STATION SPECIFIC PLAN

CIP

DRAINAGE SUMMARY

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NORTH VINEYARD STATION SPECIFIC PLAN DRAINAGE CAPITAL IMPROVEMENT ITEMS SUMMARY							
Project Number	Project Name	On-site or Off-site	Project Description	Detail Sheet	Linked	Total	
Detention Basin Construction							
3 9	DETENTION BASIN E24B (ELDER CREEK REACH 1A (a))	On	3.7 AC. WATER QUALITY DETENTION BASIN CONST.	Yes		\$545,000	
3 10	DETENTION BASIN E28 (ELDER CREEK REACH 1A (b))	On	18.3 AC. FLOOD CONTROL W.Q. DET. BASIN CONST.	Yes		\$2,780,000	
3 11	DETENTION BASIN E24A (GERBER CREEK REACH 2A (a))	On	12 AC. FLOOD CONTROL W.Q. DET. BASIN CONST.	Yes		\$1,818,000	
3 12	DETENTION BASIN G41 (GERBER CREEK REACH 2A (b))	On	10.8 AC. FLOOD CONTROL W.Q. DET. BASIN CONST.	Yes		\$1,705,000	
3 13	DETENTION BASIN G48 (GERBER CREEK REACH 2C)	On	18 AC. FLOOD CONTROL W.Q. DET. BASIN CONST.	Yes		\$2,827,000	
3 14	OFFSITE DETENTION BASIN E20 (ELDER CREEK REACH 3)	Off	18 AC. OFFSITE FLOOD CONTROL BASIN CONST.	Yes		\$2,458,000	
Subtotal Detention Basin Construction							\$12,041,000
Trunk Drainage Serving 30 Acres or More							
3 15	TRUNK DRAINAGE, SHED L	On	TRUNK DRAIN FAC. (DISCHARGE TO BASIN E24B)	Yes		\$55,000	
3 16	TRUNK DRAINAGE, SHED H	On	TRUNK DRAIN FAC. (DISCHARGE TO ELDER CREEK, REACH 2B)	Yes		\$93,000	
3 17	TRUNK DRAINAGE, SHEDS D & E	On	TRUNK DRAIN FAC. (DISCHARGE TO BASIN E28)	Yes		\$739,000	
3 18	TRUNK DRAINAGE, SHED G	On	TRUNK DRAIN FAC. (DISCHARGE TO BASIN E28)	Yes		\$135,000	
3 19	TRUNK DRAINAGE, SHED K	On	TRUNK DRAIN FAC. (DISCHARGE TO GERBER CREEK, REACH 2A)	Yes		\$53,000	
3 20	TRUNK DRAINAGE, SHED J	On	TRUNK DRAIN FAC. (DISCHARGE TO GERBER CREEK, REACH 2A)	Yes		\$44,000	
3 21	TRUNK DRAINAGE, SHED F	On	TRUNK DRAIN FAC. (DISCHARGE TO GERBER CREEK, REACH 2A)	Yes		\$497,000	
3 22	TRUNK DRAINAGE, SHED C	On	TRUNK DRAIN FAC. (DISCHARGE TO BASIN G46)	Yes		\$508,000	
3 23	TRUNK DRAINAGE, SHEDS A & B	On	TRUNK DRAIN FAC. (DISCHARGE TO BASIN G46)	Yes		\$835,000	
Subtotal Trunk Drainage Construction							\$3,069,000
Wetland Mitigation							
3 100	WETLAND MITIGATION - ONSITE	On	Onsite Wetland Mitigation for Drainage Improvements	Yes		\$2,735,000	
3 101	WETLAND MITIGATION - OFFSITE	Off	Offsite Wetland Mitigation for Drainage Improvements	Yes		\$2,431,000	
Subtotal Wetland Mitigation							\$5,166,000
Total Drainage Costs							\$33,182,000

Table PF-2.4 DRAINAGE (rev)
CIP Sewer, Water, Drainage Summary
NVSSP EIR(93-0238)

DRAINAGE_SUM

COMMENTS AND RESPONSES

The text that follows will introduce each Draft EIR reviewer and present their comments in either as stated or paraphrased form. Responses to those comments immediately follow. Written comments received in full letter format can be found in Attachment 1.

Draft EIR comments were received from the following individuals and/or agencies:

- **Public Agencies**

1. Lou A. Norton, Land Agent, Pacific Gas & Electric, 343 Sacramento Street Auburn, CA (August 6, 1997)
2. Claudia Gunter, Southgate Recreation & Park District, 6000 Orange Avenue, Sacramento CA (August 20, 1997)
3. Phil Stafford, Sacramento Metropolitan Air Quality Management District, 8475 Jackson Rd., Suite 200, Sacramento CA (August 28, 1997).
4. Jeffrey Pulverman, Chief, Office of Transportation, Planning-Metropolitan, CATRANS District 3, Sacramento Area Office MS 41, P.O. Box 94274, Sacramento CA (September 3, 1997).
5. Terri Wegener, Water Resources Division, County Public Works Agency (September 5, 1997).
6. Warren H. Harada, Agency Administrator, Sacramento County Public Works Agency (September 5, 1997).
7. Tom Garcia, Water Resources Division: Storm Water Quality, County Public Works Agency (August 28, 1997)
8. James J. Paluck, Water Resources Division (August 29, 1997).
9. Stephen Kenning, Water Resources Division (August 29, 1997).
10. Bob Lilly, Water Quality Division (September 4, 1997).

11. Robert Davison, Public Infrastructure and Financing Section, County Public Works Agency (September 8 & 17, 1997).
12. Antero A. Rivasplata, Chief, State Clearinghouse, Governor's Office of Planning and Research, 1400 Tenth Street, Sacramento CA (September 15, 1997).

- **Organizations & Neighbors**

13. David Edminson, 7651 Bar Du Lane, Sacramento California (August 21, 1997)
14. Clifford & Sue Daniel, 7622 Bar Du Lane, Sacramento CA (September 3, 1997)
15. Gail Peters, 7641 Bar Du Lane, Sacramento CA (September 4, 1997).
16. Alta Tura, Co-President, Urban Creeks Council, 4855 Hamilton Street, Sacramento, California (September 5, 1997).
17. Judith Wilson & Roy Pace, 9091 McCoy Avenue, Sacramento California (October 15, 1997).
18. Cathy Phillips, 9040 McCoy Road, Sacramento California (November 18, 1997).
19. Mr. & Mrs. Jim Jordan, 7471 Jordan Lane, Sacramento, California (December 4, 1997; November 25, 1997).
20. James B. Wiley, Taylor & Hooper Attorneys, 1435 River Park Drive, Suite 300, Sacramento CA (September 5, 1997).

- **Project Proponents**

21. George Phillips, Law Offices, 555 University Ave. Suite 200, Sacramento, CA (September 5, 1997)

*Letter 2***LETTER 1.**

Lou A. Norton, Land Agent, Pacific Gas & Electric, 343 Sacramento Street Auburn, CA, (August 6, 1997).

Comment 1.1:

PG&E's comments from the NOP have been included in the report on pages 4.12 and 6.2. As long as those comments are included in the final report, PG&E has nothing further to add and has no objection to the filing of the final report.

Response 1.1:

Comment noted.

Letter 2

LETTER 2.

Claudia Gunter, Southgate Recreation & Park District, 6000 Orange Avenue, Sacramento CA (August 20, 1997).

Comment 2.1: (paraphrased)

Enclosed please find Southgate Recreation and Park District Resolution #97-11 which was approved by our board of Directors at their meeting of August 19, 1997. This Resolution provides comments regarding the DEIR.

Response 2.1:

Comment noted.

Comment 2.2: (paraphrased)

LU-4 Mitigation Measures. In the Land Use Section of the "Executive Summary and Mitigation Measures" of the Draft EIR, Measure LU-4 does not accurately reflect the Southgate Board of Director's Position regarding the "Preferred" Land Use Plan. LU-4 should be revised to read:

The final General Plan Diagram will be modified in respect to some park locations, with the Southgate Park District determining exact park locations. The Community Park site will not be located under power lines and will be modified to create neighborhood park sites in areas of the plan which are deficient in park land. Southgate does not support the Preferred Land Use Plan, but supports the Alternate Land Use Plan dated November 1, 1996, which was developed in cooperation with County Planning and the North Vineyard land owners group.

Response 2.2:

Based on the above comment Mitigation Measure LU-4 in the FEIR Executive Summary has been revised as follows:

LU-4 The General Plan Diagram will be modified in respect to some park locations, with the Southgate Park District determining exact park locations. The Community Park site shall not be located under power lines and shall be modified to create neighborhood park sites in areas of the plan which are deficient in park land in substantial compliance with

Letter 2

the Alternate Land Use Plan dated November 1, 1996, which was developed in cooperation with County Planning and the North Vineyard land owners group.

Comment 2.3:

Joint Uses. The Southgate Recreation and Park District supports coordination with other agencies to accomplish joint uses for park sites. This includes but is not limited to joint uses with schools, libraries, fire stations, detention basins, and drainage parkways.

Response 2.3:

Comment noted.

Comment 2.4:

Landscape Corridors Along Major Roadways. The Southgate Recreation and Park District supports the dedication and improvement of landscape corridors with pathways along major roadways to provide not only improved aesthetics between roadways and neighborhoods, but to also [to] provide off-street transportation corridors for pedestrians and bicyclists. The District supports the dedication of 30-foot wide landscape corridors with 10-foot bike lanes along Vineyard, Gerber, Florin, Waterman, and Bradshaw Roads. These will be constructed concurrently with development in the plan area, and then dedicated to the District for ongoing maintenance.

Response 2.4:

Comment noted.

Comment 2.5:

Drainage Parkways/Detention Basins. It is important to allow for bicycle and pedestrian trail systems within the drainage parkway areas as defined on the plan. These systems become amenities to the community by providing recreational opportunities and creating logical off-street circulation through the plan area. Additionally, detention basins offer opportunities for passive park uses. After improvement, these should be dedicated to the District for ongoing maintenance.

*Letter 3***LETTER 3.**

Phil Stafford, Sacramento Metropolitan Air Quality Management District, 8475 Jackson Road., Suite 200, Sacramento CA (August 28, 1997).

Comment 3.1:

The District is supportive of the construction and regional mitigation measures indicated in the Draft EIR, and recommends that they be included as conditions of approval for this project.

Response 3.1:

Comment noted.

Comment 3.2:

With regard to Construction Impact Mitigation Measures, we also recommend the use of reduced emission engines in heavy-duty on-road and off-road equipment.

Response 3.2:

Comment noted.

Comment 3.3:

Project proponents are advised that District Rule 403-FUGITIVE DUST will apply to this project during construction. The project proponents should contact the District at (916) 386-6650 for information regarding this Rule.

Response 3.3:

Comment noted.

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LETTER 4.

Jeffrey Pulverman, Chief, Office of Transportation, Planning-Metropolitan, CALTRANS District 3, Sacramento Area Office MS 41, P.O. Box 94274, Sacramento CA (September 3, 1997).

Comment 4.1:

The Traffic Study only includes the segment of State Route 16 from South Watt Avenue to Excelsior Road. Traffic generated by the North Vineyard development could significantly impact other segments of State Route 16 (SR-16), especially the segment west of South Watt Avenue to the Howe Avenue Interchange. Furthermore, the cumulative impacts of this project and other proposed projects, along or in the vicinity of SR-16 rely on future highway improvements to SR-16, yet these improvements are not included in the Sacramento Area Council of Governments Metropolitan Transportation Plan.

Response 4.1 (by Transportation Division):

In response to this and other transportation comments County Transportation Division staff (J. Clark) has provided responses to this comment and comments 4.2 through 4.7 that follow.

The DEIR identified the only segment of State Route 16 where the projects share of future (year 2015) traffic exceeds 5 percent. Assuming the completion of the County of Sacramento Transportation Plan, none of the segments of State Route 16 will exceed County of Sacramento level of service criteria (worse than LOS E). For that reason there is no significant impact from the proposed project. The funding of improvements to State Route 16 will come from a variety of sources including developer fees (City and County), STIP funds and improvements as part of frontage improvements. Improvements to State Route 16 would have to be programmed into the Sacramento Area Council of Governments Metropolitan Transportation Plan.

Comment 4.2:

This project and other similar projects in the vicinity will also impact Highway 50 and State Route 99. Traffic from this project will impact the Bradshaw/50 interchange and the Florin Road/SR-99 interchange.

Letter 4**Response 4.2 (by Transportation Division):**

The project will add to the traffic levels on all of the major transportation facilities in the Sacramento region including State Route 99 and U.S. Highway 50. However, the distance that these facilities are from the project area (approximately 4 miles) and the ability of the transportation model to accurately forecast project traffic at that distance limits the ability to determine the project impact to these facilities. The project will be required to pay county wide development fees that can and are used to cover impacts to growth on major transportation facilities.

Comment 4.3:

The traffic report needs to address these potentially significant impacts and describe appropriate mitigation measures. The County needs to aggressively support capacity and intersection improvements along the SR-16 corridor, Highway 50 corridor and SR-99 before the LOS of each of these roads and impacted interchanges deteriorates to an unacceptable level.

Response 4.3 (by Transportation Division):

Comment noted. The County is aggressively supporting capacity in both the U.S. Highway 50 and State Route 99 corridors via HOV lane projects and interchange improvement projects. Improvements to State Route 16, from Excelsior Road to Watt Avenue, have been identified and are included in the County Roadway and Transit Fee C.I.P. and the Mather Field Specific Plan Financing Plan.

Comment 4.4:

CP-5 South Watt Avenue/Jackson Road (SR-16) (page 8.23). The discussion is inconsistent with both the AM and PM peak hours without the project. How can you add vehicles to an already congested situation and not make the congestion worse? Therefore, the project would exacerbate LOS F operations especially during the PM peak hour by increasing the v/c by over 0.12.

Response 4.4 (by Transportation Division):

Comment noted. The project would have a significant impact to the Watt Avenue/Jackson Road intersection during the p.m. peak.

Letter 4**Response 4.4 (by DERA):**

Please note that the statement in question on page 8.23 (of the DEIR) has been revised as follows:

CP-5: Implementation of the project would ~~result in LOS F operations in the a.m. peak hour exacerbate LOS F operations at the South Watt Avenue/Jackson Road intersection; however it does not worsen conditioning compared to operations under cumulative no project conditions.~~

Please see Attachment 2: Errata Pages at the back of this FEIR document for a copy of revised page 8.23.

Comment 4.5:

Improvements CP-5; South Watt Avenue/Jackson Road (SR-16). Alternatives which should be considered include either phasing or reducing the scale of development so that this intersection can operate at an acceptable LOS under cumulative conditions. The feasibility of widening the roadway at the intersection (4 through lanes in each direction to increase capacity and improve the LOS should also be considered.

Response 4.5 (by Transportation Division):

Land use reductions (beyond the -10% and -15% Alternatives, except for a no project alternative) were not considered in the traffic analysis as the document is intended to determine the impacts of the proposed project on the surrounding transportation system. The use of eight through lanes on arterials is not considered as an option until the Board of Supervisors changes the General Plan to include eight-lane facilities.

Comment 4.6:

Excelsior Road/Jackson Road (SR-16). The report should discuss the feasibility and benefits of widening Excelsior Road to a four lane facility (south of SR-16) and a six lane facility north of SR-16). With approximately 1350 cumulative AM peak hour trips (south of SR-16) expected, widening the roadway would improve traffic operations.

Another alternative which should be considered is adopting a land-use alternative consistent with the current road capacity under cumulative conditions.

*Letter 4***Response 4.6 (by Transportation Division):**

The feasibility of widening excelsior Road to a four-lane arterial was evaluated in the 1993 County of Sacramento Transportation Plan. The long-term plan is to widen the facility to four-lanes as properties fronting along Excelsior Road develop.

Comment 4.7:

Plate TR-L. The plate shows approximately 4100 peak hour AM trips northbound on South Watt Avenue just north of the Elder Creek Road/Elk Grove-Florin Road intersection. Yet only approximately 2300 peak hour trips are projected south of the Jackson Road (SR-16)/South Watt Avenue intersection. Please explain what happens to the approximately 1800 peak hour trips. Please review the intersection LOS calculations and update as needed.

Response 4.7 (by Transportation Consultant, Fehr & Peers):

Transportation consultant staff (Rashid) provided DERA with the following response:

Fruitridge road intersects South Watt Avenue between Elder Creek Road and Jackson Road (SR 16). In addition, the areas to the west of South Watt Avenue along this section are projected to include substantial levels of employment under cumulative conditions. A review of the traffic model that was used to develop the cumulative plus project forecasts shows that the 1,800 trips are destined for Fruitridge Road and the future employment growth areas. Thus, these trips are accounted for on the cumulative roadway network and not changes to intersection LOS calculations are required.

*Letter 5***LETTER 5.**

**Terri Wegener, Water Resources Division, County Public Works Agency
(September 5, 1997).**

Comment 5.1: (paraphrased)

Mitigation Measure HY-3 (page 11.45) Revise the final sentence by inserting the following underlined wording : "Such analysis shall verify that the phased improvements will result in no substantial increase in peak 100-year flows on Elder Creek at the City/County boundary, and no significant increased 100-year out-of-bank flows in the existing improved channel downstream of the Specific Plan area. Any phasing must also provide the necessary system reliability and be approved by the Water Resources Division.

Response 5.1:

Mitigation Measure HY-3 has been revised as follows:

- HY-3. Future development within the NVSSP area shall implement the proposed NVSSP Drainage Master Plan (DMP) improvements, including construction of Detention Basin E20 downstream of the Specific Plan area, and construction of a mitigating solution for the existing Gerber Creek overflow condition upstream of the Specific Plan area, as described in the Drainage Study for the North Vineyard Station Specific Plan (MacKay and Soms Engineers, February 1997) (see Plate HY-E of the DEIR). Detailed plans for the design and construction of all proposed drainage and water quality facilities, consistent with the NVSSP DMP, shall be submitted to the County Water Resources Division (WRD) for review and approval.

Construction of the NVSSP DMP improvements may be phased, subject to the approval of the County WRD, so long as the project proponent(s) provide hydrologic/hydraulic analyses which demonstrate that the phased improvements will provide adequate urban flood protection to the proposed on-site development, and will not increase flood risks in downstream areas. Such analyses shall verify that the phased improvements will result in no **substantial** increase in peak 100-year flows on Elder Creek at the City/County boundary, and no significant increased 100-year out-of-bank flows in the existing improved channel downstream of the Specific Plan area. **Any phasing must also provide the necessary system reliability and be approved by the Water Resources Division.**

Letter 5**Comment 5.2:**

Mitigation Measure HY-6 (page 11.45) The items required in conditions HY-6 shall be approved by the Water Resources Division.

Response 5.2:

Mitigation Measure HY-6 has been revised as follows:

- HY-6. Implementation of the proposed NVSSP Drainage Master Plan (DMP) improvements, including construction of Detention Basin E20 and construction of a mitigating solution for the existing Gerber Creek overflow condition upstream of the Specific Plan area, shall not occur until the following items have been submitted to the **Water Resources Division and the Sacramento County Board of Supervisors** for review and approval.
- (a) A wetland delineation for the improvement area verified by the U.S. Army Corps of Engineers.
 - (b) A detailed mitigation plan for wetlands to be impacted by the proposed improvements which specifically describes the measures which will be implemented to achieve no net loss in wetland habitat acreage and values.
 - (c) Determinate surveys for the improvement area for potentially occurring special status species.

Comment 5.3:

Mitigation Measure BR-3 (page 11.37) The Wetland Mitigation plan for Elder and Gerber Creeks shall be submitted to the Water Resources Division for approval.

Response 5.3:

Mitigation Measure BR-3 has been revised as follows:

- BR-3. A Wetland Mitigation Plan for Elder and Gerber Creeks shall be prepared and incorporated into the Specific Plan. This plan shall address phasing of channel modifications, establishment of wetlands (i.e., passive, active, combination),

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species composition, maintenance and monitoring. The plan shall require channel bottom and bank materials to be substantially the same as comparable natural streams. Natural arrays of riffles, runs and pools shall be incorporated into the design of the creek channels. The required Plan shall be submitted to the Sacramento County Department of Environmental Review and Assessment, **County Water Resources Division**, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service and California Department of Fish and Game for approval prior to its implementation.

Comment 5.4:

Mitigation Measure BR-6 (page 11.39) The Drainage Parkway Plan for Elder and Gerber Creeks shall be submitted to the Water Resources Division for approval.

Response 5.4:

Mitigation Measure BR-6 has been revised as follows:

- BR-6. In conjunction within the required Wetland Mitigation Plan for the creeks, a Drainage Parkway Plan for Elder and Gerber Creeks shall be prepared. This plan shall provide the following information:
- a. A map that depicts the configuration of the creek corridors, including overall width, low-flow channel width, bank slopes, and buffer widths;
 - b. The location of all trails, bikeways, maintenance roads and channel access points, street crossings, water quality basins and other structures within the corridors;
 - c. Designations of all lands uses, including recreation (passive or active), mitigation, natural area, water quality, storm water detention, etc.;
 - d. Policies addressing public access into the corridors, including limitations on use;
 - e. A policy statement requiring the use native plants within the corridor, including a planting palette of acceptable species;
 - f. Maintenance and monitoring requirements for the creek channels and mitigation areas;
 - g. An appropriate funding mechanism to establish, operate and maintain

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the creek corridors, and;

- h. All requirements of State and Federal regulatory agencies pertaining to the preservation and management of special status species.

If the proposed project is approved, the corridor width shall be in substantial compliance with that proposed in the Specific Plan (150 to 240 feet). Adoption of the Alternative Drainage Corridor Policies would increase the corridor width to 600 feet. Widths of this alternative may be reduced based on unavoidable physical constraints, however, the minimum width shall be 150 feet on each side of the drainage channel bottom. These alternatives are not intended to preclude other alternatives for the drainage parkway corridors. Such changes may involve combinations of different channel widths, corridor configurations and policies. The Drainage Parkway Plan shall be submitted to the **County Water Resources Division and the Sacramento County Board of Supervisors** for approval, prior to approval of development of the Specific Plan area.

*Letter 7***LETTER 7.**

Tom Garcia, Water Resources Division: Storm Water Quality, County Public Works Agency (August 28, 1997).

Comment 7.1:

The Storm Water Quality Section has reviewed the above referenced submittal, and has determined that the language in the document is sufficient. There are no additional comments from this section.

Response 7.1:

Comment noted.

*Letter 8***LETTER 8.****James J. Paluck, Water Resources Division (August 29, 1997).*****Comment 8.1:***

FEMA With construction of the proposed drainage improvements, the revised 100-year floodplain must be approved by the Federal Emergency Management Agency (FEMA) prior to issuance of any building permits. Since the construction of these drainage improvements is expected to occur as part of development projects, it will be required at that time to "petition FEMA for conditional letter of map revision pursuant to the Sacramento County Improvement Standards, prior to improvement plan approval." This condition of approval, among others, will be requested for each development project occurring within the Specific Plan area. Include language in the EIR regarding this subject if you felt it is required.

Response 8.1:

Comment noted.

Comment 8.2:

Financing of Drainage Facilities Nowhere in the Draft EIR is mentioned funding of drainage facilities identified within the Specific Plan area. This is a major concern for Water Resources Development Section. It has been identified that the overall "reimbursable" costs of the drainage facilities is approximately \$20 million, while anticipated collection of drainage fees within the Specific Plan area is on the order of \$10,000 million. With this \$10 million shortfall, it must be determined how these drainage improvements will ultimately be funded, and a time line of this funding. This should be addressed in the EIR.

Response 8.2:

The Financing Strategy for the specific plan and ultimately the Financing Plan (to be approved prior to any rezones or subdivision maps) will address this issue.

*Letter 9***LETTER 9.****Stephen Kenning, Water Resources Division (August 29, 1997).*****Comment 9.1:***

Page 2.28. The use of the term maximum day demand should be used when discussing facility sizing, not in describing the use of water supplies. Revise the last paragraph to read:

In Alternative 1, surface water would be supplied to the entire Study Area, including the North Vineyard Station Specific Plan Area. In Alternative 2, surface water would supply the Demand of the area within the City's POU, and ground water would supply the Demand of the area outside the POU.

Response 9.1:

The subject paragraph has been revised as follows (see Errata section page 2.28):

In Alternative 1, surface water would **be supplied to** ~~supply the Maximum Day Demand of~~ the entire Study Area, including the North Vineyard Station Specific Plan Area. In Alternative 2, surface water would supply the ~~Maximum Day Demand of~~ the area within the City's POU, and ground water would supply the ~~Maximum Day Demand of~~ the area outside the POU.

Comment 9.2:

Page 2.29. The discussion of water supply does not include facility sizing. Delete the begins "Demands in excess of the ...".

Response 9.2:

The subject sentence has been stricken. (See Errata section page 2.29.)

~~Demands in excess of the Maximum Day Demand would be met from storage reservoirs in both alternatives.~~

Comment 9.3:

Page 2.30. Revise the last sentence by eliminating the redundancy of the reference to Water

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Master Plan. The sentence should read:

However, the implementation of the NVSSP Water Master Plan is contingent on the implementation of the Areas Adjacent to the Zone 40 Water Supply Master Plan Updates's Study Area, as well as fulfillment of the City of Sacramento American River Place of Use (POU).

Response 9.3:

The subject sentence has been revised as follows (see Errata section page 2.30 and 2.31):

However, the implementation of the NVSSP Water Master Plan is contingent on the implementation of the ~~Water Master Plan for~~ Areas Adjacent to the Zone 40 Water Supply Master Plan Update's Study Area, as well as fulfillment of the City of Sacramento American River Place of Use (POU).

Comment 9.4: (paraphrased)

Page 7.4d. Exhibit PF-D is an out dated exhibit showing CIP water facilities. Delete this exhibit in its entirety and replace or reference page 12.19a which is the latest version of this exhibit.

Response 9.4:

Exhibit PF-D has been replaced with the revised CIP Water Facilities exhibit from the January 1998 Draft CIP forwarded to DERA on January 27, 1998.

Comment 9.5: (paraphrased)

Page 7.4n. Incorporate the latest numbers from Table 10.5-1 of the Master Water Supply and Water Distribution System Report for North Vineyard Station Specific Plan, prepared by MacKay and Soms into table PF-2.4 of the Draft EIR for NVSSP. Modify the Project Name for Project Number 4.5 in table PF-4 to read:

ON-SITE FACILITIES (SPECIFIC PLAN AREA)

Response 9.5:

Table PF-2.4 has been replaced with the revised CIP tables from the January 1998 Draft CIP

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forwarded to DERA on January 27, 1998.

Comment 9.6:

Page 7.4d. Delete this exhibit in its entirety and replace with or reference to exhibit WS-B (page 12.19a).

Response 9.6:

See Response 9.4.

Comment 9.7:

Page 7.4n. Incorporate the latest numbers from Table 10.5-1 of the Master Water Supply and Water Distribution System Report for North Vineyard Station Specific Plan, prepared by MacKay and Soms into table PF-2.4 of the Draft EIR for NVSSP. Modify the Project Name for Project Number 4.5 in table PF-4 to read:

ON-SITE FACILITIES (SPECIFIC PLAN AREA)

Response 9.7:

See Response 9.5.

Comment 9.8:

Page 12.8. The adjacent Area Water Master Plan being prepared by the Sacramento County Water Agency is not yet complete, therefore, the first sentence in paragraph one should be replaced with:

A draft of this document titled "Water Master Plan for Areas Adjacent to Zone 40 Water Master Plan Update's Study Area" (Adjacent Area Water Master Water Plan) dated September 1996 will be completed by SCWA. SCWA intends to finalize this document in 1998 (pers. Comm.)

Response 9.8:

The first sentence in paragraph one on Page 12.8. has been replaced with:

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A Final Draft of this document titled "Water Master Plan for Areas Adjacent to Zone 40 Water Supply Master Plan Update's Study Area" (Adjacent Area Water Master Plan) ~~was published in~~ dated September of 1996 will be completed by SCWA. SCWA intends to finalize this document in 1998.

Comment 9.9:

Page 12.10. For clarity, the second paragraph which starts "The determination of water..." needs the following heading:

Buildout Average Annual Demand

The fifth paragraph that starts "A list of conservation measures..." need the following sentence added to the end of the paragraph:

Demands in WS-2 are not adjusted to reflect conservation; demands in WS-3 are adjusted to reflect effects of conservation measures listed in WS-4.

Response 9.9:

The fifth paragraph of Page 12.10 has been revised as follows:

A list of conservation measures has been provided by MacKay and Soms (see Table WS-4). **Demands in WS-2 are not adjusted to reflect conservation; demands in WS-3 are adjusted to reflect effects of conservation measures listed in WS-4**

Comment 9.10:

Page 12.28. Delete the preliminary from the title of the Water Master Plan. The first sentence of the last paragraph should read:

MacKay and Soms Civil Engineers, Ind. have prepared The ~~[Preliminary]~~ Master Water Supply and Water Distribution System Report (May 1997) for the North Vineyard Station Specific Plan.

Letter 9**Response 9.10:**

The first sentence of the last paragraph on page 12.28 has been revised to read:

MacKay and Soms Civil Engineers, Inc. have prepared a **The ~~Preliminary~~ Master Water Supply and Water Distribution System Report** (May 1997) for the North Vineyard Station Specific Plan.

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LETTER 10.**Bob Lilly, Water Quality Division (September 4, 1997).*****Comment 10.1:***

Water Quality Division staff has reviewed the subject document on behalf of Sacramento Regional County Sanitation District (SRCSD) and County Sanitation District No. 1 (CSD-1). Comments addressed to this project at the NOP are included in the draft and are adequate and appropriately discussed in the sewer section on page 13.1.

Response 10.1:

Comment noted.

Comment 10.2:

On page 2.31, the bottom paragraph reads: " There is an existing 108-inch sewer interceptor located in ... the Bradshaw Interceptor is planned for construction in 1997-1998."

This should be revised to say: "There is an existing 102-inch sewer interceptor located in... the Bradshaw Interceptor is planned for construction in 1999-2000."

Response 10.2:

The subject paragraph has been revised to read as follows (see Errata section page 2.31):

There is an existing ~~108~~ 102-inch sewer interceptor located in Elk Grove-Florin Road, approximately ½ mile west of the Specific Plan area, but this facility is nearing capacity. However, the Bradshaw Interceptor is planned for construction in ~~1997-1998~~ 1999-2000 through the western portion of the Specific Plan area which will provide sufficient capacity to accommodate the proposed project's sewage flows.

In addition the first sentence of the third paragraph on page 13.1 has been revised (see Errata) to read:

There is an existing ~~108~~ 102-inch sewer interceptor located in Elk Grove-Florin Road, approximately ½ mile west of the Specific Plan area.

*Letter 11***LETTER 11.**

Robert Davison, Public Infrastructure and Financing Section, County Public Works Agency (September 8 & 17, 1997).

Comment 11.1:

Page 2.8. Second Paragraph In the Public Facilities Financing Section: Revise the first sentence to read as follows: "The project site is not included in any existing Public Facilities Financing Plan area and will therefore require a financing plan and associated implementation to fund public facilities needed to serve new development in the Plan Area."

Response 11.1:

The subject sentence has been revised to read as follows (see Errata section page 2.8):

The project site is not included in any existing Public Facilities Financing Plan area and will therefore require a financing plan and associated implementation strategy to fund public facilities needed to serve new development in the Plan Area.

Comment 11.2:

Page 2.8. Third Paragraph In the Public Facilities Financing Section: Revise the first sentence to read as follows: "Because the NVSSP does not include any rezoning, a financing plan is not required to be part of the project at this stage."

Response 11.2:

The subject sentence has been revised to read as follows (see Errata section page 2.8):

Because the NVSSP does not include any rezoning, a financing plan is not required to be part of the project at this stage.

Comment 11.2: (paraphrased)

To insure that no maps/rezones are approved prior to the approval of a Public Facilities Financing Plan for the North Vineyard Station Specific Plan area, the Public Infrastructure Planning and Financing Section is recommending the following mitigation:

No rezone shall be approved until a Public Facilities Financing Plan for the North

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Vineyard Station Specific Plan area has been approved by the Board of Supervisors and no final map shall be recorded until the financing mechanisms identified in the Public Facilities Financing Plan have been implemented.

Response 11.2:

The following Public Facilities Financing Mitigation Measure has been included in the Mitigation Measures section and the related Public Facilities Financing section of the FEIR:

No rezone shall be approved until a Public Facilities Financing Plan for the North Vineyard Station Specific Plan area has been approved by the Board of Supervisors and no final map shall be recorded until the financing mechanisms identified in the Public Facilities Financing Plan have been implemented.

*Letter 12***LETTER 12.**

Antero A. Rivasplata, Chief, State Clearinghouse, Governor's Office of Planning and Research, 1400 Tenth Street, Sacramento CA (September 15, 1997).

Comment 12.1: (paraphrased)

The State Clearinghouse submitted the above named environmental document to selected state agencies for review. The review period is closed and none of the state agencies have comments. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Response 12.1:

Comment noted.

*Letter 13***LETTER 13.****David Edminson, 7651 Bar Du Lane, Sacramento California (August 21, 1997).*****Comment 13.1:***

The Planning and Development Department has prepared a North Vineyard Station Specific Plan, and has identified a "Preferred Plan". This Preferred Plan has features which are unacceptable to my wife and I as well as my neighbors on the north end of Bar Du Lane. It is my understanding that County policy states that future development should have minimal negative impact on current users of adjoining areas. The Preferred Plan does not meet that criteria for our neighborhood.

Response 13.1:

Comment noted. Comments contained in this letter are directed at the proposed project and not the environmental document. No response is required pursuant to CEQA.

Comment 13.2:

This area was developed approximately 30 years ago under A2 zoning. Several of us have lived on the street for nearly the entire 30 years. The area has been quiet, peaceful, semi-rural and relatively free from crime. That is exactly why each of us has chosen to live here. We believe we have the right to expect that the area remain as close as possible to that ideal.

Response 13.2:

Comment noted.

Comment 13.3:

The Preferred Plan includes a "core area" directly across Gerber Road from the north end of Bar Du Lane which provides for areas of commercial use and high density housing. Commercial activity is an exact opposite of the current usage of our neighborhood. High density housing and increased crime seem to go hand in hand in the Sacramento area. The impact of these two incompatible activities would result in the destruction of our peaceful semi-rural way of life.

Letter 13**Response 13.3:**

The Policy Planning Commission has recommended the Dispersed Core alternative which substantially reduces the concentration of commercial and multi-family uses in the vicinity of the Gerber/Waterman intersection. This alternative has been addressed in the EIR and is open for consideration by the Board of Supervisors.

Comment 13.4:

An alternate plan which would reposition the core area to the intersection of Bradshaw and Florin Road has also been prepared. We believe this to be a better location for the commercial and high density housing uses. It is at the intersection of two existing major streets while the Preferred Plan would create a new center of activity and a new busy intersection. Also, most of the area which would be impacted is vacant land or has current commercial usage.

Response 13.4:

The Florin/Bradshaw core relocation, also known as the "Alternative Core", has been considered in the EIR. The Board of Supervisors will decide the ultimate core location.

Comment 13.5:

We are also concerned about the increased traffic flow along Gerber Road that will result from development of the area. The plan estimates that traffic along Gerber Road that will result from development of the area. The plan estimates that traffic along Gerber will increase from 7,220 to 25,200 vehicles per day, and increase of 254%. Even now it is difficult and very dangerous to turn onto Gerber from Bar Du Lane at rush hour on a foggy winter morning. The plan would modify Gerber Road to four lanes to accommodate the increased traffic. However, unless some means of access at a signaled intersection is provided, it is certain there will be an increased number of serious, even fatal accidents at the corner of Bar Du Lane and Gerber Road.

Response 13.5:

Traffic signals will be installed as signal warrants are met at various intersections in the Plan area.

*Letter 14***LETTER 14.****Clifford & Sue Daniel, 7622 Bar Du Lane, Sacramento CA (September 3, 1997).*****Comment 14.1:(paraphrased)***

Thank you for the opportunity to comment on the Draft EIR. As thirty-year property owners on Bar Du Lane, we are extremely concerned about the impact on the environment and the negative results that will drastically alter our lifestyle if this project is approved.

Response 14.1:

Comment noted.

Comment 14.2: (paraphrased)

The report clearly states that there will be significant and unavoidable effects that "CANNOT BE AVOIDED" if the plan is approved.

Response 14.2:

Comment noted. This is consistent with the EIR findings.

Comment 14.3:(paraphrased)

Although the report indicates that these significant impacts "CANNOT BE MITIGATED", if there is a decision to go ahead with the project in opposition to the County General Plan, we cannot support any of the proposed plans and alternative plans that do not move the Core Area to the corner of Bradshaw and Florin Roads. Gerber Road should be the last choice for business, commercial, or multi-family dwellings because:

- 1. BRADSHAW ROAD: Proposed to be widened to SIX LANES, has DIRECT FREEWAY ACCESS TO HIGHWAY 50, will carry 48,600 cars per day, and has three vacant corners at the intersection with Florin Road. There are already NUMEROUS COMMERCIAL ENTERPRISES that face Bradshaw.*
- 2. ELK GROVE-FLORIN ROAD: same as above with 53,000 cars per day.*
- 3. FLORIN ROAD: same as above with 32,700 cars per day, access is to HIGHWAY 99.*

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4. *GERBER ROAD: the ONLY road designated to be FOUR LANES, will carry only 25,200 cars per day, is land-locked with no direct freeway access - dead ends into Stockton Blvd. And Excelsior, has virtually no commercial enterprises along the road.*

Response 14.3:

Please see Responses 13.3 and 13.4 to Mr. David Edminson (Letter 13).

Comment 14.4: (paraphrased)

It is ILLOGICAL at best to place business, commercial and multi-family sections in the MIDDLE of the least-traveled and most narrow street that does not have any direct freeway access. Our rural way of life would be destroyed along with the habitat for much wildlife.

We strongly recommend that you do not approve the project based on the negative environmental report and the devastation that such a project would produce.

Response 14.4:

Comment noted. This comment is directed at the proposed project and does not question the adequacy of the EIR.

Letter 15**LETTER 15.****Gail Peters, 7641 Bar Du Lane, Sacramento CA (September 4, 1997).*****Comment 15.1:***

I am a resident of Bar Du Lane which is across the street from Gerber Road. Bar Du is a quiet country lane with well maintained homes. I have some concerns about the DEIR that I wish to address. The "Preferred" Plan (developer's plan) places a shopping center, business professional space, multi-family residential units and a Park and Ride directly across the street from our homes. While I am not against development in our area, I am very concerned about the impact of this "Preferred" Plan on the existing homes in my neighborhood. (Please see page 4.5b as it relates to Bar Du Lane.).

Response 15.1:

Please see Responses 13.3 and 13.4 to Mr. David Edminson (Letter 13).

Comment 15.2:

Under this section there is a discussion of a 15% Density Reduction Plan and a Modified Core Specific Plan (p. 4.3). I am in favor of a combination of these two plans. A 15% reduction plan would be the most consistent with the existing neighborhood surrounding the Plan area.

Response 15.2:

Comment noted.

Comment 15.3:

The report states (on page 4.3 that "the modified core alternative does not include any drainage parkway features or improvements adjacent to the urban core and focus area as does the Preferred Plan." I wasn't sure if this meant that drainage parkway features and improvements were not necessary with the modified plans or if it meant that the report simply did not include a diagram of these features.

*Letter 15***Response 15.3:**

The statement was simply meant to point out that the urban core location at Bradshaw and Florin Road does not offer the unique community design opportunities that exist along the proposed parkway. The drainage parkway features and improvement would still be necessary with the modified plans, there just would not be a higher density urban core adjacent to the parkway to enjoy it.

Comment 15.4:

In closing, I would like to thank you for taking the time to review my questions and concerns. I am not opposed to development. I am opposed to the "Preferred" Plan. I was designed without consideration of the existing residential communities closest to the Plan area. Bar Du is a peaceful and quiet country lane. I would like to keep it that way as much as possible. I am in favor of the 15% Reduction combined with moving the core to Florin road. I believe that this combined alternative is workable and I would like to see future studies focus more on these alternative than on the "Preferred" Plan.

Response 15.4:

Comment noted. This comment is directed at the proposed project and not the EIR.

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LETTER 16.

Alta Tura, Co-President, Urban Creeks Council, 4855 Hamilton Street, Sacramento, California (September 5, 1997).

Comment 16.1:

Comments on the Process In the spring of '96, representatives of UCC along with Audubon Society, Native Plant Society, Environmental Council of Sacramento, and Sacramento Open Space were invited to participate with the County and developer representatives in formulating a drainage plan for Gerber and Elder Creeks in the North Vineyard Station Specific Plan area. We appreciate the opportunity that was given for our input, and feel we learned much about what the County is dealing with in the Specific Planning process. We attended several meetings, giving verbal and written input. Unfortunately, virtually none of our recommendations were integrated into the preferred plan. Some of our recommendations appear in the DEIR's Biological Resources section.

The streams running through the North Vineyard Station and other specific plan areas in the south county offer a new opportunity to capitalize on creeks as amenities to development as was done with development along Laguna Creek. The width of the Laguna Creek Parkway corridor is generally sufficient to accommodate wildlife, trails for transportation and recreation, parks and natural areas. In contrast, houses crowd Morrison Creek to the point that is just a drainage with almost no biological functions, and now flood walls are being proposed as the solution. Creeks in the north are a maintenance and flood control headache because development in most cases was allowed too close to the creeks. Instead of recognizing the many benefits that would result from a wider corridor, the preferred alternative for NVS relies of technical fixes and allows bare minimum corridor widths to free up more land for development.

Response 16.1:

Comment noted.

Comment 16.2:

Page 11.41 refers to the drainage parkway alternative proposed by the above-mentioned environmental groups. It states, "These recommended policies have been included in their entirety for the readers reference in the Biological Resources section of the EIR." A contradictory statement is made later in the DEIR on page 14.29. The DEIR states that the environmental community "formulated 16 alternative drainage corridor policies for Elder

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and Gerber Creeks, 14, of those policies address biological resources and are discussed below." It appears only 14 of our 16 policies are to be shown in the DEIR. However only 10 of our proposed policies actually appear. Most of those missing are revisions we made to draft policies presented to us in the above-mentioned meetings.

Response 16.2:

The sentences in question on Page 14.29 (see errata section, Attachment 2) has been revised to read:

During development of the Specific Plan, representatives of the environmental community Environmental Council of Sacramento (ECOS), Urban Creeks Council, Audubon Society, Sacramento Open Space and California Native Plant Society), formulated 16 alternative drainage corridor policies for Elder and Gerber creeks **as listed on the pages that follow. Of 14 of those policies 14** address biological resources and are discussed below. These proposed policies were developed during a series of meetings with the project applicants and County staff (Planning and Community Development Department and Water Resources Division).

In addition, the list of alternative drainage corridor policies listed on pages 14.31 through 14.16 have been revised to include all 16 policies in an alternative font (Arial) to distinguish the policies from the EIR text. The 6 alternative policies that did not appear in the DEIR are highlighted with bold type as follows:

1. Provide flood control along Elder and Gerber Creek to accommodate peak flow conditions and normal drainage requirements; giving consideration to the overall watershed requirements for any proposed flood control measures. A multi-objective approach to planning channel modifications for flood damage reduction will consider hydrologic, geomorphic, and biological factors that influence stream hydraulics.
2. Maintain streamside resource values along Elder and Gerber Creeks, considering resource protection, recreation, education, flood damage reduction requirements and public safety.
3. Carry out an integrated design that provides an open space corridor along Elder and Gerber Creeks of sufficient size to enhance biodiversity, accommodate wildlife movement, sustain healthy ecosystems, and provide mitigation for loss of habitat and open space. Urban runoff from residential/commercial

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development has been shown to be toxic to aquatic organisms. State and federal water quality regulations increasingly require communities to prevent toxic urban runoff from impacting aquatic habitats at potentially tremendous public expense. Designing developments with pollution prevention in mind is the most economical and effective approach in urban creek settings. Wide vegetation buffers, an average of 600 feet, will increase the options available to water quality managers to remove harmful sediment, nutrients, pesticides, metals and other chemicals from non-point source runoff, before they reach the streams.

4. The drainage parkways of Elder and Gerber Creeks shall be designed and maintained as a natural appearing corridor, serving to enhance wetlands and riparian habitats, act as natural flood water detention areas, function as water quality enhancement features, and provide wildlife habitat and wildlife corridors. The channel design should take into account the benefits of more natural channel morphology. The parkway's channel and banks should be designed with appropriate roughness factors and width to permit mature growth of native riparian and native hydrophytic (wetland) vegetation yet still convey regular flood flows. The use of native plant species and locally native materials is encouraged both inside and in the corridor outside the channel.
5. To the maximum extent practical, retain and create topographic diversity and variation when channels are realigned or modified, including maintaining meandering characteristics, varied berm width, naturalized and varied side slopes (i.e., 3:1 to 5:1), and a varied channel bottom elevation. Channel width should be sufficient to provide room for natural stream movement over time. The materials comprising stream bottoms and banks shall be the same or similar to those found in comparable natural streams (particularly reference streams selected by the California Department of Fish and Game for the purposes of biological assessment). Likewise, a natural array of riffles, runs and pools shall be preserved or created to provide habitats which support a diverse aquatic community.
6. Avoid direct discharge of sediment laden storm runoff to stream waters. Excess sediment deposition in streams destroys the natural assemblage of aquatic organisms that would otherwise inhabit a healthy ecosystem. To avoid physical aquatic habitat degradation, sediment control shall be an element of stream corridor design standards and runoff management. Detention basins or other catchment systems which settle out sediment shall be accessible for routine sediment removal to ensure the long-term viability of these systems.

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7. Provide for monitoring of the ecological health of the streams. Baseline water quality monitoring shall be conducted at least quarterly in the year prior to commencement of stream modifications, land grading or building construction. Biological assessment techniques shall be a component of this initial monitoring, as well as subsequent monitoring, to measure the suitability of water quality and habitat for benthic (bottom dwelling) invertebrates, algae and fish. Quarterly monitoring shall continue for a minimum of five years, or until 75% of the development in the watershed is completed, whichever is longer. Throughout this period, incidence of perturbations in stream quality shall be investigated using appropriate biological, chemical or toxicity testing to identify and remediate the source(s) of the problem(s).
8. Long stretches of backup lots along parkways and open space corridors are discouraged. Effective patrolling requires the utmost visibility for foot and vehicular patrols. The use of front on streets is preferred, with side yard lotting patterns and open-ended cul-de-sacs being less appropriate. Backup lots, side yard lotting patterns, and open-ended cul-de-sacs will be restricted to 25% of the parkway length within the Specific Plan area. Through appropriate planning, a need for backup lots and side yard lotting patterns could be further reduced. An outreach program should educate the neighborhood about the benefits of the creeks and corridors and how to protect them, e.g. no dumping, no independent planting in the corridor, creek study, and other appropriate recreational activities.
9. Development located adjacent to the open space corridors of Elder and Gerber Creeks shall incorporate the corridor into the design of the project with attention given to minimizing the frontage that is blocked off from public view. Development proposals adjacent to the open space corridor shall have a public street paralleling at least one side of the corridor with vertical curbs, gutters, footpath, street lighting and post and cable barriers to prevent vehicular access. It may be appropriate to alternate the public street frontage from one side of the corridor to the other to maintain aesthetics for residential lots on the corridor, but resulting in not less than 75% of corridor having street frontage within the Specific Plan area.
10. Residential lots which back up or have a side yard orientation to the open space corridor shall employ the use of open fencing (e.g., wrought iron or decorative iron) to enhance surveillance of the corridor and provide a

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visual amenity. A 3-foot solid wall with 3 feet of open fencing on top is acceptable, while 6 feet of wrought iron is preferred for surveillance purposes. (Note: Chain link fencing is not an acceptable fencing material.)

11. Require that prior to the approval of any rezone or tentative map entitlement within or adjacent to the currently designated floodplain of Elder or Gerber Creek, or modified floodplain as recognized by FEMA, a comprehensive open space corridor management plan (including revegetation, vegetation maintenance, and 5-year monitoring plans) shall be prepared and approved by the Board of Supervisors for that portion of the Creek included in the planning proposal, and extending 100 feet both up/down stream. The management plan shall include:
 - a. A precise proposal encompassing the flood channel and open space corridor which adheres to the above stated policies and addresses the biological, aesthetic, and recreational qualities of the open space corridor;
 - b. An appropriate interface between the open space corridor and adjacent development with respect to aesthetics, access, maintenance and security;
 - c. An appropriate funding mechanism to establish, operate and maintain the open space corridor. A funding mechanism which is provided for a public entity should be given priority. As sections of the trail system are improved, they should be dedicated to Southgate Recreation and Park District for ongoing maintenance.
12. To the extent feasible, the storm water detention basins located within the North Vineyard Station Planning Area should be designed in a manner which allows the joint use of the facility for detention and recreation purposes. Guidelines should be followed as outlined in Volume 4 of the City/County Drainage Manual, and development plans should be coordinated with the Southgate Parks and Recreation District.

Elder and Gerber Creek Corridors

13. Establish a permanent open space corridor with a width of 600 feet along Elder

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and Gerber Creek extending from the City Limits northeastward to the upstream watershed boundaries (if and when development occurs upstream). The width of the open space corridor may vary depending on:

- a. unavoidable physical or man-made constraints occurring in the immediate area;
- b. quality and quantity of existing and planned habitat;
- c. presence of species, as well as their sensitivity to human interaction;
- d. areas required for vegetation regeneration;
- e. desire for community greenways;
- f. nature of planned uses adjacent to corridor;
- g. corridor for wildlife habitat linkage.

However, the absolute minimum width for the open space corridor shall be 150 feet on each side of the drainage canal outside of easements and detention basins and between detention basins and roads. The width of the open space corridor shall be made sufficient to accommodate broad and architecturally diverse native vegetation capable of: (1) trapping sediment and detoxifying pollutants from non-point sources such as neighboring yards; (2) providing habitat for native fauna; (3) competing against non-native invasive plant species; and (4) shading at least 75% of the surface at all times of the day, to maintain cooler water temperatures and associated, higher dissolved oxygen levels for aquatic organisms. To ensure adequate area for trails and other open space uses, the corridor widths and delineation will be determined after mitigation requirements from the various regulatory agencies (Army Corps of Engineers, Fish and Wildlife, Fish and Game) have been decided. If regulatory requirements take up the entire corridor, the width will need to be increased to allow for these planned open space uses.

14. **When detention basins (water quality and/or flood control) are adjacent to the drainage canal, the open space corridor shall begin at the outside edge of the detention basin. When detention basins are adjacent to roads, the open space/habitat corridor shall continue between the road and the basin in order to maintain the integrity of the corridor.**

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Constraint - If no woody vegetation is permitted within the 50 foot interceptor easement, the corridor shall begin outside the interceptor easement.

15. The corridor shall have a meandering appearance, and shall offer a variety of environments including: natural areas, revegetated/woodland areas, open grass fields/glades and passive recreation park land (not part of Quimby requirement). The corridor shall also be designed to accommodate interpretive areas, bike/pedestrian pathways, an equestrian trail, walkways, and a natural habitat corridor. These improvements shall be paid by the developer. There is a need for separation of some uses to maintain the integrity of the uses, e.g. horse trail must be separate from pedestrian trail.

The location of the drainage channel within the open space corridor may vary providing character and uniqueness as long as flood damage reduction measures are not negatively impacted.

16. Where the drainage canal flows under a road, that area should be of sufficient width and depth to include the trail, bike/maintenance trail, and habitat corridor. This allows for safe crossings (under as opposed to at road grade level). It also allows for better flood damage reduction. Where depth isn't sufficient for a bike trail, additional width for the habitat corridor should be included. Large floods can carry large amounts of debris such as uprooted vegetation and trees, fences, and parts of structures. This, combined with sediment, could impede or block the efficiency of medium sized culverts. Partial obstructions at bridges and culverts can cause significant increases in upstream flood elevations. If at-grade crossings are necessary, crossing lights, stop signs, and/or crosswalk markings shall be funded by the Specific Plan finance plan.

Comment 16.3:

Hydrology and Flooding. The County has not yet adopted a Drainage Master Plan (DMP) for the overall Elder/Gerber watershed per page 2.20 of the DEIR. It is our understanding that the General Plan calls for 600 foot wide corridors on creeks that do not have a DMP. A preferred alternative is not the same thing as an approved plan. Approval of the preferred drainage plan for the NVSSP (average corridor width less than half the 600 foot width) without an Elder/Gerber watershed DMP would be in violation of the County's General Plan.

Letter 16**Response 16.3 (by Water Resources Division):**

The Sacramento County Water Resources Division ,WRD, staff (R. Hettick) has prepared the following reply to this Hydrology and Flooding comment as well as the related hydrology and flooding comments that follow.

The General Plan does not state that the Drainage Master Plan (DMP) must be watershed-wide in order to define the Open Space component. The NVSSP DMP is a stand-alone document that provides the NVSSP open space planning, independent of the Elder and Gerber Creeks Drainage Master Plan (EGDMP). The EGDMP and the NVSSP DMP are tied together by the common UNET Analysis that provides the technical background and channel continuity between the two studies (available for review in the *NVSSP FEIR Final Technical Appendices Volume II*). The NVSSP Drainage Master Plan has been carefully coordinated with the County's watershed-wide UNET Analysis, and will provide continuity in open space planning among the NVSSP developments.

Comment 16.4:

Hydrology and Flooding. Page 2.22 discloses an existing overflow flood condition along Gerber Creek east of the NVSSP area that "causes flood flows to spill overland into the NVSSP area, placing a broad swath of the southeast portion of the Specific Plan area within the 100-year floodplain. Development of the proposed NVSSP urban land uses cannot occur in this area until this floodplain area is reclaimed. Such reclamation could be provided by constructing ultimate off-site, upstream Gerber Creek channel improvements to a point approximately 1800 feet north of Gerber Road Crossing No. 1. Alternatively, a new channel (either interim or permanent) could be constructed across the southeast portion of the Specific Plan to confine the overflow from Gerber Road in a manner which reduces the extent of the 100-year floodplain over this portion of the site, allowing development of a portion of the proposed NVSSP land uses in the area to proceed."

The proposed solutions are discussed no more completely in the Hydrology section. There is no map. No detail, no discussion of impacts of these alternatives. The planned development might require substantial alteration if a new channel is created. What route would the new channel follow?

Response 16.4 (by Water Resources Division):

The alternative channel would probably follow the overflow path. Chapter 6 of the UNET Analysis (Existing Conditions 100-year Event) provides a flow hydrograph of the overflow (Figure 6.4a) and shows a diagram of the overflow path (figure 6.4b). It is important to

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understand that the Drainage Plan for this area outlines the planned *ultimate condition* of channels and detention basins, a condition that may not occur for many years. Although planned, the facilities will not be fully designed until adjacent and/or upstream development construction is eminent. At that time specific alignment details will be developed.

Comment 16.5:

Hydrology and Flooding. *What would be the project and downstream impacts of this channel?*

Response 16.5 (by Water Resources Division):

Temporary Channel The hydraulic effect of a temporary channel following the overflow route would probably not be significant. The temporary channel would emulate the existing condition, with flow split between the existing channel south of Gerber Road and the overflow path. The overflow channel would operate more efficiently than the current overflow path, conveying the flows more rapidly, but the effect would probably be of little significance outside of the plan area.

The channel would be temporary and would not require an amendment to the adopted land use plan, but could warrant a temporary change in the size, and configuration of Basin G46.

Ultimate Channel Creation of an ultimate channel following the overflow path would shorten the creek, resulting in more efficient flow. The small flow restriction associated with Gerber Road Crossings 1 and 2 would be eliminated (and possibly replaced with one or more bridges internal to the NVSSP area). The effect on drainage south of Gerber Road (between Crossings 1 and 2) would be small, with those lands continuing to drain north toward Crossing 2. The size of Crossing 2 could be reduced to carry local flow only, since Gerber Creek would be passing to the north in the new channel. It is possible that the planned improvement for Crossing 1 could be eliminated or greatly reduced in size.

In order to accommodate an ultimate channel that follows the overflow route, the adopted NVSSP land use plan must be amended. The configuration of Basin G46 and the identification of an open space corridor adjacent to the new creek alignment would also need to be revisited.

Comment 16.6:

Hydrology and Flooding. *Plate HY-C seems to show that the detention basin, not a channel, is part of the preferred DMP for the Elder/Gerber DMP. Is this correct?*

Letter 16**Response 16.6 (by Water Resources Division):**

The preferred alternative for Gerber Creek is to follow the existing creek alignment south of Gerber Road between Gerber Road crossing No. 1 and No. 2, and incorporates detention Basin G46 at the site identified on plate HY-C. The overflow channel discussed is an alternative to the preferred alternative and is not shown on plate HY-C. As mentioned above, a channel using the overflow route would probably cause a reconfiguration of Basin G46.

Comment 16.7:

Hydrology and Flooding. It appears that the absence of a DMP for the Elder/Gerber Watershed leaves this issue up in the air.

Response 16.7 (by Water Resources Division):

The WRD preferred alternative for Gerber Creek is the existing alignment south through Gerber Road Crossing No. 1. The UNET Analysis and the NVSSP DMP clearly states this. The Elder Gerber DMP will have the same conclusion, since it is based on the UNET Analysis. Discussion of the three alternatives does not change the WRD position on the preferred alternative. A diagram showing the flow path and volumes is available in the UNET Analysis published in the *NVSSP FEIR Final Technical Appendices Volume II*.

Comment 16.8:

Density Reduction Alternatives. 10% and 15% Density Reduction Alternatives are discussed on pages 5.6 through 5.8. We suggest that a 600 foot wide creek corridor could be part of the density reduction. Proximity to the creek with a wider corridor than proposed would effectively lower the density for those parcels. All residents, including those living in higher density areas, could benefit from the amenity of open space. The corridor as currently planned will leave little room for open space with vegetation. What little space is allowed will be gobbled up by trails, firebreaks, easements and unplanned or unforeseen needs of the space. This has been the experience along most of Sacramento's urban creeks.

Response 16.8:

Comment noted.

Letter 16**Comment 16.9:**

Vernal Pool and Seasonal Wetland Impacts. The proponents propose off-site mitigation to compensate for vernal pool impacts of the project. We support the preparation of an On-site Wetland Preservation Plan as described on page 14.17 of the DEIR. The DEIR discussion indicates that most of the vernal pools are located in the east portion of the plan area. An on-site preserve of sufficient size (at least 200 acres) and including the pools' watershed may be feasible and would be preferable to off-site vernal pool creation. We would add to the On-Site Wetland Preservation Plan a restoration component so that less off-site and creation mitigation would be required.

Response 16.9:

Comment noted.

Comment 16.10:

Vernal Pool and Seasonal Wetland Impacts. If off-site mitigation is to occur, we would urge the County to follow the California Native Plant Society guidelines. CNPS guidelines recommend off or on-site mitigation be not less than 2:1 in purchase of easement. If rare species are present the ration should be 3 or 4 to 1. Restoration or preservation of damaged vernal pools is preferred over creation. Vernal pool creation should be at more than 3:1.

Response 16.10:

Comment noted.

Comment 16.11:

Funding for Drainage Parkway Buffer Areas. Page 11.37 states, "the Specific Plan does not identify the funding source or mechanism for land acquisition and landscaping improvements within the buffer area portions of the drainage parkways." We agree with a later statement on the same page, "the Specific Plan should be revised to clearly specify the funding source or mechanism for acquisition of the buffer area lands...and to clearly specify the funding source or mechanism for construction of the buffer area landscaping improvements..."

Response 16.11:

Comment noted.

Letter 17**LETTER 17.**

Judith Wilson & Roy Pace, 9091 McCoy Avenue, Sacramento California (October 15, 1997).

Comment 17.1: (paraphrased)

We own a one acre parcel of land within the North Vineyard Specific Plan. When we were first informed about this project our land had been designated entirely as a water retention basin. After attending almost all of the community meetings and voicing our concerns, the detention basin has been moved to a different location. However, we have repeatedly voiced our concern that the widening of the creek and the open space corridor still takes so much of our small parcel that the widening of the creek and the open space corridor still takes so much of our small parcel that the value of the property would be greatly reduced.

Response 17.1:

Comment noted. Comments contained in this letter are directed at the proposed project and not the adequacy of the environmental document. No response is required pursuant to CEQA.

Comment 17.2:

Unfortunately we were not able to attend the meeting that the Policy Planning Commission had on September 10th. During that meeting the Suggested Alignment A-2 to modify the alignment of Elder Creek was discussed. We do not understand why the creek cannot be moved a little further Northwest. The property behind ours is 9 acres and has nothing on it except a renter with his own trailer. Swinder Singh said at the meeting on October 24th that where ever possible the creek had been adjusted so as not to impact small parcels. The creek could be moved over a little further. (There is also a beautiful huge oak tree which will be right in the middle of the creek if the creek is not moved slightly.)

Response 17.2:

Please refer to Responses 19.6 and 19.8 to Mr. & Mrs. Jim Jordan (Letter 19).

Comment 17.3:

We were also very angry and distressed to learn that Planning Staff had several meetings with property owners who live along the creek corridors where Elder Creek and Gerber

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Creek meet and that only those who attended the last meeting were invited. Mr. Singh said that only those who spoke at that meeting were asked to attend, but Kathy Phillips was told of the meeting and she did not speak at that meeting. We have voiced out concerns at every public meeting. We feel that we should have been informed of those additional meetings with planning staff and should have had the opportunity to attend. We also are distressed to learn that had we been at those meetings the creek probably would have been adjusted as we recommend because everyone else that attended were given concessions.

Response 17.3:

Comment noted. These meetings were not part of the EIR process.

Comment 17.4:

Regarding our suggested modification to the creek (Exhibit 3.4), our suggestion need not be quite as drastic as portrayed on the map. These suggestions were drawn in a crude map with a felt tip pen and we assumed that those of us who made recommendations would be contacted by planning and would be able to further refine our suggestions, (why else did they ask for our telephone number?) But no further opportunity was forthcoming. We did not even know that our suggestion was included in the DEIR.

Response 17.4:

Comment noted.

Comment 17.5:

This whole process with planning and the community meetings has been very frustrating. Every meeting we attended was nothing but the same thing over and over. Planning told us about the project and what stage in the development the project was at and every time any of the property owners had questions staff couldn't answer them or the answers were unsatisfactory. We were given the opportunity only once to actually make recommendations when we drew our suggestions on the map and we thought that further follow up would be forthcoming but it was not. What were those meetings for if the opinions of the homeowners were not noted and responded to? We felt as if no one was listening to any of us.

Response 17.5:

Comment noted. These proceedings are outside the EIR process.

Letter 17**Comment 17.6: (paraphrased)**

If we owned a larger parcel than the one acre we would not be as concerned about the reduction in our acreage due to open space. But when you only have one acre, every foot you lose affects the overall value. Please accept our recommendation that the creek be moved. County planning staff concluded that realignment of the drainage channel is not seen as a significant impact to the proposed drainage plan, but that the extra expense to realign the drainage channel is not warranted. There are far more drastic and costly realignments being done in other places on the channel. However, if it is really impossible to change the creek alignment slightly, could the open space corridor at least be reduced to a minimum at that corner of our acre. Thank you for your consideration of this matter.

Response 17.6:

Comment noted. The ultimate drainage alignment will be determined by the Board of Supervisors.

Letter 18**LETTER 18.**

Cathy Phillips, 9040 McCoy Road, Sacramento California (November 18, 1997).

Comment 18.1: (paraphrased)

I can substantially support this proposal with a few modifications as presented. Also note that I believe my neighbor's Jim Jordan, proposal would be totally unfair to me, and would render my remaining property virtually useless.

I propose that the west forty feet of my easement reserved for the green belt be partially used for an access road along the west bank of the channel. To minimize my liability I propose that the County finance, erect, and maintain a six foot fence, adjacent, and to the west of my proposed channel access road. In regards to the channel on the south side of my property, I can support a similar arrangement wherein all improvements, including the future greenbelt, will be contained within this easement.

Response 18.1:

Comments contained in this letter are directed at the components of the project drainage master plan and open space plan, and not the environmental document. No response required pursuant to CEQA.

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LETTER 19.

Mr. & Mrs. Jim Jordan, 7471 Jordan Lane, Sacramento, California (December 4, 1997; November 25, 1997).

Comment 19.1:

This letter concerns the encroachment of the proposed North Vineyard Sation Specific Plan creek alignments and open space on our home.

Our family has been in the South County since before California was a State. At present we are at eight generations. Our home is located at 7471 Jordan Lane. It's a 10 acre piece that was subdivided in March 1903. It is currently in agricultural use - dry farming: oats and animal husbandry. It has no easements and more importantly no creeks.

Back in the early 50's a diversion ditch was bootlegged on our neighbors property which handles the sporadic summer run off (refer to exhibit A, marked in blue). The ditch cuts thru high ground and in winter time has proven to ineffective. It does no work! At present, when we get the volume of water these new creeks are designed for, ti follows the creeks historical natural alignment (see exhibit A, marked in yellow, and exhibit B photographs).

The Boards instructions on the Specific Plan's boundaries were not followed. I'm referring to Phillips North and West property lines and the interfacing problems with the Champions Golf Course. Not enough of Elder Creek was included to comply with county policy It has made it next to impossible to come up with an equitable solution.

The County's preferred alternative is to place Elder Creek and Gerber Creek onto our property. We've been dealing with the County staff for over a year unsuccessfully with other alternatives. It wasn't until the first meeting with your board and you directed Staff to meet with us to try and work something out that we started to see progress. The result of that is the moving of the County's preferred alignment of Gerber Creek off our property, closer to it's natural alignment and the reduction of the open space corridor.

Response 19.1:

This comment has been noted. On December 10, 1997 County Planning and Community Development Department staff (S. Singh) prepared and forwarded a memorandum to the Policy Planning Commission to respond to the comments and inquires that were raised by Mr. & Mrs. Jim Jordan in a letter dated December 4, 1997 and also in a letter that was

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provided during the Policy Planning Commission hearing that was conducted on November 25, 1997.

As noted in the December 10, 1997 memorandum the responses that follow have been prepared by staff from the Planning & Community Development Department, Water Resources Division of the Public Works Agency, Department of Environmental Review and Assessment and MacKay & Soms.

Comment 19.2:

Why weren't the Boards instructions followed concerning Specific Plan boundaries?

Response 19.2:

During a telephone conversation with Mr. Jordan on December 8, 1997, Planning Department staff (Singh) explained that a land use plan has been prepared in conformance with planning area boundaries that were approved by the Board of the Supervisors for the North Vineyard Station Specific Plan area. On April 19, 1993, the North Vineyard Station Property Owners Group filed a petition with Sacramento County to initiate the North Vineyard Station Specific Planning process. The petition proposed the planning boundaries and provided a justification statement for the initiation of the Specific Plan. Planning staff reviewed the Specific Plan proposal and found it to be consistent with the intent of General Plan policy. On January 19, 1994, the Board of Supervisors adopted Resolution No. 94-0062, initiating the North Vineyard Station Specific Plan for the following area and boundaries: Florin Road to the north, Gerber Road to the south, the extension of Vineyard Road to the east and the Elder Creek (west side, top of channel) roughly constitutes the west boundary.

Comment 19.3:

Every winter proves the ditch, marked in blue, does not work so why does the County want to put the creek there?

Response 19.3:

The existing ditch (Elder Creek) does not have the capacity to carry the volume of water generated by a significant storm. However, if this same size channel were placed in its historic path through the Phillip's property, the flood flows would still spill onto the adjacent lands. The floodplain in this area has historically been wide and shallow, with higher flows

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traveling outside the channel banks. Construction of a deeper, wider channel will significantly increase the capacity of Elder Creek. It is the opinion of staff of the Water Resources Division that there is no significant difference in *flow efficiency* between an improved creek in the historic path or an improved creek along the preferred alignment.

Comment 19.4:

In Alternate A-1, why does it say it will "significantly affect parcels by severance, creating additional constraints" when this condition already exist.

Response 19.4:

Alternative A-1 would result in the establishment of a drainage and open space corridor with a minimum width of 150 feet on parcels APN# 065-0080-050, 066, 067 and 068. The drainage easement and open space area would bisect and sever properties APN# 065-0080-066 and 067 to a point where the remaining unconstrained land on both parcels may not be feasible for future urban development. This option creates an excessive burden for the impacted property owners since both parcels are only 3.18 acres in size individually. Impacted parcels are too small to accommodate such facilities and a significant portion of the properties may be utilized to accommodate creek/open space. This option is not likely to be supported by impacted owners.

Comment 19.5:

Alternative B-4 says a 90 degree confluence is not hydraulically favorable, possibly increasing cost with channel lining and energy dissipation, so why does Staff's preferred alternative include a 90 degree bend when it's not necessary?

Response 19.5:

The velocity of the flow is the main factor that controls the significance of a bend. In cases where the velocity is high, bends create impedance to the flow (through turbulence) and can damage the channel by scouring the outer edge of the turn. It is possible that this effect would be greater in a 90-degree confluence than in a 90-degree bend because two previously separate hydraulic channels would come together. However, it is important to note the Alignment Alternatives Report said bends "may cause" an effect, not that they will cause an effect. If studied, it is the opinion of staff that the velocities would prove to be low enough that the bend at the south end of the Jordan's property would not cause a consequential constraint to the flow of water. A 90-degree confluence could also be possible without cost prohibitive channel lining or energy dissipation, if the flow velocities are low.

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The discussion of the channel bends needs to recognize the difference between hydraulic constraints and other criteria, namely the General Plan policies. A previous owner of the Phillips property, who aligned the channel along a property line, has removed the natural meander of the creek. The Conservation Element encourages natural, meandering channels (CO-107) and restoration of channels to their natural alignments (CO-112) but also directs designers to closely follow existing channel alignments (CO-106). Elder Creek has followed its current alignment for a significant length of time, creating questions of interpretation for CO-106. Returning the channel to its historic (pre-1930's) alignment will sever parcels creating access and "developability" problems which also conflicts with policies in the General Plan.

Comment 19.6:

The Staff' preferred alignment and alignments A1, A2, B1, B2, B3, B4 ... all have some pros and cons. Why was staff unable to recommend at least one of the other alternatives? Example A2.

Response 19.6:

The Drainage Master Plan prepared for the North Vineyard Station Specific Plan area identifies a preferred alignment for Elder and Gerber creeks. This information was provided to local resident during a series of public meetings that were conducted by County staff in August and September 1996. During the meetings, several residents had voiced their concerns regarding components of the Drainage Master Plan, particularly the preferred alignment for Elder Creek. Several alternative alignments for Elder and Gerber creeks were suggested by local residents during the meetings. All comments and suggestions were recorded by County staff. Suggestions regarding alignment for Elder and Gerber Creek were addressed as alternatives for the purposes of CEQA analysis. Staff also reviewed all alternative alignment and prepared a report that qualitatively evaluated the alternative alignments. Planning staff recognized that the Elder Creek alignment, as identified in the North Vineyard Station Drainage Master Plan, is the preferred alignment; while alignment suggestions received from local residents were all recognized as alternatives.

Comment 19.7:

According to the Staff preferred alternative, the West bank of the diversion ditch cannot be preserved because the ditch has to be filled in to create the designed flood plain--Yes or No?

Letter 19**Response 19.7:**

The 100-year water surface elevation in Elder Creek adjacent to Ms. Phillips and Mr. & Mrs. Jordan's property is approximately 41.9 feet. The minimum bank elevation will be about 1' above this elevation to provide sufficient freeboard. Therefore, the proposed minimum bank elevation will be around 43.0 feet. This elevation appears to be below the existing ground elevation on both properties. Therefore, no fill would be required along the channel banks. The western bank of the proposed channel could match the existing western bank of the existing low flow channel.

Comment 19.8:

Why do they want to preserve the West boundary of the diversion ditch which is basically a hard pan surface, with a few almond suckers when the east bank has a nice big oak tree on it? See exhibit C. Why isn't all the existing 75' drainage easement on the East side of the Phillips property being used? The Staff's preferred alternative uses only 30' of easement and kills the oak tree.

Response 19.8:

The proposed channel alignment attempts to comply with as many General Plan policies as feasibly possible. The alignment follows the existing channel when possible and avoids existing structures, trees, and unnecessary bends when possible. The alignment also attempts to provide a plan that results in parcels of size and shape to allow for future development. Due to the many property owners, constraints and conflicting general plan policies, 100% compliance is not possible. The preferred alignment of Elder Creek adjacent to Mr. & Mrs. Jordan's property and Ms. Phillips' property attempts to comply with the majority of General Plan policies and achieve a feasible plan for future development while reducing impacts to existing property owners. The alignment is located so that the existing 75' drainage easement on Ms. Phillips' property is utilized for 30 feet of channel and 40 feet of open space. The alignment follows the alignment of the existing low flow channel and could potentially preserve the western top of the bank. In this location, the alignment was chosen to avoid Ms. Phillips' home and result in a usable remaining parcel. Because Ms. Phillips' parcel is small in size and has a long and narrow shape, the channel alignment was chosen to reduce impacts to her parcel. If the proposed channel's western bank is moved 25' to the west (putting it 15' from the existing easement line to allow for a possible maintenance road), as previously suggested by the Jordan's, the channel would be 25' from Ms. Phillips' out structure and 60' from her home. The size and shape of the remaining parcel could make it difficult to develop this property. The oak tree on the eastern bank identified in Mr. Jordan's letter still would not be saved.

Letter 19**Comment 19.9:**

Is the floor level of detention ponds above or below the flow of the Creek? Why?

Response 19.9:

The *flood control* detention basins are designed for gravity outflow. The floor of the basin is slightly higher than the flow line of the improved channel, allowing the basin to drain to the creek through a pipe. Please see MacKay & Soms or the WRD Storm Water Quality Section for design details of the water quality ponds.

For Flood Control Basins:

The water surface elevation of the creek depends on the flow in the creek at a certain time. During a significant storm event, the basin floor will be lower than the water surface in the creek. During dry times and small storms, the basin floor could be higher than the creek water surface. The basin drains at a rate primarily dependent on the *difference* in water surface between the basin and the creek. If the basin water surface is high (full basin) and the creek water surface is low - the basin drains faster. If the creek water surface is high – the basin drains slower. In general, the flood control detention basins are designed to drain one or two days after a major storm.

Comment 19.10:

What is the proposed flood plain elevation and the flow line of the proposed creek 300' downstream from the bridge on McCoy Ave.?

Response 19.10:

Approximately 300 feet downstream from the McCoy Avenue crossing the proposed 100-year floodplain (water surface) is 41.9 feet. This value was calculated with the UNET hydraulic model. The proposed flow line elevation at this location (near cross section 5.914 on Upper Elder Creek) is 35.1 feet. The existing condition elevations are listed below.

	<u>Existing</u>	<u>Proposed</u>
Channel flow line elevation:	42.0 feet	35.1 feet
100-year water surface elevation:	46.0 feet	41.9 feet

Comment 19.11:

It's been established that the subdivision runoff is toxic and the detention ponds are designed

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to solve this problem. Where does the toxic silt go that is harvested from these ponds?

What happens in wintertime when floodwater flushes the system, ponds silt and toxins directly from subdivision into the creeks?

How are these toxins going to be kept out of ground water when the flow line of the creek will be 4' into extensive pervious material? Notice aggregate profile in well log, exhibit D?

Response 19.11:

The water quality detention facilities are designed to capture the "first flush" of a storm meaning the first amount of runoff containing the largest amount of urban runoff constituents that have collected on the ground since the last rain. The levels of the pollutants in urban storm water runoff are very low.

The water quality detention facilities are designed to detain the volume of storm water generated from the majority of the storms based on historical data. As the storm water sits in the detention facilities, the sediment and some particulate pollutants settle to the bottom of the basin, and the treated storm water slowly returns to the channel and flows downstream.

It is our understanding that the WRD maintenance division monitors the silt levels in the ponds and removes silt and any accumulated pollutants contained within it in accordance with state standards. Please see Sacramento County WRD Maintenance Division for more information.

Some storm water may percolate into the ground. The percolation of storm water into the ground is another means of treating (filtering) the water before it reaches the ground water table. As previously described, the levels of urban constituents within storm water are very low. In fact, the levels of pollutants are much lower than those found in typical septic systems in the area, which currently use percolation as treatment.

In very large storm events, the water quality detention volumes will be exceeded. However, in such large events, the concentrations of urban runoff constituents are diluted to levels not requiring treatment by detention. Due to the configuration and location of the water quality basins, re-suspension of solids during a large storm event is unlikely. To the extent possible, the design of the basins will be such that the velocities of flood flows in the vicinity of the water quality portion will be low, reducing the likelihood of re-suspension of sediments.

Comment 19.12:

Why does the Staff's preferred alternative impact us (one property owner) so severely with

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open space and two creeks when compared to the rest of the plan area?

Response 19.12:

The Jordan parcel is 9.7 acres. Based on the WRD UNET model, approximately 5.6 acres (58%) of the parcel is currently within the existing 100-year flood plain. The parcel is located at the confluence of two streams. These factors, along with the many other constraints previously discussed, contributed to the location of the preferred alignment on the Jordan property. The proposed channel improvements will significantly reduce the flood plain on the Jordan property by confining it to within the improved channel banks. Please note that the acreage designated for the proposed drainage channel on the Jordan property is 2.5 acres (26% of the parcel) which is significantly less than the portion currently impacted by the existing flood plain. During public meetings with the property owners conducted by Sacramento County Planning and WRD at the direction of the Planning Commission, reduction of the open space width on the Jordan property was suggested. An alternative minimum width of 40' of open space was discussed. This alternative minimum open space width impacts 1.0 acres (10%) of the Jordan's property.

Comment 19.13:

As to alternative alignments the Staff and proponents have mistakenly singled us out and refused to "trade faces, why?"

Response 19.13:

There seems to be a misunderstanding regarding the term "trade faces." George Phillips used the term to describe a phenomenon common to large projects. He said that the hearing boards (Planning Commission and Board of Supervisors) understand that if a planned facility (creek, road, sewer line, etc.) is moved because of the objections of the property owners, it creates the same conflict with the property owners at another location.

In this case, the anticipated concerns of other property owners would be the burden of a creek on land that is not *currently encumbered by a creek or existing floodplain*. The WRD does not object to further study of other alignments if the Planning Commission directs. This will result in project delays while other property owners are contacted and given a chance to register their complaints. Because the Jordan's property is partially encumbered by the Elder Creek floodplain, it is likely to be somewhat affected by any project in the area.

*Letter 20***LETTER 20.**

James B. Wiley, Taylor & Hooper Attorneys, 1435 River Park Drive, Suite 300, Sacramento CA (September 5, 1997).

Comment 20.1: (paraphrased)

The Thompsons are concerned about the referenced project's environmental impact on their property's use and value. This letter discusses their concerns and asks specific questions regarding the County of Sacramento's (hereafter "County") plans regarding their property.

Response 20.1:

Comment noted.

Comment 20.2:

Detention Basins Exhibit 11.2a of the DEIR shows that a detention basin, specifically E-26, is located in the general area of the Thompson property. Has the County developed a plan for the watershed north of Florin Road? Has the County committed any resources or conclusively decided that a detention basin will be located on the Thompson property?

Response 20.2 (by Water Resources Division):

In response to this and other drainage comments County Water Resources Division staff (R. Hettick) provided this and other drainage responses with regard to the Drainage Plan for the area as follows:

It is important to understand that the Drainage Plan for this area outlines the ultimate condition of channels and detention basins, a condition that may not occur for many years. Given the realities of drainage financing, facilities will not be designed or constructed until development occurs. The WRD does not control the economic forces that drive development. Thus, it is not possible to accurately predict the construction timing of planned drainage facilities. Construction of channel improvements on Elder Creek north of Florin Road is linked to the development plans of the property owners themselves and their upstream neighbors. To WRD knowledge no planning process has begun for properties upstream of Florin Road.

Detention Basins The WRD has developed a plan for the entire watershed including the area north of Florin Road. Hydraulic and hydrologic studies using the UNET computer program

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have determined the channel size, detention basin size, and general detention basin location. However the UNET model does not determine the exact location of facilities. Upstream of Florin Road, the Drainage Master Plan for Elder and Gerber Creeks (EG DMP) is planned to be programmatic in nature, with exact channel and basin locations to be determined in the future, when development is initiated for the area. Where possible, the creek alignment will coordinate with the planned sewer interceptor.

The UNET studies indicate that a detention basin is needed in the area of the Thompson property (Basin E-28, not E-26 as letter states). It is possible that the Thompson property may be identified as a possible detention site, however it was not one of the initial properties studied. Topography, land use, and environmental constraints control the final basin location.

Comment 20.3:

Width of Open Space Corridors What is the proposed width of the open space corridor on Elder Creek immediately north of Florin Road? Page 11.16 of the DEIR states that the open space corridors' widths will vary between 150 and 240 feet. According to staff's presentation at the August 27, 1997, Planning Commission Meeting, the preferred plans calls for an open space corridor width of between 250 and 425 feet. Further, on August 27, 1997, staff mentioned that environmental groups have requested an alternative of open space corridors of up to 600 feet in width. Thus, please clarify what the width of the open space corridor will be on Elder Creek immediately north of Florin Road.

Response 20.3 (by Water Resources Division):

Width of Open Space Corridors In the absence of a final Drainage Master Plan for the area upstream of Florin Road, the General Plan outlines a 600-foot wide open space corridor.

Response 20.3 (by Planning Department):

The North Vineyard Station Specific Plan (NVSSP) land use diagram, including alternative, identifies a drainage corridor and an open space corridor for portions of Elder and Gerber Creeks that flows within the planning area. For properties outside of the planning area, including the area north of Florin Road, no plans have been developed through the NVSSP process to define the boundaries of the open space area. General Plan Policy CO-103 requires that, in the absence of an adopted Drainage Master Plan for the entire watershed, a 600 foot corridor should be proposed for the Urban Stream Corridors.

Letter 20**Comment 20.4:**

Acquisition of Open Space Corridors' Property Does the County Plan to acquire the property associated with the open space corridor located on the Thompson property? Does the County have any plans for acquiring the remaining portions of the Thompson property outside the open space corridor? If the County plans to acquire the Thompson property: (1) when will the County acquire the Thompson property; and (2) will the County use the property's current zoning for estimating its market value?

Response 20.4 (by Planning Department):

Land use plans, prepared for the North Vineyard Station Specific Plan area does not designate any open space use on the Thompson's properties. Historically, properties along creeks have been obtained for open space uses through project dedication and condition of approval.

Comment 20.5:

Relationship to the Drainage Master Plan When will the Drainage Master Plan for Elder Creek be available for public review? Will Elder Creek's Drainage Master Plan address the remaining property outside the North Vineyard Station Specific Plan area? Is the Specific Plan's drainage plan being coordinated with the larger Drainage Master Plan?

Response 20.5 (by Water Resources Division):Relationship to the Drainage Master Plan

1. The Elder and Gerber Creeks Drainage Master Plan (EGDMP) has two objectives: 1) to plan for the hydraulic needs of the watershed, 2) to plan the open space along Urban Streams. The UNET Analysis for the EGDMP, which outlines the hydraulic needs, is complete, but the open space plan is not. Because of competing priorities, the WRD does not have a final release date planned at this time. The UNET Analysis is available for review in the NVSSP FEIR Final Technical Appendices Volume II.

The NVSSP DMP is a stand-alone document, independent of the EG DMP. They are tied together by the common UNET analysis that provides the technical background and continuity between the two studies.

2. Yes, the EG DMP will address the remaining area outside the NVSSP, but probably not to the level of detail of a Specific Plan. The EG DMP upstream of Florin Road

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will be programmatic in nature, generally outlining the facilities needed.

3. The NVSSP Drainage Master Plan has been carefully coordinated with the County's watershed-wide UNET model to provide channel continuity, adequate capacity, and a system of detention basin that work together.

Comment 20.6:**General Plan Requirement and Floodplain According to Page 7 of the County's Land Use Element:**

The Land Use Strategy Diagram designates most of the urban and urbanizing waterways floodplains as Recreational to preserve these natural corridors for public use. The designation was based on the latest FEMA 100 year floodplain data available when the diagram was prepared. The County will be implementing Master Drainage Plans during the term of the general plan and the 100 year floodplains are likely to be modified by this process. The County will therefore entertain general plan amendment application for land designated as Recreational which is subsequently removed from the FEMA 100 year floodplain.

Please state whether the County plans to comply with this policy by entertaining general plan amendment applications for land currently designated as Recreation that will subsequently be removed from the FEMA 100 year floodplain.

Response 20.6 (by Planning Department):

General Plan amendment applications for land currently designated as Recreational that will be removed from the floodplain designation due to the adoption and implementation of Drainage Master Plan will be accepted if such applications are consistent with goals and policies of the General Plan.

*Letter 21***LETTER 21.**

George Phillips, Law Offices, 555 University Ave. Suite 200, Sacramento, CA (September 5, 1997 and October 21, 1997 supplement).

Comment 21.1:

Page 1.5, Minor Amendments, second paragraph on page. The Planning Director's authority to make minor amendments to the Plan as an administrative matter is valid only until the issuance of the first building permit for any parcel that is created consistent with the Specific Plan. The wording of this paragraph could be misinterpreted to mean that no minor modifications to the plan may be made after the first building permit is issued anywhere within the Specific Plan. Any parcels created subsequent to and consistent with the Specific Plan will result from subsequent Tentative Mapping efforts. Since most of the Specific Plan is single family residential involving only one permit per parcel created, granting authority to make minor changes up to the first building permit on any subsequently created parcel is excessive.

Response 21.1:

Comment noted. This comment does not address an environmental issue; however, please be advised that the wording of this paragraph in question was provided by you and the consultant team members who prepared the North Vineyard Station Specific Plan document (Public Review Draft-May 29, 1997) that was forwarded to DERA for environmental review. Please refer to the Specific Plan document Section 11.0, "11.3.4 Minor Amendments" which states the following:

Minor Amendment - Administrative

The Planning Director has the authority to grant a minor amendment to the Plan as an administrative matter. The Director's authority extends to the review of the initial project only, and is valid up until the issuance of the first building permit for any parcel that is created consistent with the Specific Plan. (North Vineyard Station Specific Plan 5/28/97 Public Review Draft, page 11-4).

This section may be rewritten for greater clarity as long as the intent is not substantially modified.

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Comment 21.2 (paraphrased):

Page 1.7 and throughout the document. Specific Plan Proponents. Specific Plan proponents, also known as participating property owners for the project include: Winncrest Homes, US Home, Florin Investors, and Cal Maple Development. Movai, Saca Properties and East Bradshaw Gerber Associates are no longer participating property owners. Throughout the document, there are references to the proponent properties and participating properties. Please modify references and conclusions that are based on participating properties. In some instances, the Draft EIR includes evaluation of properties that are no longer participants. Please clarify in the Final EIR that technical studies may contain technical data for properties that are no longer considered participating.

Response 21.2:

In response to this comment the revised participating property owners information has been included in the Preface of the Final EIR document as follows:

The Specific Plan Proponents, also known as the participating property owners or petitioners, for the project now include: Winncrest Homes, US Home, Florin Investors, and Cal Maple Development. The Saca Properties, Morvai and East Bradshaw Gerber Associates are no longer participating owners. A revised listing of the North Vineyard Station Property Owners Group and their representative, or contacts, was provided by George E. Phillips (September 5, and October 22, 1997 letters to DERA).

1998 NVSSP Property Owners Group

**Winncrest Homes
9985 Folsom Boulevard
Sacramento, CA 95827
Contact: Mike Winn**

**North Vineyard Investors, US Home Corp.
2366 Gold Meadow Suite 100
Gold River, CA 95827
Contact: Brian Bombeck**

**Florin Investors
9985 Folsom Boulevard
Sacramento, CA 95827
Contact: John Reynen**

**Cal Maple Development
P.O. Box 19034
Sacramento, CA 95819
Contact: Phil Courey**

*Letter 21***NVSSP Representative**

Law Offices of George E. Phillips
555 University Avenue Suite 100
Sacramento, CA 95825
Contact: George Phillips

Specific Plan Program Manager

County Planning & Community
Development Department
827 7th Street, Room 230
Sacramento, CA 95814
Contract: Dave Pevny

Plate PRF-A is the revised “Location & Property Ownership Map” for the project area (revised Figure 1.7 of the public review draft Specific Plan document). These minor changes in the Specific Plan project document and related references in the DEIR do not affect the content or conclusions of the EIR.

In addition the Preface of the Final Technical Appendices Volume I and II contains the following statement:

Please note: Participating property owners have changed since the technical studies were originally conducted. These studies contain technical data for some properties that are no longer considered participating properties however, the technical data is not affected by these changes. The Specific Plan Proponents for the project now include: Winncrest Homes, US Home, Florin Investors, and Cal Maple Development. The Saca Properties, Morvai and East Bradshaw Gerber Associates are no longer participating owners. For a map of the current participating properties see Plate PRF-A in the Preface of the Final EIR.

Comment 21.3:

Reference to project acreage varies throughout the document. The acreage of the North Vineyard Station Specific Plan area is 1,590± acres.

Response 21.3:

The project acreage varies throughout the DEIR, because the acreage information provided to DERA by you and/or members of your consultant team has been varied. In November 1995 your staff (K. Steward) transmitted a project description and Project Location discussion that states “the Specific Plan Area is comprised of 1,540± acres”. The two technical studies prepared by Wallace Kuhl & Associates

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note the project site they evaluated was an “irregular 1,580± acres” (May 31, 1995 Preliminary Geotechnical Engineering Report, page 1; and March 1996 Preliminary Phase I Environmental Site Assessment, page 4). The December 4, 1996 Environmental Noise Analysis prepared by Brown-Buntin Associates notes the “Plan consists of approximately 1147 acres” (page 2). The May 28, 1997 Public Review Draft Specific Plan document prepared by you and your consulting team states in the Project Setting “the Plan area is approximately 1,595 acres in size” (page 2). In the Land Use Summary Table (page 3) of the proposed Specific Plan document the total gross acres for the Plan Area are listed as 1,594.5.

Comment 21.4:

Page 2.1, Preferred Specific Plan. Clarify that the Specific Plan was developed through a public outreach process which included specific input from the Citizens Advisory Council (CAC), County Staff, project sponsors and the general public.

Response 21.4:

On page 4.1 it is noted that “numerous workshops in the community have been conducted to involve other local citizens and property owners in the preparation of the proposed specific plan land use plan for the project area”.

Comment 21.5:

Page 2.1, Discussion of alternatives. The distinction between the 10% density reduction alternative and 15% density reduction alternative occurs in the holding capacity for low density single family (1-5 units per acre). In the 10% reduction plan, the holding capacity for single family residential (1-5 units) is 5 units per acre; in the 15% reduction plan, the holding capacity for single family residential is 4.5 units per acre. This difference in holding capacity accounts for the difference in the units between 10% and 15% density alternatives. Please make this clarification for similar discussions on pages 4.2, 4.3, 5.6 and 5.8.

Response 21.5:

Based on the above comment, the following new paragraph has been added to the “Project Description and Alternatives” section of the FEIR.

As noted by the project representative, the distinction between the 10% density reduction alternative and 15% density reduction alternative

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occurs in the holding capacity for low density single family (1-5 units per acre). In the 10% reduction plan, the holding capacity for single family residential (1-5 units) is 5 units per acre; in the 15% reduction plan, the holding capacity for single family residential is 4.5 units per acre. This difference in holding capacity accounts for the difference in the units between 10% and 15% density alternatives.

Comment 21.6:

Page 2.3 first paragraph. This discussion should be augmented to include reference to the designation of the plan area in the County's general Plan as an Urban Development Area. Holding capacity assumed for the plan area by the General Plan should be discussed.

Response 21.6:

The Land Use section of the DEIR (Chapter 5) contains more detailed discussion. The holding capacity of the Plan area under the General Plan is 7,200± dwelling units.

Comment 21.7:

Page 2.4 , Mitigation Measures LU-1 and LU-2. These suggested mitigation measures are inconsistent with and contrary to the consensus plan developed by County Staff, CAC and property owners.

Response 21.7:

Mitigation Measures LU-1 and LU-2 are suggested because the Preferred Specific Plan, or consensus plan, is inconsistent with the County General Plan stated objective that projected county population growth is to be accommodated through efficient transit-oriented development in new urban growth areas at the urban fringe.

The Preferred Plan is not an “**efficient transit-oriented development**”. The Preferred Plan is not committed to a mitigating pattern of land use that concentrates development in configurations designed to reduce automobile travel distances and related air pollution, as well as conserve energy and enhance the efficient provision of infrastructure and services. The Preferred Plan is simply a continuation of low density residential suburban sprawl, that characterizes much of the unincorporated area. As noted by Regional Transit staff (A. Palmere, April 15, 1996 letter to DERA) RT does not currently provide service to the planning area because it is a low-density

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residential and agricultural area that is extremely non-productive for fixed route transit service. RT and County staff, as well as the general public and environmental community know that the development of a high-quality transit service to the North Vineyard Station area is contingent upon many factors, including but not limited to:

- **Design/approval of land uses within the transit corridors at residential densities and commercial intensities capable of sustaining transit service;**
- **Design/approval of residential and commercial site designs to enhance access to transit facilities;**

Almost all (93%) of the Preferred Plan area is designated for low density (1-7 du/ac) residential use. This type of low density, suburban development pattern, coupled with auto-oriented street/circulation patterns will not support an efficient high-quality transit service. Similarly approval of this low density suburban sprawl Specific Plan will not support an efficient or high level of transit service in the future to the North Vineyard Station community. An efficient high-quality transit service for the Plan Area will not, nor can not be built, if the Specific Plan does not provide an efficient transit oriented land use development design.

Land use impacts resulting from approval and implementation of a Specific Plan that is not in compliance with General Plan goals, objectives and policies are ***potentially significant and adverse***. However, potentially significant and adverse land use impacts identified in the EIR can be overridden if there are sufficient social and economic reasons for doing so.

Comment 21.8:

Page s 2.6 and 2.7, Schools, Libraries, parks and Open Space. References should be made to Elk Grove Unified's existing fee structure in which the project will participate. There should be library and park components to the fee developed for the plan area.

Response 21.8:

Comment noted.

Comment 21.9:

Page 2.8, Public Facilities Financing. The last paragraph states that the NVSSP

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Financing Plan is expected to recommend funding mechanisms for all development projects, whether for the Preferred Plan, 10% alternative and 15% Alternative. The financing plan will recommend funding mechanisms for whichever plan is adopted by the Board and will provide information to determine if financing is feasible for alternatives.

Response 21.9:

Comment noted.

Comment 21.10:

Page 2.10, Traffic and Circulation. Cumulative No Project conditions refer to roadway segments for Excelsior, Elder Creek and Gerber Roads experiencing physical deficiencies based on substandard travel lane and shoulder widths. Other roadway segments experiencing cumulative no project increases in traffic would also result in physical deficiency such as Florin Road, Bradshaw Road, portions of Elk Grove-Florin road, etc. These roadway segments should be listed also.

Response 21.10 (by Transportation Division):

In response to this and other transportation comments County Transportation Division staff (J. Clark) has provided responses to this comment and comments 21.11 through 21.16 that follow.

The segments of Florin Road, Bradshaw Road and Elk Grove-Florin Road identified in the comment were not included in the DEIR because they were assumed to be constructed to arterial or thoroughfare standards (page 8.20). The segments of Gerber Road, Elder Creek Road and Excelsior Road were assumed to not be improved as part of the base transportation network for the Cumulative Condition analysis. Thus, they would need some form of improvement to accommodate future traffic demands.

Comment 21.11:

Page 2.11, Significant & Unavoidable Traffic Impacts. Item 1, Bradshaw Road impact is a cumulative plus project impact. Existing plus project conditions do not result in this impact. Since the cumulative condition does not yet exist, stating that this project results in this significant and unavoidable impact is not accurate. It would be future approval of other projects that would result in this impact. Item 2 correctly states that the impact is a cumulative conditions impact

*Letter 21***Response 21.11 (by Transportation Division):**

The addition of the proposed project traffic to the Cumulative base volume resulted in the level of service on the segment of Bradshaw Road from Florin Road to Elder Creek Road going from LOS E to LOS F. This a significant impact according to the County of Sacramento traffic impact guidelines.

Comment 21.12:

Page 2.12, Transit System Mitigation Measures. Some mitigation measures listed are for roadways with very minimal project impact. Please include discussion of how the Capital Improvement Program will recognize this and divert fair share funding from these roadways to more viable and severely impacted facilities.

Response 21.12 (by Transportation Division):

Comment noted. The project does have a small impact to these facilities, but given the condition of facilities, the impacts are significant and appropriate mitigation identified.

Comment 21.13:

Page 2.13, Transit System Mitigation Measures TR-6, TR-7: Roadway widening to minimum width standards. These roadways are already below standards for rural arterials. Project fair share funding should be diverted to make other more impacted roadway improvements.

Response 21.13 (by Transportation Division):

While these facilities currently do not meet County standards; they can carry the current traffic demands. The addition of project traffic will exacerbate traffic conditions such that for reasons of public health, safety and welfare improvements will be needed to these facilities. The funding of the identified improvements will greatly improve public health, safety and welfare.

Comment 21.14: (paraphrased)

Page 2.13, Transit System Mitigation Measures TR-11 Calvin Road. The Calvin Road project is within the Elk Grove, West Vineyard Public Facilities Financing Plan, and also within the influence area of the concurrently processing Vineyard

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Springs Comprehensive Plan. This project's fair share contribution should be diverted to other roadway improvements.

Response 21.14 (by Transportation Division):

The draft CIP for the North Vineyard Station Specific Plan identifies this mitigation as being 100% funded by other sources (Elk Grove, West Vineyard Public Facilities Plan and draft CIP for the Vineyard Springs Comprehensive Plan.

Comment 21.15:

Page 2.14, Transit System Mitigation Measure TR-15. Note that existing capacity conditions allow nearly 92% of the project to be built out before widening is required. Because this is a State Route, project fair share contributions may be diverted to other, more viable and impacted roadway projects. This comment applies to TR-12 and TR-13, intersection improvements.

Response 21.15 (by Transportation Division):

Neither Bradshaw Road or Florin Road is a state route. For this reason this comment may not be applicable.

Comment 21.16:

Page 2.15, Transit System Mitigation Measure TR-17. The EIR includes discussion of dual southbound left turn lanes, yet the measure requires only single left turn lanes north and south. Please clarify these requirements.

Response 21.16 (Traffic Consultants, Fehr & Peers & DERA):

Mitigation Measure TR-17 is Improvement EP-17 of the NVSSP traffic study prepared by Fehr and Peers. After subsequent review both DERA and Fehr & Peers staff realize that the proposed intersection improvements in the text do not match the lane configurations used in the level of service calculations. Mitigation Measure TR-17 in the EIR and Improve EP-17 (with new text in bold) should read as follows:

TR-17 Modify the Bradshaw Road/Gerber Road intersection to include the following lane configurations:

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- Dual left turn lanes, ~~two~~ one through lanes, and a separate right turn lanes on the eastbound and westbound approaches; and
- One left turn lane, two through lanes, and a separate right-turn lane on the northbound and southbound approaches.

The provision of two southbound ~~dual-left turn~~ through lanes and a dual westbound left-turn lanes will require widening of the ~~eastbound~~ southbound departure leg on Gerber Bradshaw Road to two lanes before merging to a single travel lane in each direction. The length and merging distance for these lanes shall be approved by Sacramento County Transportation Division staff.

The revised Mitigation Measure TR-17 has been incorporated in the FEIR Executive Summary, and in errata pages for the DEIR. In addition, pages 31 and 32 of the traffic analysis have been revised and are included in the Final Technical Appendices Volume III.

Comment 21.17:

Page 2.20, Hydrology and Flooding. The EIR introduces the Drainage Master Plan (DMP) for the North Vineyard Station Specific Plan as being developed by the proponents. It also states that the DMP proposes construction of flood control and stormwater quality detention basins, within and downstream of the Specific Plan area. This statement implies that the project proponents recommend downstream detention facilities, which is not the case. The recommendation for downstream detention was inserted by the County Water Resources Division and should be so characterized whenever it is referenced throughout the EIR.

Response 21.17 (by DERA):

The characterization of how the draft DMP document was prepared does not change the environmental impact analysis of the DMP submitted to DERA for review. Given that the DMP must be to the satisfaction of the WRD, thereDMP proposes construction of flood control and stormwater quality detention basins within and downstream of the Specific Plan Area. Your concern with semantics is noted.

Response 21.17 (by Water Resources Division, about Basin E20):

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In response to this and other drainage comments County Water Resources Division staff (R. Hettick) has provided this additional response with regard to the DMP and the downstream detention basin as follows:

Removal of all references to Basin E20 in the NVSSP Drainage Master Plan (DMP) and DEIR are not feasible because:

- The NVSSP DMP needs to comply with the regional UNET Analysis for the Drainage Master Plan for Elder and Gerber Creek which identifies facilities downstream of NVSSP as needed for SPA development conditions.
- The WRD requires that the plans for the downstream channel and detention facility be included for approval of the final NVSSP DMP.

Basin E-20 is needed as part of the NVSSP project because:

- A large basin is needed downstream of the confluence to provide system reliability. On-site basins alone do not provide this reliability.
- E-20 provides system and cost efficiency because of its proximity downstream of the confluence.
- Basin E20 is needed in the stand-alone condition to mitigate stage increases downstream of the City/County boundary.
- The WRD envisions an eventual stoppage of the Laguna Creek inter-basin transfer, however this large project may take substantial time to complete. In that case, significant development constraints would be attached to NVS properties, which may be mitigated with detention at Basin E20.

Comment 21.18a:

Page 2.21, Hydrology and Flooding, last paragraph. This paragraph states that any urban development within the NVSSP area will necessitate the construction of channel improvements downstream. While this statement is consistent with general statements in the DMP, the DMP also indicates that small isolated areas may be able to develop by installing temporary detention and pumping to mitigate for increased runoff."

*Letter 21***Response 21.18a (by Water Resources Division):**

Change the text of the last paragraph of the DEIR page 2.21 to read:

“Urban development within the NVSSP area will necessitate the construction of channels improvements . . .”

Add to the end of that paragraph:

“At the discretion of the WRD, it is possible that a limited upland area in the NVSSP might be developed using local temporary detention and pumping to drain a small development.”

Response 21.18a (DERA):

As requested by County WRD staff, the subject paragraph has been changed as follows (see Errata section pages 2.21 and 2.22):

~~Any urban~~ **Urban** development within the NVSSP area will necessitate the construction of channel improvements from the development area downstream to the existing improved channel near Millbrook Circle (approximately ½ mile west of Elk Grove-Florin Road) in order to provide adequate drainage service to the development area. However, it is possible that certain upstream ultimate drainage improvements may not be implemented for many years. Therefore, hydrologic and hydraulic analyses were conducted to determine whether implementation of the proposed NVSSP DMP improvements under interim conditions, absent implementation of ultimate upstream flood control improvements, would provide adequate urban flood protection to the proposed Specific Plan development without adversely impacting downstream areas. These interim analyses determined that there would be increased 100-year water surface elevations and increased out-of-bank flooding in downstream areas along Elder Creek, resulting in potentially significant flooding impacts, unless off-site Detention Basin E20 (downstream of Elk Grove-Florin Road) is constructed. These impacts would occur under either full (stand alone) or phased development of the proposed NVSSP land uses. The County WRD indicates that construction of Basin E20 should occur with the initial phases of the NVSSP construction. **At the discretion of the WRD, it is possible that a limited upland area in the NVSSP might be developed using local temporary detention and pumping to drain a small development.**

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Please note that this paragraph is now contained in the Executive Summary of the FEIR.

Comment 21.18b:

This paragraph states that the NVSSP DMP determined that there would be increased 100 year water surface elevations and increased out-of-bank flooding in downstream areas along Elder Creek unless off-site Detention basin E20 is constructed, which is inaccurate. The DMP states that alternatives such as constructing and optimizing the on-site detention facilities reduces the 100 year flows to existing conditions downstream. (within 10-15 cubic feet per second, or less than 1% difference) Studies completed for the on-site basins could be further reined during actual design or subsequent master plan refinement to reduce the flows even lower."

Response 21.18b (by Water Resources Division):

The UNET Analysis (on which the NVSSP is based) determined there would be a 0.5 foot rise in water surface elevation (stage) downstream of the City Limit in the stand-alone condition without construction of Basin E20. Because of the more rapid conveyance of improved channels, reducing the 100-year flows to existing at the City Limit does not guarantee a reduction of stage downstream of the City Limit (see "Flow versus Stage" discussion below). The NVSSP DMP did not study the effects of the project downstream of the City Limit.

Comment 21.18c:

Basin E20 is only needed if optimization of the on-site detention basins is not done. It would be foolish to construct on site detention basins without optimizing their performance with minor changes in weir elevation. Studies done by an outside consultant for the County of Sacramento Water Resources Division indicated that the flows downstream from the project [without Basin E20] are actually less than existing conditions. There is a statement that the stage, or water surface elevation can be higher. Please provide information on how the water surface elevation can increase when the flows decrease. The EIR should be revised to reference the statement that Basin E-20 is required as a statement by Sacramento County Water Resources, not by the authors of the DMP technical analysis.

For information on downstream water surface elevations please see the Flow versus

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Stage discussion below. Regarding the “optimization” of on-site detention as a replacement for Basin E20: The UNET model provides a good weir design, with stepped weirs for more storm flexibility. Further “tightening” of weir design to meet constraints at the City make a system even more confined to the characteristics of one specific design storm. A flood control system that is “tuned” closely to one design storm (i.e. dependent on small changes to the weir elevations), with results just slightly meeting the criteria at the City limit may not provide the factor of safety required for the watershed.

It is the WRD’s understanding that the UNET technical analysis does require and recommend Basin E20 (see attached **stage hydrographs prepared by Doug Hamilton, author of the UNET study**). The NVSSP is a significant percentage of the drainage basin, located in a critical area at the confluence of the two creeks and close to the downstream end where performance is most critical. The author of the UNET study indicates that for overall system reliability and operational flexibility, detention Basin E20 is a necessary component.

Flow versus Stage:

The flow and stage values in this hydraulic system are non-linear, i.e. they do not rise and fall in unison. Thus, a lower flow does not guarantee a lower stage. Because of the complex nature of this system, the UNET (one-dimensional unsteady flow) model was used for analysis. **The existing, stand-alone (w/ and w/o E20), and ultimate condition UNET models were provided to MacKay & Soms.**

Using these models to compare the downstream water surface elevations of the existing and stand-alone (without Basin E20) conditions, clearly shows a stage increase between Center Parkway and Franklin Blvd. The point of maximum increase (0.5 feet) occurs at cross section No. 0.835. At this cross section the **stand-alone maximum stage and maximum flow do not occur at the same time in the storm** (see Plates UNET-A and UNET-B, the stage and flow hydrographs for cross section 0.835). The stand-alone (without E20) stage peaks at approximately hour 12:00, while the flow peaks at approximately hour 18:00.

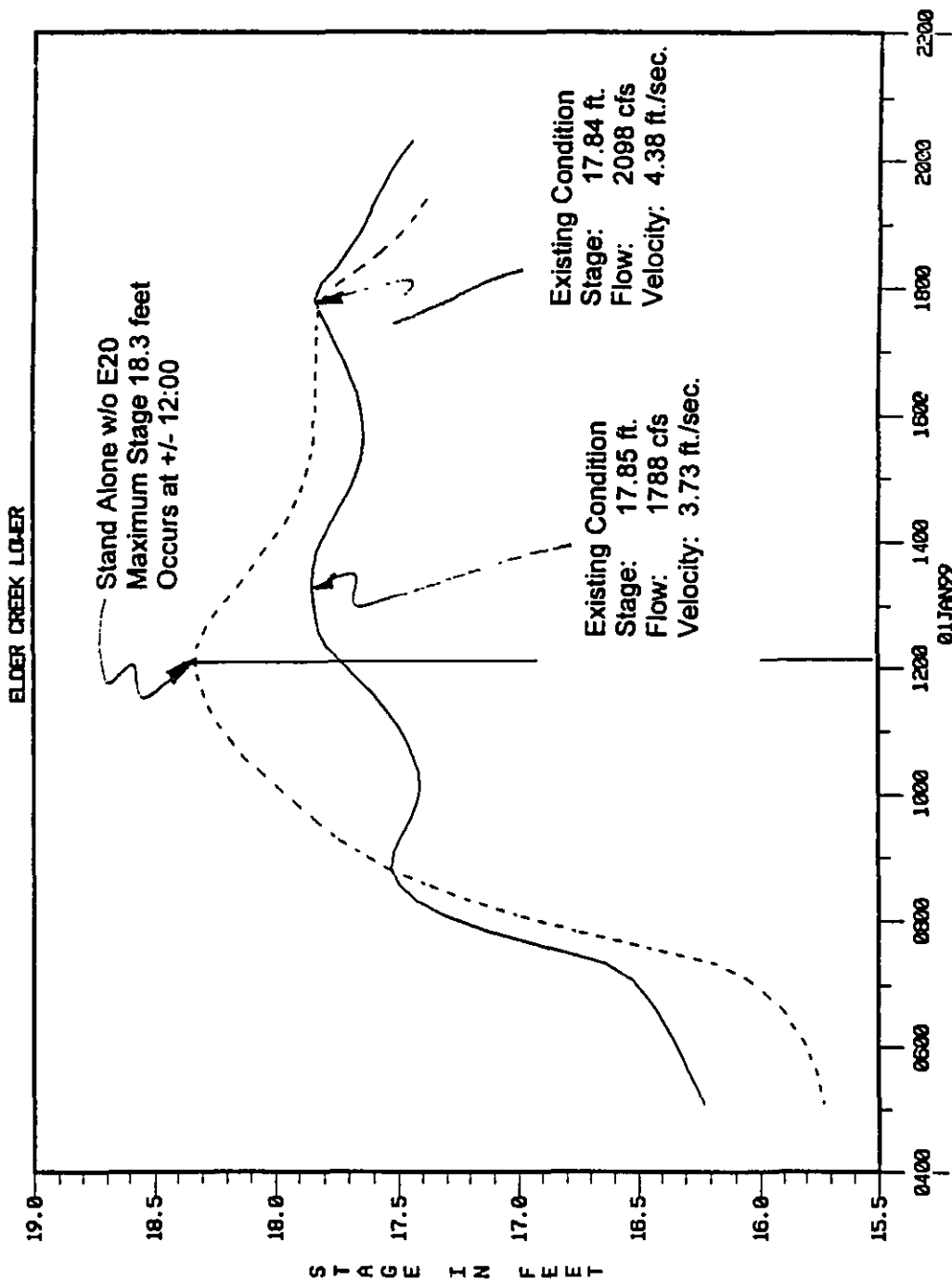
The more efficient channelization in the stand-alone condition results in an **earlier peak stage value during the design storm** (note the earlier “single-peak” stage hydrograph for the stand-alone without E20 condition compared to the “three-crested” stage curve for the existing condition).

It is true the stand alone without E20 flow immediately downstream of the NVS area

Attachment A

STAGE Hydrograph

Cross-section 0.835



6.76a

Plate UNET-A
NVSSP EIR(93-0238)

AT RPTILE .835 EXISTING STAGE
AT RPTILE .835 ST-ALONE W STAGE

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is slightly lower than existing (see Plate UNET-C), with an accompanying slightly lower stage (see Plate UNET-D). However, the stand-alone peak flow exits the NVSSP at an earlier point in the storm, **this bringing the water downstream earlier to coincide with local peak run-off. The timing difference is the significant contributing factor to the stage increase.**

Please note that in the existing condition at cross-section 0.835, two nearly identical maximum stages are reached, one at about 13:30 and the second at about 18:00 (see Plate UNET-A). The second stage peak occurs coincident with the time of maximum flow. This demonstrates the non-linear nature of this system that in the Existing Condition the same stage value occurs at different times with significantly different flows.

This is due to different flow velocities at different times. A higher volume of water may pass through the same cross sectional area of flow (same stage) if the velocity increases. The calculation of the flow is defined as the velocity of the water times the cross sectional area of the flow:

$$\text{Flow (feet}^3\text{/sec.)} = \text{Velocity (feet/sec.)} \times \text{Cross-sectional Area (feet}^2\text{)}$$

Comment 21.19:

Page 2.24 and 2.25, Mitigation Measures HY-1 and HY-2. These are not mitigation measures. If the Plan is revised prior to its approval, then there are no impacts to mitigate and thus, these mitigation measures are not required.

Response 21.19 (by Water Resources Division):

Please see "Comments Regarding Basin E-20" above in Response 21.17.

Response 21.19 (DERA):

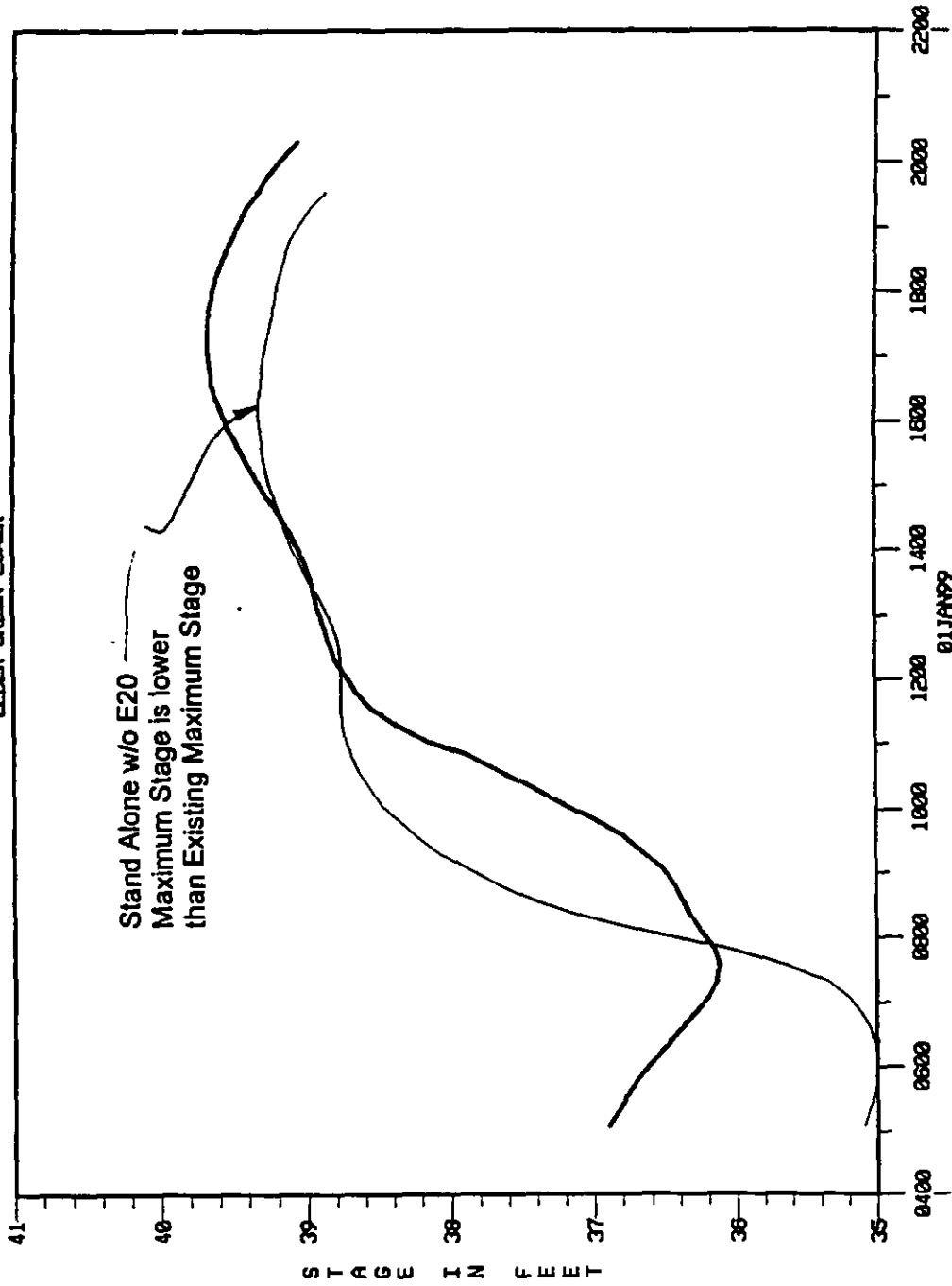
Mitigation Measures HY-1 and HY-2 are institutional, or policy, mitigation measures which must be complied with before the proposed project can be approved with assurance that hydrological/flooding impacts will be less than significant. The approved land use plan and final Financing Plan must comply with these mitigation measures.

It is acknowledged that these policy mitigation measures must be accomplished as direct changes to the NVS Specific Plan document (text, tables, exhibits, etc.) and

Attachment D
STAGE Hydrograph
Downstream Boundary of the SPA

02DEC97 15:02:00

ELDER CREEK LOWER



01JAN99

DS BORY SPA EXISTING STAGE
DS BORY SPA ST-ALONE W STAGE

Plate UNET-D
NVSSP EIR(93-0238)

6.77b

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related Financing Strategy/CIP documents in order to implement the measures. Once the project documents are revised, the “policy” mitigation measures will effectively mitigated the identified significant impacts; thus no Mitigation Monitoring and Reporting Program will be required.

Please see the Mitigation Monitoring and Reporting Program section in Chapter 2 of the FEIR for an expanded discussion about compliance with identified “policy” mitigation measures.

Comment 21.20:

Page 2.24 and 2.25, Mitigating Measure HY-3. Reference to requirements for construction of Basin E20 should not be to the NVSSP DMP, but rather a separate recommendation by the County Water Resources Staff. (See Comment 17 above). Delete the term “..., including construction of Detention Basin E20 downstream of the Specific Plan area,”. If necessary, append this same statement to the end of the mitigation measure with a reference to requirements by Sacramento County Water Resources Division.

It is recommended that specific references to Basin E20 be eliminated. No other specific improvement is referenced in any other mitigation measure. The language in the second paragraph of this mitigation measure includes the correct approach, by identifying flexibility to “demonstrate that phased improvements will provide adequate urban flood protection to the proposed on-site development, and will not increase flood risks in downstream areas.” This same flexibility should be provided with the issue of Basin E20.

Response 21.20 (by Water Resources Division & DERA):

Please see “Comments Regarding Basin E-20” above in Response 21.17.

Comment 21.21:

Page 2.24, second paragraph. Is mitigation for non-oak native trees required under the County’s tree ordinance? If not this obligation should be deleted.

Response 21.21:

Mitigation for non-oak native trees are currently required in order to comply with the County General Plan Policy CO-131 which states:

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Native trees other than oaks, which cannot be protected shall be replaced with in-kind species in accordance with established tree planting specifications, the combined diameter of which shall equal the combined diameter of the trees removed. In addition, with respect to oaks, a provision for a comparable on-site area for the propagation of oak trees may substitute for replacement tree planting requirements at the discretion of the County Tree Coordinator when removal of a mature oak tree is necessary in accordance with consistent policy.

The County's tree ordinance is currently undergoing revision in order to address a number of issues including compliance with the above General Plan Policy.

Comment 21.22:

Pages 2.24 and 2.25, Mitigation Measures HY-6 and HY-7. Recommend elimination of specific reference to Basin E20. It is the only ultimate project facility that is specifically referenced. Listing a general solution for the Gerber Creek overflow condition is consistent with the DMP.

Response 21.22 (by Water Resources Division & DERA):

Please see Response 21.17 regarding Basin E-20.

Comment 21.23:

Page 2.29, Water Supply. Phasing of proposed development. The planned widening of Elk Grove Florin Road from Calvine to Gerber will include extension of a twelve inch (12") diameter Zone 40 Transmission main to the intersection of Gerber Road. This facility will be available for initial development connection as a primary or secondary source of supply. This facility was not mentioned in the original Water Supply and Distribution Master Plan.

Response 21.23:

Comment noted.

*Letter 21***Comment 21.24:**

Page 2.36, second full paragraph. Reference should be made to the pending agreement between the County, DFG and the Nature Conservancy regarding County adoption of a Swainson Hawk mitigation fee.

Response 21.24:

Please note that the Swainson's hawk foraging habitat mitigation measure BR-4 has been revised in the Mitigation Measures section as follows:

BR-4. ~~To mitigate for the potential loss of 1600± acres of Swainson's hawk foraging habitat, implement one of the following alternatives: Prior to the approval of Improvement Plans or Building Permits, whichever occurs first, implement one of the following options to mitigate for the loss of 1,595± acres of Swainson's hawk foraging habitat:~~

- a. The project proponent shall preserve 0.50 acre of similar habitat for each acre lost within a 10-mile radius of the project site. This land shall be protected through fee title or conservation easement (acceptable to the California Department of Fish and Game);
- b. The project proponent shall enter in the formal consultation with the California Department of Fish and Game pursuant to ~~the Fish and Game Code~~, Section 2081 of the California Fish and Game Code.. A California Endangered Species Act (CESA) Memorandum of Understanding (MOU) and Management Agreement shall be completed prior to issuance of any building permits for the site.
- c. **The project proponent shall submit payment of a Swainson's hawk impact mitigation fee per acre impacted to the Department of Planning and Community Development in the amount as set forth in Chapter 16.130 of the Sacramento County Code as such may be amended from time to time and to the extent that said Chapter remains in effect.**
- ed. Should the County Board of Supervisors adopt a Swainson's hawk mitigation policy/program (which may include a mitigation fee) ~~payable prior to issuance of building permits~~ prior to the

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implementation of one of the measures above, the project proponent may be subject to that program instead.

Note: Actual habitat loss will occur when rezones and related land use entitlements are granted. Implementation of this mitigation measure will occur on a project -by-project basis with each rezone application.

Comment 21.25:

Page Section 3, Alternatives. This section discusses the No Project Alternative and an Increased Density/TOD/Wetlands Preserve Alternative. This section should also discuss the three other project alternatives that have been prepared: the 10% Density Reduction Alternative, 15% Density Reduction Alternative, and the Modified Core Alternative.

Response 21.25:

As discussed in the DEIR Project Description (p. 4.1-4.4), the Preferred Plan and the Proposed Alternatives are considered part of the project. These Proposed Alternatives were given equal level environmental analysis throughout the DEIR. Section 3 of the DEIR addresses CEQA Alternatives that were not part of the proposed project.

Comment 21.26: *(paraphrased per 9/9/97 & 10/21/97 letters to DERA)*

Page 3.2, Increased Density/TOD/Wetlands Preserve Alternative. The description of the Increased Density/TOD/Wetlands Preserve Alternative as the environmentally superior alternative does not include a description of technical analyses. Please include a land use exhibit and corresponding table of uses (with acreages and unit counts) to describe the Increased Density/TOD/Wetlands Preserve Alternative.

Response 21.26:

The Increased Density/TOD/Wetland Preserve Alternative is based on the Technical Studies submitted as part of the environmental impact analysis for the proposed project. In order to help reviewers visualize this alternative a conceptual land use exhibit (Plate PD-EE) has been developed and included in the FEIR "Project Description and Alternatives" section.

Letter 21**Comment 21.27:**

Page 3.3, Increased Density/TOD/Wetlands Preserve Alternative, first paragraph. Reference should be made to the specific holding capacity for the plan area assumed in the General Plan.

Response 21.27:

The General Plan holding capacity assumed for the Plan area is 7,200± dwelling unit, according to County Planning Department staff (Singh). The Increased Density alternative envisions a holding capacity equal to the Preferred Plan at 6,339 dwelling units.

Comment 21.28:

Page 4.4, Table PD-1. Confirm land use acreage for the preferred plan and alternatives. Table PD-1 is not consistent with information contained on page 5.26.

Response 21.28:

Page 5.26 contains no acreage information to compare with page 4.4, Table PD-1.

Comment 21.29:

Page 4.6, Table PD-2. The acreage shown for the County General Plan Existing scenario add to a number greater than the project acreage of 1,590. Please verify these acreage.

Response 21.29:

Please see Response 21.3.

Comment 21.30:

Page 4.8, Specific Plan Document. Please note that the Draft EIR is based on the public review draft of the North Vineyard Station Specific Plan dated May 28, 1997

Response 21.30:

Comment acknowledged. Reference to the May 28, 1997 version of the Specific Plan

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has been made in the Project Description section of this FEIR.

Comment 21.31:

Page 4.9 Specific Plan technical documentation. Technical analyses prepared for Basin E20, as well as the project's groundwater study should be included on the list of technical documentation.

Response 21.31:

The list of technical documentation has been revised to include the Basin E20 technical analyses and the groundwater study as noted below:

1. Arborist Reports, Tree Care, Inc.
2. Cultural Resource Assessment, Peak & Associates.
3. Acoustical Analysis, Brown-Buntin Associates, Inc.
4. Transportation Analysis, Fehr & Peers Associates.
5. Preliminary Geotechnical Engineering Report, Wallace-Kuhl & Associates.
6. Toxics/Site Assessment, Wallace-Kuhl & Associates.
7. Elder/Gerber Drainage Study, MacKay & Soms.
8. Water Master Plan, West Yost & Associates (for County Water Resources).
9. Sanitary Sewer Study, MacKay & Soms.
10. Wetland Delineation and Mitigation Plan, Sugnet & Associates.
11. Determinate Invertebrate Surveys, Sugnet & Associates.
12. Special Status Bird Surveys, Sugnet & Associates.
13. Special Status Reptile Surveys, Sugnet & Associates.
14. Special Status Amphibian Surveys, Sugnet & Associates.
15. **Basin E20 technical analyses**
16. **Evaluation of Groundwater Impacts, County WRD**

Comment 21.32:

Page 5.3, Preferred Specific Plan. Similar to Comment 4 above, co-sponsors should be defined as County Staff, CAC and project proponents.

Letter 21**Response 21.32:**

Comment noted.

Comment 21.33:

Page 5.10, second paragraph. Discussion requires greater context regarding placement of the core area on Gerber Road. The North Vineyard Station CAC's rationale for locating the core area adjacent to Gerber Road was in response to urbanization planned south of Gerber Road, not north of Florin Road.

Response 21.33:

Comment noted. This is a planning matter, not an EIR issue.

Comment 21.34:

Page 5.11, third paragraph. The at-grade crossing of the railroad at Waterman Road will require approval by the Public Utilities Commission. The EIR should discuss the necessary approval by the PUC.

Response 21.34:

Comment noted. The Introduction section of the DEIR under "Intended Uses of the EIR" acknowledges that the EIR by other responsible agencies. It is the PUC's prerogative to determine the adequacy of the document for their purposes.

Comment 21.35:

Page 5.14, fourth paragraph. TOD areas identified on the General Plan Land Use Diagram were represented by planning staff as illustrative of TOD opportunities and not intended to be specific designation for the property identified. This discussion is contrary to that representation. Moreover, the plan area, when designated by the Board as Urban Development Area, did not have a land plan adopted.

Response 21.35:

See Response 21.7.

Letter 21**Comment 21.36:**

Page 5.15, second full paragraph. Again, TOD designations were intended to indicate opportunities for TOD locations and not an actual designation of the affected area as a TOD. Th language is inconsistent with that intention.

Response 21.36:

See Response 21.7.

Comment 21.37:

Page 5.19, top paragraph. The language "...there does not appear to be any clear rationale for not identifying and designating a TOD site in the Plan Area..." is contrary to the consensus plan developed by the CAC, staff and property owners. Additionally, there has been no demonstration that adequate transit facilities will ever become available to the plan area to justify the density and intensity of TOD development.

Response 21.37:

See Response 21.7.

Comment 21.38:

Page 5.23, multi-family discussion. The Draft indicates that it is highly unlikely that the Plan will yield its expected share of multi-family units. The plan includes 39 acres designated for multi-family units, which is expected to yield 637 units. The 39 acres planned for multi-family uses exceeds the County's target (Table LU-4) range of 31-35 acres and the planned unit yield of 637 is within the County's range of 620 to 700 acres. The plan also includes 28.6 acres of commercial land use, which includes SC and LC zoned land which may be used for multi-family units. The conclusion that the project will not yield its expected share of multi-family units is subjective and without merit.

Response 21.38:

Please refer to pages 5.22 and 5.23 for explanation on the potential shortfall of multi-family units in the Plan area.

Letter 21**Comment 21.39:**

Page 5.24, second full paragraph. See comment #33 above related to core relocation discussion.

Response 21.39:

Comment noted. This is a planning matter, not an EIR issue.

Comment 21.40:

Page 6.4, top paragraph. The area to be serviced by Station 52 will likely serve a greater area than just the plan area. As such, the cost of the station's improvement and equipping should not be borne by this project alone.

Response 21.40:

Comment noted. This is a Financing Plan issue.

Comment 21.41:

Page 11.2, top paragraph. The objectives stated clearly identify an intent to reduce downstream existing flows and their related impacts on existing developed areas both within the County and the City of Sacramento. Subsequent discussion of the master plan facilities to achieve these goals does not mention funding sources other than fees or financing exacted from new development. Is it the stated intent of the Elder/Gerber Creeks Basin Master Drainage Plan to have new development fund this benefit to existing development?"

Response 21.41 (by Water Resources Division):

The intent of the Elder and Gerber Creeks DMP is to minimize new facilities effects on the downstream neighbors to a non-damaging level. The WRD does not object to changing the DEIR page 11.2 text to read:

“ . . . preferred flood control alternative is no greater than the existing condition peak flow on Elder Creek at the City/County boundary.”

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Please note: Reduction of the 100-year flow at the City Limit by a few cfs does not constitute a tangible benefit to existing development since there is no significant decrease in stage.

Comment 21.42:

Page 11.2, paragraph 4. In Chapter 9, page 9.3 of the Elder and Gerber Creeks Technical Appendix: UNET Analysis (January, 1997), prepared by Douglas Hamilton, P.E, for the County of Sacramento, the statement is made that Stand Alone Conditions 100-year event with the Laguna Creek over spill results in a decreased peak flow at the City boundary without basin E-20.

However, the study also finds a stage increase of approximately 0.5 feet downstream of the City boundary. The County has not provided information supporting the increased stage with decreased flow or its significance. The County's Elder/Gerber Creek DMP objective No. 1 that has been met. Information explaining the stage increase and its significance has not been provided by County WRD.

Comment 21.42 (by Water Resources Division):

Please see Response 21.18c Flow versus Stage discussion.

Comment 21.43:

Page 11.6, paragraph 3. Tables HY-3 and HY-4 illustrate several alternatives to reduce Stand Alone Condition peak flows at the City limit to at or below existing levels. Stand Alone Case 2 achieves this objective without construction of Basin E20 through optimization of the weir elevations for Basins G41 and E24A. The last sentence of this paragraph in the DEIR should be revised to the following:

Tables HY-3 and HY-4 illustrate that construction of certain ultimate facilities would be needed to reduce stand alone peak flows at the City limit to existing levels.

Response 21.43 (by Water Resources Division):

Please see Response 21.17 regarding Basin E-20.

Letter 21**Comment 21.44:**

Page 11.21, paragraph 3. As discussed in the NVSSP DMP, an extreme worst case Stand Alone Conditions scenario was prepared. The results of this analysis show that the drainage facilities proposed in the NVSSP Preferred Drainage Plan without the construction of Basin E20 adequately mitigate for the project's impacts as well as impacts associated with outside regional influences beyond the scope of this project's DMP. Please expand the discussion to include this information."

Response 21.44 (by Water Resources Division):

The stand-alone facilities without basin E-20 *do* mitigate for the flow impacts at the City Limit, *but do not* mitigate for the stage increases downstream of the City Limit. In determining acceptable stage, the WRD will consider stages at or below existing as non-damaging or, studies showing that higher than existing stages are non-damaging.

However, the NVSSP DMP does not prove either case. In addition, Basin E20 provides system reliability to the NVSSP area which is a significant percentage of the region, and due to it's proximity to the downstream area and location at the confluence of the two creeks, provides an even greater percentage of the need for Basin E20.

(Also see Response 21.17 regarding Basin E20.)

Comment 21.45:

Page 11.22, third paragraph. This paragraph identifies a low dam constructed across the flow path which results in upstream water surface elevations which cause overland flow diversion outside the natural creek channel. General Plan Policy CO-104 requires removal of unauthorized fill in the 100-year floodplain at the property owners expense. Removal of this fill would possibly reduce the temporary mitigation which will otherwise be necessary. Please include discussion consistent with County policy that requires removal of this fill in the floodplain.

Response 21.45 (by Water Resources Division):

Page 71 of the Conservation Element of the County of Sacramento General Plan (December 15, 1993, revised 5/2/97) states "The policies and programs in this section apply to the designated Urban Stream Corridors on the Open Space

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Preservation Strategy Map.” Gerber Creek is not identified as a designated Urban Stream on the map.

The WRD does have general policies against fill in the floodplain regarding new development (Sacramento County Floodplain Management Ordinance, December 23, 1993). This ordinance was not in place at the time the dam was constructed and does not address retroactive grievance against existing fill in the floodplain.

The WRD does not hold any drainage easements for the parcel in question and does not get involved in drainage disputes between neighbors. Except in cases that threaten health and safety, the WRD primarily enforces floodplain policies by withholding improvement permits. That is, the improvement permits or lot split requests for a parcel would be held until the floodplain issues are resolved.

Comment 21.46:

Page 11.27, paragraph 4, No. 3. Either construction of Basin E20 or optimization of the weir elevations of Basins G41 and E24A will eliminate or reduce the downstream impacts to less than significant status. Throughout other areas of text of this DEIR, the approach utilizing optimization of the weir elevations for Basins G41 and E24A is not stated as a viable alternative to construction of off site Basin E20. This study has proven to mitigate impacts to existing conditions and should be included in the discussion.

Response 21.46 (by Water Resources Division):

Please see Response 21.18c.

Comment 21.47:

Page 11.28, Supplemental WRD Conclusion and paragraph preceding. Please provide the information and technical analysis that lead to conclusions regarding the need for Basin E20. On-site basin E24A is a large basin located at the confluence of Elder and Gerber Creek. This basin provides flexibility in the system for timing variability on either creek in the ultimate and interim conditions.

Response 21.47 (by Water Resources Division):

The WRD does not concur with the conclusion that Basin E24A (located upstream of the confluence on the lesser of the two creeks) provides the same level of protection

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as Basin E20. Please see the "Comments Regarding Basin E-20" above. The technical information regarding the need for basin E20 is found in the UNET Analysis and is available for review in the NVSSP Environmental Impact Report Technical Appendices Volume II. In addition see Plate UNET-E, the supplemental letter by Doug Hamilton. (Also see response to comment 21.17 regarding Basin E20.)

Comment 21.48:

Page 11.29 Phased Development with Temporary Pumping Facilities. Reference is made to statements in the Executive Summary and Mitigation Measures, which draw conflicting conclusions that the facts presented in this section. (page 2.21) This section indicates that limited initial development could occur with temporary detention basins and pumping. Modify the Executive Summary to be consistent with findings of the DEIR text and the technical studies

Response 21.48 (by Water Resources Division):

Please see response 21.18a.

Comment 21.49:

Page 11.37, paragraph 2. The Stand Alone Condition Case 2 provides an alternative which reduces impacts to a less than significant level without the construction of Detention Basin E20. The wording "including the construction of Detention Basin E20" should be deleted."

Response 21.49 (by Water Resources Division):

Please see Response 21.17 regarding Basin E-20.

Comment 21.50:

Page 11.45, Mitigation Measures HY-6 and HY-7. In these mitigation measures, the wording, "including the construction of Detention Basin E20" should be deleted."

Response 21.50 (by Water Resources Division):

Please see Response 21.17 regarding Basin E-20.

01/16/1998 11:12 7142516592

DOUGLAS HAMILTON

PAGE 02

DOUGLAS HAMILTON, P.E.
18101 VON KARMAN AVENUE, SUITE 350
IRVINE, CA 92612
U.S.A.

Plate UNET-E.1
NVSSP EIR(93-0238)

TELEPHONE (714) 251-6565 FACSIMILE (714) 251-6592

January 16, 1998

MEMORANDUM

To: Terri Wegener
Water Resources Division
Department of Public Works
County of Sacramento
827 Seventh Street, Room 301
Sacramento, CA 95814

From: Douglas Hamilton

Subject: Drainage Masterplan on Elder and Gerber Creeks.

This memorandum summarizes my review of the final draft of the Drainage Master Plan (DMP) for the North Vineyard Station Specific Plan (NVSSP). The objectives of the DMP are:

1. The 100-year peak discharge for ultimate land use conditions with the preferred flood control alternative is less than for the existing condition peak flow on Elder Creek at the City-County boundary.
2. The maximum water surface in Lower Elder Creek remains below minimum bank elevation for the 100-year event with ultimate land use conditions and the preferred flood control alternative.
3. The adopted flood control alternative achieves the above objectives in a flexible and reliable manner.

One of the results of the Analysis of Alternatives in Chapter 7 of the Technical Appendix was that flows in Elder Creek affect the stage in the lower part of Gerber Creek. This means that the elevation of water in this part of Gerber Creek is determined by two things: The amount of water flowing through Gerber Creek, and how floods occur on Elder Creek.

Plate UNET-E.2
NVSSP EIR(93-0238)

The proposed location of detention basin E-24A is on Gerber Creek just upstream of the confluence with Elder Creek. For this basin to function reliably during a real flood, the relationship between the peak stage on Elder Creek and the peak flow on Gerber Creek will have to be similar to that for the hypothetical design event.

Basin E-20 is proposed to be located on Elder Creek downstream of the confluence with Gerber Creek. The elevation of water in this part of Elder Creek is basically determined by one thing: The total flow in the creek at any given time. For basin E-20 to function reliably during floods, we need only a method to convert from flow to stage. The relative timing of the upstream stage hydrographs does not affect the function of a basin located downstream of the confluence.

Even though we have done extensive analysis of floods, impacts, and mitigation measures; and that we can show a detention basin located at the concern area on Gerber Creek can still partially achieve the objectives of the DMP, I believe that the superior location is at site E-20. Because basin E-20 depends on the existence of only one condition, rather than two conditions in order to operate, it is more likely to achieve its intended function during real floods regardless of whether these floods occur during existing, stand-alone, or ultimate land-use periods.



Douglas Hamilton, P.E.

Letter 21**Comment 21.51:**

Page 14.5, Wetland Acreage, Table BR-2. Please revise Table BR-2 to reflect wetland acreage within participant and non-participant properties, consistent with Comment 2 above.

Response 21.51:

Please see Response 21.2.

Comment 21.52:

Page 14.37, Mitigation Measure BR-2, On-Site Wetland Preserve. If all impacts are mitigated on-site, the acreage required for mitigation will be significantly less than 200 acres. Please include justification for requiring a mitigation area of 200 acres.

Response 21.52:

Please read pages 14.25 and 14.26 of the DEIR.

Comment 21.53:

Page 14.28, Trees. The Draft EIR states that 48 trees exist within participating properties. Please revise this section to reflect the change in participating ownerships. Also, see comment 57 related to arborists reports.

Response 21.53:

See Response 21.2.

Comment 21.54:

Page 16.4, Technical Study/Site Assessment. Please revise this section to reflect the Environmental Site Assessment dated March 1996 (see comment 58 below).

Response 21.54:

The DEIR discussion entitled "Technical Study/Site Assessment" was prepared based on the December 22, 1995 report. The revised assessment dated March 1996 had not yet been provided to DERA prior to the release of the DEIR. The information

Letter 21

contained in the revised report raises no new or substantive issues. The revised assessment has been incorporated into the Final Technical Appendices Volume II.

Comment 21.55:

Page 16.26, Required Site Reconnaissance. The last paragraph on the Page is confusing. The Specific Plan does not recommend soil sampling and testing. The environmental site assessment includes recommendations for these properties.

Response 21.55:

Because the NVSSP environmental site assessment includes recommendation for soil sampling of these properties, the Specific Plan could and should flag these properties for such review at the earliest stages of site development. As discussed on page 16.31, these institutional or policy mitigation measures should be incorporated into either the NVSSP Policy document and/or the proposed Public Review Draft Specific Plan document text.

As with the County General Plan, or various Community Plans, the proposed Specific Plan could include a new element, or chapter/section, that outlines how hazardous materials issues for the plan area are going to be addressed during the Specific Plan application/development review process. Another option would be to include this issue in the proposed Specific Plan document implementation section. The revised text should at a minimum note all properties that will require a "site reconnaissance" or preliminary site assessment as part of their development application submittal to the Planning Department.

Comment 21.56:

Pages 16.26, 16.29, and 16.30. Please clarify the addresses of the properties for listed clean up.

Response 21.56:

The addresses and assessor parcel numbers for the properties listed for clean up came from the December 22, 1995 draft Preliminary Phase I Environmental Site Assessment prepared by Wallace-Kuhl & Associates. Where the consultant provided no address in his report, staff noted the block number range adjacent to the property and included the question marks because the exact street number was with question marks were simply intended to estimate the approximate range of the address number

Letter 21

(ie. "92???" meant the address is probably in the 9200 range.)

Comment 21.57:

Technical Appendix D, Arborist Report. The arborist reports in the technical appendix include data for properties which are no longer considered participation property owners. For clarification, please use the enclosed tree summary as an inventory of trees located on participating properties.

Response 21.57:

Comment noted. The arborist's evaluation of the trees is unaffected by changes in participating property owners. However, the summary and inventory of trees located on current participating properties has been included in the FEIR project description.

Comment 21.58:

Technical Appendix K, Hazardous Materials Assessment, also known as Environmental Site Assessment. The Environmental Site Assessment technical document, prepared by Wallace-Kuhl & Associates, that is included in Appendix was superseded by the revised document dated March 1996. Please include the most current version of this document in the Technical Appendix.

Response 21.58:

The March 1996 Hazardous Materials Assessment has been included as Appendix K of the Final Technical Appendices Volume II.

Comment 21.59:

Technical Appendix and throughout EIR. A Geotechnical Engineering Report was prepared for the project by Wallace-Kuhl & Associates (dated May 31, 1995) and submitted to County Planning and DERA for use in preparing the Draft EIR. Information from this technical study should be used in the Draft EIR analysis and the technical report should be included in the Technical Appendices.

Response 21.59:

The Geotechnical Engineering Report has been included as Appendix L of Final Technical Appendices Volume II.

ATTACHMENT 1

***NORTH VINEYARD STATION
SPECIFIC PLAN***

***DRAFT EIR
COMMENT LETTERS***

Pacific Gas and Electric Company
Building and Land Services

343 Sacramento Street
Auburn, CA 95603

August 6, 1997

RECEIVED

Mr. Dennis E. Yeast
County of Sacramento DERA
827 7th Street, Room 220
Sacramento, CA 95814

AUG 11 1997
DEPT OF ENVIRONMENTAL
REVIEW & ASSESSMENT
SACRAMENTO COUNTY



Re: Draft EIR for North Vineyard Station Specific Plan Control No. 93-SBF-0238.

Dear Mr. Yeast:

Thank you for the opportunity to review the *Draft Environmental Impact Report* for the North Vineyard Station Specific Plan.

PG&E's comments from the NOP have been included in the report on pages 4.12 and 6.2. As long as those comments are included in the final report, PG&E has nothing further to add and has no objection to the filing of the final report.

If you have any questions, please call me at (916) 889-3160.

Sincerely,

A handwritten signature in cursive script that reads "Lou A. Norton".

Lou A. Norton
Land Agent

RECEIVED

AUG 21 1997
DEPT. OF ENVIRONMENTAL
REVIEW & ASSESSMENT
SACRAMENTO COUNTY

August 20, 1997

*Sheldon**Administrative Headquarters*

6000 Orange Avenue
Sacramento, CA 95823
Phone 916-428-1171
Facsimile 916-428-7334

Board of Directors

Robert D. Cochran
John E. Cockerham
Dr. Dennis McKibben
Edwin A. Smith
Christine Thompson

General Manager

Larry Gun

Assistant General Manager

Ward Winchester

Mr. Dennis Yeast
Environmental Coordinator
County of Sacramento
Department of Environmental Review and Assessment
827 7th Street, Room 220
Sacramento, CA 95814

Dear Dennis:

Enclosed please find Southgate Recreation and Park District Resolution #97-11 which was approved by our Board of Directors at their meeting of August 19, 1997. This Resolution provides comments regarding the Draft Environmental Impact Report for the North Vineyard Station Specific Plan (Control Number 93-SFB-0238).

For your information, this Resolution provides a specific comment regarding the language of LU-4, Mitigation Measures; along with other comments reflecting our District's previous planning with both the County and the landowner's group regarding important aspects of park, parkway, joint uses and financing issues for the Specific Plan area.

Thank you for the opportunity to review and comment on this document. Please contact our District should you have any questions.

Sincerely,

Claudia Gunter
Government Relations Officer

cc: Surinder Singh, Sacramento County Planning Department

(2.1)

Resolution 97-11**RESOLUTION OF BOARD OF DIRECTORS OF THE SOUTHGATE RECREATION AND PARK DISTRICT COMMENTING ON NORTH VINEYARD STATION SPECIFIC PLAN DRAFT EIR**

WHEREAS, the Southgate Recreation and Park District is in receipt of the Draft Environmental Impact Report for the North Vineyard Station Specific Plan from the County of Sacramento Department of Environmental Review and Assessment, and identified by Control Number 93-SFB-0238; and

WHEREAS, this project contains 1,590 acres, and encompasses the area bounded by Florin Road to the north, Gerber Road to the south, Vineyard Road to the east, and the north and south forks of the Elder Creek; and

WHEREAS, this EIR document assesses the potential environmental effects of the proposed North Vineyard Station Specific Plan; and indicates the areas which must be addressed within the contents of the Specific Plan text; and

WHEREAS, the Southgate Recreation and Park District has participated in the planning and review process for the parks component of the North Vineyard Station Specific Plan, which is a land use plan developed through the cooperation of local citizens, public agencies, property owners, and the County Planning Department; and

NOW, THEREFORE, BE IT RESOLVED, that the Board of Directors of the Southgate Recreation and Park District does hereby provide to the County of Sacramento Department of Environmental Review and Assessment the following comments related to the North Vineyard Station Specific Plan Draft EIR:

1. LU-4. Mitigation Measures

In the Land Use Section of the "Executive Summary and Mitigation Measures" of the Draft EIR, Measure LU-4 does not accurately reflect the Southgate Board of Directors' position regarding the "Preferred" Land Use Plan. LU-4 should be revised to read:

"The final General Plan Diagram will be modified in respect to some park locations, with the Southgate Park District determining exact park locations. The Community Park site will not be located under power lines and will be modified to create neighborhood park sites in areas of the plan which are deficient in park land. Southgate does not support the Preferred Land Use Plan, but supports the Alternate Land Use Plan dated November 1, 1996, which was developed in cooperation with County Planning and the North Vineyard landowners group."



SOUTHGATE
RECREATION & PARK DISTRICT

Sheldon

Administrative Headquarters

6000 Orange Avenue

Sacramento, CA 95823

Phone 916-428-1171

Facsimile 916-428-7334

Board of Directors

Robert D. Cochran

John E. Cuckernham

Dr. Dennis McKibben

Edwin A. Smith

Christine Thompson

General Manager

Larry Gury

Assistant General Manager

Ward Winchell

2. Joint Uses

The Southgate Recreation and Park District supports coordination with other agencies to accomplish joint uses for park sites. This includes but is not limited to joint uses with schools, libraries, fire stations, detention basins, and drainage parkways.

3. Landscape Corridors Along Major Roadways

The Southgate Recreation and Park District supports the dedication and improvement of landscape corridors with pathways along major roadways to provide not only improved aesthetics between roadways and neighborhoods, but to also provide off-street transportation corridors for pedestrians and bicyclists. The District supports the dedication of 30 foot wide landscape corridors with 10 foot bike lanes along Vineyard, Gerber, Florin, Waterman, and Bradshaw Roads. These will be constructed concurrently with development in the plan area, and then dedicated to the District for ongoing maintenance.

4. Drainage Parkway/Detention Basins

It is important to allow for bicycle and pedestrian trail systems within the drainage parkway areas as defined on the plan. These systems become amenities to the community by providing recreational opportunities and creating logical off-street circulation through the plan area. Additionally, detention basins offer opportunities for passive park uses. After improvement, these should be dedicated to the District for ongoing maintenance.


5. North Vineyard Station Financing Plan

The Southgate Recreation and Park District supports the Park Component to the Financing Plan which will be associated with the North Vineyard Station in order to accomplish basic improvements to parks and recreational facilities contained in the plan.

PASSED AND ADOPTED by the Board of Directors of the Southgate Recreation and Park District this 19th day of August, 1997, by the following vote to wit:


AYES:

Cochran, Cockerham, McKibben
Smith and Thompson


Edwin A. Smith, Chair

NOES:

None


Christine Thompson, Clerk

NORMAN D. COVELL
Air Pollution Control Officer

SACRAMENTO METROPOLITAN



TIMOTHY W. TAYLOR
Chief, Mobile Source Division

RECEIVED
AUG 29 1997
DEPT OF ENVIRONMENTAL
REVIEW & ASSESSMENT
SACRAMENTO COUNTY

August 28, 1997

Mr. Dennis E. Yeast, Director
Department of Environmental Review and Assessment
County of Sacramento
827 Seventh Street, Room 220
Sacramento, CA, 95814

Subject: PROJECT NAME: DRAFT EIR: NORTH VINEYARD STATION SPECIFIC PLAN
YOUR NUMBER: 93-SFB-0238
OUR NUMBER: PR940221

Dear Mr. Yeast:

Thank you for the opportunity to review the above-captioned Draft EIR. The staff of the Air Quality Management District (District) has reviewed the draft, and offers the following comments.

1. The District is supportive of the construction and regional mitigation measures indicated in the Draft EIR, and recommends that they be included as conditions of approval for this project.
2. With regard to Construction Impact Mitigation Measures, we also recommend the use of reduced emission engines in heavy-duty on-road and off-road equipment.
3. Project proponents are advised that District Rule 403 - FUGITIVE DUST will apply to this project during construction. The project proponents should contact the District at (916) 386-6650 for information regarding this Rule.

Again, thank you for referring this application to us for comment. If you have any questions regarding these comments, please feel free to call me at (916) 386-7032

Sincerely,

Phil Stafford
Associate Air Quality Planner

cc: Ron Maertz, SMAQMD

G:\MOBILE\WP\PJ\SLANDUSE\940221 ltr

3

STATE OF CALIFORNIA-BUSINESS, TRANSPORTATION AND HOUSING AGENCY

PETE WILSON.

DEPARTMENT OF TRANSPORTATION

DISTRICT 3, SACRAMENTO AREA OFFICE • MS 41

P. O. BOX 942874

SACRAMENTO, CA 94274-0001

TDD 916 741-4509

FAX no. 916 323-7669

Telephone 916 323-0543

RECEIVED

SEP 8 1997

DEPT. OF ENVIRONMENTAL
REVIEW & ASSESSMENT
SACRAMENTO COUNTY

September 3, 1997

ISAC104
North Vineyard Specific Plan
DEIR SCH 96032057
03-SAC-16/50/99

Ms. Joyce Horizumi
 Department of Environmental Review & Assessment
 County of Sacramento
 827 Seventh Street, Room 220
 Sacramento, CA 95814

Dear Ms. Horizumi:

Caltrans has reviewed the Draft Environmental Impact Report for the North Vineyard Specific Plan and has the following comments:

- The traffic impacts to State Routes 16, 50 and 99 have not been adequately addressed as requested in our letter on the NOP dated April 2, 1996, (copy enclosed).

The Traffic Study only includes the segment of State Route 16 from South Watt Avenue to Excelsior Road. Traffic generated by the North Vineyard development could significantly impact other segments of State Route 16 (SR-16), especially the segment west of South Watt Avenue to the Howe Avenue Interchange. Furthermore, the cumulative impacts of this project and other proposed projects, along or in the vicinity of SR-16 rely on future highway improvements to SR-16, yet these improvements are not included in the Sacramento Area Council of Governments Metropolitan Transportation Plan.

This project and other similar projects in the vicinity will also impact Highway 50 and State Route 99. Traffic from this project will impact the Bradshaw/50 interchange and the Florin Road/SR-99 interchange.

The traffic report needs to address these potentially significant impacts and describe appropriate mitigation measures. The County needs to aggressively support capacity and intersection improvements along the SR-16 corridor, Highway 50 corridor and SR-99 before the LOS of each of these roads and impacted interchanges deteriorates to an unacceptable level.

- CP-5 South Watt Avenue/Jackson Road (SR-16) (Page 8.23) The discussion is inconsistent with both the AM and PM peak hours without the project. How can you add vehicles to an already congested situation and not make the congestion worse?

Ms. Joyce Horizumi
September 3, 1997
Page 2

Therefore, the project would exacerbate LOS F operations especially during the PM peak hour by increasing the v/c by over 0.12.

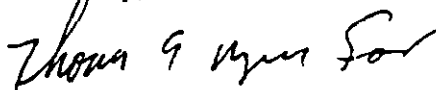
- Improvements CP-5; South Watt Avenue/Jackson Road (SR-16). Alternatives which should be considered include either phasing or reducing the scale of development so that this intersection can operate at an acceptable LOS under cumulative conditions. The feasibility of widening the roadway at the intersection (4 through lanes in each direction) to increase capacity and improve the LOS should also be considered.
- Excelsior Road/Jackson Road (SR-16). The report should discuss the feasibility and benefits of widening Excelsior Road to a four lane facility (south of SR-16) and a six lane facility north of SR-16. With approximately 1350 cumulative AM peak hour trips (south of SR-16) expected, widening the roadway would improve traffic operations.

Another alternative which should be considered is adopting a land-use alternative consistent with the current road capacity under cumulative conditions.

- Plate TR-L. The plate shows approximately 4100 peak hour AM trips northbound on South Watt Avenue just north of the Elder Creek Road/Elk Grove-Florin Road intersection. Yet only approximately 2300 peak hour trips are projected South of the Jackson Road (SR-16)/South Watt Avenue intersection. Please explain what happens to the approximately 1800 peak hour trips. Please review the intersection LOS calculations and update as needed.
- Please provide our office with a copy of the updated traffic study for our review and comment.

If you have any questions, please contact Tom Meyers at (916) 323-0543.


Sincerely,



JEFFREY PULVERMAN, Chief
Office of Transportation
Planning - Metropolitan

**COUNTY OF SACRAMENTO
INTER-DEPARTMENT CORRESPONDENCE
WATER RESOURCES DIVISION
MEMORANDUM**

To: Dennis Yeast, Director
Department of Environmental Review and Assessment

From: Terri Wegener 

Date: September 5, 1997

Subject: Draft Environmental Impact Report for North Vineyard Station Specific Plan
(Control Number: 93-SFB-0238)

The Drainage Master Planning Section of the Water Resources Division has the following comment on the above referenced Draft Environmental Impact Report:

Mitigation Measure HY-3 (page 11.45)

Revise the final sentence by inserting the following italicized wording: "Such analysis shall verify that the phased improvements will result in no *substantial* increase in peak 100-year flows on Elder Creek at the City/County boundary, and no significant increased 100-year out-of-bank flows in the existing improved channel downstream of the Specific Plan area. *Any phasing must also provide the necessary system reliability and be approved by the Water Resources Division.*"

Mitigation Measure HY-6 (page 11.45)

The items required in condition HY-6 shall be approved by the Water Resources Division.

Mitigation Measure BR-3 (page 14.37)

The Wetland Mitigation plan for Elder and Gerber Creeks shall be submitted to the Water Resources Division for approval.

Mitigation Measure BR-6 (page 14.39)

The Drainage Parkway Plan for Elder and Gerber Creeks shall be submitted to the Water Resources Division for approval.

cc: Robert Davison
Craig Crouch

COUNTY OF SACRAMENTO


PUBLIC WORKS AGENCY

Inter-Department Correspondence

September 5, 1997

RECEIVED

To: Dennis E. Yeast, Environmental Coordinator
Department of Environmental Review and Assessment

From: Warren H. Harada, Agency Administrator 

Subject: **DRAFT ENVIRONMENTAL IMPACT REPORT FOR NORTH VINEYARD
STATION SPECIFIC PLAN (CONTROL NUMBER: 93-0238; STATE
CLEARINGHOUSE NUMBER: 96032057)**

SEP 9 1997
DEPT OF ENVIRONMENTAL
REVIEW & ASSESSMENT
SACRAMENTO COUNTY

In response to your request for comments regarding the above cited Draft Environmental Impact Report, following is a summary of replies from various Public Works agencies:

1. Public Infrastructure Planning and Financing Section - No comments per Bob Davison.
2. Transportation Division (Planning-Traffic Engineering) - No additional comments at this time per Hardeep Sidhu.
3. Water Resources Division (Flood Control) - See the attached memo from James J. Paluck dated August 29, 1997.
4. Water Resources Division (Drainage Master Plan) - Comments will be forthcoming under separate cover.
5. Water Resources Division (Storm Water Quality) - See the attached memo from Tom Garcia dated August 28, 1997.
6. Water Resources Division (Water Supply) - See the attached memo from Stephen Kenning dated August 29, 1997.
7. Water Quality Division - See the attached memo from Bob Lilly dated September 4, 1997.

If you have any questions regarding this response, please contact Susan Goetz of the Public Infrastructure Planning and Financing Section at 440-5082.

WHH/BSG:bsg/97-31
Attachments (4)


cc:	Cheryl Creson	Tom Zlotkowski	Donna Dean	Mary James
	Robert Shanks	Keith DeVore	Randy Foust	Pete Ghelfi
	Patrick Groff	Wendell Kido	John Boehm	Greg Ohanesian

**COUNTY OF SACRAMENTO
INTRA-DEPARTMENT CORRESPONDENCE
WATER RESOURCES DIVISION**

MEMORANDUM

August 29, 1997

TO: Susan Goetz
Public Infrastructure Planning and Financing Section

FROM: James J. Paluck 
Water Resources Division

SUBJECT: Comments on the DEIR North Vineyard Station Specific Plan
Control No. 93-0238

The Water Resources Division (WRD) Development Section has the following comments on the subject project.

FEMA

With construction of the proposed drainage improvements, the revised 100-year floodplain must be approved by the Federal Emergency Management Agency (FEMA) prior to issuance of any building permits. Since the construction of these drainage improvements is expected to occur as part of development projects, it will be required at that time to "petition FEMA for a conditional letter of map revision pursuant to the Sacramento County Floodplain Management Ordinance, and the Sacramento County Improvement Standards, prior to improvement plan approval." This condition of approval, among others, will be requested for each development project occurring within the Specific Plan area. Include language in the EIR regarding this subject if you feel it is required.

Financing of Drainage Facilities

Nowhere in the Draft EIR is mentioned funding of drainage facilities identified within the Specific Plan area. This is a major concern for Water Resources Development Section. It has been identified that the overall "reimbursable" costs of the drainage facilities is approximately \$20 million, while anticipated collection of drainage fees within the Specific Plan area is on the order of \$10 million. With this \$10 million shortfall, it must be determined how these drainage improvements will ultimately be funded, and a timeline of this funding. This should be addressed in the EIR.

If you have any questions, please feel free to contact me at 440-6851.

309/77.10

cc: Pete Ghelfi
Terri Wegener

**COUNTY OF SACRAMENTO
INTER-DEPARTMENT CORRESPONDENCE
WATER RESOURCES DIVISION**

MEMORANDUM

August 29, 1997

TO: Susan Goetz
Public Infrastructure Planning and Financing Section

FROM: Stephen Kenning 
Water Resources

SUBJECT: Draft Environmental Impact Report for North Vineyard Station Specific Plan (Control Number: 93-0238; State Clearinghouse Number: 96032057)

Thank you for the opportunity to make comments on the Draft Environmental Impact Report for North Vineyard Station Specific Plan. Our comments are as follows:

Page 2.28

The use of the term maximum day demand should be used when discussing facility sizing, not in describing the use of water supplies. Revise the last paragraph to read:

In Alternative 1, surface water would be supplied to the entire Study Area, including the North Vineyard Station Specific Plan Area. In Alternative 2, surface water would supply the Demand of the area within the City's POU, and ground water would supply the Demand of the area outside the POU.

Page 2.29

The discussion of water supply does not include facility sizing. Delete the first paragraph that begins "Demands in excess of the..."

Page 2.30

Revise the last sentence by eliminating the redundancy of the reference to *Water Master Plan*. The sentence should read:

However, the implementation of the NVSSP Water Master Plan is contingent on the implementation of the Areas Adjacent to the Zone 40 Water Supply Master Plan Update's Study Area, as well as fulfillment of the City of Sacramento American River Place of Use (POU)

Page 7.4d

Exhibit PF-D is an outdated exhibit showing CIP water facilities. Delete this exhibit in its entirety and replace or reference page 12.19a (see attached exhibit WS-B) which is the latest version of this exhibit.

Page 7.4n

Incorporate the latest numbers from table 10.5-1 (attached) of the *Master Water Supply and Water Distribution System Report for North Vineyard Station Specific Plan*, prepared by MacKay and Soms into table PF-2.4 of the Draft EIR for NVSSP. Modify the Project Name for Project Number 4.5 in table PF-2.4 to read:

North Vineyard Station Specific Plan Draft EIR

Page 2

ON-SITE FACILITIES (SPECIFIC PLAN AREA)

Page 7.4d

Delete this exhibit in its entirety and replace with or reference to exhibit WS-B (page 12.19a).

Page 7.4n

Incorporate the latest numbers from table 10.5-1 of the *Master Water Supply and Water Distribution System Report for North Vineyard Station Specific Plan*, prepared by MacKay and Soms into table PF-2.4 of the Draft EIR for NVSSP.

Modify the Project Name for Project Number 4.5 in table PF-2.4 to read:

ON-SITE FACILITIES (SPECIFIC PLAN AREA)

Page 12.8

The adjacent Area Water Master Plan being prepared by the Sacramento County Water Agency is not yet complete, therefore, the first sentence in paragraph one should be replaced with:

A Draft of this document titled "Water Master Plan for Areas Adjacent to Zone 40 Water Master Plan Update's Study Area" (Adjacent Area Water Master Water Plan) dated September 1996 will be completed by SCWA. SCWA intends to finalize this document by the end of December 1997.

Page 12.10

For clarity, the second paragraph which starts "The determination of water . " needs the following heading

Buildout Average Annual Demand

The fifth paragraph that starts "A list of conservation measures.. " needs the following sentence added to the end of the paragraph:

Demands in WS-2 are not adjusted to reflect conservation, demands in WS-3 are adjusted to reflect effects of conservation measures listed in WS-4

Page 12.28

Delete the word preliminary from the title of the Water Master Plan. The first sentence of the last paragraph should read:

MacKay and Soms Civil Engineers, Inc. have prepared *The [Preliminary] Master Water Supply and Water Distribution System Report* (May 1997) for the North Vineyard Station Specific Plan.

If you have any questions or concerns please feel free to call me at 440-7967

OUTSIDE POU (EAST OF BRADSHAW)
CONCEPTUAL LOCATION
WELLS, TREATMENT, STORAGE, & PUMPING
- WELLS
- TREATMENT FACILITY
- 2.0 MG STORAGE TANK
- 4,440 GPM PUMPING STA.

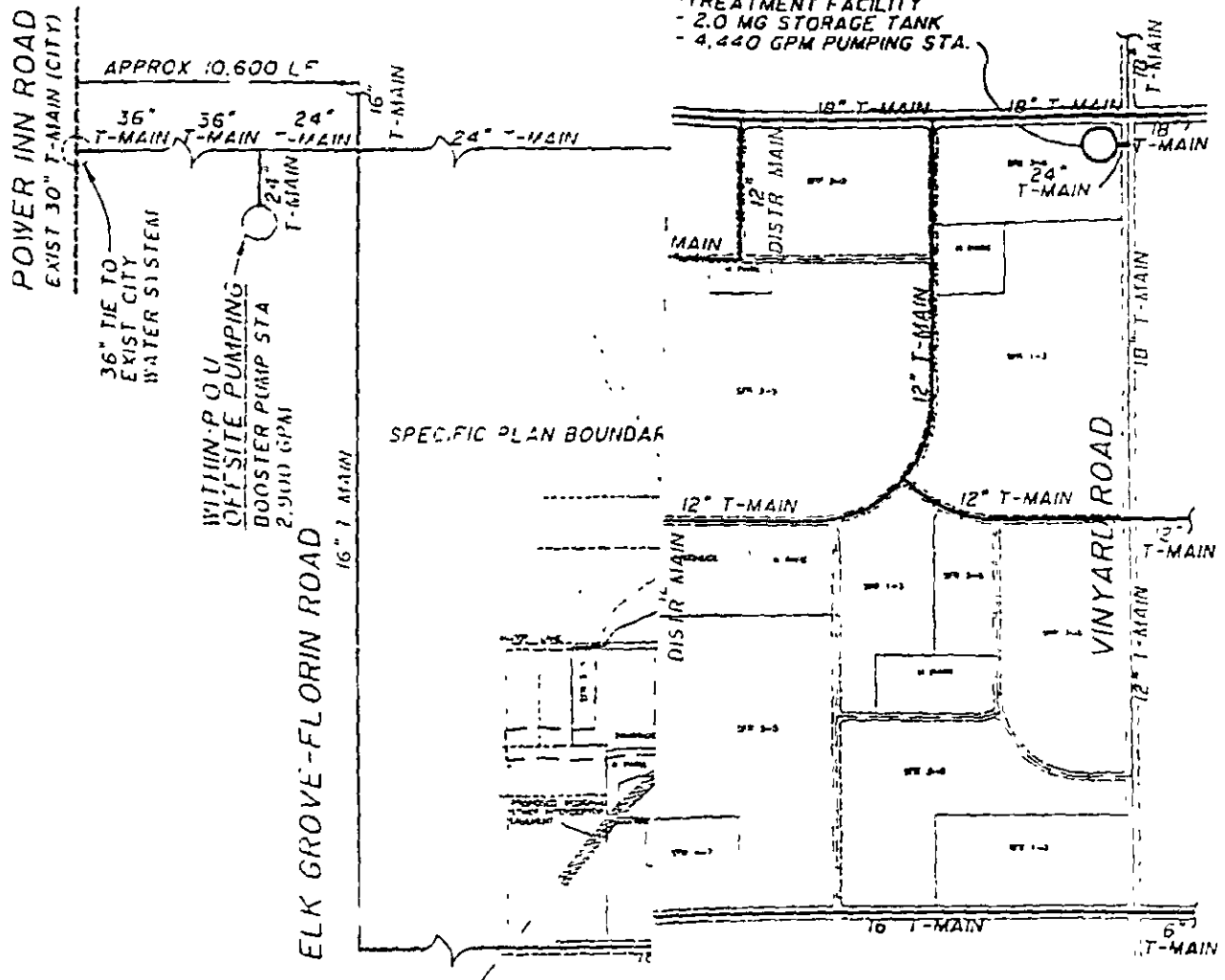


FIGURE 4

North Vineyard Station Specific Plan

WATER MASTER PLAN

Sacramento, California

MAY 1997

MACKEY & SORPES

CIVIL ENGINEERS, INC.
ONE DOWNSIDE LANE PLAINFIELD, NJ 07060

CIVIL ENGINEERING-LAND PLANNING-LAND SURVEYING



0 500 1200 2400

JOS NO: 7536-0

MASTER WATER PLAN

DWG FILE /7000/7536/WATER/WBASE1200.DWG

93

COUNTY OF SACRAMENTO
Public Works Agency
Water Quality Division Memorandum

September 4, 1997
E225.000

TO: Susan Goetz
Public Infrastructure Planning & Finance Section

FROM: Bob Lilly *NBA for*
Water Quality Division

SUBJECT: DRAFT EIR FOR NORTH VINEYARD STATION SPECIFIC PLAN
CONTROL No. 93-SFB-0238

Water Quality Division staff has reviewed the subject document on behalf of Sacramento Regional County Sanitation District (SRCSD) and County Sanitation District No. 1 (CSD-No. 1). Comments addressed to this project at the NOP are included in the draft and are adequate and appropriately discussed in the sewer section on page 13.1. On page 2.31, the bottom paragraph reads:

"There is an existing 108-inch sewer interceptor located in .. the Bradshaw Interceptor is planned for construction in 1997-1998."

This should be revised to say:

"There is an existing 102-inch sewer interceptor located in .. the Bradshaw Interceptor is planned for construction in 1999-2000"

cc. J. Boehm
V. Scotti

BL/bjb

Lilly/goetz 774.memo/204388

COUNTY OF SACRAMENTO***PUBLIC WORKS AGENCY******Inter-Departmental Correspondence***

September 8, 1997

TO: Joyce Horizumi, Principal Environmental Analyst
Department of Environmental Review and Assessment

FROM: Robert Davison, Associate Civil Engineer *RAD*
Public Infrastructure Planning and Financing Section

SUBJECT: Draft Environmental Impact Report for the North Vineyard Station
Specific Plan (Control No. 93-0238)

The Public Infrastructure Planning and Financing Section has reviewed the above cited Draft Environmental Impact Report and has the following comments:

Page 2.8 – Second Paragraph in the Public Facilities Financing Section: Revise the first sentence to read as follows: "The project site is not included in any existing Public Facilities Financing Plan area and will therefore require a financing *plan and associated implementation* to fund public facilities needed to serve new development in the Plan Area."

Page 2.8 – Third Paragraph in the Public Facilities Financing Section: Revise the first sentence to read as follows: "Because the NVSSP does not include any rezoning, a financing plan is not required to be part of the project *at this stage*."

To insure that no maps are approved prior to the approval a Public Facilities Financing Plan for the North Vineyard Station Specific Plan area, the Public Infrastructure Planning and Financing Section is recommending the following mitigation:

"No tentative map shall be approved until a Public Facilities Financing Plan for the North Vineyard Station Specific Plan area has been approved by the Board of Supervisors and no final map shall be recorded until the financing mechanisms identified in the Public Facilities Financing plan have been implemented."

If you have any questions, I can be reached at 440-6926.

RAD:rad

Cc: Rich Blackmarr
Del Bridgman
Maureen Zamarripa

p-f&sp/north vineyard station/ltr to Horizumi re DEIR

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SEP 9 1997
DEPT. OF ENVIRONMENTAL
REVIEW & ASSESSMENT
SACRAMENTO COUNTY

(11.1)

COUNTY OF SACRAMENTO***PUBLIC WORKS AGENCY******Inter-Departmental Correspondence***

September 17, 1997

TO: Joyce Horizumi, Assistant Environmental Coordinator
Department of Environmental Review and Assessment

FROM: Robert Davison, Associate Civil Engineer *RAD*
Public Infrastructure Planning and Financing Section

SUBJECT: **Draft Environmental Impact Report for the North Vineyard Station
Specific Plan (Control No. 93-0238)**

The Public Infrastructure Planning and Financing Section has previously forwarded comments to you regarding the above cited project to insure that the financing plan and associated implementation are required to be completed prior to certain entitlements. An error was made in the recommended mitigation and the following is a corrected recommended mitigation:

"No ~~tentative map~~ **rezone** shall be approved until a Public Facilities Financing Plan for the North Vineyard Station Specific Plan area has been approved by the Board of Supervisors and no final map shall be recorded until the financing mechanisms identified in the Public Facilities Financing plan have been implemented."

If you have any questions, I can be reached at 440-6926.

RAD:rad

Cc: Rich Blackmarr
Del Bridgman
Maureen Zamarripa
Dave Pevny
Surinder Singh

p-f&sp/north vineyard station/ltr To Horizumi re revised nvs DEIR

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SEP 19 1997

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SACRAMENTO COUNTY

11.2

STATE OF CALIFORNIA

PETE WILSON, Governor

Governor's Office of Planning and Research1400 Tenth Street
Sacramento, CA 95814**RECEIVED**

SEP 15 1997

September 12, 1997

DEPT OF ENVIRONMENTAL
REVIEW & ASSESSMENT
SACRAMENTO COUNTYDENNIS YEAST
SACRAMENTO COUNTY
827 7TH STREET, ROOM 220
SACRAMENTO, CA 95814

Subject: NORTH VINEYARD STATION SPECIFIC PLAN SCH #: 96032057

Dear DENNIS YEAST:

The State Clearinghouse submitted the above named environmental document to selected state agencies for review. The review period is closed and none of the state agencies have comments. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call Kristen Derscheid at (916) 445-0613 if you have any questions regarding the environmental review process. When contacting the Clearinghouse in this matter, please use the eight-digit State Clearinghouse number so that we may respond promptly.

Sincerely,

A handwritten signature in cursive script, reading "Antero A. Rivasplata".

ANTERO A. RIVASPLATA
Chief, State Clearinghouse

Control Number 93-SFB-0238

SEE NOTE BELOW

SCH # 96032057

Mail to State Clearinghouse, 1400 Tenth Street, Sacramento, CA 95814 916/445-0613

Project Title: NORTH VINEYARD STATION SPECIFIC PLAN

Lead Agency SACRAMENTO COUNTY

Contact Person DENNIS YEAST

Street Address 827 7th Street Room 220

Phone: 440-7914

City Sacramento zip 95814

County Sacramento

Project Location SACRAMENTO

County City/Nearest Community VINEYARD

Cross Streets BRADSHAW ROAD/FLOREN ROAD

Total Acres 1,594

Assessor's Parcel No. NUMEROUS

Section 4, 5 & 6 Twp. 7N Range 6E Base MORM

Within 2 Miles State Highway 16

Waterways ELDER & GERBER CREEKS

Airports N/A

Railways CCTRR

Schools Elk Grove USD

Document Type

CEQA ☐ NOP ☐ Supplement/Subsequent ☐ NEPA ☐ NOI ☐ OTHER ☐ Joint Document
☐ Early Cons ☐ EIR (Prior SCH No.) ☐ EA ☐ Final Document
☒ Neg Dec ☐ Other: ☐ Draft EIS ☐ Other:
☒ Draft EIR ☐ FONSI

Local Action Type

☐ General Plan Update ☒ Specific Plan ☐ Rezone ☐ Annexation
☐ General Plan Amendment ☐ Master Plan ☐ Prezone ☐ Redevelopment
☐ General Plan Element ☐ Planned Unit Development ☐ Use Permit ☐ Coastal Permit
☐ Community Plan ☐ Site Plan ☐ Land Division (subdivision, Parcel map, Tract Map, etc.) ☐ Other:

Development Type

☒ Residential Units 6,339 Acres 1,173 ☒ Water Facilities Type Supply Plan MGD
☒ Office Sq Ft Acres 10 Employees ☒ Transportation Type Circulation Plan
☒ Commercial Sq Ft Acres 28.6 Employees ☒ Mining Mineral
☒ Industrial Sq Ft Acres Employees ☒ Power Type
☒ Educational 21.7 ac ☒ Waste Treatment Type Sewage Infrastructure
☒ Recreational 193 ac ☒ Hazardous Waste Type
☒ Other: Drainage Master Plan

Project Issues Discussed in Document

☒ Aesthetic/Visual ☐ Floodplain/Flooding ☒ Schools/Universities ☒ Water Quality
☒ Agricultural Land ☐ Forest Land/Fire Hazard ☒ Septic Systems ☒ Water Supply/Groundwater
☒ Air Quality ☐ Geologic/Seismic ☒ Sewer Capacity ☒ Wetland/Riparian
☒ Archeological/Historical ☒ Minerals ☒ Soil Erosion/Compaction/Grading ☒ Wildlife
☒ Coastal Zone ☒ Noise ☒ Solid Waste ☒ Growth Inducing
☒ Drainage/Absorption ☒ Population/Housing Balance ☒ Toxic Hazardous ☒ Land Use
☒ Economic/Jobs ☒ Public Services/Facilities ☒ Traffic/Circulation ☒ Cumulative Effects
☒ Fiscal ☒ Recreation/Parks ☒ Vegetation ☒ Other:

Present Land Use/Zoning/General Plan Use

GENERAL AGRICULTURE & AG-RES/AG-20 & AR-10/URBAN DEVELOPMENT AREA

Project Description The proposed project consists of a Specific Plan proposal for 1,590+ acres in the vineyard Community Plan area currently designated as an Urban Development Area. The 6,339 unit residential specific plan will support commercial, business, professional, park, school and open space use.

JUL 21 1993
STATEState Clearinghouse Contact Mr. Chris Belsky
(916) 445-0613

Project Sent to the following State Agencies

State Review Began 7-22-97
 Dept Review to Agency 8-29
 Agency Rev to SCH 9-3
 SCH COMPLIANCE 9-5

Please note SCH Number on all Comments

96032057

Please forward late comments directly to the Lead Agency

AQMD/APCD 25 (Resources 7-26)

☒ Resources
☐ Boating
☐ Coastal Comm
☐ Coastal Consv
☐ Colorado Rvr Bd
☒ Conservation
☒ Fish & Game # 2
☐ Delta Protection
☐ Forestry
☒ Parks & Rec/OHP
☐ Reclamation
☐ BCDC
☐ DWR
☐ OES
☐ Bus Transp Hous
☐ Aeronautics
☐ CHP
☒ Caltrans # 3
☒ Trans Planning
☒ Housing & Devel
☐ Health & Welfare
☐ Drinking H2O
☐ Medical Waste

State/Consumer Svcs
 General Services
 Cal/EPA
 ARB
 CA Waste Mgmt Bd
 SWRCB Grants
 SWRCB Delta
 SWRCB Wtr Quality
 SWRCB Wtr Rights
☒ Reg WOCB # 55
 DTSC/CTC
 Yth/Adlt Corrections
 Corrections
 Independent Comm
 Energy Comm
 NAHC
 PUC
 Santa Mn Mtns
☒ State Lands Comm
 Tahoe Rgl Plan
☒ Other 06A

12.2

David Edmiston
7651 Bar Du Lane
Sacramento, California 95829

RECEIVED
AUG 25 1997

RECEIVED

SEP 4 - 1997
DEPT OF ENVIRONMENT
REVIEW & ASSESSMENT
SACRAMENTO COUNTY

August 21, 1997

Mr. Don Notoli, Supervisor
County of Sacramento
700 H Street
Sacramento, California 95814

Dear Mr. Notoli,

The Planning and Development Department has prepared a North Vineyard Station Specific Plan, and has identified a "Preferred Plan". This Preferred Plan has features which are unacceptable my wife and I as well as my neighbors on the north end of Bar Du Lane. It is my understanding that County policy states that future development should have minimal negative impact on current users of adjoining areas. The Preferred Plan does not meet that criteria for our neighborhood.

This area was developed approximately 30 years ago under A2 zoning. Several of us have lived on the street for the nearly the entire 30 years. The area has been quiet, peaceful, semi-rural and relatively free from crime. That is exactly why each of us has chosen to live here. We believe we have the right to expect that the area remain as close as possible to that ideal.

The Preferred Plan includes a "core area" directly across Gerber Road from the north end of Bar Du Lane which provides for areas of commercial use and high density housing. Commercial activity is an exact opposite of the current usage of our neighborhood. High density housing and increased crime seem to go hand in hand in the Sacramento area. The impact of these two incompatible activities would result in the destruction of our peaceful, semi-rural way of life.

An alternate plan which would reposition the core area to the intersection of Bradshaw and Florin Road has also been prepared. We believe this to be a better location for the commercial and high density housing uses. It is at the intersection of two existing major streets while the Preferred Plan would create a new center of activity and a new busy intersection. Also, most of the area which would be impacted is vacant land or has current commercial usage.

We are also concerned about the increased traffic flow along Gerber Road that will result from development of the area. The plan estimates that traffic along Gerber will increase from 7,220 to 25,200 vehicles per day, an increase of 254%. Even now it is difficult and very dangerous to turn onto Gerber from Bar Du Lane at rush hour on a foggy winter morning. The plan would modify Gerber Road to four lanes to accommodate the increased traffic. However, unless some means of access at a signaled intersection is

provided. it is certain there will be an increased number of serious. even fatal accidents at the corner of Bar Du Lane and Gerber Road.

We urgently request that the current preferred plan not be approved, that an alternate plan with the core area located at Bradshaw and Florin Road be selected. We also urge that safe access to Gerber Road from Bar Du Lane be provided.

Sincerely,

A handwritten signature in black ink that reads "David Edmiston". The signature is written in a cursive style with a large initial "D" and a long, sweeping horizontal line at the end.

David Edmiston

September 3, 1997

RECEIVED**SEP 3 - 1997****DEPT. OF ENVIRONMENTAL
REVIEW & ASSESSMENT
SACRAMENTO COUNTY**

Mr. Dennis E. Yeast, Director
Department of Environmental Review and Assessment
827 Seventh Street, Room 220
Sacramento, CA 95814

Dear Mr. Yeast:

RE: Draft Environmental Impact Report for North Vineyard Station Specific Plan
(Control # 93-SFB-0238)

Thank you for the opportunity to comment on the Draft Environmental Impact Report on the above named project. As a thirty-year property owners on Bar Du Lane, we are extremely concerned about the impact on the environment and the negative results that will drastically altered our lifestyle if this project is approved.

The report clearly states that there will be "significant and unavoidable effects that CANNOT BE AVOIDED" if the plan is approved. Those include:

1. Traffic and Circulation: we are already experiencing massive delays at four of the intersections listed in the project. The increase in traffic will be intolerable.
2. Regional and local Air Quality: Many days we cannot see the Sierra Mountains from our property. The increase vehicle traffic will increase the pollution to dangerous levels.
3. Traffic Noise Impacts to Existing Receptors: The report makes it clear that noise barriers are not feasible in our area because of the number of front-on lots where driveway access cannot be blocked by a solid wall. The danger of having local residents merging onto four-lane roadways is not even addressed. As there have been several fatal car crashes right in front of our property on Gerber Road, we are very concerned about the safety of the local residents.
4. Cumulative Loss of Wildlife Habitats: Should we only be concerned about the impact on those animals whose population we have already decimated with our urban developments? What about the quail, owls, coyotes, and other animals, and reptiles that live in our area?
5. Cumulative Ground Water Decline (Interim Impact): ALL of the residents in this area are on wells. If large projects pump out the ground water, the water table will drop forcing us to drill deeper wells. This could be a disaster waiting to happen in the frequent drought years we experience.

Although the report indicates that the above concerns CANNOT BE MITIGATED, if there is a decision to go ahead with the project in opposition to the County Master Plan, we cannot support any of the proposed plans and alternative plans that do not move the Core Area to the corner of Bradshaw and Florin Roads. Gerber Road should be the last choice for business, commercial, or multi-family dwellings because:

1. BRADSHAW ROAD: Proposed to be widened to SIX LANES, will carry cars per day, has DIRECT FREEWAY ACCESS TO HIGHWAY 50, will carry 48,600 cars per day, and has three vacant corners at the intersection with Florin Road. There are already NUMBER OF COMMERCIAL ENTERPRISES that face Bradshaw.
2. ELK GROVE-FLORIN ROAD: same as above with 53,400 cars per day.
3. FLORIN ROAD: same as above with 32,700 cars per day; access is to HIGHWAY 99.

- 4 GERBER ROAD the ONLY road designated to be FOUR LANES. will carry only 25 000 cars per day is land-locked with no direct freeway access – dead ends into Stockton Blvd. And E. Geibler. has virtually no commercial enterprises along the road

It is ILLOGICAL at best to place the business, commercial and multi-family sections in the MIDDLE of the least-traveled and most narrow street that does not have any direct freeway access. Our rural way of life would be destroyed along with the habitat for much wildlife

We strongly recommend that you do not approve the project based on the negative environmental report and the devastation that such a project would produce. Thank you for considering our opposition to this project

Sincerely yours,

Clifford C. Daniel
7622 Bar Du Lane
Sacramento, CA 95829

Carol Sue Daniel

Gail Peters
7641 Bar Du Lane
Sacramento, CA 95829

September 4, 1997

Joyce Horizumi
County of Sacramento
Department of Environmental Review and Assessment
827 Seventh Street, Room 220
Sacramento, CA 95814

**RE: Draft Environmental Impact Report for the North Vineyard
Station Specific Plan (Control Number: 93-SFB-0238).**

Dear Ms. Horizumi:

I am a resident of Bar Du Lane which is across the street from Gerber Road. Bar Du is a quiet country lane with well maintained homes. I have some concerns about the DEIR that I wish to address. The "Preferred" Plan (developer's plan) places a shopping center, business professional space, multi-family residential units and a Park and Ride directly across the street from our homes. While I am not against development in our area, I am very concerned about the impact of this "Preferred" Plan on the existing homes in my neighborhood. (Please see page 4.5b as it relates to Bar Du Lane).

Project Description

Under this section there is a discussion of a 15% Density Reduction Plan and a Modified Core Specific Plan (p. 4.3). I am in favor of a combination of these two plans. A 15% reduction plan would be the most consistent with the existing neighborhood surrounding the Plan area.

The report states (on page 4.3) that "the modified core alternative does not include any drainage parkway features or improvements adjacent to the urban core and focus area as does the Preferred Plan." I wasn't sure if this meant that drainage parkway features and improvements were not necessary with the modified plans or if it meant that the report simply did not include a diagram of these features.

Gail Peters

93-SFB-0238

Page 3

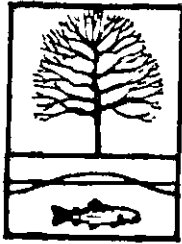
Conclusion

In closing, I would like to thank you for taking the time to review my questions and concerns. I am not opposed to development. I am opposed to the "Preferred" Plan. It was designed without the consideration of the existing residential communities closest to the Plan area. Bar Du is a peaceful and quiet country lane. I would like to keep it that way as much as possible. I am in favor of the 15% Reduction combined with moving the core to Florin Road. I believe that this combined alternative is workable and I would like to see future studies focus more on these alternatives than on the "Preferred" Plan.

Sincerely,



Gail Peters



SACRAMENTO
CHAPTER

Urban Creeks Council
4855 Hamilton Street, Sacramento, CA 95841
(916) 482-8377 Fax (916) 482-8410

RECEIVED

September 5, 1997

SEP 5 - 1997

DEPT. OF ENVIRONMENTAL
REVIEW & ASSESSMENT
SACRAMENTO COUNTY

Dennis E. Yeast
County of Sacramento
Department of Environmental Review and Assessment
827 7th Street, Room 220
Sacramento, CA 95814

Subject: North Vineyard Station Specific Plan DEIR
County Control Number: 93-SFB-0238
State Clearinghouse Number: SCH #96032057

Dear Mr. Yeast:

As you know, we are a chapter of the Urban Creeks Council of California whose purpose is to encourage the preservation, protection, restoration, and maintenance of natural streams in urban environments. Our efforts are directed to protect natural streams and prevent incursions into floodplains and floodways of natural creeks

Comments on the Process

In the spring of '96, representatives of UCC along with Audubon Society, Native Plant Society, Environmental Council of Sacramento, and Sacramento Open Space were invited to participate with the County and developer representatives in formulating a drainage plan for Gerber and Elder Creeks in the North Vineyard Station Specific Plan area. We appreciate the opportunity that was given for our input, and feel we learned much about what the County is dealing with in the Specific Planning process. We attended several meetings, giving verbal and written input. Unfortunately, virtually none of our recommendations were integrated into the preferred plan. Some of our recommendations appear in the DEIR's Biological Resources section.

The streams running through the North Vineyard Station and other specific plan areas in the south county offer a new opportunity to capitalize on creeks as amenities to development as was done with development along Laguna Creek. The width of the Laguna Creek Parkway corridor is generally sufficient to accommodate wildlife, trails for transportation and recreation, parks and natural areas. In contrast, houses crowd Morrison Creek to the point that it is just a drainage with almost no biological functions, and now flood walls are being proposed as the solution. Creeks in the north are a maintenance and flood control headache because development in most cases was allowed too close to the creeks. Instead of recognizing the many benefits that would result from a wider corridor,

the preferred alternative for NVS relies on technical fixes and allows bare minimum corridor widths to free up more land for development.

Comments on the DEIR

Page 11.41 refers to the drainage parkway alternative proposed by the above-mentioned environmental groups. It states, "These recommended policies have been included in their entirety for the readers reference in the Biological Resources section of this EIR." A contradictory statement is made later in the DEIR on page 14.29. The DEIR states that the environmental community "formulated 16 alternative drainage corridor policies for Elder and Gerber Creeks, 14 of those policies address biological resources and are discussed below." It appears only 14 of our 16 policies are to be shown in the DEIR. However only 10 of our proposed policies actually appear. Most of those missing are revisions we made to draft policies presented to us in the above-mentioned meetings. Factual Correction: The missing policies are:

- * Long stretches of backup lots along parkways and open space corridors are discouraged. Effective patrolling requires the utmost visibility for foot and vehicular patrols. The use of front on streets is preferred, with side yard lotting patterns and open-ended cul-de-sacs being less appropriate. Backup lots, side yard lotting patterns, and open-ended cul-de-sacs will be restricted to 25% of the parkway length within the Specific Plan area. Through appropriate planning, a need for backup lots and side yard lotting patterns could be further reduced. An outreach program should educate the neighborhood about the benefits of the creeks and corridors and how to protect them, e.g. no dumping, no independent planting in the corridor, creek study, and other appropriate recreational activities.
- * Development located adjacent to the open space corridors of Elder and Gerber Creeks shall incorporate the corridor into the design of the project with attention given to minimizing the frontage that is blocked off from public view. Development proposals adjacent to the open space corridor shall have a public street paralleling at least one side of the corridor with vertical curbs, gutters, footpath, street lighting and post and cable barriers to prevent vehicular access. It may be appropriate to alternate the public street frontage from one side of the corridor to the other to maintain aesthetics for residential lots on the corridor, but resulting in not less than 75% of corridor having street frontage within the Specific Plan area.
- * Residential lots which back up or have a side yard orientation to the open space corridor shall employ the use of open fencing (e.g., wrought iron or decorative iron) to enhance surveillance of the corridor and provide a visual amenity. A 3-foot solid wall with 3 feet of open fencing on top is acceptable, while 6 feet of wrought iron is preferred for surveillance purposes. (Note. Chain link fencing is not an acceptable fencing material.)
- * Require that prior to the approval of any rezone or tentative map entitlement within or adjacent to the currently designated floodplain of Elder or Gerber Creek, or modified floodplain as recognized by FEMA, a comprehensive open space corridor management plan (including revegetation, vegetation maintenance, and 5-year monitoring plans) shall be prepared and approved by the Board of Supervisors for that portion of the Creek included in the planning proposal, and extending 100 feet both up/down stream. The management plan shall include:
 - * a precise proposal encompassing the flood channel and open space corridor which adheres to the above stated policies and addresses the biological, aesthetic, and recreational qualities of the open space corridor;
 - * an appropriate interface between the open space corridor and adjacent development with respect to aesthetics, access, maintenance and security,
 - * an appropriate funding mechanism to establish, operate and maintain the open space corridor. A funding mechanism which is provided for a public entity should be given priority. As sections of the trail system are improved, they should be dedicated to Southgate Recreation and Park District for ongoing maintenance.

* To the extent feasible, the storm water detention basins located within the North Vineyard Station Planning Area should be designed in a manner which allows the joint use of the facility for detention and recreation purposes. Guidelines should be followed as outlined in Volume 4 of the City/County Drainage Manual, and development plans should be coordinated with the Southgate Parks and Recreation District.

* When detention basins (water quality and/or flood control) are adjacent to the drainage canal, the open space corridor shall begin at the outside edge of the detention basin. When detention basins are adjacent to roads, the open space/habitat corridor shall continue between the road and the basin in order to maintain the integrity of the corridor.

Hydrology and Flooding

The County has not yet adopted a Drainage Master Plan (DMP) for the overall Elder/Gerber Creek watershed per page 2.20 of the DEIR. It is our understanding that the General Plan calls for 600 foot wide corridors on creeks that do not have a DMP. A preferred alternative is not the same thing as an approved plan. Approval of the preferred drainage plan for NVSSP (average corridor width less than half the 600 foot width) without an Elder/Gerber watershed DMP would be in violation of the County's General Plan.

Page 2.22 discloses an existing overflow flood condition along Gerber Creek east of the NVSSP area that "causes flood flows to spill overland into the NVSSP area, placing a broad swath of the southeast portion of the Specific Plan area within the 100-year floodplain. Development of the proposed NVSSP urban land uses cannot occur in this area until this floodplain area is reclaimed. Such reclamation could be provided by constructing ultimate off-site, upstream Gerber Creek channel improvements to a point approximately 1800 feet north of Gerber Road Crossing No. 1. Alternatively, a new channel (either interim or permanent) could be constructed across the southeast portion of the Specific Plan to confine the overflow from Gerber Road in a manner which reduces the extent of the 100-year floodplain over this portion of the site, allowing development of a portion of the proposed NVSSP land uses in this area to proceed."

The proposed solutions are discussed no more completely in the Hydrology section. There is no map, no detail, no discussion of impacts of these alternatives. The planned development might require substantial alteration if a new channel is created. What route would the new channel follow? What would be the project and downstream impacts of this channel? Plate HY-C seems to show that the detention basin, not a channel, is part of the preferred DMP for the Elder/Gerber DMP. Is this correct? It appears that the absence of a DMP for the Elder/Gerber watershed leaves this issue up in the air.

Density Reduction Alternatives

10% and 15% Density Reduction Alternatives are discussed on pages 5.6 through 5.8. We suggest that a 600 foot wide creek corridor could be part of the density reduction. Proximity to the creek with a wider corridor than proposed would effectively lower the density for those parcels. All residents, including those living in higher density areas, could benefit from that amenity of open space. The corridor as currently planned will leave little room for open space with vegetation. What little space is allowed will be

gobbled up by trails, firebreaks, easements and unplanned or unforeseen needs of the space. This has been the experience along most of Sacramento's urban creeks.

Vernal Pool and Seasonal Wetland Impacts

The proponents propose off-site mitigation to compensate for vernal pool impacts of the project. We support the preparation of an On-site Wetland Preservation Plan as described on page 14.17 of the DEIR. The DEIR discussion indicates that most of the vernal pools are located in the east portion of the plan area. An on-site preserve of sufficient size (at least 200 acres) and including the pools' watershed may be feasible and would be preferable to off-site vernal pool creation. We would add to the On-site Wetland Preservation Plan a restoration component so that less off-site and creation mitigation would be required.

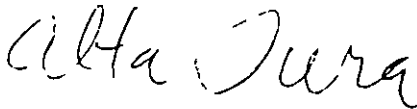
If off-site mitigation is to occur, we would urge the County to follow the California Native Plant Society guidelines. CNPS guidelines recommend off or on-site mitigation be not less than 2:1 in purchase or easement. If rare species are present the ratio should be 3 or 4 to 1. Restoration or preservation of damaged vernal pools is preferred over creation. Vernal pool creation should be at more than 3:1.

Funding for Drainage Parkway Buffer Areas

Page 11.37 states, "the Specific Plan does not identify the funding source or mechanism for land acquisition and landscaping improvements within the buffer area portions of the drainage parkways." We agree with a later statement on the same page, "the Specific Plan should be revised to clearly specify the funding source or mechanism for acquisition of the buffer area lands...and to clearly specify the funding source or mechanism for construction of the buffer area landscaping improvements..."

Thank you for considering our comments.

Sincerely,



Alta Tura
Co-President

October 15, 1997

Sacramento County
Planning and Community Development
827 Seventh Street, Room 230
Sacramento, CA 95814-2485
Re: North Vineyard Station Specific Plan

Dear Sir or Madam:

We own a one acre parcel of land within the North Vineyard Specific Plan (see attached map). Over the past nine years we have spent a great deal of money and hard work to landscape and improve this property so that it is one of the nicer pieces of property on McCoy Avenue. We had intended to live in the home on this property for the rest of our lives. Now that our rural way of life is being destroyed by big housing developments we probably will want to sell our property and leave Sacramento County.

When we were first informed about this project our land had been designated entirely as a water retention basin. After attending almost all of the community meetings and voicing our concerns, the detention basin has been moved to a different location. However, we have repeatedly voiced our concern that the widening of the creek and the open space corridor still takes so much of our small parcel that the value of the property would be greatly reduced. (A developer is not going to buy one acre if it is going to lose a third or more of it, and we doubt if we could sell the property to an individual if they will only receive 2/3 of an acre and pay for one acre.)

Unfortunately we were not able to attend the meeting that the Policy Planning Commission had on September 10th. During that meeting the Suggested Alignment A-2 to modify the alignment of Elder Creek was discussed. We do not understand why the creek cannot be moved a little further Northwest. The property behind ours is 9 acres and has nothing on it except a renter with his own trailer. Surinder Singh said at the meeting on October 24th that where ever possible the creek had been adjusted so as to not impact small parcels. The creek could be moved over a little further. (There is also a beautiful huge oak tree which will be right in the middle of the creek if the creek is not moved slightly.)

We were also very angry and distressed to learn that Planning Staff had several meetings with property owners who live along the creek corridors where Elder Creek and Gerber Creek meet and that only those who attended the last meeting were invited. Mr. Singh said that only those who spoke at that meeting were asked to attend, but Kathy Phillips was told of the meeting and she did not speak at that meeting. We have voiced our concerns at every public meeting. We feel that we should have been informed of those additional meetings with planning staff and should have had the opportunity to attend. We also are distressed to learn that had we been at those meetings the creek probably would have been adjusted as we recommend because everyone else that attended were given concessions.

Regarding our suggested modification to the creek (Exhibit 3.4), our suggestion need not be quite as drastic as portrayed on the map. These suggestions were drawn in a crude map with a feltip pen and we assumed that those of us who made recommendations would be contacted by planning and would be able to further refine our suggestions, (why else did they ask for our telephone number?) but no further opportunity was forthcoming. We did not even know that our suggestion was included in the DEIR.

This whole process with planning and the community meetings has been very frustrating. Every meeting we attended was nothing but the same thing over and over. Planning told us about the project and what stage in the development the project was at and every time any of the property owners had questions staff either couldn't answer them or the answers were unsatisfactory. We

CC: Comm, Plan, Co Co, DEIR

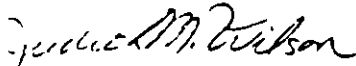
17.1

were given the opportunity only once to actually make recommendations when we drew our suggestions on the map and we thought that further follow up would be forthcoming but it was not. What were those meetings for if the opinions of the homeowners were not noted and responded to? We felt as if no one was listening to any of us.

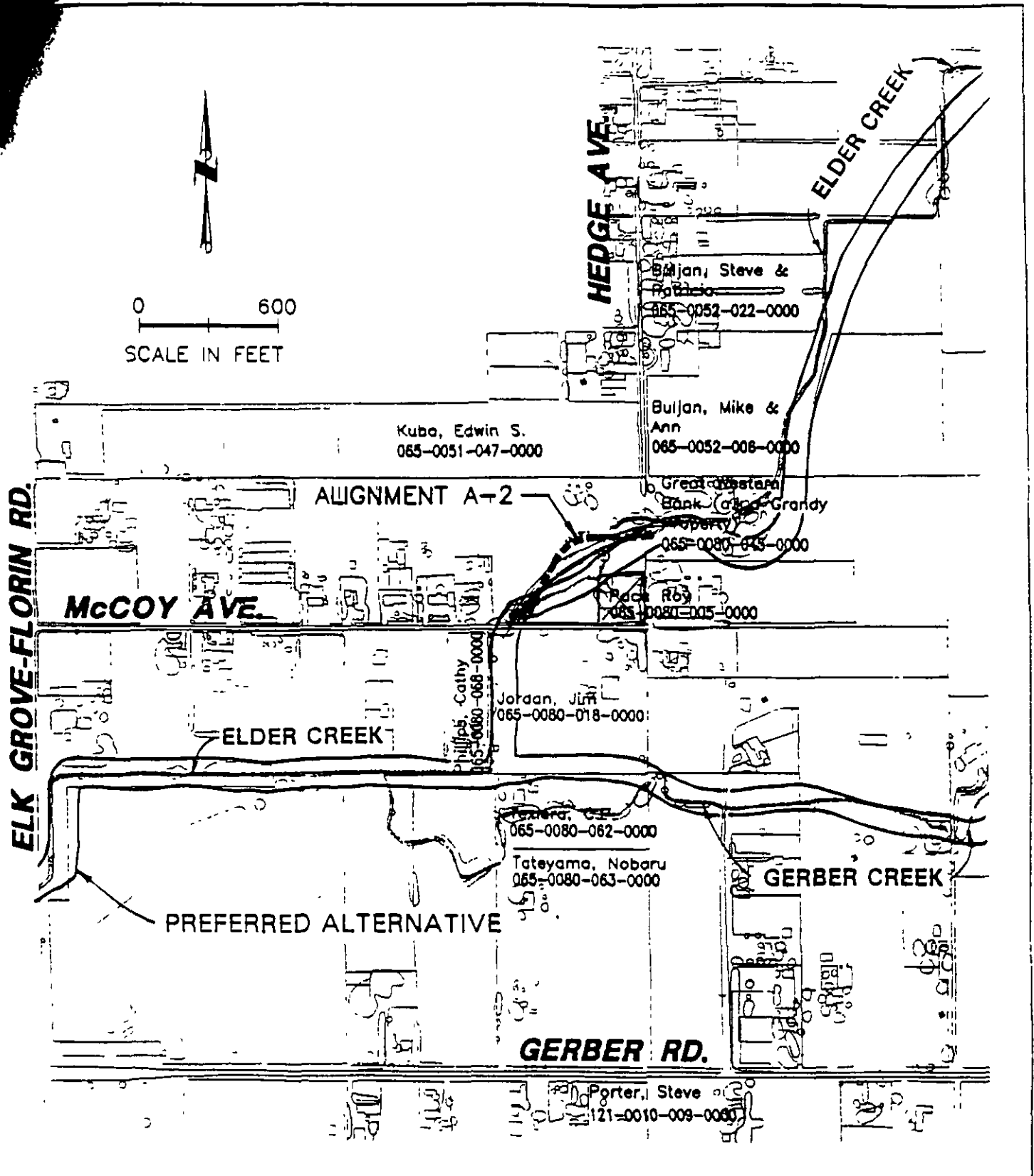
If we owned a larger parcel than one acre we would not be as concerned about the reduction in our acreage due to open space. But when you only have one acre, every foot you lose affects the overall value. Please accept our recommendation that the creek be moved. County planning staff concluded that realignment of the drainage channel is not seen as a significant impact to the proposed drainage plan, but that the extra expense to realign the drainage channel is not warranted. There are far more drastic and costly realignments being done in other places on the channel. However, if it is really impossible to change the creek alignment slightly, could the open space corridor at least be reduced to a minimum at that corner of our acre. Thank you for your consideration of this matter.

Thank you for taking the time to read such a long letter. Also please do not hold it against us for not speaking at your last meeting. Public speaking is very difficult for some of us. We now realize that we should have written a letter to you before. We had thought that the public meetings and the objections we voiced there would be enough. Hopefully we have not waited too long.

Sincerely



Judith M. Wilson
Roy P. Pace
9091 McCoy Avenue
Sacramento, CA 95829
(916) 689-1021



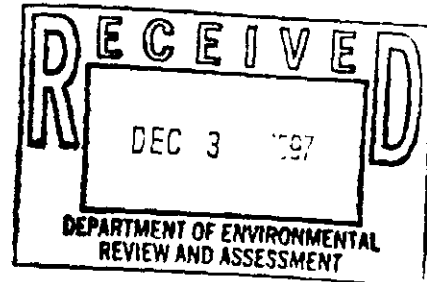
County of Sacramento
Public Works Agency
Water Resources Division
& Planning Department

**North Vineyard Station
Specific Plan
Public Outreach Report**

**Suggested
Alignment A-2
Modified
Historic Alignment**
Exhibit 3.4

17.4

JH



County of Sacramento
Policy Planning Commission

DATE: 11-20-97

SENT TO: Commissioners: Ingles, La Rue, Ness, Shelby, Bray

FAX NUMBER: 440-7593

FROM: Cathy Phillips, 9042 M Clay Ave, Sacramento

NUMBER OF PAGES INCLUDING COVER: 3

ADDITIONAL COMMENTS: _____

Dear Commissioners,

Enclosed with this fax is a copy of a letter dated Nov. 19, 1997, addressed to Mr. Surinder Singh, from me regarding the realignment of Elder Creek on my property in the North Vineyard Station Specific Plan. If you have any questions please feel free to call me. I will be at the next Council meeting on Nov. 25, 1997 since I still wish to address the Council regarding this problem.

Thank you

Cathy Phillips

916-423-1447

CC: Comm, Plng, DERA, Co. Co.

18.1

Sacramento County Planning and Community Development Dept.
827 Seventh Street, Room 230
Sacramento, CA. 95814

Cathy Phillips
9040 McCoy Rd.
Sacramento, CA. 95829

November 18, 1997

Dear Mr. Surinda Singh:

Concerning the North Vineyard Station Specific Plan in regard to your recommended proposal presented to the Policy Planning Commission on October 14, 1997, I can substantially support this proposal with few modifications that I will present hereafter.

First of all I believe it was quite obvious that my neighbor's, Jim Jordon, proposal would be totally unfair to me, and would render my remaining property virtually useless. In addition to losing virtually everything of value, including my house, well, septic system, out buildings, barn, 75-100 trees, including approximately 25 fruit and nut trees, I would be left with approximately a mere 70 feet of frontage to access an approximately 600 foot deep parcel, which essentially is not much more than what would be required for an access road.

As I recall, your proposal would use the existing 75 foot drainage easement on my property to develop both the west slope of the new 120 foot wide channel and would include a 40 foot wide greenbelt. The remaining ninety feet required for the bottom and east bank of the channel would come from the west side of Mr. Jordon's adjoining property, which is currently undeveloped.

I would propose that the west forty feet of my easement reserved for the green belt be partially used for an access road along the west bank of the channel; however, I am greatly concerned about the liability I might incur with this greatly enlarged channel. I need to know who will assume the liability and attendant expenses for increased taxes and insurance.

One possibility of minimizing this liability would be for the County to finance, erect, and maintain a six foot fence, adjacent, and to the west of my proposed channel access road.

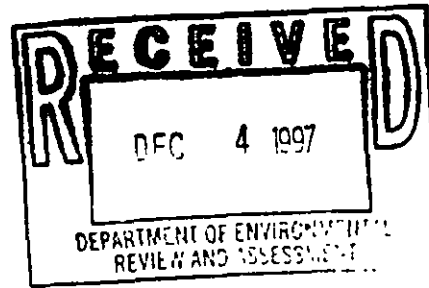
In regards to the channel on the south side of my property, which also has a 75 foot drainage easement, I can support a similar arrangement wherein all improvements, including the future greenbelt, will be contained within this easement. I would also require that the County provide a security fence, as I have previously proposed, for the channel on my east side.

(CONTINUED)

18.2

D.L.
C

Mr. & Mrs. Jordan
7471 Jordan Lane
Sacramento, Calif. 95829



Policy Planning Commission
County of Sacramento
700 "H" Street
Sacramento, Calif. 95814

December 4, 1997
Amended to letter dated Nov. 25, 1997

Mr. Chairman,

This letter concerns the encroachment of the proposed North Vineyard Station Specific Plan creek alignments and open space on our home.

Our family has been in the South County since before California was a State. At present we are at eight generations. Our home is located at 7471 Jordan Lane. It's a 10 acre piece that was subdivided in March 1903. It is currently in agricultural use - dry farming: oats and animal husbandry. It has no easements and more importantly no creeks.

Back in the early 50's a diversion ditch was bootlegged in on our neighbors property which handles the sporadic summer run off (refer to exhibit A, marked in blue). The ditch cut's thru high ground and in winter trime has proven to be ineffective. It does not work! At present, when we get the volume of water these new creeks are designed for, it follows the creeks historical natural alignment (see exhibit A, marked in yellow, and exhibit B, photographs).

The Boards instructions on the Specific Plans' boundaries were not followed. I'm refering to Phillips North and West property lines and the interfacing problems with the Champions Golf Course. Not enough of Elder Creek was included to comply with county policy. It has made it next to impossible to come up with an equitable solution.

The County's preferred alternative is to place Elder Creek and Gerber Creek onto our property. We've been dealing with the County Staff for over a year unsuccessfully with other alternatives. It wasn't until the first meeting with your board and you directed Staff to meet with us to try and work something out that we started to see progress. The result of that is the moving of the County's preferred alignment of Gerber Creek off our property, closer to it's natural alignment and the reduction of the open space corridor.

However, we're not done yet! The county's prefered alignment places Elder Creek on our land. This brings up some unanswered questions.....

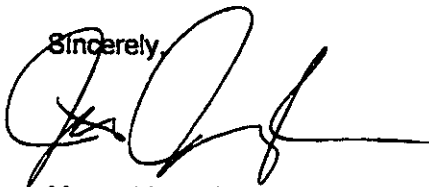
- 1) Why weren't the Boards instructions followed concerning Specific Plan boundanes?
- 2) Every winter proves the ditch, (marked in blue, exhibit A & B), does not work, so why does the County want to put the creek there?
- 3) In Alternate A-1, Why does it say it will "significantly affect parcels by severance, creating additional constraints" when this condition already exists?
- 4) In Alternative B-4 the Staff says a 90 degree confluence is not hydraulically favorable, possibly increasing cost with channel lining and energy dissipation,

So why does Staff's preferred alternative include a 90 degree bend when it's not necessary?

- 5) The Staff's preferred alignment and alignments A1, A2, B1, B2, B3, B4... all have some Pros and Cons, Why was Staff unable to recommend at least one of the other alternatives? Example A2.
- 6) According to the Staff preferred alternative the West bank of the diversion ditch can not be preserved because the ditch has to be filled in to create the designed flood plain – Yes or No? See exhibit C.
- 7) Why do they want to preserve the West boundary of the diversion ditch which is basically a hard pan surface, with a few almond suckers when the East bank has a nice big Oak tree on it? See exhibit C.
- 8) Why isn't all the existing 75' drainage easement on the East side of the Phillips property being used? The Staff's preferred alternative uses only 30' of easement and kills the Oak tree.
- 9) Is the floor level of detention ponds above or below the flow of the Creek? Why?
- 10) What is the proposed flood plain elevation and the flow line of the proposed creek 300' downstream from the bridge on McCoy Ave.?
- 11) It's been established that the subdivision runoff is toxic and the detention ponds are designed to solve this problem. Where does the toxic silt go that is harvested from these ponds?
- 12) What happens in winter time when flood water flushes the system, ponds silt and toxins directly from subdivisions into the creeks?
- 13) How are these toxins going to be kept out of ground water when the flow line of the creek will be 4' into extensive previous material? Notice aggregate profile in well log, exhibit D.
- 14) Why does the Staff's preferred alternative impact us (one property owner) so severely with open space and two creeks when compared to the rest of the plan area?
- 15) As to alternative alignments the Staff and proponets have mistakenly singled us out and refuse to "trade faces", Why?
- 16) Is the DIRA administration, although County, strictly separate and uninflunced by the Planing dept. and other Depts of the County and is this strictly enforced?

These questions need to be asked and answered in witting before you can make your recomendations. According to the provisions in CEQA we request this letter and the answers, in its intirity, be put in the final EIR - EIS for public record.

Sincerely,



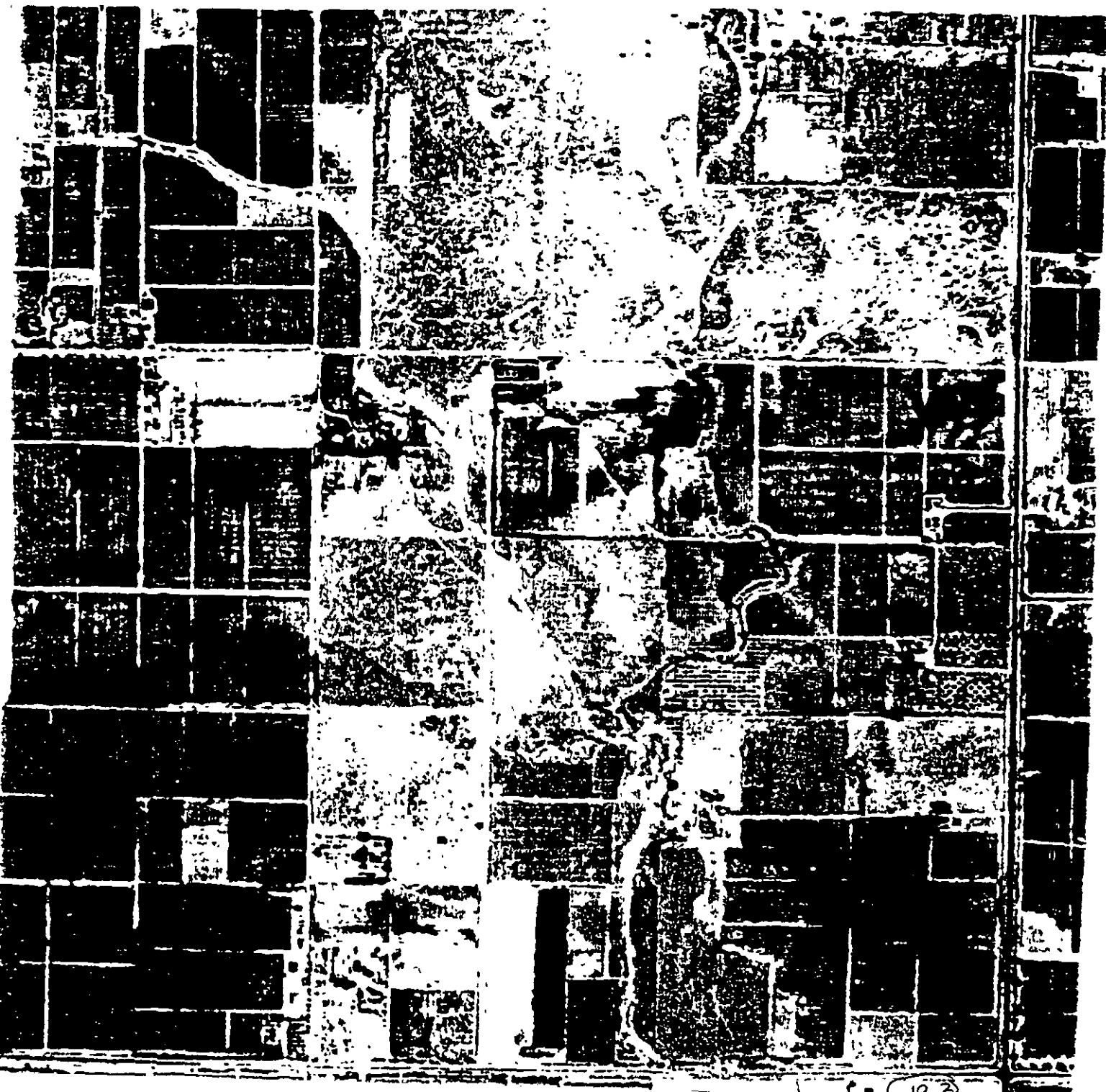
Mr. and Mrs. Jordan

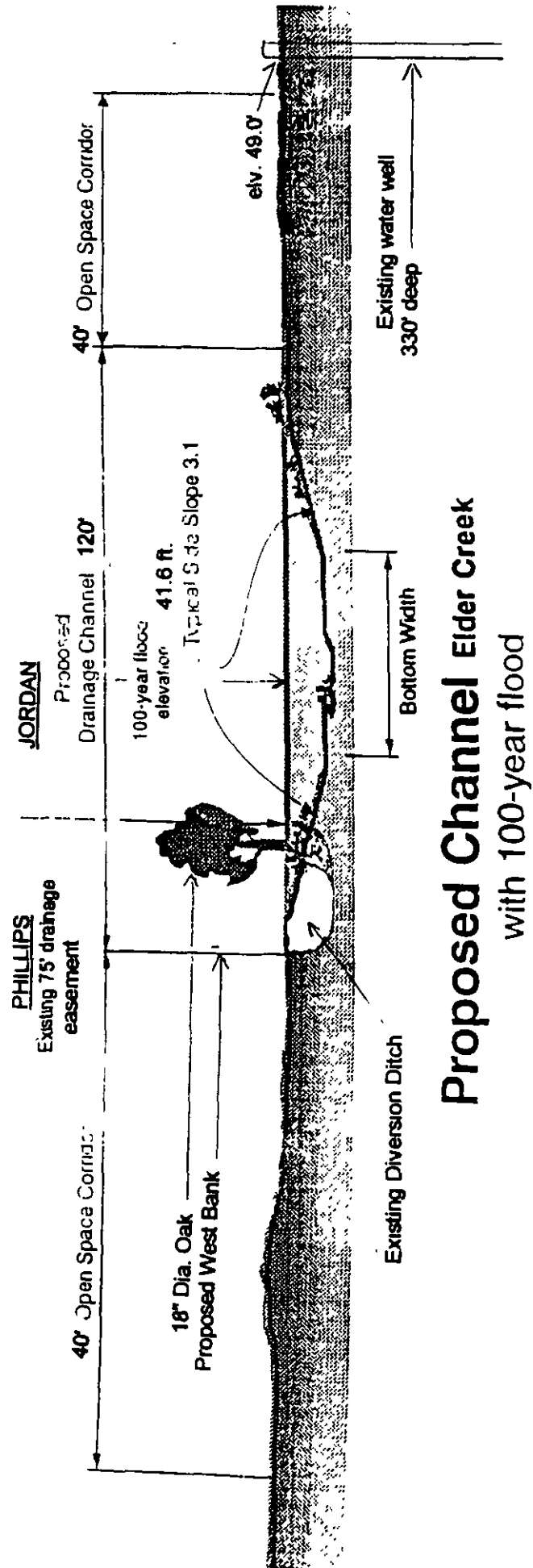
cc: Don Nottoli
Dennis Yeast
Planning Department
Water Resources

EXHIBIT A

JORDAN RANCH
ELDER CREEK
DIVERSION DITCH
GERBER CREEK

N





TRIPPLICATE
Owner's Copy

CT 92

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORT

No. 079186

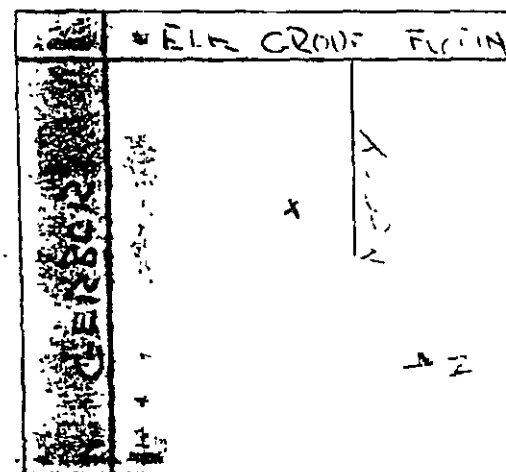
License No. _____
Date of Issue _____
Expiry Date _____

State Well No. _____
Other Well No. _____

(1) OWNER: Name Jim Jordan
Address P.O. Box 26
Elk Grove California Zip 95624

(2) LOCATION OF WELL (See instructions)
County Sacramento Owner's Well Number _____
Well address if different from above 9076 MCCOY AVENUE
Township 065-080-18-00 Range _____ Section _____

Distances from cities, roads, railroads, fences, etc. 3/4 mile east of
Elk Grove Florin Road 3/4 mile north
of Gerber road 400' south of McCoy Av.



(3) TYPE OF WORK:
New Well ☒ Deepening ☐
Reconstruction ☐
Reconditioning ☐
Horizontal Well ☐
Destruction ☒ (See destruction materials and procedures in Item 12)
(4) PROPOSED USE:
Domestic ☒
Irrigation ☒
Industrial ☐
Test Well ☐
Stock ☐
Municipal ☐
Other ☐

(12) WELL LOG: Total depth 395 ft Depth of completed well 39
from ft to ft Formation (Describe by color, character size & pattern)
0 - 4 Top soil.
4 - 7 Hard pan.
7 - 15 Silt sand.
15 - 23 Sand.
23 - 54 Sand and cobble rocks 1-
54 - 101 Light brown
101 - 103 Sand, W/B.
103 - 140 Silt clay.
140 - 143 Silt sand.
143 - 160 silt
160 - 195 Light brown clay.
195 - 198 Sand and small rock. W/E.
198 - 220 Light brown clay.
220 - 222 Light green sand. W/T.
222 - 235 Gray green clay.
235 - 255 Rock and clay.
255 - 315 Gray green clay.
315 - 320 Rocks and sand. W/E.
320 - --- Gray green clay.

WELL DESTRUCTION:

The old well was 60' from the ~~new~~ well to the north it was 115' deep. made shure the old well was free of obstructions and cut the casing off 9' below grade level and filled the well with cement consisting of 9 sacks of cement and sand to make 1 yard.

(5) EQUIPMENT:

Reverse ☐
Air ☐
Bucket ☐

(6) GRAVEL PACK:

Yes ☐ No ☒ Size _____
Diameter of bore _____
Packed from _____ to _____ ft.

(7) CASING INSTALLED: YES

Steel ☐ Plastic ☐ Concrete ☐

(8) PERFORATIONS: NO

Type of perforation or size of screen

From ft	To ft	Dia. in.	Cage or Wall	From ft	To ft	Slot size
18	16	10	10			

(9) WELL SEAL:

Was surface sanitary seal provided? Yes ☒ No ☐ If yes to depth 5'

Were grouts sealed against pollution? Yes ☐ No ☒ Interval _____

Method of sealing 9 sack cement and sand

(10) WATER LEVELS:

Depth of first water, if known 101

Standing level after well completion 101

(11) WELL TESTS:

Was well test made? Yes ☐ No ☒ If yes, by whom? _____

Type of test: Pump ☐ Bailor ☐ Air lift ☐

Depth of water at start of test _____ ft At end of test _____ ft

Discharge _____ gal/min after _____ hours Water temperature _____

Chemical analysis made? Yes ☐ No ☒ If yes, by whom? _____

Was electric log made? Yes ☐ No ☒ If yes, attach copy to this report

Work started 7/8 19 80 Completed 7/15

WELL DRILLER'S STATEMENT

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

SIGNED _____ (Well Driller)

NAME Robert Allen Nix Well Drilling

(Person, firm, or corporation) (Typed or printed)

Address 7913 Skander way

City Sacramento California Zip 95828

License No. 376587 Date of this report 10/9/80

Mr. & Mrs. Jordan
 7471 Jordan Lane
 Sacramento, Calif. 95829

Policy Planning Commission
 County of Sacramento
 700 "H" Street
 Sacramento, Calif. 95814

November 25, 1997

Mr. Chairman,

This letter concerns the encroachment of the proposed North Vineyard Station Specific Plan Creek alignments and open space on our home.

Our family has been in the South County since before California was a State. At present we are at eight generations. Our home is located at 7471 Jordan Lane. It's a 10 acre piece that was subdivided in March 1903. It is currently in agricultural use - dry farming: oats and animal husbandry. It has no easements and more importantly no creeks.

Back in the early 50's a diversion ditch was dug on our neighbors property which handles the sporadic summer run off (refer to attached map, marked in blue). The ditch cut's thru high ground and in winter time has proven to be ineffective. It does not work! At present, when we get the volume of water these new creeks are designed for, it follows the creeks historical natural alignment, (see map, marked in yellow and photographs).

The Boards instructions on the Specific Plans boundaries were not followed, I'm referring to Phillips North and West property lines. By not following thoes important instructions we have no room to work out an equatable solution to this problem.

The County's preferred alternative is to place Elder Creek and Gerber Creek on to our property. We've been dealing with the County Staff for over a year unsuccessfully with other alternatives. It wasn't until the 1st meeting with your board and you directed Staff to meet with us to try and work something out that we started to see progress. The result of that is the moving of Gerber Creek off our property, closer to it's natural alignment and the reduction of the open space corridor.

However, we're not done yet! The county's preferred alignment places Elder Creek on our land. This brings up some unanswered questions.....

- 1) Every winter proves the ditch, marked in blue, does not work so Why does the County want to put the creek there?
- 2) In Alt. A-1 Why do they say it will "significantly affect parcels by severance creating additional constraints" when

this condition already exists?

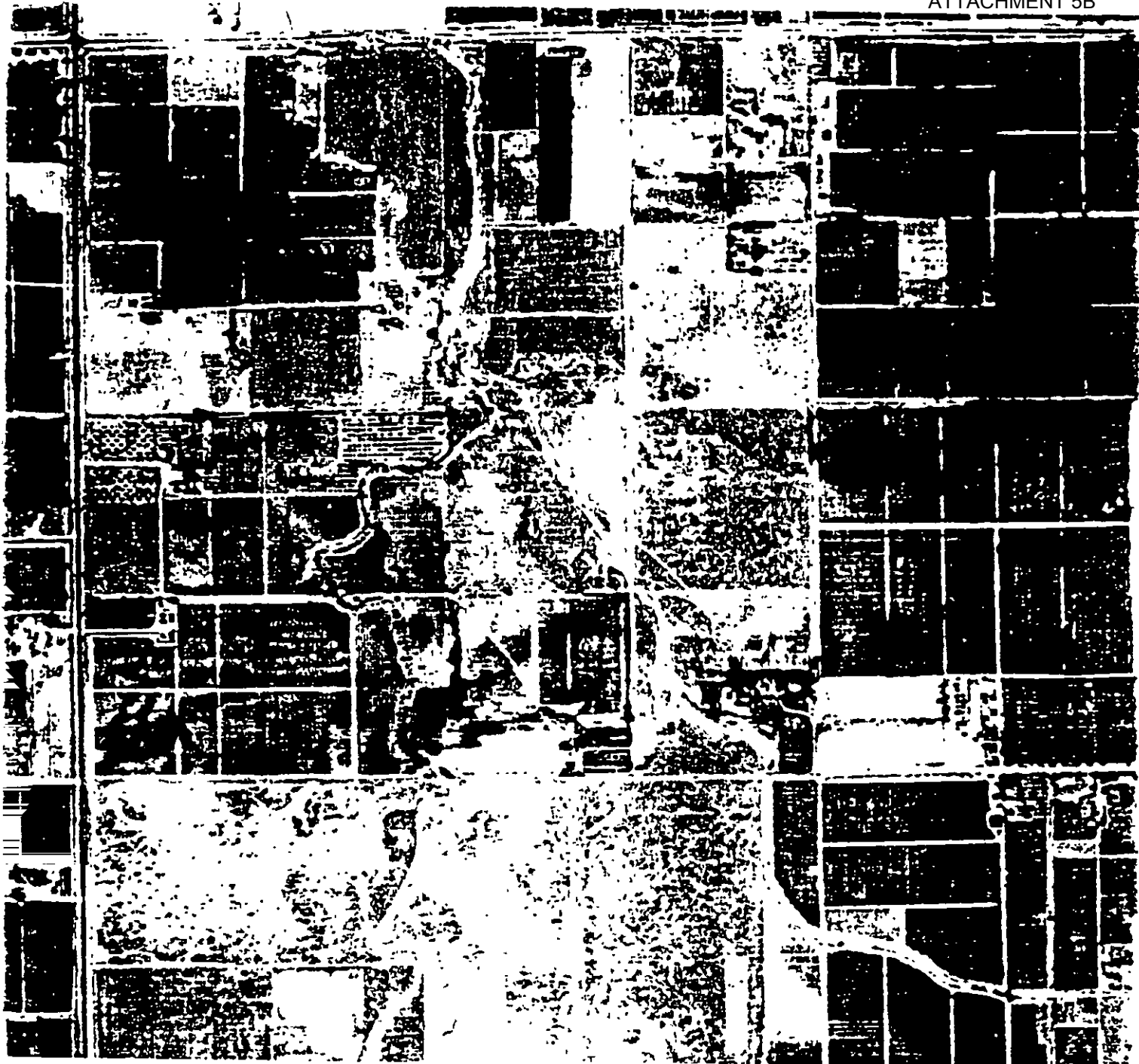
- 3) Alternative B-4 says a 90° confluence is not hydraulically favorable, possibly increasing cost with channel lining and energy dissipation, So Why does Staffs preferred alternative include a 90° bend when it's not necessary?
- 4) According to the Staff preferred alternative the West bank of the diversion ditch can not be preserved because the ditch has to be filled in to create the designed flood plain--Yes or No?
- 5) The Staff's Preferred alignment and alignments A-1 A2, B1, B2 B3, B4 .. all have some Pros and Cons, Why was Staff unable to recommend at least one of the other alternatives? Ex A2.
- 6) Why do they want to preserve the West boundary of the diversion ditch which is basically is a hard pan surface, with a few almond suckers when the East bank has a nice big Oak tree on it?
- 7) Why aren't they using all the existing drainage easements on the East side of the Phillips property, which consists of 75'? The Staffs preferred alternative uses 30' of easment and kills the Oak tree.
- 8) Why does the Staff's preferred alternative impact us (one property owner) so severely when compared to adjoining properties?
- 9) As to alternative alignments the Staff and proponents have mistakenly singled us out and refuse to "trade faces", Why?
- 10) Is the DIRA administration, although County, strictly separate and uninfluenced by the Planning dept. and other Depts of the County and is this strictly enforced?

These questions need to be asked and answered before you can make your recommendations. According to the provisions in CEQA we request this letter, in its entirety all 4 pages, be put in the final EIR - EIS for public record.

Sincerely,

Mr. & Mrs. Jordan
Mr. & Mrs Jordan

cc: Don Nottoli
Dennis Yeast



JORDAN RANCH
ELDER CREEK
DIVERSION DITCH
GERBER CREEK

N

19.9

JOHN M. TAYLOR
B. DEMAR HOOPER
JAMES B. WILEY
R. BRUCE STELBING
KATHLEEN R. MAKEL

TAYLOR & HOOPER
A PROFESSIONAL CORPORATION
ATTORNEYS
1435 RIVER PARK DRIVE, SUITE 300
SACRAMENTO, CALIFORNIA 95815
TELEPHONE (916) 929 5545
TELEFAX (916) 929 0283

September 5, 1997

Mr. Dennis Yeast
COUNTY OF SACRAMENTO
Department of Environmental Review & Assessment
827 7th Street, Rm. 220
Sacramento, CA 95814

Re: Comments to Draft Environmental Impact Report for North
Vineyard Station Specific Plan (State Clearinghouse No. 96032057)

Dear Dennis:

Taylor & Hooper represents Larry and Marsha Thompson. The Thompson's property is located immediately north of the North Vineyard Station Specific Plan area and is bisected by Elder Creek. The Thompsons appreciate the opportunity to comment on the referenced Draft Environmental Impact Report (DEIR).

The Thompsons are concerned about the referenced project's environmental impact on their property's use and value. This letter discusses their concerns and asks specific questions regarding the County of Sacramento's (hereafter "County") plans regarding their property.

Detention Basins

Exhibit 11.2a of the DEIR shows that a detention basin, specifically E-26, is located in the general area of the Thompson property. Has the County developed a plan for the watershed north of Florin Road? Has the County committed any resources or conclusively decided that a detention basin will be located on the Thompson property?

Width of Open Space Corridors

What is the proposed width of the open space corridor on Elder Creek immediately north of Florin Road? Page 11.16 of the DEIR states that the open space corridors' widths will vary between 150 and 240 feet. According to staff's presentation at the August 27, 1997, Planning Commission Meeting, the preferred plan calls for an open space corridor width of between 250 and 425 feet. Further, on August 27, 1997, staff mentioned that environmental groups have requested an alternative of open space corridors of up to 600 feet in width. Thus, please clarify what the width of the open space corridor will be on Elder Creek immediately north of Florin Road.

Mr. Dennis Yeast
Re: DEIR - Thompson
September 4, 1997
Page 2

Acquisition of Open Space Corridors' Property

Does the County plan to acquire the property associated with the open space corridor located on the Thompson property? Does the County have any plans for acquiring the remaining portions of the Thompson property outside the open space corridor? If the County plans to acquire the Thompson property: (1) when will the County acquire the Thompson property; and (2) will the County use the property's current zoning for estimating its market value?

Relationship to the Drainage Master Plan

When will the Drainage Master Plan for Elder Creek be available for public review? Will Elder Creek's Drainage Master Plan address the remaining property outside the North Vineyard Station Specific Plan area? Is the Specific Plan's drainage plan being coordinated with the larger Drainage Master Plan?

General Plan Requirement and Floodplain

According to Page 7 of the County's Land Use Element:

The Land Use Strategy Diagram designates most of the urban and urbanizing waterways floodplains as Recreational to preserve these natural corridors for public use. The designation was based on the latest FEMA 100 year floodplain data available when the diagram was prepared. The County will be implementing Master Drainage Plans during the term of the general plan and the 100 year floodplains are likely to be modified by this process. The County will therefore entertain general plan amendment applications for land designated as Recreational which is subsequently removed from the FEMA 100 year floodplain.

Please state whether the County plans to comply with this policy by entertaining general plan amendment applications for land currently designated as Recreational that will subsequently be removed from the FEMA 100 year floodplain.

Mr. Dennis Yeast
Re: DEIR - Thompson
September 4, 1997
Page 3

Again, we appreciate the opportunity to comment on the DEIR for the referenced project. Please call if you have any questions or concerns.

Very truly yours,

A handwritten signature in dark ink, appearing to read "James B. Wiley", written in a cursive style.

James B. Wiley

cc: Larry & Marsha Thompson

RBS/1988.1/L.DYeir

Law Offices of
GEORGE E. PHILLIPS

555 University Avenue, Suite 200
Sacramento, California 95825
Telephone (916) 929-8881
Telefax (916) 929-8882

September 5, 1997

RECEIVED

SEP 5 - 1997
DEPT. OF ENVIRONMENTAL
REVIEW & ASSESSMENT
SACRAMENTO COUNTY

Dennis Yeast, Director
Sacramento County
Department of Environmental Review and Assessment
827 Seventh Street
Sacramento, California 95814

Re: North Vineyard Station Specific Plan
Control No. 93-SFB-0238

Dear Dennis,

On behalf of North Vineyard Station Property Owners Group, the project developer, we have reviewed the draft environmental impact report (DEIR) for the North Vineyard Station Specific Plan. Set forth below are our comments on the document.

1. Page 1.5, Minor Amendments, second paragraph on page. The Planning Director's authority to make minor amendments to the Plan as an administrative matter is valid only until the issuance of the first building permit for any parcel that is created consistent with the Specific Plan. The wording of this paragraph could be misinterpreted to mean that no minor modifications to the plan may be made after the first building permit is issued anywhere within the Specific Plan. Any parcels created subsequent to and consistent with the Specific Plan will result from subsequent Tentative Mapping efforts. Since most of the Specific Plan is single family residential involving only one permit per parcel created, granting authority to make minor changes up to the first building permit on any subsequently created parcel is excessive.

2. Page 1.7 and throughout the document. Specific Plan Proponents. Specific Plan proponents, also known as participating property owners for the project include: Winncrest Homes, US Home, Florin Investors, Cal Maple Development and Morvai. Saca Properties and East Bradshaw Gerber

Dennis Yeast
September 5, 1997
Page 2

Associates are no longer participating property owners. Many of the addresses shown on this page are incorrect. A revised listing of Specific Plan proponents is included as Exhibit A.

Throughout the document, there are references to the proponent properties and participating properties. Please modify references and conclusions that are based on participating properties. In some instances, the Draft EIR includes evaluation of properties that are no longer participants. Please clarify in the Final EIR that technical studies may contain technical data for properties that are no longer considered participating.

3. Reference to project acreage varies throughout the document. The acreage of the North Vineyard Station Specific Plan area is 1,590± acres.
4. Page 2.1, Preferred Specific Plan. Clarify that the Specific Plan was developed through a public outreach process which included specific input from the Citizens Advisory Council (CAC), County Staff, project sponsors and the general public.
5. Page 2.1, Discussion of Alternatives. The distinction between the 10% density reduction alternative and 15% density reduction alternative occurs in the holding capacity for low density single family (1-5 units per acre). In the 10% reduction plan, the holding capacity for single family residential (1-5 units) is 5 units per acre; in the 15% reduction plan, the holding capacity for single family residential is 4.5 units per acre. This difference in holding capacity accounts for the difference in units between the 10% and 15% density alternatives. Please make this clarification for similar discussions on pages 4.2, 4.3, 5.6 and 5.8.
6. Page 2.3, first paragraph. This discussion should be augmented to include reference to the designation of the plan area in the County's General Plan as an Urban Development Area. Holding capacity assumed for the plan area by the General Plan should be discussed.
7. Page 2.4, Mitigation Measures LU-1 and LU-2. These suggested mitigation measures are inconsistent with and contrary to the consensus plan developed by County Staff, CAC and property owners.
8. Pages 2.6 and 2.7, Schools, Libraries, Parks and Open Space. References should be made to Elk Grove Unified's existing fee structure in which the project will participate. There should be library and park components to the fee developed for the plan area.

Dennis Yeast
September 5, 1997
Page 3

9. Page 2.8, Public Facilities Financing. The last paragraph states that the NVSSP Financing Plan is expected to recommend funding mechanisms for all development projects, whether for the Preferred Plan, 10% Alternative and 15% Alternative. The financing plan will recommend funding mechanisms for whichever plan is adopted by the Board and will provide information to determine if financing is feasible for alternatives.
10. Page 2.10, Traffic and Circulation. Cumulative No Project conditions refer to roadway segments for Excelsior, Elder Creek and Gerber Roads experiencing physical deficiencies based on substandard travel lane and shoulder widths. Other roadway segments experiencing cumulative no project increases in traffic would also result in physical deficiencies, such as Florin Road, Bradshaw Road, portions of Elk Grove Florin Road, etc. These roadway segments should be listed also.
11. Page 2.11, Significant & Unavoidable Traffic Impacts. Item 1, Bradshaw Rd. impact is a cumulative plus project impact. Existing plus project conditions do not result in this impact. Since the cumulative condition does not yet exist, stating that this project results in this significant and unavoidable impact is not accurate. It would be future approval of other projects that would result in this impact. Item 2 correctly states that the impact is a cumulative conditions impact.
12. Page 2.12, Transit System Mitigation Measures. Some mitigation measures listed are for roadways with very minimal project impact. Please include discussion of how the Capital Improvement Program will recognize this and divert fair share funding from these roadways to more viable and severely impacted facilities.
13. Page 2.13, Transit System Mitigation Measures TR-6, TR-7: Roadway widening to minimum width standards. These roadways are already below standards for rural arterials. Project fair share funding should be diverted to make other more impacted roadway improvements.
14. Page 2.13, Transit System Mitigation Measure TR-11 Calvin Rd. The North Vineyard Station project is within the Elk Grove, West Vineyard Public Facilities Financing Plan, and also within the influence area of the concurrently processing Vineyard Springs Comprehensive Plan. This project's fair share contribution should be diverted to other roadway improvements.
15. Page 2.14, Transit System Mitigation Measure TR-15. Note that existing capacity conditions allow nearly 92% of the project to be built out before widening is required. Because this is a State route, project fair share

Dennis Yeast
September 5, 1997
Page 4

contributions may be diverted to other, more viable and impacted roadway projects. This comment applies to TR-12 and TR-13, intersection improvements.

16. Page 2.15, Transit System Mitigation Measure TR-17. The EIR includes discussion of dual southbound left turn lanes, yet the measure requires only single left turn lanes north and south. Please clarify these requirements.

17. Page 2.20, Hydrology and Flooding. The EIR introduces the Drainage Master Plan (DMP) for the North Vineyard Station Specific Plan as being developed by the proponents. It also states that the DMP proposes construction of flood control and stormwater quality detention basins, within and downstream of the Specific Plan area. This statement implies that the project proponents recommend downstream detention facilities, which is not the case. The recommendation for downstream detention was inserted by County Water Resources Division and should be so characterized whenever it is referenced throughout the EIR.

18. (a) Page 2.21, Hydrology and Flooding, last paragraph. This paragraph states that any urban development within the NVSSP area will necessitate the construction of channel improvements downstream. While this statement is consistent with the general statements in the DMP, the DMP also indicates that small, isolated areas may be able to develop by installing temporary detention and pumping to mitigate for increase in runoff.

(b) This paragraph states that the NVSSP DMP determined that there would be increased 100 year water surface elevations and increased out-of-bank flooding in downstream areas along Elder Creek unless off-site Detention basin E20 is constructed, which is inaccurate. The DMP states that alternatives such as constructing and optimizing the on-site detention facilities reduces the 100 year flows to existing conditions downstream. (within 10-15 cubic feet per second, or less than 1% difference) Studies completed for the on-site basins could be further refined during actual design or subsequent master plan refinement to reduce the flows even lower.

(c) Basin E-20 is only needed if optimization of the on-site detention basins is not done. It would be foolish to construct on site detention basins without optimizing their performance with minor changes in weir elevation. Studies done by an outside consultant for the County of Sacramento Water Resources Division indicated that the flows downstream from the project are actually less than existing conditions. There is a statement that the stage, or water surface elevation can be higher. Please provide information on how the water surface elevation can increase when the flows decrease. The EIR should be revised to reference the statement that Basin E-20 is required as a

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statement by Sacramento County Water Resources, not by the authors of the DMP technical analysis.

19. Page 2.24 and 2.25, Mitigation Measures HY-1 and HY-2. These are not mitigation measures. If the Plan is revised prior to its approval, then there are no impacts to mitigate and thus, these mitigation measures are not required.

20. Page 2.24 and 2.25, Mitigation Measure HY-3. Reference to requirements for construction of Basin E20 should not be to the NVSSP DMP, but rather a separate recommendation by County Water Resources Staff. (See Comment 17 above). Delete the term "..., including construction of Detention Basin E20 downstream of the Specific Plan area,". If necessary, append this same statement to the end of the mitigation measure with a reference to requirements by Sacramento County Water Resources Division.

It is recommended that specific references to Basin E20 be eliminated. No other specific improvement is referenced in any other mitigation measure. The language in the second paragraph of this mitigation measure includes the correct approach, by identifying flexibility to "...demonstrate that phased improvements will provide adequate urban flood protection to the proposed on-site development, and will not increase flood risks in downstream areas." This same flexibility should be provided with the issue of Basin E20.

21. Page 2.24, second paragraph. Is mitigation for non-oak native trees required under the County's tree ordinance? If not, this obligation should be deleted.

22. Page 2.24 and 2.25, Mitigation Measures HY-6 and HY-7. Recommend elimination of specific reference to Basin E20. It is the only ultimate project facility that is specifically referenced. Listing a general solution for the Gerber Creek overflow condition is consistent with the DMP.

23. Page 2.29, Water Supply. Phasing of proposed development. The planned widening of Elk Grove Florin Road from Calvine to Gerber will include extension of a twelve inch (12") diameter Zone 40 Transmission main to the intersection of Gerber Road. This facility will be available for initial development connection as a primary or secondary source of supply. This facility was not mentioned in the original Water Supply and Distribution Master Plan.

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24. Page 2.36, second full paragraph. Reference should be made to the pending agreement between the County, DFG and the Nature Conservancy regarding County adoption of a Swainson Hawk mitigation fee.
25. Section 3, Alternatives. This section discusses the No Project Alternative and an Increased Density/TOD/Wetlands Preserve Alternative. This section should also discuss the three other project alternatives that have been prepared: the 10% Density Reduction Alternative, 15% Density Reduction Alternative, and the Modified Core Alternative.
26. Page 3.2, Increased Density/TOD/Wetlands Preserve Alternative. The description of the Increased Density/TOD/Wetlands Preserve Alternative as the environmentally superior alternative does not include a description of technical analyses. Please describe the findings of the technical analyses (land planning, drainage, sewer, water, circulation, biological and cultural analyses) which support the Increased Density Alternative as an environmentally superior alternative. Also, please include a land use exhibit and corresponding table of uses (with acreages and unit counts) to describe the Increased Density/TOD/Wetlands Preserve alternative.
27. Page 3.3, Increased Density/TOD/Wetlands Preserve Alternative, first paragraph. Reference should be made to the specific holding capacity for the plan area assumed in the General Plan.
28. Page 4.4, Table PD-1. Confirm land use acreages for the preferred plan and alternatives. Table PD-1 is not consistent with information contained on page 5.26.
29. Page 4.6, Table PD-2. The acreages shown for the County General Plan Existing scenario add to a number greater than the project acreage of 1,590. Please verify these acreages.
30. Page 4.8, Specific Plan Document. Please note that the Draft EIR is based on the public review draft of the North Vineyard Station Specific Plan dated May 28, 1997.
31. Page 4.9 Specific Plan technical documentation. Technical analyses prepared for Basin E20, as well as the project's groundwater study should be included on the list of technical documentation.
32. Page 5.3, Preferred Specific Plan. Similar to Comment 4 above, co-sponsors should be defined as County Staff, CAC and project proponents.

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33. Page 5.10, second paragraph. Discussion requires greater context regarding placement of the core area on Gerber Road. The North Vineyard Station CAC's rationale for locating the core area adjacent to Gerber Road was in response to urbanization planned south of Gerber Road, not north of Florin Road.

34. Page 5.11, third paragraph. The at-grade crossing of the railroad at Waterman Road will require approval by the Public Utilities Commission. The EIR should discuss the necessary approval by the PUC.

35. Page 5.14, fourth paragraph. TOD areas identified on the General Plan Land Use Diagram were represented by planning staff as illustrative of TOD opportunities and not intended to be specific designations for the property identified. This discussion is contrary to that representation. Moreover, the plan area, when designated by the Board as a Urban Development Area, did not have a land plan adopted.

36. Page 5.15, second full paragraph. Again, TOD designations were intended to indicate opportunities for TOD locations and not an actual designation of the affected area as a TOD. This language is inconsistent with that intention.

37. Page 5.19, top paragraph. The language "... there does not appear to be any clear rationale for not identifying and designating a TOD site in the Plan Area ..." is contrary to the consensus plan developed by the CAC, staff and property owners. Additionally, there has been no demonstration that adequate transit facilities will ever become available to the plan area to justify the density and intensity of TOD development.

38. Page 5.23, multi-family discussion. The Draft EIR indicates that it is highly unlikely that the Plan will yield its expected share of multi-family units. The plan includes 39 acres designated for multi-family units, which is expected to yield 637 units. The 39 acres planned for multi-family uses exceeds the County's target (Table LU-4) range of 31 to 35 acres and the planned unit yield of 637 is within the County's range of 620 to 700 acres. The plan also includes 28.6 acres of commercial land use, which includes SC and LC zoned land, which may be used for multi-family units. The conclusion that the project will not yield its expected share of multi-family units is subjective and without merit.

39. Page 5.24, second full paragraph. See comment #33 above related to core relocation discussion.

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40. Page 6.4, top paragraph. The area to be serviced by Station 52 will likely serve a greater area than just the plan area. As such, the cost of the station's improvement and equipping should not be borne by this project alone.

41. Page 11.2, top paragraph. The objectives stated clearly identify an intent to reduce downstream existing flows and their related impacts on existing developed areas both within the County and the City of Sacramento. Subsequent discussion of the master plan facilities to achieve these goals does not mention funding sources other than fees or financing exacted from new development. Is it the stated intent of the Elder/Gerber Creeks Basin Master Drainage Plan to have new development fund this benefit to existing development?

42. Page 11.2, paragraph 4. In Chapter 9, page 9.3 of the Elder and Gerber Creeks Technical Appendix: UNET Analysis (January, 1997), prepared by Douglas Hamilton, P.E., for the County of Sacramento, the statement is made that Stand Alone Conditions 100-year event with the Laguna Creek over spill results in a decreased peak flow at the City boundary without basin E-20.

However, the study also finds a stage increase of approximately 0.5 feet downstream of the City boundary. The County has not provided information supporting the increased stage with decreased flow or its significance. The County's Elder/Gerber Creek DMP objective No. 1 that has been met. Information explaining the stage increase and its significance has not been provided by County WRD.

43. Page 11.6, paragraph 3. Tables HY-3 and HY-4 illustrate several alternatives to reduce Stand Alone Condition peak flows at the City limit to at or below existing levels. Stand Alone Case 2 achieves this objective without construction of Basin E20 through optimization of the weir elevations for Basins G41 and E24A. The last sentence of this paragraph in the DEIR should be revised to the following:

"Tables HY-3 and HY-4 illustrate that construction of certain ultimate facilities would be needed to reduce stand alone peak flows at the City limit to existing levels."

44. Page 11.21, paragraph 3. As discussed in the NVSSP DMP, an extreme worst case Stand Alone Conditions scenario was prepared. The results of this analysis show that the drainage facilities proposed in the NVSSP Preferred Drainage Plan without the construction of Basin E20 adequately mitigate for the project's impacts as well as impacts associated with outside regional influences beyond the scope of this project's DMP. Please expand the discussion to include this information.

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45. Page 11.22, third paragraph. This paragraph identifies a low dam constructed across the flow path which results in upstream water surface elevations which cause overland flow diversion outside the natural creek channel. General Plan Policy CO-104 requires removal of unauthorized fill in the 100-year floodplain at the property owners expense. Removal of this fill would possibly reduce the temporary mitigation which will otherwise be necessary. Please include discussion consistent with County policy that requires removal of this fill in the floodplain.

46. Page 11.27, paragraph 4, No. 3. Either construction of Basin E20 or optimization of the weir elevations for Basins G41 and E24A would eliminate or reduce the downstream impacts to a less than significant status. Throughout other areas of text of this DEIR, the approach utilizing optimization of the weir elevations for Basins G41 and E24A is not stated as a viable alternative to construction of off site Basin E20. This study has proven to mitigate impacts to existing conditions and should be included in the discussion.

47. Page 11.28, Supplemental WRD Conclusion and paragraph preceding. Please provide the information and technical analysis that lead to conclusions regarding the need for Basin E20. On-site Basin E24A is a large basin located at the confluence of Elder and Gerber Creek. This basin provides flexibility in the system for timing variability on either creek in the ultimate and interim conditions.

48. Page 11.29 Phased Development with Temporary Pumping Facilities. Reference is made to statements in the Executive Summary and Mitigation Measures, which draw conflicting conclusions than the facts presented in this section. (page 2.21) This section indicates that limited initial development could occur with temporary detention basins and pumping. Modify the Executive Summary to be consistent with findings of the DEIR text and the technical studies.

49. Page 11.37, paragraph 2. The Stand Alone Condition Case 2 provides an alternative which reduces impacts to a less than significant level without the construction of Detention Basin E20. The wording, "including the construction of Detention Basin E20" should be deleted.

50. Page 11.45, Mitigation Measures HY-6 and HY-7. In these mitigation measures, the wording, "including the construction of Detention Basin E20" should be deleted.

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51. Page 14..5, Wetland Acreage, Table BR-2. Please revise Table BR-2 to reflect wetland acreage within participant and non-participant properties, consistent with Comment 2 above.

52. Page 14.37, Mitigation Measure BR-2, On-Site Wetland Preserve. If all impacts are mitigated on-site, the acreage required for mitigation will be significantly less than 200 acres. Please include justification for requiring a mitigation area of 200 acres.

53. Page 14.28, Trees. The Draft EIR states that 48 trees exist within participating properties. Please revise this section to reflect the change in participating ownerships. Also, see comment 57 related to arborists reports.

54. Page 16.4, Technical Study/Site Assessment. Please revise this section to reflect the Environmental Site Assessment dated March 1996 (see comment 58 below).

55. Page 16.26, Required Site Reconnaissance. The last paragraph on the page is confusing. The Specific Plan does not recommend soil sampling and testing. The environmental site assessment includes recommendations for these properties.

56. Pages 16.26, 16.29, and 16.30. Please clarify the addresses of the properties listed for cleanup.

57. Technical Appendix D, Arborist Report. The arborist reports in the technical appendix include data for properties which are no longer considered participating property owners. For clarification, please use the enclosed tree summary as an inventory of trees located on participating properties.

58. Technical Appendix K, Hazardous Materials Assessment, also known as Environmental Site Assessment. The Environmental Site Assessment technical document, prepared by Wallace-Kuhl & Associates, that is included in Appendix K was superseded by a revised document dated March 1996. A copy of the March 1996 document has been provided to DERA previously. Please include the most current version of this document in the Technical Appendix.

59. Technical Appendix and throughout EIR. A Geotechnical Engineering Report was prepared for the project by Wallace-Kuhl & Associates (dated May 31, 1995) and submitted to County Planning and DERA for use in preparing the Draft EIR. Information from this technical study should be used in the Draft EIR analysis and the technical report should be included in the Technical Appendices.

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Exhibit A

Specific Plan Proponents

Winncrest Homes
9985 Folsom Boulevard
Sacramento, California 95827
Contact: Mike Winn

North Vineyard Investors
US Home Corporation
2366 Gold Meadow Suite 100
Gold River, California 95670
Contact: Brian Bombeck

Florin Investors
9985 Folsom Boulevard
Sacramento, California 95827
Contact: John Reynen

Cal Maple Development
P.O. Box 19034
Sacramento, California 95819
Contact: Phil Courey

Morvai
Harsch Investment Corp.
1121 SW Salmon Street
Portland, Oregon 97205
Contact: Mina Morvai

Representative
Law Offices of George E. Phillips
555 University Avenue Suite 100
Sacramento, California 95825
Contact: George Phillips

Law Offices of
GEORGE E. PHILLIPS

555 University Avenue, Suite 200
Sacramento, California 95825
Telephone (916) 929-8881
Telefax (916) 929-8882

RECEIVED

SEP 12 1997

DEPT. OF ENVIRONMENTAL
REVIEW & ASSESSMENT
SACRAMENTO COUNTY

September 9, 1997

Dennis Yeast, Director
Sacramento County
Department of Environmental Review and Assessment
827 Seventh Street
Sacramento, California 95814

Re: North Vineyard Station Specific Plan
Control No. 93-SFB-0238

Dear Dennis,

On behalf of the North Vineyard Station Property Owners Group, we submitted a letter to you, dated September 5, 1997, with our comments regarding the North Vineyard Station Specific Plan Draft Environmental Impact Report. The following clarifies Comments #14 and #26 of our letter.

Comment #14 incorrectly states that the North Vineyard Station project is within the Elk Grove/West Vineyard Public Facilities Financing Plan. This comment refers to the Calvine Road project which is within the Elk Grove/West Vineyard Public Facilities Financing Plan.

Comment #26 refers to the Increased Density/TOD/Wetlands Preserve Alternative. The intent of this comment was to state that there are no technical studies (land planning, drainage, sewer, water, circulation, biological and cultural analyses) that support the conclusion that the Increased Density Alternative is environmentally superior to any of the other alternatives. We are not suggesting that additional technical studies be prepared for the alternatives.

Dennis Yeast
September 9, 1997
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Please call me if we can provide further clarification.

Very truly yours,

A handwritten signature in cursive script that reads "George Phillips".

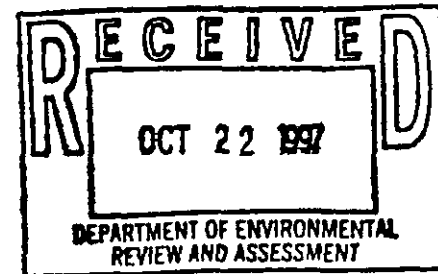
George E. Phillips

cc: Surinder Singh
Mike Winn
Brian Bombeck
John Reynen
Phil Courey
Mina Morvai
Les Clark
Donn Reiners

Law Offices of
GEORGE E. PHILLIPS

555 University Avenue, Suite 200
Sacramento, California 95825
Telephone (916) 929-8881
Telefax (916) 929-8882

October 21, 1997



Joyce Horizumi
Sacramento County
Department of Environmental Review and Assessment
827 Seventh Street
Sacramento, California 95814

Re: North Vineyard Station Specific Plan
Control No. 93-SFB-0238

Dear Joyce,

The following information is in support of comments in our letter, dated September 5, 1997, regarding the North Vineyard Station Draft EIR. The information below (in plain type) is ordered to correspond, by number, to comments in our DEIR comment letter (in bold type).

2. Page 1.7 and throughout the document. Specific Plan Proponents. Specific Plan proponents, also known as participating property owners for the project include: Winncrest Homes, US Home, Florin Investors, Cal Maple Development and Morvai. Saca Properties and East Bradshaw Gerber Associates are no longer participating property owners. Many of the addresses shown on this page are incorrect. A revised listing of Specific Plan proponents is included as Exhibit A.

Throughout the document, there are references to the proponent properties and participating properties. Please modify references and conclusions that are based on participating properties. In some instances, the Draft EIR includes evaluation of properties that are no longer participants. Please clarify in the Final EIR that technical studies may contain technical data for properties that are no longer considered participating.

Joyce Horizumi
October 21, 1997
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Subsequent to our comment letter of September 5, 1997, Morvai has withdrawn as a participating property owner. Today, the participating property owners for the project include: Winncrest Homes, US Home, Florin Investors and Cal Maple Development. A revised listing of the project proponents is attached. Also enclosed is map depicting the locations of participating properties.

28. Page 4.4, Table PD-1. Confirm land use acreages for the preferred plan and alternatives. Table PD-1 is not consistent with information contained on page 5.26.

On Table PD-1 (page 4.4), under the -10% alternative, there are 5,757 dwelling units. This change will make PD-1 consistent with descriptions of the alternatives on page 5.26.

29. Page 4.6, Table PD-2. The acreages shown for the County General Plan Existing scenario add to a number greater than the project acreage of 1,590. Please verify these acreages.

General Plan Designations
Acreage Calculations

General Plan Designation	County General Plan Existing	NVSSP Preferred Plan	NVSSP -10% Alt	NVSSP -15% Alt
Urban Development	1,594.5	0	0	0
Low Density Res (1-12 du/ac)	0	1,417.2	1,417.2	1,417.2
Medium Density Res (13-30 du/ac)	0	39.7	39.7	39.7
Commercial & Office	0	38.7	38.7	38.7
Recreation	0	26.3	26.3	26.3
(Roadways)	0	72.6	72.6	72.6
Total	1,594.5	1,594.5	1,594.5	1,594.5

31. Page 4.9 Specific Plan technical documentation. Technical analyses prepared for Basin E20, as well as the project's groundwater study should be included on the list of technical documentation.

Please include the following technical analyses in the list of technical documentation on page 4.9. Copies of each of these documents are enclosed:

Cultural Resources Assessment for the North Vineyard Station Off-Site Detention Basin, prepared by Peak & Associates, January 14, 1997 and letter from Melinda Peak dated January 28, 1997.

Joyce Horizumi
 October 21, 1997
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Wetland Delineation and Special Status Species Assessment for Basin E-20, Sugnet & Associates, January , 1997.

North Vineyard Station Specific Plan Evaluation of Groundwater Impacts, prepared by Sacramento County Public Works Agency, January 31, 1997.

34. Page 5.11, third paragraph. The at-grade crossing of the railroad at Waterman Road will require approval by the Public Utilities Commission. The EIR should discuss the necessary approval by the PUC.

We have had discussions with Howard Menking at California Traction and Steve Hetland of County Transportation Division regarding the at-grade railroad crossing at Waterman Road. We prepared an application to the PUC for the crossing and submitted it to County Transportation. The Final EIR and Specific Plan will be submitted, along with County Transportation's application, to California Traction to complete their application to the PUC for the crossing.

51. Page 14.5, Wetland Acreage, Table BR-2. Please revise Table BR-2 to reflect wetland acreage within participant and non-participant properties, consistent with Comment 2 above.

In the Biological Resources section, please update acreages and references to participant and non-participant properties, including Plate BR-A, Table BR-2, Plate BR-5, Table BR-6, and Table BR-7. The following is an update of the wetland impacts in the plan area. Enclosed is a worksheet that outlines how wetland acreages (participant/non participant) were calculated.

Table BR-2
 Wetland Acreage Within Participant and Non Participant Properties

Waters of the U.S. Category	Participant Acreage	Non Participant Acreage
Vernal Pool	2.93	15.0
Seasonal Wetland	1.88	15.84
Drainage Swale	0	7.44
Perennial Creek	0.75	4.59
Stock Pond	0.26	0
Freshwater Marsh	0	2.09
Total	5.82	44.96

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Joyce Horizumi
October 21, 1997
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53. Page 14.28, Trees. The Draft EIR states that 48 trees exist within participating properties. Please revise this section to reflect the change in participating ownerships. Also, see comment 57 related to arborists reports.

Given the change in participating properties, there are a total of 17 trees with a combined diameter of 390 inches (see enclosed tree inventory table dated October 17, 1997). Please revise the discussion on page 14.2 and page 14.28.

54. Page 16.4, Technical Study/Site Assessment. Please revise this section to reflect the Environmental Site Assessment dated March 1996 (see comment 58 below).

Enclosed is a copy of the Environmental Site Assessment dated March 1996.

57. Technical Appendix D, Arborist Report. The arborist reports in the technical appendix include data for properties which are no longer considered participating property owners.

For clarification, please use the enclosed tree summary (dated October 17, 1997) as an inventory of trees located on participating properties.

58. Technical Appendix K, Hazardous Materials Assessment, also known as Environmental Site Assessment. The Environmental Site Assessment technical document, prepared by Wallace-Kuhl & Associates, that is included in Appendix K was superseded by a revised document dated March 1996. A copy of the March 1996 document has been provided to DERA previously. Please include the most current version of this document in the Technical Appendix.

Enclosed is a copy of the Environmental Site Assessment dated March 1996.

59. Technical Appendix and throughout EIR. A geotechnical engineering report was prepared for the project by Wallace-Kuhl & Associates (dated May 31, 1995) and submitted to County Planning and DERA for use in preparing the Draft EIR. Information from this technical study should be used in the Draft EIR analysis and the technical report should be included in the Technical Appendices.

Enclosed is the geotechnical engineering report prepared by Wallace-Kuhl & Associates, dated May 31, 1995. The document contains information about the geomorphological conditions of the project area, which may useful

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**North Vineyard Station
Specific Plan Proponents**

Winncrest Homes
9985 Folsom Boulevard
Sacramento, California 95827
Contact: Mike Winn

North Vineyard Investors
US Home Corporation
2366 Gold Meadow Suite 100
Gold River, California 95670
Contact: Brian Bombeck

Florin Investors
9985 Folsom Boulevard
Sacramento, California 95827
Contact: John Reynen

Cal Maple Development
P.O. Box 19034
Sacramento, California 95819
Contact: Phil Courey

Representative
Law Offices of George E. Phillips
555 University Avenue Suite 100
Sacramento, California 95825
Contact: George Phillips

October 17, 1997

21.20

October 17, 1997

Table 3. North Vineyard Station Specific Plan Area Participants (Waters of the U.S.)

Participating Yes/No	Vernal Pool	Seasonal Wetland	Drainage Swale	Elder Creek	Gerber Creek	Stock Pond	Totals
East Bradshaw/ Gerber Associates	0.84	0.19	0.54	0.00	0.00	0.00	1.57*
Yes - Courcy	0.00	0.00	0.00	0.00	0.00	0.00	0.00+
No - Morvai	2.46	0.86	0.90	0.00	0.00	0.00	4.22*
No - Saca	3.70	0.79	0.00	0.59	0.00	0.09	5.17*
Yes - Florin Investors	1.63	0.00	0.00	0.00	0.00	0.00	1.63*
Yes - U.S. Home Corporation	0.00	0.73	0.00	0.75	0.00	0.00	1.48*
Yes - Winncrest Homes	1.30	1.15	0.00	0.00	0.26	0.00	2.71*
Totals	9.93	3.72	1.44	1.34	0.26	0.09	
→ Participating -	2.93	1.88	0	0.75	0.26	0	5.82
Non Participating - 7.00	1.84	1.44		0.59	0	0.09	10.96
* - Acres have been verified by the U.S. Army Corps of Engineers							
+ - No waters of the U.S. present on-site							
Non Participating (that were previous participants)	7.00	1.84	1.44	0.59	0	0.09	16.78
Rest of Plan (continued)	80	14.0	6.0	4.0	0	2.0	

(21.2)

North Vineyard Station

Tree Summary
October 17, 1997

Includes native oaks 4" DBH and any significant non oak trees 18" DBH and larger.

Summary

Participating Property Owner	Number of Trees	Total Inches
US Home	7	143
Florin Investors	4	83
Winncrest	4	124
Courey	2	40
Total	17	390

Property	Tag	Species	Diameter	Cond	Recommendation
US Home APN 065-0052-02, 04 and 065-0080-079					
US Home	21	London Plane	22	Fair	Prune and deep root fertilize
US Home	22	Black Walnut	18	Fair	Prune
US Home	23	Black Walnut	28	Fair	Prune and remove deadwood
US Home	24	Black Walnut	18	Poor	Remove
US Home	25	Black Walnut	19	Poor	Remove
US Home	26	Black Walnut	20	Fair	Prune, install cable.
US Home	27	Black Walnut	18	Fair	Prune to thin
Total Inches			143		
Florin Investors APN 66-100-03					
Florin Inv	1	Fruitless Mulberry	20	Fair	Clean out crown
Florin Inv	2	Fruitless Mulberry	22	Fair	None
Florin Inv	3	Fruitless Mulberry	20	Fair	Clean out crown
Florin Inv	4	Fruitless Mulberry	21	Fair	Clean out crown
Total Inches			83		
Winncrest APN 66-080-04,06,13					
Winncrest	18	Weeping Willow	36	Fair	Clean out crown
Winncrest	19	Weeping Willow	30	Fair	Clean out crown/reduce weight
Winncrest	20	Eucalyptus	23	Poor	Remove
Winncrest	21	Eucalyptus	35	Fair	Clean out crown
Total Inches			124		
Courey APN 066-0070-004, 05, 08, 19					
Courey 20		Monterey Pine	22	Fair	Reduce weight, fertilize
Courey 21		Monterey Pine	18	Fair	Prune thin, reduce weight, fertilize
Total Inches			40		

21.22

ATTACHMENT 2

***NORTH VINEYARD STATION
SPECIFIC PLAN***

***DRAFT EIR
ERRATA PAGES***

DEIR ERRATA GUIDE

*Errata Topic: Errata Item**Errata Page*

Public Facilities Financing: text edit	2.8(rev)
Public Facilities Financing: add Mitigation Measure PFF-1	2.9(rev)
Hydrology & Flooding: text edit	2.21(rev)
Hydrology & Flooding: add text <i>At the discretion of the WRD</i>	2.22(rev)
Water Supply: Water Demand Forecast discussion clarified	2.28(rev)
Water Supply: Water Demand Forecast discussion clarified	2.29(rev)
Water Supply: SCWA discussion updated	2.30(rev)
Sewer Service: typographic error interceptor diameter is 102"	2.31(rev)
 Land Use: typographic error	 5.20(rev)
 Traffic & Circulation: EP-17 revised	 8.18(rev)
Traffic & Circulation: EP-18 revised	8.19(rev)
Traffic & Circulation: CP-5 revised	8.23(rev)
Traffic & Circulation: TR-17 revised	8.43(rev)
Traffic & Circulation: TR-17 revised	8.44(rev)
 Hydrology: HY-3 & HY-6 revised to include WRD review	 11.45(rev)
 Water Supply: SCWA discussion updated	 12.8(rev)
Water Supply: Water Demand Forecast discussion clarified	12.10(rev)
Water Supply: typographic error	12.28(rev)
 Sewer Service: typographic error interceptor diameter is 102"	 13.1(rev)
 Biological Resources: Complete list of Alternative Drainage Corridor Policies	 14.29(rev)
Biological Resources: Complete list of Alternative Drainage Corridor Policies	14.30(rev)
Biological Resources: Complete list of Alternative Drainage Corridor Policies	14.31(rev)
Biological Resources: Complete list of Alternative Drainage Corridor Policies	14.32(rev)
Biological Resources: Complete list of Alternative Drainage Corridor Policies	14.33(rev)
Biological Resources: BR-3 revised to include WRD review	14.37(rev)
Biological Resources: BR-4 revised to include mitigation fee per acre option	14.38(rev)
Biological Resources: BR-6 revised to include WRD review	14.39(rev)

3. All residential project shall be designed so that solid waste containers can be hidden from street view.

Implementation of the recommended policies will ensure that impacts from solid waste disposal resulting from development within the project area will be *less than significant*.

Public Facilities Financing

State Planning and Zoning Laws (California Government Code) require specific plans to identify in detail the essential infrastructure and services needed to support the land uses described in the plan, as well as a program of implementation and financing measures necessary to carry out those improvements (Section 65451).

The project site is not included in any existing Public Facilities Financing Plan area and will therefore require a financing plan and associated implementation strategy to fund public facilities needed to serve new development in the Plan Area.

Because the NVSSP does not include any rezoning, a financing plan is not required to be part of the project at this stage. In fulfilling this requirement to establish a funding mechanism for public facilities within the Plan Area, the proposed Specific Plan includes a financing strategy that establishes a policy framework for the funding of public improvements and infrastructure required to serve new development in the Plan Area. The purpose of the proposed financing strategy is to lay the ground work for the NVSSP Public Facilities Financing Plan (PFFP), which is yet to be completed, and to give the Board of Supervisors sufficient information to make the General Plan/Community Plan level decision. The financing plan to follow will expand upon the financing strategy and provide greater detail on the phasing of improvements and analyze recommended financing mechanisms.

The Public Infrastructure Planning and Financing Section (PIPFS) will provide input during the formulation of the Financing Strategy. After subsequent cooperative review by the Department of Planning & Community Development and Public Works Agency, the Financing Strategy will go through the public hearing process as a component of the Specific Plan project.

At a minimum, the NVSSP Financing Plan is expected to recommend its funding mechanisms for all development projects that will ultimately be approved within the Plan Area, whether for the Preferred Plan, the -10 % Alternative Plan, or the -15% Alternative Plan.

The Financing Plan is tangible to environmental impacts in that it provides the mechanism

to ensure that needed improvements to mitigate traffic, drainage, water supply and other infrastructure/service impacts can be implemented in a timely manner. To insure that no maps are approved prior to the approval of a Public Facilities Financing Plan for the North Vineyard Station Specific Plan area, the Public Infrastructure Planning and Financing Section is recommending the following mitigation:

No rezone shall be approved until a Public Facilities Financing Plan for the North Vineyard Station Specific Plan area has been approved by the Board of Supervisors and no final map shall be recorded until the financing mechanisms identified in the Public Facilities Financing Plan have been implemented.

Traffic and Circulation

A traffic impact analysis for the proposed project was conducted by Fehr & Peers Associates, Transportation Consultants (October 2, 1996). The study analyzes the impacts of the North Vineyard Station Specific Plan on the existing transportation system in the area. The study assesses the short- and long-term impacts of the project on the local circulation network and describes the improvements required to mitigate operational deficiencies of the transportation system. The technical study is summarized below and is available for review at the offices of the Department of Environmental Review and Assessment.

The transportation study analyzes the impacts of the proposed project on the existing and planned roadway, transit, bicycle, and pedestrian circulation systems. The key findings of the study are summarized below

- Under **Existing** conditions,, the following intersections operate at unacceptable levels (LOS F) during the a.m. and/or p.m. peak hour.
 - South Watt Avenue at Jackson Road;
 - Bradshaw Road at Jackson Road;
 - Elk Grove-Florin Road at Florin Road; and
 - Elk Grove-Florin Road at Gerber Road.
- Five roadway segments currently experience physical deficiencies based on substandard travel lane and shoulder widths. Existing deficiencies resulting from substandard roadway cross-sections are exacerbated with the addition of project traffic.
- The proposed Preferred Plan will generate 84,037 daily trips, 5,460 a.m. peak hour trips, and 8,663 p.m. peak hour trips. Approximately 20 percent of these trips are expected to remain within the project boundaries.
- The project alternatives (10 percent and-15 percent Low Density Alternatives) would not reduce project impacts to less than significant.
- Without roadway improvements, the addition of project traffic would result in operational deficiencies on five roadway segments and at eight study intersections. Improvements under **Existing Plus Project** conditions include widening the

and Gerber Creeks would be deepened to approximately 8 feet, widened to approximately 12-50 feet, and constructed with a meandering naturalized appearance. The modified creek channels within the Specific Plan area would be located within an open space corridor with an average width of 200 feet which will also include a recreational trail system. As a result of the proposed NVSSP DMP, the extent of the 100-year floodplain over the project site would be substantially reduced, reclaiming lands planned for urbanization from the 100-year floodplain, and the 10-year water surface elevation in the creek channels would be low enough to provide gravity drainage service to the proposed project development.

The Specific Plan land use plan identifies the proposed creek channels and associated open space areas as “drainage parkways”. It should be noted that there are minor discrepancies between the drainage parkway and detention basin locations shown on the Specific Plan land use plan (Plate PD-B) and those shown on the NVSSP DMP (Plate HY-E). Evolution of the drainage planning process has resulted in the recommended facility locations identified in the NVSSP DMP, which are intended to provide necessary drainage improvements while minimizing impacts upon existing land uses. Therefore, the drainage parkway and detention basin locations shown on the Specific Plan land use plan should be revised to be consistent with those shown on the NVSSP DMP.

The proposed NVSSP DMP improvements, when considered in conjunction with other upstream drainage improvements anticipated under ultimate development conditions, would provide adequate capacity to attenuate and convey drainage from the entire drainage shed without adversely affecting downstream areas. This ultimate condition scenario depends upon a complete system of facilities, including detention throughout the watershed, elimination of the existing Laguna Creek interbasin transfer, and channel and road crossing improvements.

~~Any urban~~ Urban development within the NVSSP area will necessitate the construction of channel improvements from the development area downstream to the existing improved channel near Millbrook Circle (approximately ½ mile west of Elk Grove-Florin Road) in order to provide adequate drainage service to the development area. However, it is possible that certain upstream ultimate drainage improvements may not be implemented for many years. Therefore, hydrologic and hydraulic analyses were conducted to determine whether implementation of the proposed NVSSP DMP improvements under interim conditions, absent implementation of ultimate upstream flood control improvements, would provide adequate urban flood protection to the proposed Specific Plan development without adversely impacting downstream areas. These interim analyses determined that there would be increased 100-year water surface elevations and increased out-of-bank flooding in downstream areas along Elder Creek, resulting in potentially significant flooding impacts, unless off-site Detention Basin E20 (downstream of Elk Grove-Florin Road) is constructed. These impacts would occur under either full (stand alone) or phased development of the

proposed NVSSP land uses. The County WRD indicates that construction of Basin E20 should occur with the initial phases of the NVSSP construction. **At the discretion of the WRD, it is possible that a limited upland area in the NVSSP might be developed using local temporary detention and pumping to drain a small development.**

An existing overflow condition along Gerber Creek east of the NVSSP area causes flood flows to spill overland into the NVSSP area, placing a broad swath of the southeast portion of the Specific Plan area within the 100-year floodplain. Development of the proposed NVSSP urban land uses cannot occur in this area until this floodplain area is reclaimed. Such reclamation could be provided by constructing certain ultimate off-site, upstream Gerber Creek channel improvements. Alternatively, a new channel (either interim or permanent) could be constructed across the southeast portion of the Specific Plan to confine the overflow from Gerber Creek in a manner which reduces the extent of the 100-year floodplain over this portion of the site, allowing development of a portion of the proposed NVSSP land uses in this area to proceed.

Development of the proposed NVSSP land uses could result in *potentially significant on-site and downstream flooding impacts*. These *impacts can be reduced to a less than significant level* by the timely implementation of the proposed NVSSP DMP improvements, including the construction of Detention Basin E20, and flood control improvements which eliminate or reduce the existing overflow condition from Gerber Creek into the NVSSP area. Individual developments within the NVSSP area should be required to demonstrate that they will be adequately protected from flooding, and that they will not increase flood risks to downstream areas.

Funding for construction of the NVSSP DMP drainage facilities (i.e., land acquisition, channel improvements, detention basins, culverts, bridges and maintenance roads), and for the construction of the drainage parkway trail improvements, has been identified in the Capital Improvement Program (CIP) for the Specific Plan. The Specific Plan indicates that ultimately the detention basins and drainage parkways (channel sections and open space/buffer areas) will be owned by the Sacramento County Water Agency. The detention basins and channel sections will be maintained by the Water Agency, while the buffer areas will be maintained by the Southgate Recreation and Park District. However, the Specific Plan does not identify the funding source or mechanism for land acquisition and landscaping improvements within the open space/buffer area portions of the drainage parkways (outside the channel sections). In order to ensure that the intended plans for the buffer area portion of the drainage parkways are implemented, the Specific Plan should be revised to clearly specify the funding source or mechanism for acquisition of the buffer area lands and for construction of the buffer area landscaping improvements.

City of Sacramento American River Place of Use (POU), this geographical area's easterly boundary runs along Bradshaw Road which bisects the Plan Area. The POU extends north of Florin Road and south of Gerber Road, and includes the portion of the plan westerly of Bradshaw Road. Surface water from the City's contractual source could therefore be utilized within the westerly portions of the Plan Area, approximately 945± acres.

In 1987, the Sacramento County Water Agency developed a Zone 40 Master Water Supply Plan Report. The boundaries of that study extended to the southerly boundary of the Specific Plan Area, but did not include it. In late 1995, the Sacramento County Water Agency began a further study, this time to expand the Study Areas associated with the Zone 40 Master Plan Update in response to proposed land planning in areas immediately adjacent to the study area of the Zone 40 Water Master Plan Update. The expanded area involves two individual areas, a northern and southern study area. The Northern Study Area encompasses the North Vineyard Station Specific Plan, as well as areas to the west, north, and east of the Specific Plan Area.

The determination of water demands for the Specific Plan Area provides the basis for water supply and distribution capacity requirements to serve the Specific Plan Area. Annual domestic water demands for the Specific Plan Area have been calculated by MacKay and Soms based upon the water demand factors listed in the Zone 40 Master Plan Update and the Zone 40 Adjacent Areas Master Plan. In addition to determining Average Annual Demands at buildout, Maximum Day Demands and an analysis of Fire Flows have also been provided.

According to MacKay and Soms, the Water Master Plan for Areas Adjacent to the Zone 40 Master Plan Update's Study Area develops and evaluates water supply facilities to serve the demands in the Northern Study Area. Delivery, storage and treatment systems for the area were planned and tentatively sized. Projected water demands within the Northern Study Area, which includes the North Vineyard Station Specific Plan Area, can be supplied with one of the following two alternatives: 1) all surface water; or 2) a combination of ground water and surface water.

MacKay and Soms state that the portion of the Study Area lying entirely within the City's American River POU can be supplied with a firm source of American River surface water. Therefore, they assume that development within the City's American River POU will be supplied with only surface water in both of these alternatives.

In Alternative 1, surface water would be supplied to ~~supply the Maximum Day Demand of~~ the entire Study Area, including the North Vineyard Station Specific Plan Area. In Alternative 2, surface water would supply the ~~Maximum Day Demand~~ of the area within the City's POU, and ground water would supply the ~~Maximum Day Demand~~ of the area outside

the POU. ~~Demands in excess of the Maximum Day Demand would be met from storage reservoirs in both alternatives.~~

According to MacKay and Soms, the preferred water supply alternative is Alternative 2, the combination of surface water and ground water. They further state that:

This alternative will meet water demands of initial phases of development and buildout of the Specific Plan Area while lowering ground water levels only an approximate 1.8 feet in the Specific Plan Area. There may be a slight rise in the ground water level in the area of the Elk Grove cone-of-depression as a result of this water supply alternative. Also, the feasibility of Alternative 1, surface water only, is speculative at this time because there is no current firm source of surface water for areas of the portion of the Specific Plan that are east of Bradshaw Road.

Six potential surface water supply options could be considered to meet demands in the Zone 40 Master Plan Update Northern Study Area, including the Specific Plan Area. According to MacKay and Soms, of these six supply elements, two were identified for full allocation in the study of the Zone 40 Master Plan Update at buildout, and one is too speculative to plan for at this time. The three remaining surface water supply elements which could be used to meet demands in the Northern Study Area, including the Specific Plan Area, are S1-Intermittent "Winter Water", S5- "Firm" Surface Water Transfers from North Sacramento River Basin, and S7-Agency Purchase of Sacramento Water.

According to MacKay and Soms, the ground water supply elements identified in the Zone 40 Master Plan Update which could be used to meet demands for the Northern Study Area, including the Specific Plan Area, include element G1-Additional Ground Water, and elements G6/G7-Injection.

The phasing of proposed development within the Specific Plan Area will dictate the feasibility of implementing the Water Supply Master Plan. According to MacKay and Soms:

Development within the Plan Area may begin in the construction year immediately following adoption of the Specific Plan document. Because of the physical layout of many of the other infrastructure services, such as sewer and drainage, it is anticipated that development may commence in the westerly portions of the Plan Area. This Area is within the City American River POU which is ultimately planned to be

supplied with 100% surface water. Because of the estimated costs of providing surface water to the Northern Study Area, an initial, possibly interim, alternative is necessary to allow any approved development to proceed.

To implement the Water Master Plan, the Plan Area will need to be annexed into the existing Zone 40 of the SCWA in order for Zone 40 to provide major water facilities described in their report. MacKay and Soms further indicate that the Specific Plan Area should also be annexed to the Sacramento County Water Maintenance District which will allow the District to purvey water to developments within the Specific Plan Area.

The following summary has been provided by MacKay and Soms:

Conjunctive use water supply for the County of Sacramento and surrounding regions is a very complex and multi-faceted matter that has received intense attention in the last few years from all of the areas water purveyors, environmental interests and governments. Solutions should not be pursued on a project-by-project level. They should be achieved on a regional scale. This effort takes time, and is now demonstrating a high probability of success in the foreseeable future.

Many interim solutions enhancing water supply have been implemented. Temporary surface water supplies are now being provided to areas which were entirely dependent upon ground water. Agreements are being completed which will provide significant long-term surface water supplies. This PL 101-514 water supply of 15,000 acre-feet of surface water is approaching reality with a DEIR due out prior to the approval of the North Vineyard Specific Plan, and scheduled final EIS/EIR for fall of 1997, prior to expected implementation of the Public Facilities Financing Plan for this project. It is therefore probable that long-term surface water contracts providing a more than adequate surface water supply will be in place prior to any possible start of development within the Specific Plan Area.

Initial water supply may be dependent upon ground water for the first few developments. This initial supply will likely come from ground water facilities which are constructed to become an integral part of the ultimate system, enhancing and supplementing the assurance of long-term reliable water supply for this comprehensively planned community.

Implementation of the North Vineyard Station Specific Plan Water Master Plan, as outlined by MacKay and Soms, would result in less than significant water supply impacts. However, the implementation of the NVSSP Water Master Plan is contingent on the implementation of the ~~Water Master Plan for~~ Areas Adjacent to the Zone 40 Water Supply

Master Plan Update's Study Area, as well as fulfillment of the City of Sacramento American River Place of Use (POU). Until all agreements are in place to wheel "firm" surface water supplies to the Specific Plan area, the project will contribute to the incremental decline in ground water levels. This incremental decline and the dewatering of private wells is a regional issue, beyond the scope of this current project. However, the project will add to the *significant adverse cumulative impacts* that regional development has on ground water supplies.

Mitigation:

None required.

Sewer Service

Currently, there are no public sewer facilities within the North Vineyard Station Specific Plan (NVSSP) area. Existing development within the project site is served by private septic systems. Public sewer service will be required to serve the proposed urban land uses. The NVSSP area lies within the Spheres of Influence of the Sacramento Regional County Sanitation District (SRCSD) and County Sanitation District No. 1 (CSD-1), which provide public sewer service within Sacramento County. CSD-1 provides local sewage collection and transport from its facilities to the regional sewage transmission, treatment and disposal facilities operated by SRCSD. SRCSD and CSD-1 are administered by the Water Quality Division of the Sacramento County Public Works Agency, which provides engineering and planning services to these sewer districts and operates and maintains district facilities. In order to receive public sewer service, the NVSSP area must be annexed to SRCSD and CSD-1.

Development of the proposed NVSSP project and upstream areas will contribute an estimated 16.92 million gallons per day of peak wet weather sewage flows to the regional sewer system. There is an existing ~~108~~ 102-inch sewer interceptor located in Elk Grove-Florin Road, approximately ½ mile west of the Specific Plan area, but this facility is nearing capacity. However, the Bradshaw Interceptor is planned for construction in ~~1997-1998~~ 1999-2000 through the western portion of the Specific Plan area which will provide sufficient capacity to accommodate the proposed project's sewage flows. Specific Plan development will be required to construct the trunk and lateral facilities needed to convey project sewage flows to the Bradshaw Interceptor. Because planned facilities will be sufficient to accommodate sewage flows from the proposed land uses, the project's impacts upon

Mixed Use Development Ratios per Policy LU-12			
Use	Commercial	Office	Residential
Retail	50-70%	10-30%	10-30%
Office	0-20%	50-70%	0-30%
Residential	20-40%	0-30%	50-80%
Public	10-30%	10-30%	10-30%
NOTE: Commercial uses refer to the LC and SC zones. Office uses refer to the BP and MP zones. Residential uses refer to the RD-5 through RD-50 zones.			

The County General Plan supports balanced, mixed use development. As noted in Policy LU-12, the balance mixture of land uses depends on the emphasis of the proposed development. In this case, the emphasis of the Preferred Plan and Plan Alternatives is residential development. According to LU-12, a balanced residential based development should include about 10-30% retail use/area, 10-30% office use/area and 10-30% public use/area. For the 1,595± acre Specific Plan area, compliance with the Policy LU-12 table would require a 160-480 acres of retail use/area, 0-480 acres of office use/area, and 160-480 acres of public use/area. As currently proposed, the Preferred Plan contains 28.6 gross acres (1.7%) of designated commercial, 10.1 gross acres ~~-(96%)~~ (0.6%) of Business and Professional, and 214.7 acres (13.5%) integrated as “public use” (excludes transportation and drainage facilities).

The intent of Policies LU-10, LU-11, and LU-12 is also to enhance neighborhood character and minimize automobile travel by promoting mixed-use development that combines residential uses with commercial, office and public uses on the same site. Providing home, job, shopping and recreation destinations near each other will shorten most automobile trips, and eliminate some altogether by promoting foot and bicycle travel.

The Specific Plan document provides the following “Commercial Concept” statement:

The North Vineyard Station Specific Plan includes a limited amount of commercial and business/professional development primarily for the convenience of future residents of the Plan and nearby areas. Commercial development designated within the Plan area is not intended to meet all of the retail commercial needs of Plan area residents and is not intended to include major shopping and employment facilities for the larger South County area. Instead, the Plan designates a small portion (less than 2 percent) of the

Improvement EP-16 Modify the **Elk Grove-Florin Road/Gerber Road** intersection to include the following lane configurations:

- Dual left turn lanes, two through lanes, and a separate right turn lane on the northbound and southbound approaches;
- One left turn lane, one through lane, and a separate right-turn lane on the eastbound approach; and
- One left turn lane, one through lane, and a shared through/right-turn lane on the westbound approach.

The provision of northbound dual left turn lanes will require widening of the westbound departure leg on Gerber Road to two lanes before merging to a single travel lane in each direction. The length and merging distance for these lanes will be approved by Sacramento County Transportation Division staff

These improvements would improve operations at this intersection to LOS D and LOS E in the a.m. and p.m. peak hours, respectively. Improvements should be implemented when the intersection operates unacceptably based on Sacramento County standards.

Improvement EP-17: Modify the **Bradshaw Road/Gerber Road** intersection to include the following lane configurations:

- Dual left turn lanes, ~~two~~ one through lanes, and a separate right turn lanes on the eastbound and westbound approaches; and
- One left turn lane, two through lanes, and a separate right-turn lane on the northbound and southbound approaches.

The provision of ~~two~~ southbound ~~dual left turn~~ through lanes and a dual westbound left-turn lanes will require widening of the ~~eastbound southbound~~ departure leg on ~~Gerber~~ Bradshaw Road to two lanes before merging to a single travel lane in each direction. The length and merging distance for these lanes shall be approved by Sacramento County Transportation Division staff.

These improvements would improve operations at this intersection to LOS D and LOS C in the a.m. and p.m. peak hours, respectively.

Under cumulative conditions without the project, eight of the 21 study intersections are projected to operate at an unacceptable level (LOS F) during one or both peak hours. These locations and the affected peak hour(s) are listed below .

- South Watt Avenue at Jackson Road (a.m. and p.m. peak hour)
- Bradshaw Road/Jackson Road (a.m. and p.m. peak hour)
- Jackson Road/Excelsior Road (a.m. and p.m. peak hour)
- S. Watt Avenue/Elder Creek Road (a.m. peak hour)
- Bradshaw Road/Elder Creek Road (p.m. peak hour)
- Elk Grove-Florin Road/Florin Road (a.m. and p.m. peak hour)
- Bradshaw Road/Florin Road (a.m. and p.m. peak hour)
- Elk Grove-Florin Road/Gerber Road (a.m. and p.m. peak hour)

All other intersections operate at LOS E or better during both peak hours under cumulative conditions without the proposed project.

With the addition of project-generated traffic, three additional study intersections are projected to operate at LOS F during one or both peak hours. These locations include the following.

- Excelsior Road/Elder Creek road (a.m. and p.m. peak hour)
- Florin Road/Excelsior Road (a.m. peak hour)
- Elk Grove-Florin Road/Calvine Road (p.m. peak hour)

Intersection Deficiencies Under Cumulative Plus Project Conditions:

CP-5: Implementation of the project would ~~result in LOS F operations in the a.m. peak hour~~ **exacerbate LOS F operations** at the **South Watt Avenue/Jackson Road** intersection; ~~however it does not worsen conditioning compared to operations under cumulative no project conditions.~~

CP-6: Implementation of the project would exacerbate LOS F operations at the **Bradshaw Road/Jackson Road** intersection during the a.m. and p.m. peak hour.

CP-7: Implementation of the project would exacerbate LOS F operations at the **Jackson Road/Excelsior Road** intersection during the a.m. and p.m. peak hour.

CP-8: Implementation of the project would exacerbate LOS F operations at the **South Watt Avenue/Elder Creek Road** intersection during the a.m. peak hour, and would cause p.m. peak hour operations to deteriorate from LOS E to F.

- One left turn and one shared through/right-turn lane on the eastbound approach; and
- One shared left-turn/through lane and one separate right turn lane on the westbound approach.

TR-15 Modify the Bradshaw Road/Florin Road intersection to include the following lane configurations:

- Dual left turn lanes, two through lanes, a separate right turn lane on the northbound and southbound approaches; and
- One left turn lane, two through lanes, and a separate right-turn lane on the eastbound and westbound approaches.

TR-16 Modify the Elk Grove-Florin Road/Gerber Road intersection to include the following lane configurations:

- Dual left turn lanes, two through lanes, and a separate right turn lane on the northbound and southbound approaches;
- One left turn lanes, one through lane, and a separate right-turn lane on the eastbound approach; and
- One left turn lane, one through lane, and a shared through/right-turn lane on the westbound approach.

The provision of northbound dual left turn lanes will require widening of the westbound departure leg on Gerber Road to two lanes before merging to a single travel lane in each direction. The length and merging distance for these lanes shall be approved by Sacramento County Transportation Division staff.

TR-17 Modify the Bradshaw Road/Gerber Road intersection to include the following lane configurations:

- Dual left turn lanes, ~~two~~ one through lanes, and a separate right turn lanes on the eastbound and westbound approaches; and
- One left turn lane, two through lanes, and a separate right-turn lane on the northbound and southbound approaches.

The provision of two southbound ~~dual left turn~~ through lanes and a dual westbound left-turn lanes will require widening of the ~~eastbound~~ southbound departure leg on Gerber Bradshaw Road to two lanes before merging to a single travel lane in each direction. The length and merging distance for these lanes shall be approved by Sacramento County Transportation Division staff.

- TR-18 Install a signal at the South Watt Avenue/Elder Creek Road intersection and modify the lane configurations to the satisfaction of the Sacramento County Transportation Division.
- TR-19 Install a signal at the Elk Grove-Florin Road/Florin Road intersection and modify the lane configurations to the satisfaction of the Sacramento County Transportation Division.

The following improvements are required to improve operating conditions under Cumulative With Project conditions:

- TR-20 Access on Bradshaw Road shall be strictly limited between Florin Road and Elder Creek Road. With the exception of signalized intersections, limited driveway access shall be permitted along this roadway segment.
- TR-21 Widen Elder Creek Road between South Watt Avenue and Excelsior Road to include 12-foot travel lanes and minimum 6-foot shoulders to meet Sacramento County design standards for rural arterials.
- TR-22 Widen Excelsior road between Jackson Road and Calvin Road to include 12-foot travel lanes and minimum 6-foot shoulder to meet Sacramento County design standards for rural arterials.
- TR-23 Widen Gerber Road between Vineyard Road and Excelsior Road to include 12-foot travel lanes and minimum 6-foot shoulders to meet Sacramento County design standards for rural arterials.
- TR-24 Construct dual right turn lanes on the eastbound approach and triple left turn lanes on the northbound approach of the Bradshaw Road/Jackson Road intersection. Installation of these improvements should occur when the V/C ratio exceeds 1.00 or the peak hour volume for either movement exceeds roughly 950 vehicles.
- TR-25 Modify the northbound and southbound approaches to the Jackson Road/Excelsior Road intersection to include a second through lane. Since

of the Specific Plan area, as described in the Drainage Study for the North Vineyard Station Specific Plan (MacKay and Somps Engineers, February 1997) (see Plate HY-E of the DEIR). Detailed plans for the design and construction of all proposed drainage and water quality facilities, consistent with the NVSSP DMP, shall be submitted to the County Water Resources Division (WRD) for review and approval.

Construction of the NVSSP DMP improvements may be phased, subject to the approval of the County WRD, so long as the project proponent(s) provide hydrologic/hydraulic analyses which demonstrate that the phased improvements will provide adequate urban flood protection to the proposed on-site development, and will not increase flood risks in downstream areas. Such analyses shall verify that the phased improvements will result in no substantial increase in peak 100-year flows on Elder Creek at the City/County boundary, and no significant increased 100-year out-of-bank flows in the existing improved channel downstream of the Specific Plan area. Any phasing must also provide the necessary system reliability and be approved by the **Water Resources Division**.

- HY-4. Future development shall comply with the County Land Grading and Erosion Control Ordinance.
- HY-5. Future development shall provide stormwater quality source and treatment control measures consistent with Volume 5 of the Draft City/County Drainage Manual. The final design of such source and treatment control measures shall be subject to the approval of the County WRD.
- HY-6. Implementation of the proposed NVSSP Drainage Master Plan (DMP) improvements, including construction of Detention Basin E20 and construction of a mitigating solution for the existing Gerber Creek overflow condition upstream of the Specific Plan area, shall not occur until the following items have been submitted to the **Water Resources Division and the Sacramento County Board of Supervisors** for review and approval.
 - a. A wetland delineation for the improvement area verified by the U.S. Army Corps of Engineers.
 - b. A detailed mitigation plan for wetlands to be impacted by the proposed improvements which specifically describes the measures which will be implemented to achieve no net loss in wetland habitat acreage and values.
 - c. Determinate surveys for the improvement area for potentially occurring special status species.

as well as areas to the west, north, and east of the Specific Plan Area.

A Final Draft of this document titled "Water Master Plan for Areas Adjacent to Zone 40 Water Supply Master Plan Update's Study Area" (Adjacent Area Water Master Plan) ~~was published in~~ dated September of 1996 will be completed by SCWA. SCWA intends to finalize this document in 1998. It includes final demand analysis, an assessment of existing water supplies and treatment facilities, and an evaluation and conceptual design of the Northern Study Area water system. The North Vineyard Station Specific Plan comprises 1,595 acres of the 5,596 acre Northern Study Area, or approximately 28.5%. Environmental documentation of the Water Master Plan for Areas Adjacent to Zone 40 Water Supply Master Plan Update's Study Area will begin after completion of the environmental documentation for the PL 101-514 Surface Water Contract and the Water Forums Agreement.

Surface Water Supply

In several reports back to the Board of Supervisors dated September 5, 1995, November 7, 1995 and July 16, 1996, SCWA outlined the progress made toward acquisition of surface water supplies:

Substantial progress has been made toward acquiring surface water supplies which would help to reduce ground water depletion and make possible the integrated use of ground water and surface water supplies in a conjunctive use program. Many of these efforts are a direct result of the success of the Sacramento Area Water Forum's process.

The staff of SCWA has been negotiating with City staff as part of the Sacramento Area Water Forum process. Upon agreement to have the City wheel-treated surface water available to Zone 40 for use in areas within the City's POU, draft agreements between the City and SCWA have been developed.

SCWA staff is working on the environmental documentation and contract negotiations necessary to allow the SCWA to enter into a long-term municipal and industrial water service contract with the United States Bureau of Reclamation as intended by Congress in Public Law 101-514. The contract will be for 22,000 acre-feet of water annually of which 7,000 acre-feet will be subcontracted to the City of Folsom. The Draft Environmental Impact Report is expected to be complete in

resources for both human and natural systems.

As noted earlier under the Regulatory Environment discussion, the General Plan also states two policies relative to water supply for areas of new urban growth, CO-20 and CO-21. These policies require that a Water Supply Master Plan be prepared for areas of new urban growth and that such a plan consider alternate conservation measures, achieve safe yields of ground water supply and formulate monitoring programs to review water supply progress. In the following, MacKay and Soms presents a summary of their analysis of water supply needs, facilities, financing and phasing to achieve sufficient water supply to serve the needs of the NVSSP Area, consistent with the above noted policies.

Water Demand Forecast:

According to MacKay and Soms:

The determination of water demands for the Specific Plan Area provides the basis for water supply and distribution, capacity requirements to serve the Specific Plan Area. Annual domestic water demands for the Specific Plan Area have been calculated based upon the water demand factors listed in the Zone 40 Master Plan Update and the Zone 40 Adjacent Areas Master Plan. The demands and unit demands for North Vineyard Station Specific Plan Area appear in Table 2 [Table WS-2 of this EIR]. They are consistent with the values determined in the Zone 40 Adjacent Areas Master Plan Study Report for their portion of the Northerly Study Area.

MacKay and Soms have provided a second table, included in this EIR as Table WS-3, which includes adjustments to demands based on the implementation of conservation measures, and state the following:

Average Day Demands at buildout are reduced by 19%, as determined in the Zone 40 Master Plan Update, to account for conservation measures.

A list of conservation measures has been provided by MacKay and Soms (see Table WS-4). Demands in WS-2 are not adjusted to reflect conservation; demands in WS-3 are adjusted to reflect effects of conservation measures listed in WS-4.

In addition to determining Average Annual Demands at buildout, Maximum Day Demands have been calculated:

Maximum Day Demands are computed from the average annual demands that have been reduced by 19% to account for conservation measures by multiplying by a factor of 2.0. Peak Hour Demands are then calculated at two times Maximum Day Demands for transmission main sizing, or a factor of 1.8.

Sacramento Regional County Sanitation District's 5 million gallon a day wastewater reclamation facility, currently under design. Surface water sources included PL 101-514 water, SMUD assignment water, "winter" water, City water within the existing POU, and other unidentified surface water transfers as needed.

SCWA staff recommends that the Master Plan Update be forwarded to the County Department of Environmental Review and Assessment (DERA) to commence preparation of CEQA documentation once the Water Forum Agreement is completed. It is SCWA staff's intent that the recommended alternative of the Master Plan Update be adjusted accordingly as the Water Forum's Solution Agreement becomes more clarified and that the environmental documentation of the Master Plan Update be closely coordinated with CEQA documentation for the Forums' Solution Agreement.

The regional Water Forum recently published a Working Group Draft Agreement. A DEIR on this project is expected in Fall of 1997, a final Agreement in December of 1997, and a final EIR in the winter. Once this is complete, the SCWA's Zone 40 Master Plan Update Draft EIR can be completed and the Master Plan Update adopted in summer of 1998.

SCWA staff have initiated master planning efforts for the Areas Adjacent to the Zone 40 Master Plan Area, which include the East Franklin, Laguna Ridge, and Lent Ranch Specific Plans and Poppy Ridge Comprehensive Plan in the Laguna Area; and the North vineyard Station Specific Plan and Florin Station Comprehensive Plan in the Vineyard Area. These master plans will be combined with the Zone 40 Master Plan Update and will build on the water supply sources.

Summary of Impacts and Recommendations.

MacKay and Soms Civil Engineers, Inc. have prepared a *The Preliminary Master Water Supply and Water Distribution System Report* (May 1997) for the North Vineyard Station Specific Plan. The purpose of this report was to develop long-term, permanent water supply alternatives and to identify water facilities needed to serve the North Vineyard Station Specific Plan Area (NVSSP Area). Their report is based on several other studies. The Sacramento County Public Works Agency, Water Resources Division (WRD) has conducted an evaluation of groundwater impacts of the Specific Plan area. Their report, entitled *North Vineyard Station Specific Plan, Evaluation of Groundwater Impacts* (January 31, 1997), has been included as Appendix A of the MacKay and Soms report. Other sources include the Zone 40 Master Water Supply Plan Report (1987), the Vineyard Water Distribution Study

Sewer Service

Setting.

Currently, there are no public sewer facilities within the North Vineyard Station Specific Plan (NVSSP) area. Existing development within the project site is served by private septic systems. Public sewer service will be required to serve the proposed urban land uses. The NVSSP area lies within the Spheres of Influence of the Sacramento Regional County Sanitation District (SRCSD) and County Sanitation District No. 1 (CSD-1), which provide public sewer service within Sacramento County. CSD-1 provides local sewage collection and transport from its facilities to the regional sewage transmission, treatment and disposal facilities operated by SRCSD. Treated effluent from the Sacramento urban area is ultimately discharged to the Sacramento River at SRCSD's Regional Wastewater Treatment Plant, located approximately six miles southwest of the Specific Plan area near Freeport. SRCSD and CSD-1 are administered by the Water Quality Division of the Sacramento County Public Works Agency, which provides engineering and planning services to these sewer districts and operates and maintains district facilities. In order to receive public sewer service, the NVSSP area must be annexed to SRCSD and CSD-1.

CSD-1 and SRCSD classify sewer pipelines carrying 10 million gallons per day (mgd) or more as "interceptors". Sewer pipes carrying between 1 mgd and 10 mgd are known as "trunks". Sewer pipes carrying less than 1 mgd are referred to as "laterals". The cost of interceptor and trunk facilities are reimbursable or creditable against sewer fees.

There is an existing ~~108~~ 102-inch sewer interceptor located in Elk Grove-Florin Road, approximately ½ mile west of the Specific Plan area. However, this interceptor is nearing capacity. In November of 1996, the SRCSD and CSD-1 Board of Directors approved the Sacramento Sewerage Expansion Master Plan project (Control No: 93-PWE-0834), which identifies the interceptor and trunk sewer projects which will be needed to remedy deficiencies in the existing system and to accommodate planned growth within the General Plan Urban Service Boundary through the year 2014 (see Plate SS-A). The EIR for the Master Plan provides a policy/program level analysis for the overall Master Plan improvements, and a project specific construction level analysis for several near term interceptor projects including the Bradshaw, Sunrise and Folsom East Interceptors.

The NVSSP area will be served by the Bradshaw Interceptor, which will generally follow the alignment of Elder Creek through the project area as shown on Plate SS-B. The Bradshaw Interceptor is needed to relieve the existing interceptor in Elk Grove-Florin Road, and to serve planned future growth in the northeast portion of the County. According to the EIR prepared for the Sacramento Sewerage Expansion Master Plan, the Bradshaw Interceptor project will be constructed in phases, with construction of the

oak tree, the utility line shall be bored and jacked under the supervision of a certified arborist.

8. The construction of impervious surfaces within the driplines of oak trees shall be stringently minimized. When it is absolutely necessary, porous materials shall be used and/or a piped aeration system shall be installed under the supervision of a certified arborist.
9. No sprinkler or irrigation system shall be installed in such a manner that it sprays water or requires trenching within the driplines of oak trees. An above-ground drip irrigation system is recommended.
10. Landscaping beneath oak trees may include non-plant materials such as bark mulch, wood chips, boulders, etc. The only plant species which shall be planted within the driplines of oak trees are those which are tolerant of the natural semi-arid environs of the trees. A list of such drought-tolerant plant species is available from the Sacramento County Department of Environmental Review and Assessment (DERA). Limited drip irrigation approximately twice per summer is recommended for the understory plants.

The Specific Plan proposes to further protect trees through the following policy:

- *Make every effort to protect and preserve non-oak native (excluding cottonwoods), including heritage trees (trees with a diameter at breast height (dbh), of 19 inches or greater) and/or landmark trees (as defined by the County Tree Ordinance). Native trees other than oaks, which cannot be saved or are removed shall be replaced with in-kind species in accordance with established tree planting specifications and the established replacement/compensation ratio of one 15-gallon tree for every inch dbh of tree removed.*

Implementation of the above mitigation measures would reduce potential impacts to native oak and non-oak native trees to *less than significant* levels.

Alternative Drainage Corridor Policies:

During development of the Specific Plan, representatives of the environmental community Environmental Council of Sacramento (ECOS), Urban Creeks Council, Audubon Society, Sacramento Open Space and California Native Plant Society), formulated 16 alternative drainage corridor policies for Elder and Gerber creeks as listed on the pages that follow. Of 14 of those policies 14 address biological resources and are discussed below. These proposed

policies were developed during a series of meetings with the project applicants and County staff (Planning and Community Development Department and Water Resources Division).

As described previously, the proposed project includes a 150 to 240-foot wide drainage parkway intended to serve the dual purpose of conveying stormwater drainage and providing linear open space for recreational use. The following elements are proposed within the corridor:

- A channel bottom area with a width of 12 to 50 feet, including a meandering low-flow channel.
- A buffer area, with an average width of 50 feet on each side of the channel bottom. This area would include sloped (3:1 to 4.5:1) channel sides, a 10-foot wide paved maintenance road/pedestrian and path on one side, and drought tolerant trees, shrubs, and annual grassland.

Of the four drainage parkway policies proposed by the Specific Plan, one addresses the biological function and appearance of the parkway.

- The Drainage Parkway (i.e., Elder Creek and Gerber Creek) shall be designed as natural-appearing corridors, serving to enhance wetlands and riparian habitats, act as natural flood water detention areas, and function as water quality enhancement features. The Drainage Parkway shall be designed to permit the growth of vegetation that does not impede the design flow characteristics. Periodic clearing is allowed to maintain channel function.

The Specific Plan's conceptual plan for the creek corridors would provide limited opportunities to establish wetland and riparian vegetation with functional wildlife values. This deficiency is related to the narrow corridor width (maximum 240 feet overall) and the recreational uses proposed within the corridor. After accounting for the creek channel, the average buffer width would average approximately 50 feet. This buffer, would contain the creeks' side slopes (banks), a 10-foot wide pedestrian/bicycle/maintenance path, and drought tolerant landscaping (unspecified species). At this width, the corridor would function more as a park, than a functional habitat area. Notwithstanding this limitation, the proposed channel would adequately mitigate the loss of wetlands from the creeks (in terms of acreage).

The environmental community's alternative policies propose to expand the physical dimensions of the proposed creek corridors and include recommendations to enhance and manage the open space. Alternative policies 2 through 7 and 13 through 15 pertain directly to the biological resources of Elder and Gerber Creeks.

**SACRAMENTO ENVIRONMENTAL COMMUNITY¹
ALTERNATIVE DRAINAGE CORRIDOR POLICIES
FOR ELDER & GERBER CREEKS**

It shall be the policy of Sacramento County to:

1. Provide flood control along Elder and Gerber Creek to accommodate peak flow conditions and normal drainage requirements; giving consideration to the overall watershed requirements for any proposed flood control measures. A multi-objective approach to planning channel modifications for flood damage reduction will consider hydrologic, geomorphic, and biological factors that influence stream hydraulics.
2. Maintain streamside resource values along Elder and Gerber Creeks, considering resource protection, recreation, education, flood damage reduction requirements and public safety.
3. Carry out an integrated design that provides an open space corridor along Elder and Gerber Creeks of sufficient size to enhance biodiversity, accommodate wildlife movement, sustain healthy ecosystems, and provide mitigation for loss of habitat and open space. Urban runoff from residential/commercial development has been shown to be toxic to aquatic organisms. State and federal water quality regulations increasingly require communities to prevent toxic urban runoff from impacting aquatic habitats at potentially tremendous public expense. Designing developments with pollution prevention in mind is the most economical and effective approach in urban creek settings. Wide vegetation buffers, an average of 600 feet, will increase the options available to water quality managers to remove harmful sediment, nutrients, pesticides, metals and other chemicals from non-point source runoff, before they reach the streams.
4. The drainage parkways of Elder and Gerber Creeks shall be designed and maintained as a natural appearing corridor, serving to enhance wetlands and riparian habitats, act as natural flood water detention areas, function as water quality enhancement features, and provide wildlife habitat and wildlife corridors. The channel design should take into account the benefits of more natural channel morphology. The parkway's channel and banks should be designed with appropriate roughness factors and width to permit mature growth of native riparian and native hydrophytic (wetland) vegetation yet still

¹ *Sacramento Environmental Community organizations involved in the preparation of these alternative policies include representatives from the Urban Creeks Council (UCC), Audubon Society, California Native Plant Society (CNPS), Environmental Council of Sacramento (ECOS), Sacramento Open Space (SOS), Urban Streams Restoration Program (State of California), Institute for Ecological Health, Sierra Club, and Southgate Recreation and Park District.*

***Sacramento Environmental Community
Alternative Drainage Corridor Policies For Elder & Gerber Creeks (Continued)***

- convey regular flood flows. The use of native plant species and locally native materials is encouraged both inside and in the corridor outside the channel.
5. To the maximum extent practical, retain and create topographic diversity and variation when channels are realigned or modified, including maintaining meandering characteristics, varied berm width, naturalized and varied side slopes (i.e., 3:1 to 5:1), and a varied channel bottom elevation. Channel width should be sufficient to provide room for natural stream movement over time. The materials comprising stream bottoms and banks shall be the same or similar to those found in comparable natural streams (particularly reference streams selected by the California Department of Fish and Game for the purposes of biological assessment). Likewise, a natural array of riffles, runs and pools shall be preserved or created to provide habitats which support a diverse aquatic community.
 6. Avoid direct discharge of sediment laden storm runoff to stream waters. Excess sediment deposition in streams destroys the natural assemblage of aquatic organisms that would otherwise inhabit a healthy ecosystem. To avoid physical aquatic habitat degradation, sediment control shall be an element of stream corridor design standards and runoff management. Detention basins or other catchment systems which settle out sediment shall be accessible for routine sediment removal to ensure the long-term viability of these systems.
 7. Provide for monitoring of the ecological health of the streams. Baseline water quality monitoring shall be conducted at least quarterly in the year prior to commencement of stream modifications, land grading or building construction. Biological assessment techniques shall be a component of this initial monitoring, as well as subsequent monitoring, to measure the suitability of water quality and habitat for benthic (bottom dwelling) invertebrates, algae and fish. Quarterly monitoring shall continue for a minimum of five years, or until 75% of the development in the watershed is completed, whichever is longer. Throughout this period, incidence of perturbations in stream quality shall be investigated using appropriate biological, chemical or toxicity testing to identify and remediate the source(s) of the problem(s).
 8. Long stretches of backup lots along parkways and open space corridors are discouraged. Effective patrolling requires the utmost visibility for foot and vehicular patrols. The use of front on streets is preferred, with side yard lotting patterns and open-ended cul-de-sacs being less appropriate. Backup lots, side yard lotting patterns, and open-ended cul-de-sacs will be restricted to 25% of the parkway length within the Specific Plan area. Through appropriate planning, a need for backup lots and side yard lotting patterns could be further reduced. An

***Sacramento Environmental Community
Alternative Drainage Corridor Policies For Elder & Gerber Creeks (Continued)***

outreach program should educate the neighborhood about the benefits of the creeks and corridors and how to protect them, e.g. no dumping, no independent planting in the corridor, creek study, and other appropriate recreational activities.

9. Development located adjacent to the open space corridors of Elder and Gerber Creeks shall incorporate the corridor into the design of the project with attention given to minimizing the frontage that is blocked off from public view. Development proposals adjacent to the open space corridor shall have a public street paralleling at least one side of the corridor with vertical curbs, gutters, footpath, street lighting and post and cable barriers to prevent vehicular access. It may be appropriate to alternate the public street frontage from one side of the corridor to the other to maintain aesthetics for residential lots on the corridor, but resulting in not less than 75% of corridor having street frontage within the Specific Plan area.
10. Residential lots which back up or have a side yard orientation to the open space corridor shall employ the use of open fencing (e.g., wrought iron or decorative iron) to enhance surveillance of the corridor and provide a visual amenity. A 3-foot solid wall with 3 feet of open fencing on top is acceptable, while 6 feet of wrought iron is preferred for surveillance purposes. (Note: Chain link fencing is not an acceptable fencing material.)
11. Require that prior to the approval of any rezone or tentative map entitlement within or adjacent to the currently designated floodplain of Elder or Gerber Creek, or modified floodplain as recognized by FEMA, a comprehensive open space corridor management plan (including revegetation, vegetation maintenance, and 5-year monitoring plans) shall be prepared and approved by the Board of Supervisors for that portion of the Creek included in the planning proposal, and extending 100 feet both up/down stream. The management plan shall include:
 - a. A precise proposal encompassing the flood channel and open space corridor which adheres to the above stated policies and addresses the biological, aesthetic, and recreational qualities of the open space corridor;
 - b. An appropriate interface between the open space corridor and adjacent development with respect to aesthetics, access, maintenance and security;
 - c. An appropriate funding mechanism to establish, operate and maintain the open space corridor. A funding mechanism which is provided for a public entity

***Sacramento Environmental Community
Alternative Drainage Corridor Policies For Elder & Gerber Creeks (Continued)***

should be given priority. As sections of the trail system are improved, they should be dedicated to Southgate Recreation and Park District for ongoing maintenance.

12. To the extent feasible, the storm water detention basins located within the North Vineyard Station Planning Area should be designed in a manner which allows the joint use of the facility for detention and recreation purposes. Guidelines should be followed as outlined in Volume 4 of the City/County Drainage Manual, and development plans should be coordinated with the Southgate Parks and Recreation District.

Elder and Gerber Creek Corridors

13. Establish a permanent open space corridor with a width of 600 feet along Elder and Gerber Creek extending from the City Limits northeastward to the upstream watershed boundaries (if and when development occurs upstream). The width of the open space corridor may vary depending on:
 - a. unavoidable physical or man-made constraints occurring in the immediate area;
 - b. quality and quantity of existing and planned habitat;
 - c. presence of species, as well as their sensitivity to human interaction;
 - d. areas required for vegetation regeneration;
 - e. desire for community greenways;
 - f. nature of planned uses adjacent to corridor;
 - g. corridor for wildlife habitat linkage.

However, the absolute minimum width for the open space corridor shall be 150 feet on each side of the drainage canal outside of easements and detention basins and between detention basins and roads. The width of the open space corridor shall be made sufficient to accommodate broad and architecturally diverse native vegetation capable of: (1) trapping sediment and detoxifying pollutants from non-point sources such as neighboring yards; (2) providing habitat for native fauna; (3) competing against non-native invasive plant species; and (4) shading at least 75% of the surface at all

***Sacramento Environmental Community
Alternative Drainage Corridor Policies For Elder & Gerber Creeks (Continued)***

times of the day, to maintain cooler water temperatures and associated, higher dissolved oxygen levels for aquatic organisms. To ensure adequate area for trails and other open space uses, the corridor widths and delineation will be determined after mitigation requirements from the various regulatory agencies (Army Corps of Engineers, Fish and Wildlife, Fish and Game) have been decided. If regulatory requirements take up the entire corridor, the width will need to be increased to allow for these planned open space uses.

14. **When detention basins (water quality and/or flood control) are adjacent to the drainage canal, the open space corridor shall begin at the outside edge of the detention basin. When detention basins are adjacent to roads, the open space/habitat corridor shall continue between the road and the basin in order to maintain the integrity of the corridor.**

Constraint - If no woody vegetation is permitted within the 50 foot interceptor easement, the corridor shall begin outside the interceptor easement.

15. The corridor shall have a meandering appearance, and shall offer a variety of environments including: natural areas, revegetated/woodland areas, open grass fields/glades and passive recreation park land (not part of Quimby requirement). The corridor shall also be designed to accommodate interpretive areas, bike/pedestrian pathways, an equestrian trail, walkways, and a natural habitat corridor. These improvements shall be paid by the developer. There is a need for separation of some uses to maintain the integrity of the uses, e.g. horse trail must be separate from pedestrian trail.

The location of the drainage channel within the open space corridor may vary providing character and uniqueness as long as flood damage reduction measures are not negatively impacted.

16. Where the drainage canal flows under a road, that area should be of sufficient width and depth to include the trail, bike/maintenance trail, and habitat corridor. This allows for safe crossings (under as opposed to at road grade level). It also allows for better flood damage reduction. Where depth isn't sufficient for a bike trail, additional width for the habitat corridor should be included. Large floods can carry large amounts of debris such as uprooted vegetation and trees, fences, and parts of structures. This, combined with sediment, could impede or block the efficiency of medium sized culverts. Partial obstructions at bridges and culverts can cause significant increases in upstream flood elevations. If at-grade crossings are necessary, crossing lights, stop signs, and/or crosswalk markings shall be funded by the Specific Plan finance plan.

long-term maintenance of compensation areas to assure that the wetlands are maintained in a natural state. Long-term maintenance shall include restricted recreational use, erosion control, and maintenance trails, or other similar structures.

At the time the applicant obtains a permit to impact wetlands, alternative strategies may have been adopted to mitigate for wetland impacts. The above measures do not preclude the implementation of these new alternatives. The final acreage of offsite mitigation will be determined by the U.S. Army Corps of Engineers and the U.S. Fish and Wildlife Service when specific development projects are permitted by those agencies.

- BR-2. If the On-site Wetland Preserve is approved, an On-site Wetland Preservation Plan shall be prepared that preserves at least 200 contiguous acres as a wetland preserve east of Bradshaw Road. Preservation shall focus on those wetlands with the highest habitat values. A map showing the wetland preserve boundaries shall be prepared, including the rationale for the preserve boundaries. The plan shall address all aspects of wetland preservation including buffering of incompatible land uses, access, maintenance, monitoring, and mitigation banking. The required Plan shall be submitted to the Sacramento County Department of Environmental Review and Assessment, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service and California Department of Fish and Game for approval prior to its implementation..

All vernal pools and seasonal wetlands outside the preserve area shall be mitigated offsite at an agency approved mitigation bank to the satisfaction of the U.S. Army Corps of Engineers and the U.S. Fish and Wildlife Service.

- BR-3. A Wetland Mitigation Plan for Elder and Gerber Creeks shall be prepared and incorporated into the Specific Plan. This plan shall address phasing of channel modifications, establishment of wetlands (i.e., passive, active, combination), species composition, maintenance and monitoring. The plan shall require channel bottom and bank materials to be substantially the same as comparable natural streams. Natural arrays of riffles, runs and pools shall be incorporated into the design of the creek channels. The required Plan shall be submitted to the Sacramento County Department of Environmental Review and Assessment, **County Water Resources Division**, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service and California Department of Fish and Game for approval prior to its implementation.

BR-4. ~~To mitigate for the potential loss of 1600± acres of Swainson's hawk foraging habitat, implement one of the following alternatives: Prior to the approval of Improvement Plans or Building Permits, whichever occurs first, implement one of the following options to mitigate for the loss of 1,595± acres of Swainson's hawk foraging habitat:~~

- a. The project proponent shall preserve 0.50 acre of similar habitat for each acre lost within a 10-mile radius of the project site. This land shall be protected through fee title or conservation easement (acceptable to the California Department of Fish and Game);
- b. The project proponent shall enter in the formal consultation with the California Department of Fish and Game pursuant to ~~the Fish and Game Code, Section 2081 of the California Fish and Game Code.~~ A California Endangered Species Act (CESA) Memorandum of Understanding (MOU) and Management Agreement shall be ~~completed prior to issuance of any building permits for the site.~~ **provided as evidence of the formal consultation.**
- c. **The project proponent shall submit payment of a Swainson's hawk impact mitigation fee per acre impacted to the Department of Planning and Community Development in the amount as set forth in Chapter 16.130 of the Sacramento County Code as such may be amended from time to time and to the extent that said Chapter remains in effect.**
- ~~c. d.~~ Should the County Board of Supervisors adopt a Swainson's hawk mitigation policy/program (which may include a mitigation fee) ~~payable prior to issuance of building permits)~~ prior to the implementation of one of the measures above, the project proponent may be subject to that program instead.

Note: Actual habitat loss will occur when rezones and related land use entitlements are granted. Implementation of this mitigation measure will occur on a project-by-project basis with each rezone application.

BR-5. Using protocol acceptable to the regulatory agencies with authority over these species, determinate surveys for potentially-occurring special-status species or their habitat shall be conducted prior to development and permitting within the Specific Plan area. If any of the species or their habitat are indicated, project/plan-specific mitigation measures shall be developed in consultation with Sacramento County, the California Department of Fish and Game, and/or the U.S. Fish and Wildlife Service to mitigate those impacts to less than significant levels, if possible. The mitigation plan(s) developed for species or habitat preservation shall emphasize a multi-species approach, to the maximum extent possible.

- Where impacts include taking of a federally-listed species, a Section 10, Incidental Take permit, or a Biological Opinion resulting from Section 7 Consultation with

another federal agency shall be obtained, and permit conditions implemented

- Where impacts include taking of a California-listed species, a Section 2081 Management Agreement shall be negotiated with the California Department of Fish and Game, and conditions of that management agreement implemented

BR-6. In conjunction within the required Wetland Mitigation Plan for the creeks, a Drainage Parkway Plan for Elder and Gerber Creeks shall be prepared. This plan shall provide the following information:

- a. A map that depicts the configuration of the creek corridors, including overall width, low-flow channel width, bank slopes, and buffer widths;
- b. The location of all trails, bikeways, maintenance roads and channel access points, street crossings, water quality basins and other structures within the corridors;
- c. Designations of all lands uses, including recreation (passive or active), mitigation, natural area, water quality, storm water detention, etc.,
- d. Policies addressing public access into the corridors, including limitations on use;
- e. A policy statement requiring the use native plants within the corridor, including a planting palette of acceptable species;
- f. Maintenance and monitoring requirements for the creek channels and mitigation areas;
- g. An appropriate funding mechanism to establish, operate and maintain the creek corridors, and;
- h. All requirements of State and Federal regulatory agencies pertaining to the preservation and management of special status species.

If the proposed project is approved, the corridor width shall be in substantial compliance with that proposed in the Specific Plan (150 to 420 feet). Adoption of the Alternative Drainage Corridor Policies would increase the corridor width to 600 feet. Widths of this alternative may be reduced based on unavoidable physical constraints, however, the minimum width shall be 150 feet on each side of the drainage channel bottom. These alternatives are not intended to preclude other alternatives for the drainage parkway corridors. Such changes may involve combinations of different channel widths, corridor configurations and policies. The Drainage Parkway Plan shall be submitted to the **County Water Resources Division and the Sacramento County Board of Supervisors** for approval, prior to approval of development of the Specific Plan area.

ATTACHMENT 3

***NORTH VINEYARD STATION
SPECIFIC PLAN***

***FINANCING STRATEGY
AND
CAPITAL IMPROVEMENT PROGRAM***



ECONOMIC & PLANNING SYSTEMS

Real Estate Economics / Regional Economics / Public Finance / Land Use Policy

Draft Report

**NORTH VINEYARD STATION SPECIFIC PLAN
FINANCING STRATEGY**

Volume I

Prepared by:

Economic & Planning Systems, Inc.

February 17, 1998

EPS #7163



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APPENDICES

Appendix A – Summary Cost Estimates

Appendix B – DUE Calculations

I. INTRODUCTION AND OVERVIEW

The NVSSP area is located on approximately 1,595 acres in southern Sacramento County. The Specific Plan area is bounded on the north by Florin Road, on the south by Gerber Road, and on the east by the extension of Vineyard Road. Elder Creek roughly constitutes the west boundary of the Specific Plan area. Map 1 shows the location of the project in the Sacramento region.

PURPOSE

This Financing Strategy for the North Vineyard Station Specific Plan (NVSSP) establishes a policy framework to guide the overall financing strategy for the major public facilities required to serve the proposed land uses in the Specific Plan. This financing strategy lays the groundwork for development of the future NVSSP Financing Plan and provides the Board of Supervisors with information needed in making the NVSSP land use decisions.

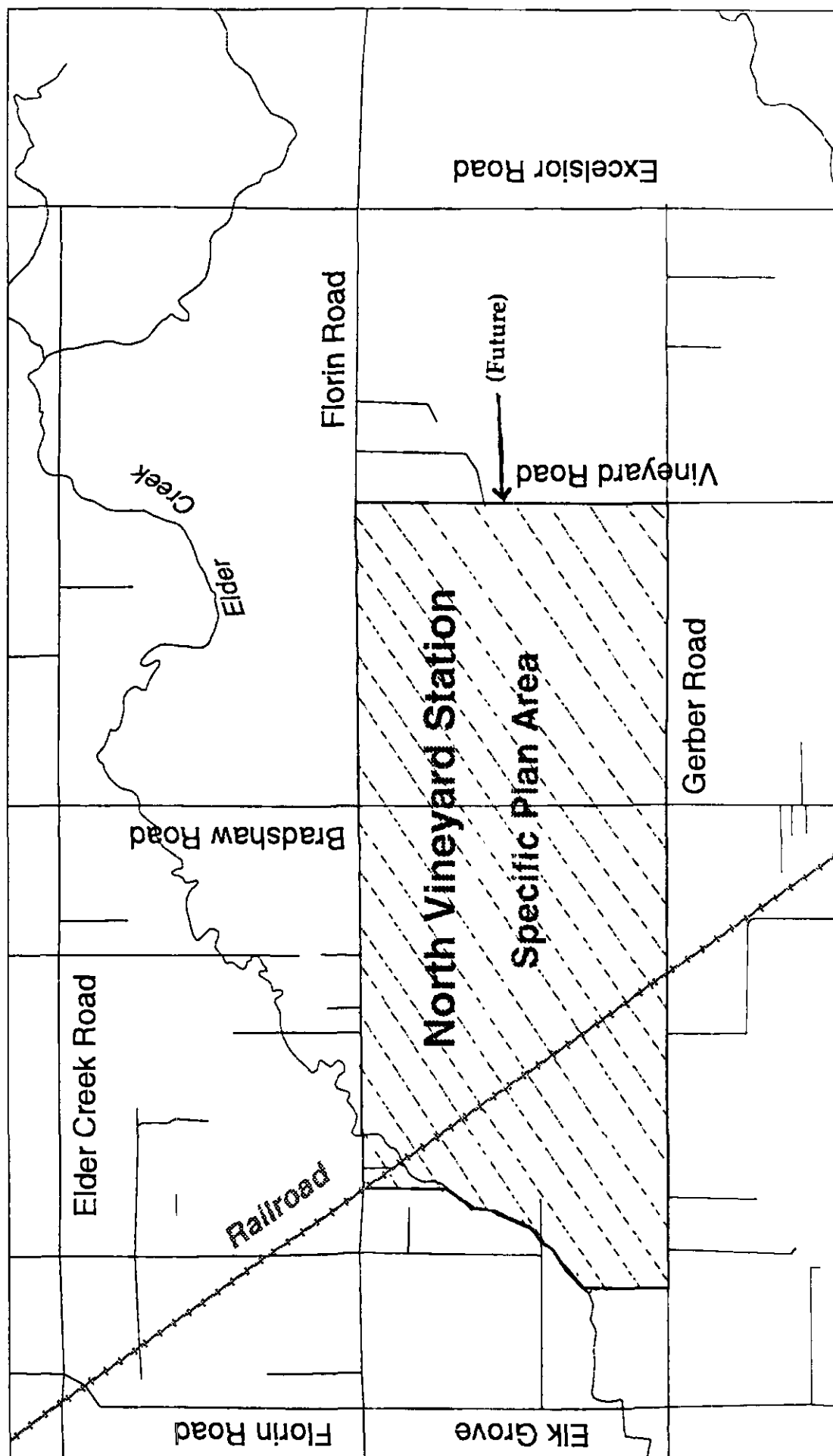
This financing strategy will:

- Establish a policy framework for financing the required major public infrastructure;
- Identify the major roadway, storm drainage, sanitary sewer, water supply, park improvements, fire protection, library, school, and transit facilities required for the specific plan area to develop;
- Estimate the costs for the identified facilities;
- Allocate the facility costs between the various land uses;
- Identify phasing constraints of the required major facilities;
- Identify existing and potential funding sources that may be used to fund the range of required facilities, and,
- Identify a range of potential strategies to fund the unfunded major required public facilities.

This financing strategy is being prepared in conjunction with the Specific Plan. A detailed financing plan will be required concurrent with the approval of the first zoning entitlements in the NVSSP. The financing plan will build upon this financing strategy and will include: an updated phasing analysis, a detailed land use development base and anticipated absorption schedule, and a recommendation to implement one or more financing mechanisms.

DRAFT

Map 1
North Vineyard Station Specific Plan
Project Area



CONTEXT OF THE INFRASTRUCTURE FINANCING STRATEGY

The facility financing strategy is based upon a series of planning and engineering studies prepared by a team of consultants. Additional future studies will also be required with the implementation of the Specific Plan. The following text provides an overview of the planning context of the financing strategy.

SPECIFIC PLAN

The financing strategy is based on the proposed land use designations shown on the preferred land use plan for the NVSSP area. The costs of infrastructure for each of the land use alternatives were based on a series of studies performed by the MacKay & Soms led consulting team. The technical reports used to determine major facility cost estimates are included in Section 12.0 of the NVSSP. The financing strategy, while prepared as a stand-alone document, is a part of the NVSSP.

FUTURE PLANNING EFFORTS

In addition to the NVSSP and the technical studies supporting it, additional planning efforts will be required prior to development of Specific Plan land uses. These efforts include:

- the development of a detailed financing plan prior to the approval of any rezone;
- the submission of tentative maps for each major subdivision; and,
- implementation of financing mechanisms prior to the recordation of final maps.

The financing plan will recommend the establishment of several financing mechanisms. In addition to existing funding sources and a NVSSP project-specific fee, these mechanisms could include Mello-Roos Community Facilities Districts, Assessment Districts, and/or Landscape and Lighting Districts.

SUMMARY OF RECOMMENDED FINANCING STRATEGY

The underlying premise of the recommended financing strategy is that backbone infrastructure should be funded through impact and connection fees unless timing considerations and cost require the sales of municipal bonds in order to provide the required infrastructure.

The following financing strategy is recommended:

- Establish NVSSP project-specific fees to fund all of the major backbone facilities not included in existing fee programs.
- Establish bond financing districts as necessary to provide up-front funding.

STRUCTURE OF THE REPORT

Following this introduction and overview, **Chapter II** discusses the policy context of the plan.

Chapter III provides an overview of the Specific Plan's proposed land uses.

Chapter IV summarizes the facility needs and costs that have been estimated in the technical studies associated with the Specific Plan.

Chapter V describes the potential sources of funding that could be used for the Plan area's facility needs. In addition, a preliminary allocation of Plan area costs are made

Chapter VI proposes an overall financing and implementation strategy for the Specific Plan.

Chapter VII provides a qualitative discussion of the potential economic impact of the Specific Plan's infrastructure financing on non-developing landowners within the NVSSP area.

Appendix A provides the summary cost estimates for the Capital Improvement Program (CIP) prepared by MacKay & Soms. The full CIP is published separately as Volume II of the Financing Strategy report. **Appendix B** provides the detailed EDU calculations.

II. POLICY CONTEXT OF THE PLAN

Implementation of the adopted North Vineyard Station Specific Plan will require the implementation of various facility funding mechanisms. The policy context in which the County will determine which funding mechanisms to use, when funding mechanisms are implemented, and who pays for public facilities is critical in ensuring that revenues are available when needed to fund public infrastructure needs within the North Vineyard Station Specific Plan area.

This chapter provides the current policy context of facility financing in the North Vineyard Specific Plan area and proposes an additional policy framework for the implementation of the financing strategy.

COUNTY GENERAL PLAN

The overriding General Plan policy related to public facility financing is LU-8. That policy states:

Infrastructure financing plans that specify the extent, timing, and estimated cost of all necessary infrastructure shall be adopted by the Board of Supervisors prior to the approval of zoning entitlements in urban growth areas. The resulting financing mechanisms shall be implemented prior to the approval of entitlements in urban growth areas.

This policy ensures that as development entitlements are granted, detailed facility financing plans will be completed. The implementation of this policy currently follows these three major milestones:

- Financing Strategy – concurrent with the NVSSP
- Detailed Financing Plan – prior to approval of zoning
- Implementation of Financing Mechanisms – prior to approval of first final map

RECOMMENDED ADDITIONAL POLICIES

In addition to the General Plan financing policies, several Specific Plan policies are proposed for the long-term implementation of the financing strategy. These policies include:

- **Infrastructure should be funded on a pay-as-you-go basis.** To the extent possible, development of project-related facilities should be funded on a pay-as-you-go basis through the payment of development impact fees or private financing. Implementation of this policy will require development of detailed phasing plans for major public facilities.

- **The use of public bonding should be minimized.** The use of public financing districts—such as Mello-Roos CFD's or Assessment Districts (ADs)—should be utilized when pay-as-you-go fee funding is not sufficient to fund required public facilities.
- **Non-developing landowners will be excluded from any public financing districts.** While the development impact fee districts will include the entire Specific Plan area, public financing districts will exclude non-developing landowners. Properties receiving discretionary land use approvals subsequent to the formation of any financing districts should be required to annex into these districts if they benefit from district facilities. (Note: In addition, project-specific fees will only be levied when building permits are pulled; therefore, non-developing landowners who do not pull building permits will not be required to pay fees.)

III. LAND USE

The North Vineyard Station Specific Plan area is located in the south central portion of Sacramento County, approximately thirteen miles southeast of downtown Sacramento and five miles north of the commercial district of the community of Elk Grove. The 1,595 acres is bounded on the north by Florin Road, on the south by Gerber Road, and on the east by the extension of Vineyard Road. Elder Creek roughly constitutes the west boundary of the Specific Plan area.

Existing land uses within and surrounding the Specific Plan area are generally Agricultural-Residential and Agricultural with approximately ten small commercial enterprises along the periphery of the Specific Plan boundary. The preferred land use plan for the Specific Plan area includes 1,173 acres, and 6,339 dwelling units, of residential development; 39 acres of commercial and business professional development; and 383 acres of Public Use areas including schools, parks and parkways, open space, drainage, major streets, and public services.

Figure 1 provides a summary of the proposed land uses for the Specific Plan area.

The NVSSP provides an overview of two alternative land use plans. Each of these plans would provide a lower-density alternative for the residential land uses. The overall financing strategy is not affected by these alternative land use plans; however, the lower-density land use alternatives could result in increased development impact fees to the extent that Specific Plan facilities are not equally reduced. Any changes related to decreased density will be addressed in the future Financing Plan.

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Figure 1
North Vineyard Specific Plan
Preferred Land Use Alternative

Land Use Description	North Vineyard Station Specific Plan			
	Average Density [1]	Gross Acreage (acres)	Net Acreage (acres)	Dwelling Units
Residential:				
Low Density (SFR/1-3)	2	150.4		301
Low Density (SFR/3-5)	5	644.5		3,222
Low Density (SFR/4-7)	6	287.3		1,724
Medium Density (MDR/7-14)	10	45.4	44.2	442
Multi-Family (MFR/14-22)	18	39.7	35.4	637
Existing Residential	-	6.0		13
Subtotal Residential		1,173.3		6,339
Non-Residential:				
Commercial		28.6	28.5	
Business Professional		10.1	9.5	
Subtotal Non-Residential		38.7		
Public / Recreational:				
Schools		21.7	20.0	
Parks		104.7	99.5	
Golf Course		19.9	19.8	
Parkway		6.4	6.3	
Drainage Parkway		62.0	61.3	
Open Space/ SWD		79.2	76.6	
Major Streets		58.0	58.0	
Transit Center		11.1	10.0	
Public Services		4.9		
Railroad		14.6		
Subtotal Public / Recreational		382.5		
TOTALS		1,594.5		6,339
Developable Acres		1,212.0		
Developable Acres as a Percent of Total Acres		76.0%		

"land_use"

(1) The average density is used to calculate estimated dwelling yields. Medium and Multi-family densities are based on net acreage; Single Family low-densities are based on gross acreage.

(2) From Table 3.2 of the NVSSP, dated May 28, 1997.

IV. FACILITY NEEDS AND PHASING

Buildout of the Specific Plan will require construction of additional major backbone infrastructure (e.g., roads, water, sewer, and drainage) and facilities to provide additional public services (e.g., fire, libraries, parks, and schools). This chapter provides an overview of the facility requirements for the preferred Specific Plan land use alternative and summarizes the estimated facility costs for this alternative. The major public infrastructure costs associated with development of the NVSSP in 1997 dollars are:

<u>Major Public Infrastructure:</u>	<u>1997 Dollars</u>
Major Roadways	\$28,005,000
Internal Roadways (along public lands)	\$1,552,000
Sanitary Sewer	\$5,212,000
Drainage	\$33,182,000
Water	\$29,184,000
Park and Recreation Facilities	\$6,904,000
Fire Protection Equipment	\$1,795,000
Library (contribution)	\$896,000
Transit Facilities	\$2,138,000
Public Schools	<u>\$67,712,000</u>
TOTAL	\$176,580,000

Figure 2 provides a more detailed breakdown of these costs. The implementation of the Financing Plan will include the development of Capital improvement Programs for various types of facilities that will be funded by financing mechanisms that will be identified in the future NVSSP Financing Plan. Financing mechanisms will be recommended to allow facilities to be constructed as they are needed to serve new development.

DESCRIPTION OF FACILITIES

The above cost summary table shows the major categories of required facilities. The cost estimates have been derived from preliminary engineering data. Detailed cost estimates for the NVSSP infrastructure facilities are provided in **Appendix A**. The following section briefly describes each of the major infrastructure facility categories. A detailed discussion of phasing issues is provided in the following section. Potential credits and reimbursements will be discussed in a later chapter of this report.

MAJOR ROADWAYS

The NVSSP provides a comprehensive transportation network designed to meet anticipated traffic volumes and travel demands of the Specific Plan land uses within the context of the regional transportation system outlined in the County General Plan. The NVSSP roadway CIP provides a prioritized list of road projects that the Plan area should fund. These projects, and associated costs, are subject to change prior to the completion of the NVSSP Financing Plan.

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Figure 2
NORTH VINEYARD STATION SPECIFIC PLAN
Summary of NVSSP Facility Cost Estimates

FACILITY TYPE	NOTES	NVSSP FACILITY COST (1)
		<i>1998 \$'s</i>
Major Roadways		\$28,005,000
Internal Roadway	(2)	\$1,552,000
Sanitary Sewer	(2)	\$5,212,000
Drainage	(2)	
Channel Related Items		\$12,916,000
Detention Basin Construction		\$12,041,000
Trunk Drainage Serving 30 Acres or More		\$3,059,000
Wetland Mitigation		\$5,166,000
Subtotal Drainage		\$33,182,000
Water	(2)	\$29,184,000
Parks & Recreation		
DrainageParkway		\$720,000
Park Development	(3)	\$6,112,000
Linear Parkway Development		\$72,000
Subtotal Parks & Recreation		\$6,904,000
Fire Protection	(4)	\$1,795,000
Transit		\$2,138,000
Library	(5)	\$896,000
School	(6)	\$67,712,000
Total Facilities Cost		\$176,580,000

(1) Costs do not include off-site facilities that are funded through existing County fee programs or have otherwise been determined to be beyond the responsibility of the Specific Plan.

(2) Costs based on a combination of unit prices used in EGWW PFFP, in EEG PFFP, County agency reimbursement schedules, and preliminary engineering estimates.

(3) Costs based on preliminary estimates provided by Southgate Rec. and Park District.

(4) Costs based on preliminary estimate provided by American River Fire District.

(5) Costs based on information provided by the Sacramento Public Library Master Plan.

(6) Costs based on information provided by the Elk Grove Unified School District.

The *Transportation Analysis for the North Vineyard Station Specific Plan* identifies the facilities needed to mitigate the impacts of the full buildout of the Specific Plan area on the existing road system. The \$28.0 million in Major Roadway facilities includes: 1) roadway facilities adjacent to or through the Plan area; and 2) the NVSSP area's share of regional roadway facilities.

INTERNAL ROADWAYS

The estimated cost of \$1.55 million for the Internal Roadways includes half-street frontage improvements for collector roadways that are:

- adjacent to open space corridors;
- adjacent to park areas;
- adjacent to drainage parkway;
- adjacent to linear parkways; or,
- adjacent to drainage facilities.

These facilities may be funded through a project-specific fee or may be funded privately along with the other intract development costs.

SANITARY SEWER

Sanitary sewer facilities required to serve the Plan area are presented in Section 9.0 of the NVSSP and the Technical Appendix, *North Vineyard Station Specific Plan Sanitary Sewer Study*. The Specific Plan area is currently within the Spheres of Influence of the Sacramento County Sanitation District No. 1 (CSD 1) and the Sacramento Regional County Sanitation District (SRCSD). Developing areas will need to annex to these districts. The SRCSD 1 plans to construct the Bradshaw/Folsom Interceptor Project in 1998/99. The Sewer Master Plan prepared for the Plan defines sub-areas that will contribute flow to the proposed Bradshaw/Folsom Interceptor at three points.

Development within the Specific Plan area will require the construction of sewer trunk lines and sewer laterals in major streets. The approximately \$5.2 million of trunk sewer facilities included in the overall cost estimates is comprised primarily of the major sanitary sewer trunk lines along Florin and Gerber Roads.

DRAINAGE

The NVSSP area lies within the drainage sheds of Elder and Gerber Creeks. The NVSSP Technical Appendix, *NVSSP Master Drainage Study*, describes the following proposed drainage facilities for the Specific Plan area:

- Channel Improvements
- Flood Control Detention
- Bridge and Culvert Improvements
- Storm Water Quality Improvements
- Gravity Storm Drainage Pipelines
- Drainage Parkway Improvements
- Wetland Mitigation Costs

These components are consistent with the County of Sacramento Elder and Gerber Creeks Drainage Master Plan.

Extension of the upstream non-trunk storm drainage pipe network by other development projects will be necessary to complete the overall drainage system. Identification of this extended system is beyond the scope of the Specific Plan process.

The estimated \$33.2 million in drainage costs include: channel-related improvements, detention basin construction, trunk drainage facilities, and limited land acquisition. Arterial road crossing costs are included where future drainage flow is greater than existing flows. The drainage parkway includes an open space buffer and a joint use trail system that will serve as a drainage maintenance path and a pedestrian bike path. The costs for the paving of the joint use trail and associated landscaping improvements are included in the Park CIP. The open space areas will be funded by adjacent development.

Additional drainage related facilities for bridges and culverts as well as for arterial frontage improvements adjacent to drainage parkway and drainage facilities are included in the NVSSP Roadway CIP. Half-street frontage improvements at collector and minor roadways adjacent to drainage parkway and drainage facilities are included in the NVSSP's Internal Roadway costs.

WATER SUPPLY

The estimated cost of the water system improvements required to serve the NVSSP is \$29.2 million. The NVSSP Technical Appendix, *Master Water Supply and Distribution Summary Report for NVSSP*, describes the water supply and distribution facilities required to serve the project site. NVSSP area falls within the Zone 40 Northern Study Area. The portion of the Specific Plan area located west of Bradshaw Road is within the City of Sacramento's American River Place of Use (POU). Surface water from this City source could be utilized within the westerly 945 +/- acres of the Plan area. The eastern portion of the Specific Plan will rely upon groundwater as its primary water source.

Facilities listed in the Water CIP that are Zone 40 facilities include:

- Off-site transmission main (Power Inn to W. Boundary)
- On-site Water transmission mains;
- On-site Storage, pumping, and interim wells within the POU; and,
- Off-site Wells, treatment, and storage outside the POU.

The Water CIP does not include internal distribution mains except for those Zone 40 mains required to complete the transmission grid as shown on the NVSSP Water Master Plan. Together, the facilities listed in the CIP and the internal distribution mains will provide adequate domestic water service to all areas of the Specific Plan area.

PARKS & RECREATION

The NVSSP area is located within the Southgate Recreation and Park District (SRPD). The NVSSP includes active-use parks, parkways, and open space sufficient to meet the area's Quimby Act dedication requirement of 5 acres of active park per 1,000 population. Parks and recreation facilities are presented in Sections 6.0 and 8.0, Open Space and Public Facilities and Services of the NVSSP.

The total cost of the active-use parks is estimated to be \$6.1 million. This amount includes basic turf and irrigation improvements, fifteen tot lots, and the construction of a Community Center. In addition, \$792,000 is included for the development of pedestrian/bike paths and landscaping within the linear parkway and the drainage parkway for a total system cost of \$6.9 million.

Arterial roadway frontage improvements at parks, open space, and parkways are included in the Major Roadway costs. Half-street frontage improvements at collector and minor roadways adjacent to parks, open space, and parkways are included in the Internal Roadway costs. The trail system along the drainage corridor is a joint use facility serving as a drainage maintenance path and a pedestrian/bicycle path. The Drainage CIP includes costs to fund the construction of a gravel drainage maintenance road. The Park CIP includes the costs to pave the gravel maintenance road so that it can be used as a pedestrian/bicycle trail. The park CIP also includes costs to fund landscaping for the trail system.

FIRE PROTECTION

The NVSSP area is within American River Fire Protection District. American River Fire Protection District has indicated that increased emergency call volume associated with development of the Specific Plan will require the initial re-opening of Station 52 on Elder Creek Road near Bradshaw. Before buildout of the plan, this station will need to be re-constructed. In addition, Station 52 will need to be equipped with an engine/water tender, wildland interface engine, and ambulance. The existing property will meet the needs of a new station. The cost for these facilities was estimated by the Fire District to be approximately \$1.8 million.

TRANSIT

A 10-acre transit center/park-and-ride facility has been designated in the Specific Plan area to provide for the use of carpools and buses and to facilitate the possible future extension of light rail transit into the Specific Plan area, as described in Section 7.0 of the NVSSP. The cost estimate for park-and-ride facility is \$2.1 million. Bus stops and bus shelters will be funded and constructed by adjacent development along with the street frontage improvements. These costs are not included in the CIP. The NVSSP also includes joint use park and rides to be located in the parking lots of commercial development.

LIBRARY

The Sacramento Public Library Master Plan calls for the construction of an Elk Grove Regional Library at the intersection of Elk Grove Boulevard and Williamson Road. No additional library facilities are anticipated for the NVSSP area; however the Specific Plan indicates that the 4.9-acre Public Services site with the Plan could accommodate a branch library.

For purposes of estimating the cost impacts of this area on the library system, a share of the Elk Grove Regional Library cost was calculated. The cost of the Elk Grove Regional Library was estimated by Sacramento Public Library to be \$11,417,100 in 1997 dollars (\$7,939,200 for construction and interior furnishings and \$3,477,900 for an initial book collection). The regional portion of this facility was estimated in the Elk Grove/West Vineyard (EGWV) Public Facility Financing Plan to be 50% of the total costs, or \$5,708,550.

The NVSSP area's projected buildout population of 15,847 (based on the Public Review Draft of the NVSSP dated 5-28-97) is 15.7% percent of the total 101,071 buildout population (includes 85,224 population in the adjusted EGWV area) of the NVSSP and EGWV areas. Based on this revised buildout population, the revised estimated plan area cost is \$896,000 (15.7% of the \$5,708,550 EGWV Community Portion).

SCHOOL

The Specific Plan area is located within the Elk Grove Unified School District. School facilities are presented in more detail in Section 8.0, Public Facilities and Services, of the NVSSP. As requested by Elk Grove Unified School District, two elementary school sites are identified within the Specific Plan area to serve students from new development. The District will accommodate middle and high school students in existing or new facilities located outside the Specific Plan area. The \$67.7 million for school facilities needed to serve new development within the NVSSP area was estimated by Elk Grove Unified School District staff.

FACILITY PHASING

Land development within the Specific Plan Area will occur over an extended period of time. Master Planned facilities must be phased to coincide with the level of development at any given time. The manner in which facilities are phased has a significant impact on the overall financing mechanisms that are used to fund these facilities. Major facilities needed prior to major development generally require bond funding or up-front developer funding. To the extent facilities can be incrementally constructed, fee revenues may be used. The following discussion provides an overview of the major phasing issues and how they might affect the overall financing strategy.

ROADWAYS

In conjunction with the County of Sacramento Transportation Division, the Roadway CIP projects will be prioritized based on the results of the traffic study, the availability of other funding sources, and the County's overall transportation priorities. As development progresses within the Specific Plan area, development fees will generate revenue to fund projects based on the project prioritization. The CIP does not provide an exact phasing plan at this time. The phasing of road facilities will be determined in conjunction with completion of the Financing Plan and other planning processes associated with new development.

There are no significant phasing constraints for the roadway CIP identified at this time. At the time that the Financing Plan is developed, additional analysis of phasing of the roadway facilities will be provided. If at such time significant phasing constraints are discovered, financing mechanisms will be defined in detail.

SANITARY SEWER

Phasing of sanitary sewer facilities is driven by the phasing of individual development projects within the area. The first project will require extension of the trunk and lateral facilities necessary to serve it and other upstream developments in accordance with the NVSSP Sewer Master Plan. Current County development standards require the extension of these facilities to the upstream boundary of the project phase constructing them.

The sanitary sewer facilities serving the Specific Plan area will be funded by the project developer with credits or reimbursements from the Sacramento CSD-1 and/or Regional Sanitation District's Fee programs or other private sources.

DRAINAGE

Improvements to the drainage system are necessary to serve development as it occurs. Developing lands will pay County Zone 11A Drainage Fees to fund drainage facilities. The drainage facilities included in the NVSSP Drainage CIP are consistent with the UNET analysis that has been prepared for the County of Sacramento Drainage Master Plan for Elder and Gerber Creeks. The drainage facilities are part of a complete shed wide and regional drainage system that benefits an area larger than the NVSSP area. The paragraphs below provide a discussion of the potential phasing of drainage facilities.

Phased Development with Temporary Facilities

Initially, there is a potential that small, isolated development could occur in certain areas of the Plan, outside of the existing flood plain, by providing temporary detention basins. It is also possible that small isolated areas in the eastern portions of the Plan area could develop and gravity discharge to the existing drainage channels provided they do not increase the flood risk to neighboring and downstream projects. Temporary detention basins could occur in areas not constrained by the existing flood plain. The temporary facilities are not

included in the Drainage CIP and are not reimbursable items. While the NVSSP Drainage Master Plan includes the potential for temporary detention facilities, it is policy of the Sacramento County's Water Resources Division (WRD) not to allow temporary facilities. Such use would require WRD approval.

Phased Development with Gravity Facilities

The relatively flat topography of the Specific Plan area and shallow existing creeks dictate that deepening and widening existing drainage channels is necessary to provide a gravity outfall and to lower the ten-year water surface elevation to meet basic county design standards. Development is likely to proceed from west to east in the Plan Area due to the proximity to other urban services, such as sanitary sewer and water, and because this scenario presents the greatest potential to reduce initial drainage improvement costs.

First phase development is likely to include the following facility improvements.

Channels

Channel improvements of both Elder Creek and Gerber Creek will be required with any first phase development that will construct permanent Master Plan Channel Facilities. Due to the depth of the ultimate channels, the channel will need to be constructed from the Specific Plan Area approximately 5,000 lineal feet downstream to the existing improved channel near Millbrook Circle in order to daylight. To allow phasing of facilities to coincide with initial levels of development, partial-cross-section channels could be constructed. Constructing these reduced channels will allow a reduction in the length of offsite downstream channel construction required from 5,000 lineal feet to approximately 3,000 lineal feet.

Crossings

As channel improvements are constructed, crossings will need to be improved. Box culvert crossings located in areas where partial depth channel improvements are constructed can be constructed at ultimate depths and capacity. Water will pond at these locations until the channel is constructed to its ultimate depth. Alternatively, the culverts can be constructed at the higher, partial depth elevation, and some or all of the culverts will be relocated at the time the channel is deepened to the ultimate depth. Bridge improvements at crossings located in areas where partial depth channel improvements are constructed will be designed for ultimate depth and capacity and constructed temporarily at partial depth.

Basins

To mitigate for increased drainage flows from initial development, drainage basin facilities will need to be constructed as identified in the CIP. The location and size of those facilities still needs to be determined by the WRD and the developers. The drainage basin solution will need to demonstrate that phased improvements will provide adequate urban flood protection to the proposed on-site development, and will not increase flood risks in downstream areas.

Trunk Pipe System

Trunk and/or non-trunk gravity pipelines will need to be constructed from the Plan area's point of discharge at the upstream channel required to serve the new development and other proposed upstream developments. Current County development standards require the extension of these facilities to the upstream boundary of the project constructing them. These improvements may require funding from a future bond financing district; however, since these facilities are also a part of the regional drainage facilities, funding could also come from accumulated Zone 11A fee revenues if available.

The cost of the initial drainage facilities is dependent upon the amount and location of development as well as the ultimate drainage solution. The estimated range of the first phase of drainage costs is \$12.0 to \$15.5 million. These costs include channel land acquisition costs and may be reduced when a more detailed study of the extent of existing easements becomes available. Because fee funding may not be available at the time of construction, Mello-Roos CFD bonding, or some other upfront funding mechanism may be required.

WATER

Because of the estimated high cost of providing surface water to the Northern Study area, it is likely that the first phase of development will make use of a proposed transmission main at the intersection of Elk Grove-Florin Road and Gerber Road projected to be constructed in 1998. Extension of a Zone 40 transmission main eastward along Gerber Road to the NVSSP boundary would be feasible as a first phase. As an alternative or adjunct, the first phase could include installation of wells, treatment facilities, and transmission mains that will become an integral part of the ultimate system if the Elk Grove Florin transmission main is not yet constructed.

As development progresses and water demands increase, additional facilities will be required. These facilities include a connection with the City of Sacramento's system to serve the portion of the NVSSP area within the City's American River Place of Use and the construction of transmission mains, booster pumps, wells, storage, treatment facilities, connections to existing systems, and distribution mains.

Funding for the water supply, treatment, storage, and transmission facilities is anticipated to be generated from Zone 40 development impact fees. On-site distribution facilities will be constructed by new development. If it is necessary for new developments to construct Zone 40 facilities, reimbursement will be provided by Zone 40 no later than five years from the date of acceptance by the agency.

FIRE

Phasing of the fire facilities will be dependent on the location and intensity of development within the plan area. The American River Fire District will need to monitor the calls for

service and response times in order to determine the need to re-open and/or reconstruct Station 52. It is anticipated that early development will be served from existing fire stations; however, it is likely that a new facility will be needed prior to the availability of fee funding. Since Station 52 serves an area greater than the NVSSP, funding from future development served by Station 52 could be used to accommodate phasing requirements.

TRANSIT

Phasing of the bus stop facilities will be dependent upon the construction of adjacent projects with frontage on these major arterial or thoroughfare roadways. Regional transit (RT) will determine the construction timing of the transit center/park-and-ride facility based on RT's implementation of bus routes and possible extension of light rail to serve the area. RT does not see the need for the park-and-ride in the early stages of development. In addition, this facility could be constructed in stages consistent with fee collections and may be sited at a different location than that shown on the land use plan. The park-and-ride could also be split into several smaller park-and-rides. If it is ultimately determined that all, or a portion, of the transit center/park-and-ride facility will not be required, then the fee proceeds may be used for other public transit related improvements that serve the NVSSP area include, but not limited to, light rail facilities.

PARKS

Park development phasing will be the responsibility of SRPD. The level of park improvements will correspond to the intensity of development. Historically, development has not fronted the cost of park improvements within the Southgate Recreation & Park District. Agreements for developer-funded park improvements will be determined on a case-by-case basis with the SRPD.

Historically, properties along creeks and drainage channels have been obtained for open space uses through project dedication and condition of approval. The open space portion of the drainage parkway, which are required as mitigation for environmental impacts, will be dedicated by individual abutting NVS property owners as a condition of project approval. The open space area will be implemented incrementally as properties are dedicated by development.

Ultimately, the open space areas will include the joint use trail system that will serve as a drainage maintenance path and a pedestrian bicycle path. The gravel maintenance road improvements that are in the Drainage CIP and are funded by Water Agency Zone 11A fees will be constructed concurrently with the construction of the drainage channel improvements. The SRPD will construct the joint use trail system and landscaping from park fee proceeds after sufficient development has occurred so that large stretches of the trail can be constructed at one time. The extent of frontage improvements adjacent to parks, open space, and parkways required for each project will be determined as each project is processed for tentative map approval.

PLANNING AND ENGINEERING COSTS

The planning and engineering costs associated with the development of the Specific Plan are considered to be part of the overall project costs. As such, these costs will be apportioned to all landowners and recovered as development occurs.

V. SOURCES OF FUNDING & FINANCING STRATEGY

SOURCES OF FUNDING

A variety of financing mechanisms may be used to fund the infrastructure facilities required to serve the North Vineyard Specific Plan development and mitigate potential impacts on surrounding areas. The type of financing mechanisms used to fund a given facility will be dependent on the type of land use it is serving, when the facility is needed, and the phasing of facility construction.

This chapter describes the existing and potential sources of facility financing, estimates total revenues from existing fees, compares existing fee revenues with estimated facility costs, and estimates potential increases in overall fees required to fully fund facility costs for new development. **Figure 3** provides an overview of the facility costs and the potential sources of facility funding. Unless required for timing considerations, it is recommended that facilities be funded through development impact fee collections.

EXISTING FUNDING SOURCES

Development Impact Fees

Development impact fees are set under the conditions of Government Code 66000 *et seq.*, also known as AB1600 fees. These code sections set forth the procedural requirements for establishing and collecting development impact fees. The AB1600 procedures require that "a reasonable relationship or nexus must exist between a governmental exaction and the purpose of the condition."¹ Specifically, each local agency imposing a fee must:

- identify the purpose of the fee;
- identify how the fee is to be used;
- determine how a reasonable relationship exists between the fee's use and the type of development project on which the fee is imposed;
- determine how a reasonable relationship exists between the need for the public facility and the type of development project on which the fee is imposed; and
- demonstrate a reasonable relationship between the amount of the fee and the cost of public facility or portion of the public facility attributable to the development on which the fee is imposed.

The following existing development impact fees will be collected from development in the North Vineyard Station Specific Plan area.

¹Public Needs & Private Dollars; William Abbott, Marian E. Moe, and Marilee Hanson, page 109

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Figure 3
NORTH VINEYARD STATION SPECIFIC PLAN
RECOMMENDED COST ESTIMATES AND FUNDING SOURCES

(All numbers rounded to the nearest thousand)

Facility Type	Estimated NVSSP Facility Cost 1998 \$'s	Potential Funding Sources			
		Existing County Fees		Proposed	EGUSD School Impact Fees
		SRCSD & CSD-1	Sac Co Zone 40 Water Agency	Sac Co Zone 11A Drainage Fee	
Roadway	\$28,005,000				
Internal Roadway	\$1,552,000				
Sanitary Sewer	\$5,212,000	\$5,212,000			
Drainage	\$33,182,000				
Water	\$29,184,000		\$28,239,000	\$33,182,000	
Parks & Recreation [1]	\$6,904,000			\$28,005,000	
Fire Protection [2]	\$1,795,000			\$1,552,000	
Transit	\$2,138,000			\$6,904,000	
Library [3]	\$896,000			\$1,795,000	
School [4]	\$67,712,000			\$2,138,000	
				\$896,000	\$33,392,000
Total Facilities	\$176,680,000	\$5,212,000	\$28,239,000	\$33,182,000	\$33,392,000
				\$41,290,000	\$35,265,000

(1) Costs based on preliminary estimates provided by Southgate Rec. and Park District. The total cost for the community center has been included in the Park and Recreation CIP and is shown to be funded by the park and recreation component of the NVS PFF

(2) Costs based on preliminary estimate provided by American River Fire District

(3) Costs based on information in the Sacramento Public Library Master Plan.

(4) Costs based on information provided by the Elk Grove Unified School District. Potential "other" funding sources could be the State School Building program, and other unidentified programs

(5) The Project-Specific Fees will fund facilities not covered by existing County fee programs. Due to timing constraints, these facilities may also be funded by up-front financing mechanisms

Source: MacKay & Samps

Sacramento County

The County of Sacramento collects a set of fees to finance its capital facilities requirements. Most development impact fees are paid at the time a building permit is issued. Credits or reimbursements for facilities otherwise funded by the County fee programs may be available if developers fund and construct fee-funded facilities. Fee credits and reimbursements are available within different time frames depending upon the type of facilities constructed. The capital facility fees for Specific Plan facilities include the following:

Sewer Fee: The County of Sacramento Water Quality Division collects two fees from new development to fund expansion of the existing system: the CSD -1 Trunk Fee and the SRCSD Capital Investment Equalization (CIE) Fee. These fees are used to fund all needed treatment capacity and major trunk line improvements required as a result of new development. The developer may initially fund the construction of the trunk facilities with an existing system of credits against future CSD-1 trunk connection fees and reimbursement for amounts beyond those credits. Alternatively, the County may construct the facilities.

Typically, CSD-1 is reimbursing developers for trunk facilities upon acceptance of facilities. CSD-1 does not reimburse developers for the construction of sewer laterals.

Drainage Fee: The Sacramento County Water Agency Zone 11A fees provide funding for on- and off-site regional drainage improvements. The Zone 11A fees from planned NVSSP development will fund approximately 37 percent of the total onsite and offsite drainage facilities included in the Drainage CIP; however, the area of benefit for these facilities extends well beyond the NVSSP area. Though Zone 11A will ultimately fund the drainage improvements, the County WRD has indicated that Zone 11A does not have, nor is projected to have, sufficient funds to construct the required major drainage facilities when needed. Additionally, funds may not be available to reimburse up-front funding for the construction of drainage facilities within a five-year time period. The Financing Plan will address these issues and provide a funding solution.

Roadway Fee: The North Vineyard area is in Zone IV of the Sacramento County Transportation Development Fee Program. These fees are meant to fund major roadway improvements necessary to handle the traffic generated by new development in unincorporated Sacramento County.

Water Agency Zone 40: Water fees collected from the NVSSP area will fund the estimated \$27.6 million of Sacramento County Water Agency Zone 40 water supply, treatment and transmission facilities included in the Water CIP. Two hundred dollars of the Zone 40 water fees is paid prior to improvement plan approval. The remainder of the fee is paid prior to building permit issuance.

The Sacramento County Water Agency usually constructs the necessary water facilities. In some cases developers may need to advance fund facilities and receive fee credits or reimbursements. If developers construct Zone 40 water facilities, they are subject to reimbursement within a five-year time period.

Developer Funding

Private funding from project developers is generally used to construct the in-track roads, sewer, water, and drainage improvements. Developer funding may also be used on an interim basis to fund major backbone infrastructure facilities. Such funding would be subject to fee credits or reimbursements from future fee collections or bond sales.

Elk Grove Unified School District

The Specific Plan area is located within the boundaries of the Elk Grove Unified School District. The District currently charges a school mitigation fee of \$3.17 per square foot for residential development and \$0.30 per square foot for non-residential development. This fee is authorized by County Ordinance and includes the fees authorized by AB2926 (currently \$1.84 per square foot of residential development and \$0.30 per non-residential square foot) plus a supplemental developer fee. The development impact fees cover approximately half of the total school impacts. The remaining amounts will be funded through a combination of State funding and Mello-Roos bond proceeds.

The current bond authorization for the EGUSD Mello-Roos CFD has nearly been reached. The EGUSD is in the process of reviewing its funding options. A reauthorization of the Mello-Roos CFD will be put before the District voters in 1998. Such a reauthorization will increase the overall bonding authorization and will increase the special taxes for development approved after June 1, 1999. If not passed, other funding sources will be required to meet school needs.

Measure A Sales Taxes

Sacramento County voters passed the Measure A ballot initiative in 1988 that authorized the creation of the Sacramento Transportation Authority (STA) and instituted a one-half cent sales tax for the provision of countywide transit and transportation improvements over a 20-year timeframe. Several projects included in the Roadway CIP are funded in part by Measure A.

POTENTIAL NEW FUNDING SOURCES

NVSSP Project-Specific Fees

Many of the facilities identified for development of the NVSSP area are not included in existing fees programs; therefore, project-specific fees for the NVSSP will need to be established in order to determine fair-share funding levels for project land uses. The NVSSP project-specific fees will include:

- Major Roadways
- Internal Roadways
- Parks and Recreation Facilities
- Fire Protection Facilities and Equipment
- Library Facilities
- Transit Facilities

A preliminary allocation of these facility costs is provided in the Cost Allocation section of this Chapter and in **Appendix B**.

Alternative Funding Sources

Bond financing is often used to fund public facilities needed prior to the collection of fees or other revenue sources. The use of bond financing for infrastructure within the NVSSP will be determined in the Financing Plan. It is likely that bond financing will be used to fund some of the major roadway, water, and drainage facilities needed to accommodate new development. The following discussion provides an overview of the major public financing mechanisms used to incur land-based debt.

- **Mello-Roos CFD** – Mello-Roos CFDs could be used to fund improvements that provide general benefit to a subarea within the Specific Plan and may be subject to reimbursement agreements or fee credits. Mello-Roos CFD's repayment structure allows flexibility in determining who pays special taxes and when; therefore, payment of these facilities can be tied more directly to who is gaining development benefit from having them in place. The permanent drainage system, road, water, wastewater, and park development are improvements that could be funded with this source.
- **Assessment Districts** – Assessment Districts could be used to fund facilities that are needed at the start of development and provide direct benefit to specific parcels. These include roadway, drainage, water, or wastewater improvements. Assessment Districts are subject to provisions under the recent Proposition 218 ballot initiative. Proposition 218 requires that all future assessment districts be subject to a vote of the property owners being assessed with voting weighted by the amount of assessment for a given parcel.
- **Landscape and Lighting Districts** – A Landscape and Lighting District could be used to fund ongoing maintenance for landscape corridors and/or area parks in addition to park capital requirements. Such a District would be subject to the voting provisions established under Proposition 218.

Mello-Roos Community Facilities District (CFD)

The 1982 Mello-Roos Community Facilities District Act enables cities, counties, and special districts to establish CFDs and to levy special taxes to fund a wide variety of facilities and services. The proceeds of the Mello-Roos special tax can be used for direct funding and/or to retire bonds. A series of CFDs could be implemented based on the specific financing considerations within proposed new developments. Mello-Roos CFD bonds are generally used for facility costs that cannot be deferred or funded on a pay-as-you-go basis.

The establishment of Mello-Roos CFDs requires a two-thirds affirmative vote of the CFD electorate. For CFDs with fewer than twelve registered voters, a land-owner election is held with each acre of land representing one vote. For CFDs with twelve or more registered voters, a registered-voter election is held.

Assessment District (AD)

California statutes give local governments the authority to levy a number of special assessments for specific public improvements such as streets, storm drains, sewers, street lights, curbs, gutters, and sidewalks. The County can create a special assessment district that defines both the area to benefit from the improvements and the properties that will pay for the improvements. Thereafter, each property within the district will be assessed a share of the cost of improvements that is proportional to the benefit it receives from those improvements.

There are a variety of assessment district acts available to finance public facilities. The most likely act to fund improvements for the Plan Area would be the Improvement Bond Act of 1915. This Act also provides a vehicle for issuing assessment bonds for assessments authorized under the 1911 and 1913 Benefit Assessment Acts.

Facilities in the North Vineyard Specific Plan area that could be funded by Assessment Districts include major roads, sewer, water, , and drainage improvements where there is direct benefit to specific parcels. The establishment of Assessment Districts will be subject to the provisions of Proposition 218 that was adopted in November of 1996. These provisions, among other things, require a vote of property owners being assessed with the vote weighted by the amount of property assessment.

Landscape and Lighting District

The Landscape and Lighting District Act of 1972 allows for placing assessments on property to fund ongoing maintenance of parks, landscape corridors, and street lighting. On a limited basis, Landscape and Lighting Districts (LLDs) can also be used to fund capital expenditures. LLDs are most likely to be considered for the landscape and corridor maintenance associated with new subdivisions. LLDs are subject to the provisions of the recently passed Proposition 218 which limits the use of these types of assessments and requires a vote of the assessed property owners at a district's inception or with an increase in assessments.

FINANCING STRATEGY

Implementation of the financing for Specific Plan infrastructure will occur over several years. This Financing strategy provides an overview of the type of financing mechanisms that may be utilized fund future facility costs. The Financing Plan will recommend the actual financing mechanisms that will be used. The actual implementation of these mechanisms will be based on the amount of overall development, the location of development, and the ability to phase major project infrastructure and will be fully analyzed in the Financing Plan.

The current financing strategy includes two major elements:

Develop Project-Specific Fees: The foundation of the overall funding strategy is the establishment of project-specific fees that fairly allocate the costs of project infrastructure to

all benefiting land uses. The establishment of these fees ensures that each development will pay its fair share of backbone infrastructure costs. The project-specific fees also provide a way to calculate each development's total cost burden for backbone infrastructure. This determination will be utilized in formation of financing districts and the calculation of fee credits or reimbursements for any oversizing of facilities by a project developer.

Establish Bond Financing Districts (as necessary): Bond financing will be utilized when the cost of required backbone infrastructure is not able to be funded from accumulated fee revenues. As a general rule, financing districts are required to fund the infrastructure needed to open up new development phases. For example, the initial phases of development will require the construction of new roads and drainage facilities. Since the cost of these facilities will be incurred prior to any development fees being collected, a Mello-Roos CFD or assessment district may be formed to provide the required up-front financing.

COST ALLOCATIONS

In order to assess the potential impact and feasibility of funding the estimated cost of facilities required to implement the Specific Plan, EPS and MacKay & Soms have performed a preliminary cost allocation of the project-specific facility costs to each of the land uses in the preferred land use alternative. The allocations of costs are provided in order to assess the potential impact and feasibility of the Specific Plan facilities on future development. A detailed allocation of facility costs for purposes of establishing project-specific development impact fees will need to be performed once the Specific Plan's land uses are approved and additional detailed facility studies are performed.

OVERVIEW OF COST ALLOCATION APPROACH

Cost allocations are made between land uses based on relative benefit received by those land uses. The facilities considered in this cost allocation are only those related to the Specific Plan technical studies and do not include those already covered by Countywide fees (e.g., wastewater fees), school mitigation, or other funding sources. The allocation of costs within these existing fee programs is a part of the nexus studies developed to set those fees.

The costs of the backbone infrastructure facilities and community facilities will be apportioned over all the developable parcels within the North Vineyard Specific Plan area. Cost allocations for backbone infrastructure and community facilities have been made using dwelling-unit equivalent (DUE) factors. These use factors vary by type of facility and land use. This methodology results in cost allocations that are specific to the type and intensity of development proposed within the Specific Plan. Detailed allocation assumptions are provided in **Appendix B**

Based on this methodology, the construction costs estimated for the Specific Plan have been apportioned to the proposed land uses for each type of improvement included in the

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Figure 4
NORTH VINEYARD STATION SPECIFIC PLAN
ESTIMATED PROJECT-SPECIFIC FEES PER DUE*

Facility Type	North Vineyard Station Specific Plan		
	Facility Cost	Estimated DUEs	Estimated Fee Per DUE
	1998 \$'s		
Roadway	\$28,005,000	6,081	\$4,605
Internal Roadway	\$1,552,000	6,081	\$255
Parks & Recreation	\$6,904,000	6,120	\$1,128
Fire Protection	\$1,795,000	6,354	\$282
Transit	\$2,138,000	8,837	\$242
Library	\$896,000	6,042	\$148
Total	\$41,290,000		\$6,661

(1) The fees shown here are to be used for estimating purposes only.

* DUE = Dwelling Unit Equivalent

Figure 5
NORTH VINEYARD STATION SPECIFIC PLAN
ESTIMATED PROJECT-SPECIFIC & COUNTY FEES PER UNIT

	Average Residential Fee / D.U.		Average Non-Residential Fee / Acre		
	Single Family	Multi Family	Neighborhood Commercial	Convenience Commercial	Business Professional
Existing Fees:	(1,800 s.f. resid.)	(850 s.f. resid.)	(0.25 FAR)	(0.28 FAR)	(0.40 FAR)
County of Sacramento					
Sewer (CSD-1 & SRCSD)	\$2,674	\$2,006	\$14,707	\$14,707	\$14,707
Water (Zone 40)	\$2,224	\$2,224	\$4,210	\$4,210	\$4,210
Drainage (Zone 11A)	\$1,750	\$540	\$13,060	\$13,060	\$13,060
Roadway (District IV)	\$749	\$567	\$23,762	\$26,596	\$30,450
Transit (District IV)	\$117	\$238	\$5,559	\$6,222	\$8,178
Affordable Housing Fee	\$0	\$0	\$8,393	\$9,394	\$16,878
Subtotal County Fees	\$7,514	\$5,575	\$69,691	\$74,189	\$87,483
Elk Grove Unified School District	\$5,562	\$2,627	\$3,270	\$3,660	\$5,220
Subtotal Existing Fees	\$13,076	\$8,201	\$72,961	\$77,849	\$92,703
NVS PFFP Development Fees:					
Roadway	\$4,145	\$2,763	\$75,065	\$75,065	\$62,170
Internal Roadway	\$230	\$153	\$4,160	\$4,160	\$3,445
Parks & Recreation	\$1,128	\$776	\$0	\$0	\$0
Fire Protection	\$282	\$194	\$2,006	\$2,006	\$3,277
Transit	\$226	\$166	\$12,774	\$12,774	\$8,927
Library	\$148	\$102	\$0	\$0	\$0
Subtotal NVS PFFP Development Fees	\$6,159	\$4,155	\$94,004	\$94,004	\$77,818
TOTAL FEES PER UNIT or PER ACRE	\$19,235	\$12,356	\$166,965	\$171,853	\$170,522
TOTAL FEES PER BUILT S.F.	\$10.69	\$12.79	\$15.32	\$14.09	\$9.80

NOTES

- (1) Fees subject to 25% increase in March 1, 1998. Assumes a 10-acre site for non residential. The fee is based on \$3,320 per acre plus \$8,898 for a 2" meter per site.
- (2) Based on Ordinance 0801 which charges \$0.97 per s.f. of office space and \$0.77 per s.f. of commercial space.
- (3) The existing County fees are based on available information provided by the various agencies.
- (4) The NVS PFFP development fees are estimates only. The actual fees will be determined at the time development occurs.
- (5) The residential EGUSD fees are based \$3.09/s.f. and assumes 1,800 s.f. residences for all single family and 850 s.f. residences for medium density and multi family. The commercial EGUSD fees are based on 0.30/s.f. Mello-Ross CFD bonds are not shown here.

VI. IMPACT OF SPECIFIC PLAN FACILITIES FINANCING ON NON-DEVELOPING LANDOWNERS

The purpose of this section is to clarify that non-developing landowners will not be required to pay for the cost of facilities serving new development. This chapter addresses this issue on a qualitative basis.

Funding of the facilities related to implementation of the North Vineyard Station Specific Plan will not burden non-developing landowners. Safeguards built into the funding mechanisms and County planning process will be used to assure that the funding of Specific Plan facilities is limited to the development benefiting from those improvements. The establishment of project-specific development impact fees will ensure that adequate funding is available for the long-term construction of Specific Plan facilities.

LIMITATIONS TO USE OF FINANCING MECHANISMS

Each of the financing mechanisms that will be used to fund infrastructure for new development are limited in their application and impact on existing development. The limitations associated with each of these sources are discussed below.

AB1600 FEES

Development impact fees, or nexus fees, will be the primary mechanism used to fund long-term infrastructure needs in the Specific Plan area. These fees will only apply to new construction within the plan area based on a particular development's benefit from the facility being funded. In this regard, development in the urban growth areas will be responsible for funding those facilities needed to support buildout of the adopted land use plan. Development impact fees are not paid prior to receiving development approvals or pulling building permits.

PUBLIC FINANCING DISTRICTS

Public financing districts are likely to be used in situations where specific backbone or public service facilities are required ahead of AB1600 fee funding availability. The ability to include existing development within the boundaries of public financing districts is extremely limited. This has recently been further limited by the provisions of Article XIII C and XIII D of the State Constitution (Proposition 218). The following discussion provides an overview of Proposition 218 followed by a discussion of the limitations of specific financing districts.

Proposition 218 Safeguards

Proposition 218 was approved by the California voters on November 5, 1996. Entitled the "Right to Vote on Taxes Act," Prop. 218 provide several new safeguards against owners of existing property paying for the cost of new development via financing districts. The primary safeguards include:

- Any tax or assessment determined to be for general governmental services must be approved by a majority of the electorate as a general tax.
- Any new assessment costs must be determined to be property-related by an engineer certified by the State of California.
- Any new assessments must be voted on by the property owners being assessed. The vote is weighted by the amount of assessment for each parcel.
- Property owners must be noticed of any new or increased fees or charges along with an explanation of the basis for the amount of the proposed fee or charge. The fee or charge can be overturned by a majority protest of the owners of identified parcels.

The primary safeguard from Proposition 218 is that new assessment districts must be formed by a vote of the assessed property owners and not on a protest-proceeding basis as they were before Proposition 218.

Assessment Districts

As discussed above, assessment districts are subject to a majority vote of property owners being assessed. Assessment districts are still viable financing tools and will not be included in any assessment unless there is an identifiable specific benefit received by these land uses for the facilities to be financed. However, assessment districts are subject to the provisions of Proposition 218, and are limited in their applicability. The facilities anticipated for the NVSSP land uses are those required for new development and are not designed to benefit non-developing land uses.

Mello-Roos Community Facility Districts (CFDs)

Mello-Roos CFDs were enacted by the State Legislature in 1982. Mello-Roos CFDs are special taxing districts; therefore, they are subject to a two-thirds majority vote to form. Any CFD with more than twelve registered voters is subject to a registered voter election. CFDs with fewer than twelve registered voters are subject to a landowner election with one vote awarded per acre of land.

Mello-Roos CFDs have been formed primarily in developing areas prior to the occupancy of any new homes because of the CFD voting requirements. The use of Mello-Roos CFDs are only anticipated in the areas zoned for urban development. It is not anticipated, and unlikely, that any Mello-Roos CFD would be proposed in an area that has not received some level of development approval.

SAFEGUARDS BUILT INTO THE PLANNING PROCESS

In addition to the overall safeguards that exist in the financing mechanisms that will be used to fund Specific Plan infrastructure, there are additional safeguards to impacts on existing development built into the ongoing planning process within the County.

DETAILED FINANCING PLANS

County General Plan policy requires detailed financing plans and implementation of financing mechanisms prior to the granting of entitlements for new development. This means that the mechanisms used to fund overall infrastructure will be reviewed in detail as development plans advance. This process will allow community members opportunities to review and comment on the implementation of the financing plans and further evaluate the potential impact of proposed funding mechanisms on the existing community.

RIGHT TO VOTE ON NEW ASSESSMENTS OR FEES

As discussed above, the recent passage of Proposition 218 has increased the ability of property owners to limit the use of assessment districts, landscape and lighting districts, or general taxes without the consent of those paying the assessments, fees, or taxes.

APPENDICES

Appendix A – Summary Cost Estimates

Appendix B – DUE Calculations

APPENDIX A

Summary Cost Estimates

(Provided by MacKay & Somps)

Appendix A-1	Roadway Summary (2 pages)
Appendix A-2	Internal Roadways
Appendix A-3	Sewer Summary
Appendix A-4	Drainage Summary (2 pages)
Appendix A-5	Parks and Recreation Summary
Appendix A-6	Cost Detail Sheet

Figure A-1

NORTH VINEYARD STATION SPECIFIC PLAN CIP ROADWAY SUMMARY

Macley Sompa
Job No 7536-0

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MITIGATION MEASURE	Project Number	Roadway Segment/Item	Project Description	On-site or Off-site	Total Estimated Cost	% Funded by Other Sources	Other Funding Sources	Reimb Available	Cumulative Total Estimated Net Cost
TR 3	R13	Flint Road-CCIC RR (Project Boundary) to Wileman	6 Lane 100' R/W center sect w/ med (excludes outside 11' pmt & flg)	On	\$470,000	0.00%		\$0	\$470,000
TR 3	R11	Flint Road-CCIC RR Crossing	Reconstruct at grade RR crossing (100' R/W)	On	\$225,000	0.00%		\$0	\$1,095,000
TR 3	R12	Flint Road Crossing at Elder Creek	New Bridge Construction (100' R/W)	On	\$458,000	0.00%		\$0	\$1,553,000
	R29	Flint Rd at Wileman Rd	8 X Intersection Widening & Signalization, 3-way (incl 450' int leg impr)	On	\$498,000	0.00%		\$0	\$2,051,000
TR 4	R12	Elk Grove-Front Road- Elder Creek Crossing	New Bridge Construction (100' R/W)	On	\$401,000	0.00%		\$0	\$2,452,000
	R43	Carber Road- Project Boundary to Wileman	4 Lane 84' R/W center sect w/ med (excludes outside 11' pmt & flg)	On	\$570,000	0.00%	50% Reimb from Vineyard Springs	\$285,000	\$2,737,000
	R34	Carber Rd at Wileman Rd	4 X Intersection Widening & Signalization, 4-way (incl 450' int leg impr)	On	\$460,000	0.00%	50% Reimb from Vineyard Springs	\$230,000	\$2,967,000
	R60	Carber Rd at Collector	4 X Intersection Signalization, 3-way	On	\$140,000	0.00%		\$0	\$3,107,000
	R43.1	Park Frontage Imps- Carber Road (Project Boundary to Wileman)	11' Pavement, 3' C&G, 6' Shoulder = 20'	On	\$3,000	0.00%		\$0	\$3,110,000
	R43.2	Elk Field Frnt Imps- Carber Rd (Proj Bdry to Wileman No. Side Only)	11' Pavement, 3' C&G, 6' Shoulder = 20' Shoulder	On	\$33,000	0.00%		\$0	\$3,143,000
	R73	Wileman Road- Carber (Project Bdry) to Flint (Project Bdry)	4 Lane 84' R/W center sect w/ med (excludes outside 11' pmt & flg)	On	\$1,378,000	0.00%		\$0	\$4,521,000
	R73.1	Wileman Road- Carber Creek Crossing	2 E X 6' Box Culverts With Headwalls (84' R/W)	On	\$159,000	0.00%		\$0	\$4,680,000
	R73.2	Wileman Road- CCIC RR Crossing	Const new at grade RR crossing (84' R/W)	On	\$200,000	0.00%		\$0	\$4,880,000
	R73.3	Open Space Frontage Imps- Wileman Road (Carber to Flint)	11' Pavement, 3' C&G, 6' Shoulder = 20'	On	\$46,000	0.00%		\$0	\$4,926,000
	R73.4	Open Space Frontage Imps- Wileman Road (Carber to Flint)	11' Pavement, 3' C&G, 6' Shoulder = 20'	On	\$41,000	0.00%		\$0	\$4,967,000
	R73.5	Park Frontage Imps- Wileman Road (Carber to Flint)	11' Pavement, 3' C&G, 6' Shoulder = 20'	On	\$205,000	0.00%		\$0	\$5,172,000
	R73.6	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$5,312,000
	R73.7	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$5,452,000
	R73.8	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$5,592,000
	R73.9	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$5,732,000
	R74	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$5,872,000
	R75	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$6,012,000
	R76	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$6,152,000
	R77	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$6,292,000
	R78	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$6,432,000
	R79	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$6,572,000
	R80	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$6,712,000
	R81	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$6,852,000
	R82	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$6,992,000
	R83	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$7,132,000
	R84	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$7,272,000
	R85	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$7,412,000
	R86	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$7,552,000
	R87	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$7,692,000
	R88	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$7,832,000
	R89	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$7,972,000
	R90	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$8,112,000
	R91	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$8,252,000
	R92	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$8,392,000
	R93	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$8,532,000
	R94	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$8,672,000
	R95	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$8,812,000
	R96	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$8,952,000
	R97	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$9,092,000
	R98	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$9,232,000
	R99	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$9,372,000
	R100	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$9,512,000
	R101	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$9,652,000
	R102	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$9,792,000
	R103	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$9,932,000
	R104	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$10,072,000
	R105	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$10,212,000
	R106	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$10,352,000
	R107	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$10,492,000
	R108	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$10,632,000
	R109	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$10,772,000
	R110	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$10,912,000
	R111	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$11,052,000
	R112	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$11,192,000
	R113	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$11,332,000
	R114	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$11,472,000
	R115	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$11,612,000
	R116	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$11,752,000
	R117	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$11,892,000
	R118	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$12,032,000
	R119	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$12,172,000
	R120	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$12,312,000
	R121	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$12,452,000
	R122	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$12,592,000
	R123	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$12,732,000
	R124	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$12,872,000
	R125	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$13,012,000
	R126	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$13,152,000
	R127	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$13,292,000
	R128	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$13,432,000
	R129	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$13,572,000
	R130	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$13,712,000
	R131	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$13,852,000
	R132	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$13,992,000
	R133	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$14,132,000
	R134	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$14,272,000
	R135	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$14,412,000
	R136	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$14,552,000
	R137	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$14,692,000
	R138	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$14,832,000
	R139	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$14,972,000
	R140	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$15,112,000
	R141	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$15,252,000
	R142	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$15,392,000
	R143	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$15,532,000
	R144	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$15,672,000
	R145	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$15,812,000
	R146	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$15,952,000
	R147	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$16,092,000
	R148	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$16,232,000
	R149	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$16,372,000
	R150	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$16,512,000
	R151	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$16,652,000
	R152	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$16,792,000
	R153	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$16,932,000
	R154	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$17,072,000
	R155	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$17,212,000
	R156	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$17,352,000
	R157	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$17,492,000
	R158	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$17,632,000
	R159	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$17,772,000
	R160	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$17,912,000
	R161	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$18,052,000
	R162	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$18,192,000
	R163	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$18,332,000
	R164	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$18,472,000
	R165	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$18,612,000
	R166	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$18,752,000
	R167	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$18,892,000
	R168	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$19,032,000
	R169	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$19,172,000
	R170	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$19,312,000
	R171	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$19,452,000
	R172	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$19,592,000
	R173	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$19,732,000
	R174	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$19,872,000
	R175	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$20,012,000
	R176	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$20,152,000
	R177	Wileman Rd at Collector	4 X Intersection Signalization, 4-way	On	\$140,000	0.00%		\$0	\$20,292,

Figure A-1
NORTH VINEYARD STATION SPECIFIC PLAN
CIP
ROADWAY
SUMMARY

Itemization Number	Project Number	Roadway Segment/Item	Project Description	On-site or Off-site	Total Estimated Cost	% Funded by Other Sources	Other Funding Sources	Reimb. Available	Cumulative Total Estimated Net Cost
R4 2F		Gerber Road-Elder Residential Frontages (E G Flinn to Prof. Body)	Outside Travel Lane 11' pavement width with 6' shoulder at Existing Resident	On	\$27,000	0.00%	65% Reimb. from Vineyard Springs	\$13,500	\$15,416.75
R4 2		Vineyard Road-Gerber (Project Body)	4 Lane 84' R/W center sect w/ med. (excludes outside 11' pmt. & fty)	On	\$1,166,000	0.00%		\$0	\$15,416.75
R38		Gerber Rd. at Vineyard Rd	4 X 4 Intersection Widening & Signalization 4-way (incl 450' side leg lmp s)	On	\$640,000	0.00%	50% Reimb. from Vineyard Springs	\$320,000	\$16,736.75
R31		Portn Rd. at Vineyard Rd	4 X 4 Intersection Widening & Signalization 3-way (incl 450' side leg lmp s)	On	\$769,000	0.00%		\$0	\$17,505.75
R39		Vineyard Rd. at Collector	4 X 2 Intersection Signalization 3-way	On	\$140,000	0.00%		\$0	\$17,645.75
R4 3		Portn Road-Broadshaw to Vineyard (Project Body)	0 Lane 108' R/W center sect w/ med. (excludes outside 11' pmt. & fty)	On	\$1,628,000	0.00%		\$0	\$19,273.75
R31		Portn Rd. at Collector	6 X 2 Intersection Signalization 3-way	On	\$140,000	0.00%		\$0	\$19,413.75
R32		Gerber Road-Broadshaw to Vineyard (Project Body)	6 X 2 Intersection Signalization 3-way	On	\$140,000	0.00%		\$0	\$19,553.75
R4 5		Gerber Road-Gerber Creek Crossing No. 2	2.8' X 5' Box Culverts with Headwalls (64' R/W)	On	\$1,166,000	0.00%	50% Reimb. from Vineyard Springs	\$583,000	\$20,136.75
R4 14		Gerber Road-Gerber Creek Crossing No. 2	2.8' X 5' Box Culverts with Headwalls (64' R/W)	On	\$179,000	23.00%	23% Drain Fee from 10' Wide Vineyard	\$40,915	\$20,546.65
R4 15		Jackson Road-South Well to Broadshaw	6 Lane 108' R/W center sect w/ med. (excludes outside 11' pmt. & fty)	On	\$3,848,000	100.00%	Unidentified	\$0	\$24,394.65
R4 5 1		Drain Parkway Frontage Imps-Gerber Road (Broadshaw to Vineyard)	11' Pavement 3' C&G 5' Sidewalk - 20'	On	\$15,000	0.00%		\$0	\$24,409.65
R4 5 2		Drain Parkway Frontage Imps-Gerber Road (Broadshaw to Vineyard)	11' Pavement 3' C&G 5' Sidewalk - 20'	On	\$20,000	0.00%		\$0	\$24,609.65
R4 3 1		Drain Parkway Frontage Imps-Portn Road (CCTC RR to Wileman)	11' Pavement 3' C&G 5' Sidewalk - 20'	On	\$34,000	0.00%		\$0	\$24,849.65
R4 3 2		Drain Parkway Frontage Imps-Portn Road (CCTC RR to Wileman)	11' Pavement 3' C&G 5' Sidewalk - 20'	On	\$79,000	0.00%		\$0	\$25,038.65
R4 3 3		Jackson Rd. at Excelsior	6 X 4 Intersection Widening no. & no bound only (incl 450' side leg lmp s)	On	\$353,000	100.00%	Unidentified	\$0	\$25,391.65
R4 6		Gerber Road-Vineyard (Project Boundary) to Excelsior	Widen shoulders to provide minimum pavement width	On	\$485,000	0.00%	50% Reimb. from Vineyard Springs	\$242,500	\$25,634.15
R4 15		Excelsior Road-Gerber Creek Crossing No. 1	Bridge/Culvert Improvements	On	\$485,000	0.00%	50% Name Vineyard Springs	\$242,500	\$25,876.65
R4 1 3		Excelsior Road-Gerber to Portn	Widen shoulders to provide minimum pavement width	On	\$440,000	0.00%		\$0	\$26,316.65
R4 3 6		Portn Road-Vineyard (Project Boundary) to Excelsior	Widen shoulders to provide minimum pavement width	On	\$440,000	0.00%		\$0	\$26,756.65
R4 13		Portn Road-Tributary No. 1 to Gerber Creek Crossing	Bridge/Culvert Improvements	On	\$68,000	0.00%		\$0	\$26,824.65
R4 1		Vineyard Road-Culm to Gerber (Project Boundary)	Widen shoulders to provide minimum pavement width	On	\$970,000	0.00%	100% Reimb. from Vineyard Springs/ECOW	\$970,000	\$27,794.65
R4 2 1		Excelsior Road-Broadshaw to Excelsior	Widen shoulders to provide minimum pavement width	On	\$1,015,000	0.00%		\$0	\$28,809.65
R4 1 4		Excelsior Road-Portn to Elder Creek	Widen shoulders to provide minimum pavement width	On	\$483,000	0.00%		\$0	\$29,292.65
R4 1 5		Excelsior Road-Tributary to Elder Creek Crossing	Widen shoulders to provide minimum pavement width	On	\$48,000	0.00%		\$0	\$29,340.65
R4 5		Culm Road-Vineyard to Excelsior	Bridge/Culvert Improvements	On	\$440,000	0.00%	100% Reimb. from Vineyard Springs/ECOW	\$440,000	\$30,780.65
R4 1 6		Excelsior Road-Elder Creek to Jackson	Widen shoulders to provide minimum pavement width	On	\$245,000	0.00%		\$0	\$31,025.65
R4 1 7		Excelsior Road-Culm to Gerber	Widen shoulders to provide minimum pavement width	On	\$1,015,000	0.00%	100% Reimb. from Vineyard Springs/ECOW	\$1,015,000	\$32,040.65
R4 2 2		Elder Creek Road-South Well to Broadshaw	Widen shoulders to provide minimum pavement width	On	\$970,000	0.00%		\$0	\$32,940.65
R4 3		Culm Road-1500' East of Wileman to Broadshaw	Widen shoulders to provide minimum pavement width	On	\$310,000	0.00%	100% Reimb. from Vineyard Springs/ECOW	\$310,000	\$33,250.65
R4 5 4		Culm Road-Broadshaw to Vineyard	Widen shoulders to provide minimum pavement width	On	\$440,000	0.00%	100% Reimb. from Vineyard Springs/ECOW	\$440,000	\$33,690.65
R4 14 1		Portn Rd. at Sunrise Blvd	Ultimate Intersection Improvements 3-way (incl 450' side leg lmp s)	On	\$307,000	75.00%	Sac. Appropriate/Sunrise/Douglas C	\$230,250	\$34,721.65
R4 14 2		Portn Rd. at Sunrise Blvd	Ultimate Intersection Improvements 3-way (incl 450' side leg lmp s)	On	\$668,000	66.70%	Sunrise/Douglas/Com. Plan/Spec	\$445,260	\$24,943.65
R4 14 3		Portn Rd. at Sunrise Blvd	Ultimate Intersection Improvements 3-way (incl 450' side leg lmp s)	On	\$624,000	0.00%		\$0	\$25,567.65
R101		Off-site Arterial Frontage Improvements	Right of Way Acquisition for Onsite Arterials	On	\$1,556,000	0.00%		\$0	\$26,913.65
R102		Right of Way Acquisition for Onsite Arterials	Right of Way Acquisition for Onsite Arterials	On	\$1,556,000	0.00%		\$0	\$28,469.65
R100		Preparation of P F P P and Technical Studies	ROW land acquisition	On	\$1,101,000	0.00%		\$0	\$29,570.65
Grand Total Roadway									\$55,911,000
									\$6,782,915
									\$78,005,000

Note: Roadway segment lengths exclude 450' intersection leg widening included in CIP Regional Identified Intersections (errred where Intersection project's have not made the cut off (above the thick line))

1

Figure A-2

TABLE 10.2-2
NORTH VINEYARD STATION SPECIFIC PLAN CIP
INTERNAL ROADWAYS

Inroad.xls
2/17/98

NORTH VINEYARD STATION SPECIFIC PLAN
PRELIMINARY CAPITAL IMPROVEMENT ITEMS LISTING
Internal Roadway Improvements Listing & Cost Estimate

Project Number	Item	Project Description	On-site or Off site	Detail Sheet Linked?	Quantity	Unit	Unit Price	Total Estimated Cost
Internal Collector Frontage Improvements at Parks, Open Space, Drainage Parkway & Facilities								
IR1	Park 1/2 Street Fig Imps -Onsite Collector Roads 66' R/W	Complete Half Section - 21' Pavement, 3' C&G, 6' Sidewalk = 30'	On	Yes	6 780	L F	\$110	\$745 800
IR2	Park 1/2 Street Fig Imps -Onsite Collector Roads 60' R/W	Complete Half Section - 18' Pavement, 3' C&G, 6' Sidewalk = 27'	On	Yes	2 100	L F	\$103	\$216 300
IR3	Drain Parkway/Det Basin 1/2 Street Fig Imps -Onsite Collector Roads 66' R/W	Complete Half Section - 21' Pavement, 3' C&G, 6' Sidewalk = 30'	On	Yes	4 000	L F	\$110	\$440 000
IR4	Drain Parkway/Det Basin 1/2 Street Fig Imps -Onsite Collector Roads 60' R/W	Complete Half Section - 18' Pavement, 3' C&G, 6' Sidewalk = 27'	On	Yes	865	L F	\$103	\$89 100
IR5	Open Space Parkway 1/2 Street Fig Imps -Onsite Collector Roads 66' R/W	Complete Half Section - 21' Pavement, 3' C&G, 6' Sidewalk = 30'	On	Yes	550	L F	\$110	\$60 500
IR6	Right of Way Acquisition for Collector Frontage Improvements		On	No	0	Acres	\$70 000	\$0
	Total for Internal Collector Frontage Improvements				14,295	L F		\$1,662,000
Total Internal Roadway Facilities								
								\$1,662,000

PRELIMINARY DUE CALCULATIONS
Preliminary Roadway DUE's =
Preliminary Internal Roadway Fee per DUE =

6,124
\$263

NORTH VINEYARD STATION SPECIFIC PLAN

CIP

SEWER SUMMARY

NORTH VINEYARD STATION SPECIFIC PLAN PRELIMINARY SEWER CAPITAL IMPROVEMENT ITEMS LISTING

Project Number	Project Name	On-site or Off site	Project Description	Detail Sheet Linked	Total
SANITARY SEWER IMPROVEMENTS					
Trunk Systems Carrying 1 MGD or Greater					
2.1	TRUNK SANITARY SEWER - FLORIN ROAD, SHED C				
2 1a	TRUNK SS - FLORIN ROAD (INTERCEPTOR TO WATERMAN)	On	36"27" TRUNK SAN SEWER CONST	Yes	\$256 000
2 1b	TRUNK SS - FLORIN ROAD (WATERMAN TO BRADSHAW)	On	27" TRUNK SAN SEWER CONST	Yes	\$750 000
2 1c	TRUNK SS - FLORIN ROAD (BRADSHAW TO VINYARD)	On	24"18" TRUNK SAN SEWER CONST	Yes	\$820 000
2.2	TRUNK SANITARY SEWER - GERBER ROAD, SHED A				
2 2a	TRUNK SS - GERBER ROAD (INTERCEPTOR TO WATERMAN)	On	42"39" TRUNK SAN SEWER CONST	Yes	\$905 000
2 2b	TRUNK SS - GERBER ROAD (WATERMAN TO BRADSHAW)	On	38"33" TRUNK SAN SEWER CONST	Yes	\$1 482 000
2 2c	TRUNK SS - GERBER ROAD (BRADSHAW TO VINYARD)	On	24" TO 15" TRUNK SAN SEWER CONST	Yes	\$974 000
Subtotal Trunk Systems Carrying 1 MGD or Greater					\$5,187,000
Lateral Sewer Systems Carrying Less Than 1 MGD					
2 3	LATERAL SS PASSILIS LANE (AT INTERCEPTOR)	On	LATERAL SAN SEWER CONST (INTERCEPTOR CONNECT)	Yes	\$25 000
Subtotal Lateral Systems Carrying Less Than 1 MGD					\$25,000
Total Sanitary Sewer Costs					\$5,212,000

Figure A-4
NORTH VINEYARD STATION SPECIFIC PLAN
CIP
DRAINAGE
SUMMARY

Drainage xlw
2/17/88

Mackay Sompas
Job No 7536-0

NORTH VINEYARD STATION SPECIFIC PLAN
PRELIMINARY DRAINAGE CAPITAL IMPROVEMENT ITEMS SUMMARY

Project Number	Project Name	On-site or Off-site	Project Description	Detail Sheet Linked	Total
DRAINAGE IMPROVEMENTS					
(See also Roadway Section for Additional Bridges/Culverts)					
Channel Related Items					
3.1	Elder Creek Reach 3 (Improved Channel to W Bndry)				
3.1.1 A	ELDER CREEK REACH 3A - OFF-SITE CHANNEL IMP'S	Off	OFF-SITE CHANNEL CONSTR (APPROX 1,830 L F)	Yes	\$947,000
3.1.1 B	ELDER CREEK REACH 3B - OFF-SITE CHANNEL IMP'S	Off	OFF-SITE CHANNEL CONSTR (APPROX 3,020 L F)	Yes	\$1,572,000
3.2	Elder Creek Reach 1A (W. Bndry to Florin Rd.)				
3.2.1 A	ELDER CREEK REACH 1A (a) - CHANNEL IMPROV'S	On	CHANNEL CONSTR (APPROX 2,850 L F)	Yes	\$1,113,000
3.2.1 B	ELDER CREEK REACH 1A (b) - CHANNEL IMPROV'S	On	CHANNEL CONSTR (APPROX 2,810 L F)	Yes	\$1,700,000
3.2.2	ELDER CREEK REACH 1A - DRAINAGE PARKWAY	On	CHANNEL PARKWAY CONSTR (APPROX 5,560 L F)	Yes	\$132,000
3.2.3	ELDER CREEK REACH 1A (a) - MCCOY LANE CROSSING	On	(3) 8"x6" BOX CULVERT CONSTR w/ HEADWALLS (+/- 40' RW)	Yes	\$152,000
3.2.4	ELDER CREEK REACH 1A (b) - CCTC RR BRIDGE CROSSING	On	CONST NEW BRIDGE @ ELDER CREEK & CCTC RR CROSSING	Yes	\$367,000
3.3	Elder Creek Reach 1B (Upstream of Florin Rd.)				
3.3.1	ELDER CREEK REACH 1B - OFF-SITE CHANNEL IMPROV'S	Off	CHANNEL CONSTR (APPROX 1,400 L F)	Yes	\$756,000
3.4	Left Blank For Additions				
3.6	Gerber Creek Reach 2A (W. Bndry to Gerber Rd. Crossing No. 4)				
3.5.1 A	GERBER CREEK REACH 2A (a) - CHANNEL IMPROV'S	On	CHANNEL CONSTR (APPROX 3,350 L F)	Yes	\$1,599,000
3.5.1 B	GERBER CREEK REACH 2A (b) - CHANNEL IMPROV'S	On	CHANNEL CONSTR (APPROX 3,750 L F)	Yes	\$1,669,000
3.5.2	GERBER CREEK REACH 2A - DRAINAGE PARKWAY	On	CHANNEL PARKWAY CORR CONSTR (APPROX 7,100 L F)	Yes	\$168,000
3.5.3	GERBER CREEK REACH 2A (a) - PASSALUS LN CROSSING (WEST)	On	(3) 8"x6" BOX CULVERT CONSTR w/ HEADWALLS (56' RW)	Yes	\$167,000
3.5.4	GERBER CREEK REACH 2A (b) - PASSALUS LN CROSSING (EAST)	On	(3) 8"x6" BOX CULVERT CONSTR w/ HEADWALLS (56' RW)	Yes	\$167,000
3.5.5	GERBER CREEK REACH 2A (b) - CCTC RR BRIDGE CROSSING	On	CONST NEW BRIDGE @ ELDER CREEK AND CCTC RR	Yes	\$294,000
3.6	Gerber Creek Reach 2B (Gerber Rd Crossing 4 to Crossing 3)				
3.6.1	GERBER CREEK REACH 2B - OFF-SITE CHANNEL IMP'S	Off	CHANNEL CONSTR (APPROX 2,030 L F)	Yes	\$984,000
3.7	Gerber Creek Reach 2C (Gerber Rd Crossing 3 to Crossing 2)				
3.7.1	GERBER CREEK REACH 2C CHANNEL IMPROVEMENTS	On	CHANNEL CONSTR (APPROX 3,680 L F)	Yes	\$1,331,000
3.7.2	GERBER CREEK REACH 2C - DRAINAGE PARKWAY	On	DRAINAGE PARKWAY CORR CONSTR (APPROX 3,680 L F)	Yes	\$87,000
3.8	Arterial Roadway Drainage Crossings (also identified in Roadway CIP)	Off	Portion of Arterial Roadway Drainage Crossings (Roadway Proj No 4 14)	No	\$41,000
Subtotal Channel Related Items					\$12,916,000

DRAINAGE_SUM

Figure A-4

NORTH VINEYARD STATION SPECIFIC PLAN

CIP
DRAINAGE
SUMMARYDrainage xW
2/17/98Mackay Samps
Job No 7536-0NORTH VINEYARD STATION SPECIFIC PLAN
PRELIMINARY DRAINAGE CAPITAL IMPROVEMENT ITEMS SUMMARY

Project Number	Project Name	On-site of Off-site	Project Description	Detail Sheet Linked	Total
Detention Basin Construction					
3 9	DETENTION BASIN E248 (ELDER CREEK REACH 1A (a))	On	3 7 AC WATER QUALITY DETENTION BASIN CONST	Yes	\$545,000
3 10	DETENTION BASIN E28 (ELDER CREEK REACH 1A (b))	On	18 3 AC FLOOD CONTROL/W/Q DET BASIN CONST	Yes	\$2,790,000
3 11	DETENTION BASIN E24A (GERBER CREEK REACH 2A (a))	On	12 AC FLOOD CONTROL/W/Q DET BASIN CONST	Yes	\$1,918,000
3 12	DETENTION BASIN G41 (GERBER CREEK REACH 2A (b))	On	10 8 AC FLOOD CONTROL/W/Q DET BASIN CONST	Yes	\$1,705,000
3 13	DETENTION BASIN G48 (GERBER CREEK REACH 2C)	On	18 AC FLOOD CONTROL/W/Q DET BASIN CONST	Yes	\$2,627,000
3 14	OFFSITE DETENTION BASIN E20 (ELDER CREEK REACH 3)	Off	18 AC OFFSITE FLOOD CONTROL BASIN CONST	Yes	\$2,456,000
Subtotal Detention Basin Construction					\$12,041,000
Trunk Drainage Serving 30 Acres or More					
3 15	TRUNK DRAINAGE, SHED L	On	TRUNK DRAIN FAC (DISCHARGE TO BASIN E24B)	Yes	\$55,000
3 16	TRUNK DRAINAGE, SHED H	On	TRUNK DRAIN FAC (DISCHARGE TO ELDER CREEK, REACH2B)	Yes	\$93,000
3 17	TRUNK DRAINAGE, SHEDS D & E	On	TRUNK DRAIN FAC (DISCHARGE TO BASIN E26)	Yes	\$739,000
3 18	TRUNK DRAINAGE, SHED G	On	TRUNK DRAIN FAC (DISCHARGE TO BASIN E26)	Yes	\$135,000
3 19	TRUNK DRAINAGE, SHED K	On	TRUNK DRAIN FAC (DISCHARGE TO GERBER CREEK, REACH 2A)	Yes	\$53,000
3 20	TRUNK DRAINAGE, SHED J	On	TRUNK DRAIN FAC (DISCHARGE TO GERBER CREEK, REACH 2A)	Yes	\$44,000
3 21	TRUNK DRAINAGE, SHED F	On	TRUNK DRAIN FAC (DISCHARGE TO GERBER CREEK, REACH 2A)	Yes	\$497,000
3 22	TRUNK DRAINAGE, SHED C	On	TRUNK DRAIN FAC (DISCHARGE TO BASIN G46)	Yes	\$508,000
3 23	TRUNK DRAINAGE, SHEDS A & B	On	TRUNK DRAIN FAC (DISCHARGE TO BASIN G46)	Yes	\$915,000
Subtotal Trunk Drainage Construction					\$3,089,000
Wetland Mitigation					
3 100	WETLAND MITIGATION—ONSITE	On	Onsite Wetland Mitigation for Drainage Improvements		\$2,735,000
3 101	WETLAND MITIGATION—OFFSITE	Off	Offsite Wetland Mitigation for Drainage Improvements		\$2,431,000
Total Drainage Costs					\$6,166,000
					\$33,182,000

DRAINAGE_SUM

Figure A-5
NORTH VINEYARD STATION SPECIFIC PLAN CIP
PARKS AND RECREATION SUMMARY

NORTH VINEYARD STATION SPECIFIC PLAN
PRELIMINARY CAPITAL IMPROVEMENT ITEMS LISTING
Park & Recreation Improvements Listing & Cost Estimate

Project Number	Item	Project Description	On-site or Off-site	Detail Sheet Linked?	Quantity	Unit	Unit Price	Total Estimated Cost
Drainage Parkway Facilities								
DP1	Low Flow Pedestrian / Bicycle Path Crossing	Low Flow Crossing at Elder Creek and CTC Railroad	On	No	1	Each	\$25,000	\$25,000
DP2	Elder Creek Reach 1A- (Western SPA Bndry to Florn Rd)	Drainage Parkway Landscaping Improvements (Assume On-site area only and 6,950 lf trail)	On	No	6,950.0	L F	\$16	\$111,000
DP3	Geber Creek Reach 2A- (Confluence w/ Elder Creek to Gerber Rd Cross)	Drainage Parkway Landscaping Improvements (Assume 8,975 lf trail)	On	No	8,975.0	L F	\$16	\$142,000
DP4	Geber Creek Reach 2C - (Gerber Rd Crossing #3 to #2)	Drainage Parkway Landscaping Improvements (Assume 4,600 lf trail)	On	No	4,600.0	L F	\$16	\$74,000
DP5	JOINT USE DRAINAGE PARKWAY PED /BIKE TRAIL	JOINT USE ORAINAGE PARKWAY PED /BIKE PATH (Excludes excavation and aggregate base included in Drainage CIP)	On	Yes	20,425	L F	\$18	\$368,000
DP6	Drainage Parkway Land Acquisition		On	No	20,425.0	AC	\$0	\$0
	Total For Drainage Corridor Parkway Costs				20,425.0	Acres		\$720,000
Park Development								
P1	Basic Park Improvements (0 acres<Quimby Park Acreage<5 acres)	Site Improvements and Engineering	On	Yes	24.0	AC	\$32,500	\$1,260,000
P2	Basic Park Improvements (5 acres<Quimby Park Acreage<10 acres)	Site Improvements and Engineering	On	Yes	43.5	AC	\$43,500	\$1,892,000
P3	Basic Park Improvements (10 acres<Quimby Park Acreage)	Site Improvements and Engineering	On	Yes	14.9	AC	\$39,000	\$581,000
P4	Tot Lots	Tot Lots	On	No	15	Each	\$50,000	\$750,000
P5	Community Center	Includes Bldg, Site Improv's, Fees, Landscap, Arch & Eng	On	No	1	Lump Sum	\$1,629,000	\$1,629,000
	Total For Park Development				82.4	Acres		\$6,112,000
Linear Parkway Development								
P20	Linear Parkway Landscaping	Linear Parkway Landscaping	On	No	1,900.0	L F	\$16	\$30,000
P21	LINEAR PARKWAY PED /BIKE TRAIL	PED /BIKE PATH AT PARKS & LINEAR PARKWAY	On	Yes	1,900	L F	\$22	\$42,000
P22	Linear Parkway Land Acquisition		On	No	1,900.0	AC	\$0	\$0
	Total For Linear Parkway Development							\$72,000
	Total Parks and Recreations Facilities							\$6,904,000

APPENDIX B

DUE Calculations

Appendix B-1	Estimated Dwelling Unit Equivalents (DUEs)
Appendix B-2	Estimate of Roadway DUE's
Appendix B-3	Estimate of Transit DUE's
Appendix B-4	Estimate of Parks and Recreation DUE's
Appendix B-5	Estimate of Fire Protection DUE's
Appendix B-6	Estimate of Library DUE's

DRAFT**APPENDIX B-1****North Vineyard Station Specific Plan****Estimated Dwelling Unit Equivalents (DUEs)**

Facility Type	Estimated RESIDENTIAL DUEs	Estimated NON-RESIDENTIAL DUEs	Estimated DUEs
Roadway	5,488	593	6,081
Internal Roadway	5,488	593	6,081
Parks & Recreation	6,042	79	6,120
Fire Protection	6,042	313	6,354
Transit	6,982	1,855	8,837
Library	6,042	0	6,042
Total	36,084	3,432	39,516

DRAFT**APPENDIX B-2****North Vineyard Station Specific Plan
Estimate of Roadway DUE's**

Land Use	Area (Acres)	Average Density (Units Per Acre)	DUE's per Acre (DUE Factor)	Total Roadway DUE's
Residential:				
Single Family/ 1-3 DU's/acre	150.4	2	2.00	300.8
Single Family/ 3-5 DU's/acre	644.5	5	4.50	2,900.3
Single Family/ 4-7 DU's/acre	287.3	6	5.40	1,551.4
Medium Density/ 7-14 DU's/acre	44.2	10	8.00	353.6
Multi-Family/ 14-22 DU's/acre	35.4	18	10.80	382.3
Subtotal Residential	1,161.8			5,488.4
Other:				
Commercial	28.5		16.30	464.6
Business Professional	9.5		13.50	128.3
Golf Course	19.8		0.00	-
Public Services	4.9		0.00	-
Totals	1,224.5			6,081.2

NOTES:

1. This analysis provides a preliminary estimate of North Vineyard Station Specific Plan DUE's for roadway facilities. The DUE factors for each land use are based on DUEs in the EGWV PFFP and the EEG PFFP. The zoning in the EGWV PFFP area varies slightly from the zoning in the NVSSP area; however, it is close enough to be utilized to provide a preliminary estimate of NVSSP area DUEs.
2. Thirteen existing residential parcels are within the NVSSP area. These existing dwelling units are not included in the total dwelling unit equivalent calculations.

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APPENDIX B-3
North Vineyard Station Specific Plan
Estimate of Transit DUE's

Land Use	Area (Acres)	Average Density (Units Per Acre)	DUE's per Acre (DUE Factor)	Total Transit DUE's
Residential:				
Single Family/ 1-3 DU's/acre	150.4	2	2.07	311.3
Single Family/ 3-5 DU's/acre	644.5	5	4.67	3,009.8
Single Family/ 4-7 DU's/acre	287.3	6	5.43	1,560.0
Medium Density/ 7-14 DU's/acre	44.2	10	14.07	621.9
Multi-Family/ 14-22 DU's/acre	35.4	18	41.78	1,479.0
Subtotal Residential	1,161.8			6,982.1
Other:				
Commercial	28.5		52.80	1,504.8
Business Professional	9.5		36.90	350.6
Golf Course	19.8		0.00	-
Public Services	4.9		0.00	-
Totals	1,224.5			8,837.4

NOTES:

1. This analysis provides a preliminary estimate of North Vineyard Station Specific Plan DUE's for transit facilities. The DUE factors for each land use are based on DUEs in the EGWV PFFP and the EEG PFFP. The zoning in the EGWV PFFP area varies slightly from the zoning in the NVSSP area; however, it is close enough to be utilized to provide a preliminary estimate of NVSSP area DUEs.

2. Thirteen existing residential parcels are within the NVSSP area. These existing dwelling units are not included in the total dwelling unit equivalent calculations.

DRAFT**APPENDIX B-4****North Vineyard Station Specific Plan****Estimate of Parks and Recreation DUE's**

Land Use	Area (Acres)	Average Density (Units Per Acre)	DUE's per Acre (DUE Factor)	Total Parks & Rec DUE's
Residential:				
Single Family/ 1-3 DU's/acre	150.4	2	2.00	300.8
Single Family/ 3-5 DU's/acre	644.5	5	5.00	3,222.5
Single Family/ 4-7 DU's/acre	287.3	6	6.00	1,723.8
Medium Density/ 7-14 DU's/acre	44.2	10	8.06	356.3
Multi-Family/ 14-22 DU's/acre	35.4	18	12.38	438.3
Subtotal Residential	1,161.8			6,041.6
Other:				
Commercial	28.5		1.70	48.5
Business Professional	9.5		3.20	30.4
Golf Course	19.8		0.00	-
Public Services	4.9		0.00	-
Totals	1,224.5			6,120.5

NOTES:

1. This analysis provides a preliminary estimate of North Vineyard Station Specific Plan DUE's for park facilities. The DUE factors for each land use are based on DUEs in the EGWV PFFP and the EEG PFFP. The zoning in the EGWV PFFP area varies slightly from the zoning in the NVSSP area; however, it is close enough to be utilized to provide a preliminary estimate of NVSSP area DUEs.

2. Thirteen existing residential parcels are within the NVSSP area. These existing dwelling units are not included in the total dwelling unit equivalent calculations.

DRAFT**APPENDIX B-5****North Vineyard Station Specific Plan****Estimate of Fire Protection DUE's**

Land Use	Area (Acres)	Average Density (Units Per Acre)	DUE's per Acre (DUE Factor)	Total Fire Protection DUE's
Residential:				
Single Family/ 1-3 DU's/acre	150.4	2	2.0	300.8
Single Family/ 3-5 DU's/acre	644.5	5	5.0	3,222.5
Single Family/ 4-7 DU's/acre	287.3	6	6.0	1,723.8
Medium Density/ 7-14 DU's/acre	44.2	10	8.1	356.3
Multi-Family/ 14-22 DU's/acre	35.4	18	12.4	438.3
Subtotal Residential	1,161.8			6,041.6
Other:				
Commercial	28.5		7.1	202.4
Business Professional	9.5		11.6	110.2
Golf Course	19.8		-	-
Public Services	4.9		-	-
Totals	1,224.5			6,354.2

NOTES:

1. This analysis provides a preliminary estimate of North Vineyard Station Specific Plan DUE's for fire facilities. The DUE factors for each land use are based on DUEs in the EGWV PFFP and the EEG PFFP. The zoning in the EGWV PFFP area varies slightly from the zoning in the NVSSP area; however, it is close enough to be utilized to provide a preliminary estimate of NVSSP area DUEs.

2. Thirteen existing residential parcels are within the NVSSP area. These existing dwelling units are not included in the total dwelling unit equivalent calculations.

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APPENDIX B-6
North Vineyard Station Specific Plan
Estimate of Library DUE's

Land Use	Area (Acres)	Average Density (Units Per Acre)	DUE's per Acre (DUE Factor)	Total Library DUE's
Residential:				
Single Family/ 1-3 DU's/acre	150.4	2	2.00	300.8
Single Family/ 3-5 DU's/acre	644.5	5	5.00	3,222.5
Single Family/ 4-7 DU's/acre	287.3	6	6.00	1,723.8
Medium Density/ 7-14 DU's/acre	44.2	10	8.06	356.3
Multi-Family/ 14-22 DU's/acre	35.4	18	12.38	438.3
Subtotal Residential	1,161.8			6,041.6
Other: (1)				
Commercial	28.5		0.00	-
Business Professional	9.5		0.00	-
Golf Course	19.8		0.00	-
Public Services	4.9		0.00	-
Totals	1,224.5			6,041.6

NOTES:

1. This analysis provides a preliminary estimate of North Vineyard Station Specific Plan DUE's for library facilities. The DUE factors for each land use are based on DUEs in the EGWV PFFP and the EEG PFFP. The zoning in the EGWV PFFP area varies slightly from the zoning in the NVSSP area; however, it is close enough to be utilized to provide a preliminary estimate of NVSSP area DUEs.
2. Thirteen existing residential parcels are within the NVSSP area. These existing dwelling units are not included in the total dwelling unit equivalent calculations.
3. Non-Residential use properties do not pay library fees.

CAPITAL IMPROVEMENT PROGRAM

for

NORTH VINEYARD STATION SPECIFIC PLAN

VOLUME II
of the
NVSSP FINANCING STRATEGY

February 11, 1998

Prepared by:

*MacKay & Soms, Inc.
1771 Tribute Road, Suite E
Sacramento, California 95815*

I INTRODUCTION

The North Vineyard Station Specific Plan (NVSSP) area is located on approximately 1,595 acres in Sacramento County. The NVSSP is both a policy and regulatory document to provide for the orderly and systematic development of the planning area. The Financing Strategy, being prepared in conjunction with the NVS Specific Plan, establishes a policy framework to guide the overall financing strategy for the major public facilities that are required to serve the proposed land uses in the Specific Plan. This Capital Improvement Plan, an appendix to the NVSSP Financing Strategy, identifies the major infrastructure required to serve development in the Plan area, including the estimated costs for the facilities. A detailed financing plan will be required concurrent with the approval of the first zoning entitlements in the NVSSP. The financing plan will build upon this Capital Improvement Program and the Financing Strategy.

The Capital Improvement Program (CIP) is separated into major public facilities categories. The NVSSP CIP Summary lists the individual Capital Improvement Program categories with their associated estimated costs. Each Capital Improvement Program category includes facility information that may include the following:

- Brief description of the major facilities including notes regarding background information or unique features associated with the infrastructure
- Summary listing the major public facilities and their associated costs
- Exhibits showing the location of the projects listed
- Detail sheets for individual project costs

Additional information regarding phasing constraints and funding sources is addressed in the Financing Strategy. The changes to the land plan that have been proposed will result in only minor impacts to the infrastructure identified in the Capital Improvement Program. When the future NVSSP Financing Plan is developed, the CIP can be updated to reflect the approved land plan.

Mackay Somps
Job No: 7536-0

**NORTH VINEYARD STATION SPECIFIC PLAN
CIP
SUMMARY**

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ROADWAY IMPROVEMENTS

TOTAL ROADWAY IMPROVEMENTS **\$28,005,000**

INTERNAL ROADWAY IMPROVEMENTS

TOTAL INTERNAL ROADWAY IMPROVEMENTS **\$1,552,000**

SANITARY SEWER IMPROVEMENTS

TOTAL SANITARY SEWER IMPROVEMENTS **\$5,212,000**

DRAINAGE IMPROVEMENTS

Channel Related Items	\$12,916,000
Detention Basin Construction	\$12,041,000
Trunk Drainage Serving 30 Acres or More	\$3,059,000
Wetland Mitigation	\$5,166,000

TOTAL DRAINAGE IMPROVEMENTS **\$33,182,000**

WATER IMPROVEMENTS

TOTAL WATER SYSTEM IMPROVEMENTS **\$29,184,000**

PARKS AND RECREATION

Drainage Parkway	\$720,000
Park Development	\$6,112,000
Linear Parkway Development	\$72,000

TOTAL PARKS AND RECREATION **\$6,904,000**

FIRE PROTECTION

\$1,795,000

TRANSIT

\$2,138,000

LIBRARY

\$896,000

SCHOOL

\$67,712,000

TOTAL IMPROVEMENTS

\$176,580,000

II. ROADWAY

The NVSSP Roadway Capital Improvement Program was developed in conjunction with Sacramento County Transportation Division. The NVSSP Traffic Analysis was used as the basis for development of the NVS Roadway CIP. Other documents, such as the Elk Grove / West Vineyard Springs Public Facilities Financing Plan, the 1997 Sacramento County Transportation C.I.P., and many other documents, also aided in the process.

Development in the NVSSP area will have impacts on the local circulation network. The level of impact varies greatly from facility to facility. Because it is not necessary and unfeasible to construct all roadway facilities, impacted by NVS development, to their ultimate condition, the County Transportation Division has taken a more comprehensive planning approach. As large planning areas are studied, each project area is assigned a financial responsibility to the local transportation system. This financial responsibility total cost is applied toward the roadway facilities that most greatly enhance the system.

This two phase approach was used to develop the NVSSP Roadway CIP. The first phase involved the identification of NVS's project share financial responsibility of all roadway facilities impacted by development in the Plan area. The second phase involved the determination of facilities to be included in the Roadway CIP as well as the prioritization of the facilities. The NVSSP CIP Roadway Exhibit shows the roadway facilities and their corresponding project CIP identification number.

PHASE I

The project share for a roadway segment was calculated by taking the cumulative plus project trip distribution percentage multiplied by the net trips and dividing by the total calculated cumulative plus project average daily trips. The project share for an intersection was calculated by averaging the project shares of the roadway segments for each leg of the intersection. The project share percentages for each facility, as shown in NVSSP CIP Roadway Phase I Exhibit, were multiplied by the total cost of the ultimate project to determine NVS's project share financial responsibility for that facility. The total NVSSP project share financial responsibility was \$28,005,000.

PHASE II

Many sources were used to develop the final Roadway CIP. The prioritized NVSSP Roadway CIP Summary shows a total cost of \$28,005,000. The projects were identified and prioritized based on many criteria including but not limited to the following:

- Existing capacity of roadway
- Existing plus project and cumulative plus project requirements
- Draft Environmental Impact Report Mitigation Measures
- County Priorities
- Availability of other funding sources (ie: Vineyard Spring C.P.A., EG/WV PFFP, Meas. A)
- Onsite development is expected to occur from the west to the east

Several assumptions were made to arrive at the right of way land acquisition costs for onsite and offsite arterials (Proj. No.'s R101, and R100). The assumptions are as follows:

- Existing R.O.W. is 50' width
- Ultimate 84' ROW without curb lanes: no additional ROW required
- Ultimate 84' ROW curb lane: additional 20' width required for each side
- Ultimate 108' ROW without curb lanes: additional 18' width required
- Ultimate 108' ROW curb lane: additional 20' width required for each side
- Widen to 36' minimum pavement width: no additional ROW required
- Intersection leg at arterial: 450 l.f. x 38' width = 17,000 s.f. per leg
- Intersection leg at collector: no additional ROW required
- Land value of \$100,000 per acre
- Onsite arterial land acquisition reduced by 50% to account for future dedications

Onsite arterial roadway frontage improvements at public uses such as parks, open space, drainage corridor, and detention basins are included in the Roadway CIP. The NVSSP CIP Park/O.S./Drainage Facility/Parkway Frontage at Arterial Roadways Exhibit shows the location of these onsite arterial frontage facilities. An offsite arterial roadway frontage improvement project, (Proj. No. R12), has been included to provide funding for various offsite roadways that are adjacent to existing land uses and public uses such as drainage corridors.

Because of the potential cost sharing for arterial roadway drainage crossing facilities, these projects are identified in both the Roadway CIP and the Drainage CIP. At this time, the arterial drainage crossing facilities are split between the two CIP categories as follows:

- Cost of providing capacity up to the existing condition 100-year flow is included in the Roadway CIP (based on 1991 conditions as determined by WRD)
- Cost of providing capacity above the existing 100-year flow to the ultimate (watershed build out) condition 100-year flow is included in the Drainage CIP
- The percent of total flow capacity for each category will be the basis for determining the split. For example, assume that the existing flow is 500 cfs and ultimate flow is 750 cfs at a particular bridge. The cost split would therefore be 67% to the Roadway CIP and 33% to the Drainage CIP.

The arterial roadway drainage crossing projects are listed in the Roadway CIP. If the cost for the project is to be split between the Roadway and Drainage CIP's based on the criteria above, the Roadway CIP shows the project as partially funded by the County Drainage Fee, and the Drainage CIP Summary includes the remainder of the cost.

Estimated costs for arterial roadway drainage crossings were taken from one of the following:

- Morrison Creek Stream Group Drainage Fee Report dated May 23, 1995
- Sacramento County's 1997 Transportation CIP
- Detail sheets developed for and included in this NVSSP Roadway CIP

It is assumed that the NVS Roadway CIP will require updates as development conditions, priorities, and funding opportunities change.

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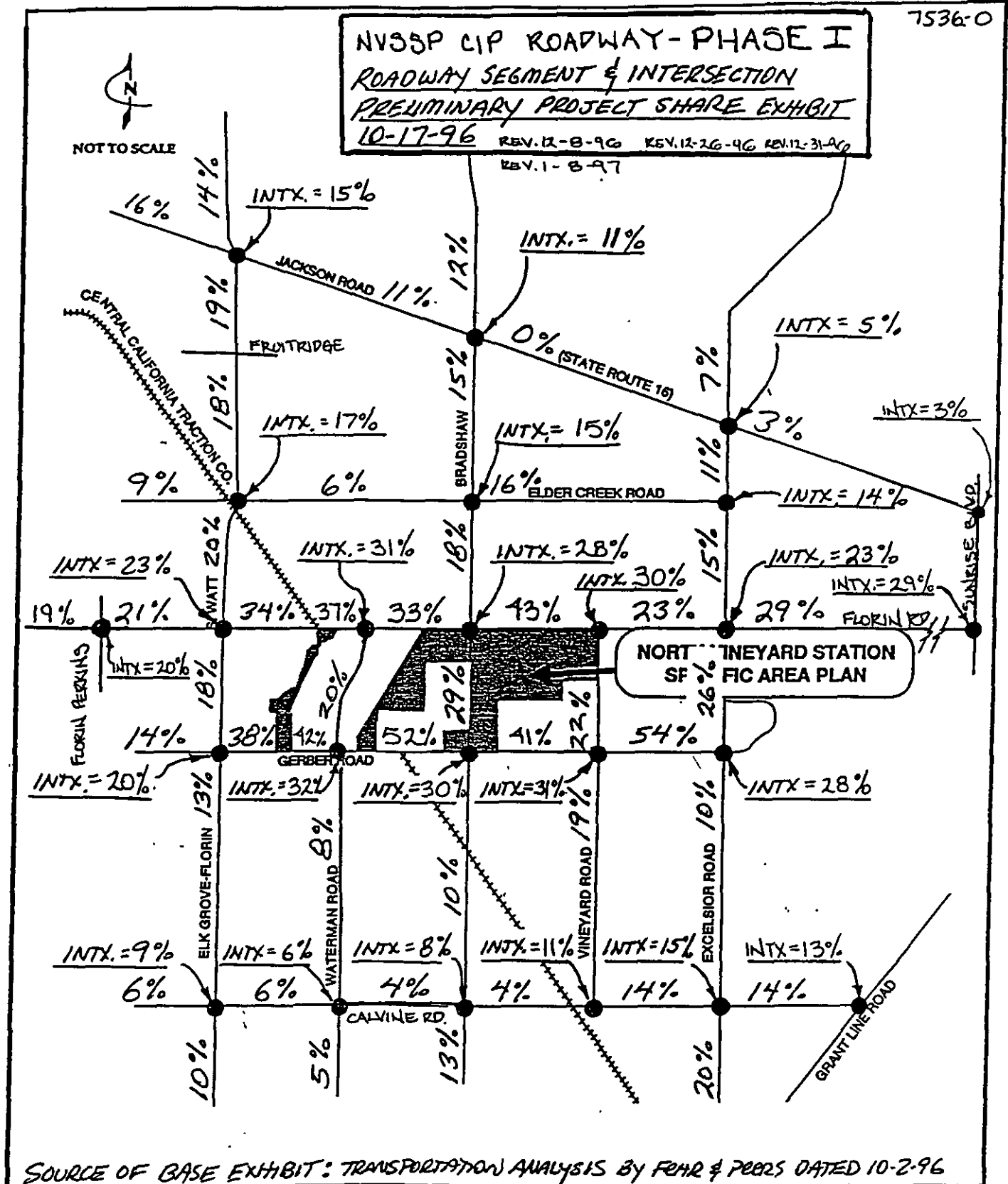


FIGURE 1

PROJECT LOCATION MAP

fp Fehr & Peers Associates, Inc.
Transportation Consultants

FOR BASIS OF % PROJECT
SHARE, SEE PROJECT SHARE
CALCULATION SPREADSHEET
DATED 1-8-97

MACKEY & SOMPS
CIVIL ENGINEERING • LAND PLANNING • LAND SURVEYING
SACRAMENTO CA

NORTH VINEYARD STATION SPECIFIC PLAN
CIP
ROADWAY
SUMMARY

LOCATION MEASURE	Project Number	Roadway Segment/Item	Project Description	On-site or Off-site	Detail Sheet	Quantity	Unit	Unit Price	Total Estimated Cost	% Funded by Other Sources	Other Funding Sources	Reimb. Available	Cumulative Total Estimated Net Cost
TR-3	R3.3	Flohn Road- CCTC R/R (Project Boundary) to Waleman	6 Lane 108' RW center sect. w/ med. (excludes outside 11' prmt. & Rg.)	On	No	2,350	lf	\$370	\$870,000	0.00%		\$0	\$870,000
TR-3	R3.11	Flohn Road- CCTC R/R Crossing	Reconstruct at-grade R/R crossing (108' RW)	On	No	1	ls	\$225,000	\$225,000	0.00%		\$0	\$1,095,000
TR-3	R3.12	Flohn Road Crossing at Elder Creek	New Bridge Construction (108' RW)	Yes	Yes	1	ls	\$858,000	\$858,000	0.00%		\$0	\$1,953,000
TR-4	R29	Flohn Rd. at Waleman Rd.	6 X 4 Intersection Widening & Signalization, 3-way (Incl. 450' hix. leg imps)	On	No	1	ls	\$549,000	\$549,000	0.00%		\$0	\$2,542,000
TR-4	R6.12	EX Grove-Flohn Road- Elder Creek Crossing	New Bridge Construction (108' RW)	Off	Yes	1	ls	\$801,000	\$801,000	0.00%		\$0	\$3,343,000
TR-4	R4.3	Garber Road-Project Boundary to Waleman	4 Lane 64' RW center sect. w/ med. (excludes outside 11' prmt. & Rg.)	On	No	2,150	lf	\$255	\$570,000	0.00%		\$285,000	\$3,628,000
TR-4	R34	Garber Rd. at Waleman Rd.	4 X 4 Intersection Widening & Signalization, 4-way (Incl. 450' hix. leg imps)	On	No	1	ls	\$680,000	\$680,000	0.00%	50% Reimb from Vineyard Springs	\$3,968,000	\$3,968,000
TR-4	R60	Garber Rd. at Collector	4 X 2 Intersection Signalization, 3-way	On	No	1	ls	\$140,000	\$140,000	0.00%	50% Reimb from Vineyard Springs	\$340,000	\$4,108,000
TR-4	R4.3.1	Park Frontage Imps.-Garber Road- (Project Bndry to Waleman)	11' Pavement, 3' C&G, 6' Sidewalk = 20'	On	Yes	100	Each	\$91	\$9,000	0.00%		\$0	\$4,117,000
TR-4	R4.3.2	EX Road- Floh Imps.-Garber Rd.- (Proj. Bndry to Waleman, No Side Only)	11' Pavement, 3' C&G, 6' Sidewalk = 20', Soundwall	On	Yes	350	LF	\$150	\$53,000	0.00%		\$0	\$4,170,000
TR-4	R7.3	Waleman Road- Garber (Project Bndry) to Flohn (Project Bndry)	Const. new at-grade R/R crossing (64' RW)	On	No	5,200	lf	\$255	\$1,378,000	0.00%		\$0	\$5,548,000
TR-4	R7.12	Waleman Road- Garber Creek Crossing	11' Pavement, 3' C&G, 6' Sidewalk = 20'	On	No	1	ls	\$159,000	\$159,000	0.00%		\$0	\$5,707,000
TR-4	R7.13	Waleman Road- CCTC R/R Crossing	Const. new at-grade R/R crossing (64' RW)	On	Yes	1	ls	\$200,000	\$200,000	0.00%		\$0	\$5,907,000
TR-4	R7.3.1	Drain Parkway Frontage Imps.-Waleman Road- (Garber to Flohn)	11' Pavement, 3' C&G, 6' Sidewalk = 20'	On	Yes	500	LF	\$81	\$46,000	0.00%		\$0	\$5,953,000
TR-4	R7.3.2	Open Space Frontage Imps.-Waleman Road- (Garber to Flohn)	11' Pavement, 3' C&G, 6' Sidewalk = 20'	On	Yes	450	LF	\$81	\$41,000	0.00%		\$0	\$5,994,000
TR-4	R7.3.3	Park Frontage Imps.-Waleman Road- (Garber to Flohn)	11' Pavement, 3' C&G, 6' Sidewalk = 20'	On	Yes	2,250	LF	\$81	\$205,000	0.00%		\$0	\$6,199,000
TR-4	R53	Waleman Rd. at Collector	4 X 2 Intersection Signalization, 3-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$6,339,000
TR-4	R54	Waleman Rd. at Collector	4 X 2 Intersection Signalization, 4-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$6,479,000
TR-4	R55	Waleman Rd. at Collector	6 Lane 108' RW center sect. w/ med. (excludes outside 11' prmt. & Rg.)	On	No	4,100	lf	\$370	\$1,628,000	100.00%	Mass A. Dev. Fee Free Fair Share Assum. Dis.	\$0	\$6,619,000
TR-4	R56	Bradenhaw Road- Garber (Project Bndry) to Flohn (Project Bndry)	4 X 6 Intersection Widening & Signalization, 4-way (Incl. 450' hix. leg imps)	On	No	1	ls	\$755,000	\$755,000	0.00%	60% are from 20% Demand Vineyard Springs	\$157,000	\$6,776,000
TR-4	R57	Bradenhaw Rd. at Collector	2-6' X 5' Box Culverts With Handrails (108' RW)	On	Yes	1	ls	\$192,000	\$192,000	0.00%		\$0	\$6,968,000
TR-4	R58	Bradenhaw Rd. at Collector	11' Pavement, 3' C&G, 6' Sidewalk = 20', Soundwall	On	Yes	320	LF	\$81	\$29,000	0.00%		\$0	\$7,020,000
TR-4	R59	Bradenhaw Rd. at Collector	11' Pavement, 3' C&G, 6' Sidewalk = 20'	On	Yes	1,100	LF	\$150	\$165,000	0.00%		\$0	\$7,185,000
TR-4	R60	Bradenhaw Rd. at Collector	6 X 2 Intersection Signalization, 4-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$7,325,000
TR-4	R61	Bradenhaw Rd. at Collector	6 X 2 Intersection Signalization, 4-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$7,465,000
TR-4	R62	Bradenhaw Rd. at Collector	6 Lane 108' RW center sect. w/ med. (excludes outside 11' prmt. & Rg.)	On	No	4,850	lf	\$370	\$1,821,000	80.00%	Ca. Dev. Fee Free City?	\$0	\$7,647,000
TR-4	R63	Bradenhaw Rd. at Collector	4 X 4 Intersection Widening, 4-way (Incl. 450' hix. leg imps)	On	No	1	ls	\$600,000	\$600,000	100.00%	Mass A. Dev. Fee Free	\$0	\$7,807,000
TR-4	R64	Bradenhaw Rd. at Collector	6 Lane 108' RW center sect. w/ med. (excludes outside 11' prmt. & Rg.)	On	No	4,200	lf	\$370	\$1,554,000	100.00%	Mass A. Dev. Fee Free	\$0	\$8,029,000
TR-4	R65	Bradenhaw Rd. at Collector	4 X 6 Intersection Widening, 4-way (Incl. 450' hix. leg imps)	On	No	1	ls	\$705,000	\$705,000	80.00%	Mass A. Dev. Fee Free	\$0	\$8,204,000
TR-4	R66	Bradenhaw Rd. at Collector	4 X 6 Intersection Widening, 4-way (Incl. 450' hix. leg imps)	On	No	1	ls	\$190,000	\$190,000	100.00%	Mass A. Dev. Fee Free	\$0	\$8,394,000
TR-4	R67	Bradenhaw Rd. at Collector	6 Lane 108' RW center sect. w/ med. (excludes outside 11' prmt. & Rg.)	On	No	1,500	lf	\$370	\$555,000	0.00%		\$0	\$8,949,000
TR-4	R68	Bradenhaw Rd. at Collector	Bridge/Culvert Improvements	On	No	1	ls	\$1,012,000	\$1,012,000	100.00%	Road Fund, I.E.T.E.A.	\$0	\$9,961,000
TR-4	R69	Bradenhaw Rd. at Collector	Upgrade signalized 4 X 4 to 6 X 6 hix., 4-way (Incl. 450' hix. leg imps)	On	No	1	ls	\$350,000	\$350,000	100.00%	Unidentified	\$0	\$10,311,000
TR-4	R70	Bradenhaw Rd. at Collector	6 Lane 108' RW center sect. w/ med. (excludes outside 11' prmt. & Rg.)	On	No	4,850	lf	\$370	\$1,821,000	80.00%	Ca. Dev. Fee Free City?	\$0	\$11,132,000
TR-4	R71	Bradenhaw Rd. at Collector	6 Lane 108' RW center sect. w/ med. (excludes outside 11' prmt. & Rg.)	On	No	4,400	lf	\$370	\$1,628,000	80.00%	Ca. Dev. Fee Free City?	\$0	\$11,960,000
TR-4	R72	Bradenhaw Rd. at Collector	6 X 6 Intersection Widening & Signalization, 4-way (Incl. 450' hix. leg imps)	On	No	1	ls	\$1,059,000	\$1,059,000	80.00%	Mass A. Dev. Fee Free City?	\$0	\$13,019,000
TR-4	R73	Bradenhaw Rd. at Collector	4 X 6 Intersection Widening & Signalization, 4-way (Incl. 450' hix. leg imps)	On	No	1	ls	\$785,000	\$785,000	80.00%	Mass A. Dev. Fee Free	\$0	\$13,804,000
TR-4	R74	Bradenhaw Rd. at Collector	6 Lane 108' RW center sect. w/ med. (excludes outside 11' prmt. & Rg.)	On	No	4,400	lf	\$370	\$1,628,000	100.00%	Mass A. Dev. Fee Free	\$0	\$15,432,000
TR-4	R75	Bradenhaw Rd. at Collector	Bridge/Culvert Improvements	On	No	1	ls	\$259,200	\$259,200	0.00%		\$0	\$15,691,200
TR-4	R76	Bradenhaw Rd. at Collector	6 Lane 108' RW center sect. w/ med. (excludes outside 11' prmt. & Rg.)	On	No	3,100	lf	\$370	\$1,147,000	0.00%		\$0	\$16,838,200
TR-4	R77	Bradenhaw Rd. at Collector	6 X 2 Intersection Signalization, 4-way	On	No	1	Each	\$140,000	\$140,000	0.00%	Mass A. Dev. Fee Free	\$0	\$17,018,200
TR-4	R78	Bradenhaw Rd. at Collector	4 Lane 64' RW center sect. w/ med. (excludes outside 11' prmt. & Rg.)	On	No	5,000	lf	\$265	\$1,325,000	0.00%		\$0	\$18,343,200
TR-4	R79	Bradenhaw Rd. at Collector	Reconstruct at-grade R/R crossing (64' RW)	On	No	1	ls	\$200,000	\$200,000	0.00%	50% Reimb from Vineyard Springs	\$100,000	\$18,443,200
TR-4	R80	Bradenhaw Rd. at Collector	2-6' X 6' Box Culverts With Handrails (64' RW)	On	Yes	1	ls	\$202,000	\$202,000	0.00%	50% Reimb from Vineyard Springs	\$101,000	\$18,544,200
TR-4	R81	Bradenhaw Rd. at Collector	2-6' X 6' Box Culverts With Handrails (64' RW)	On	Yes	1	ls	\$185,000	\$185,000	0.00%	50% Reimb from Vineyard Springs	\$82,500	\$18,626,700
TR-4	R82	Bradenhaw Rd. at Collector	4 X 2 Intersection Signalization, 3-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$18,766,700
TR-4	R83	Bradenhaw Rd. at Collector	4 X 2 Intersection Signalization, 4-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$18,906,700
TR-4	R84	Bradenhaw Rd. at Collector	11' Pavement, 3' C&G, 6' Sidewalk = 20'	On	Yes	150	LF	\$91	\$14,000	0.00%		\$0	\$19,046,700
TR-4	R85	Bradenhaw Rd. at Collector	11' Pavement, 3' C&G, 6' Sidewalk = 20'	On	Yes	300	LF	\$91	\$27,000	0.00%		\$0	\$19,213,700
TR-4	R86	Bradenhaw Rd. at Collector	11' Pavement, 3' C&G, 6' Sidewalk = 20'	On	Yes	300	LF	\$91	\$27,000	0.00%		\$0	\$19,340,700
TR-4	R87	Bradenhaw Rd. at Collector	11' Pavement, 3' C&G, 6' Sidewalk = 20'	On	Yes	1,850	LF	\$150	\$278,000	0.00%		\$0	\$19,618,700
TR-4	R88	Bradenhaw Rd. at Collector	Outside Travel Lane, 11' pavement width with 6' shoulder, at Existing Residential	On	No	1,350	lf	\$39	\$50,000	0.00%	100% Reimb from Vineyard Springs/ECOV	\$60,000	\$19,678,700
TR-4	R89	Bradenhaw Rd. at Collector	6 Lane 108' RW center sect. w/ med. (excludes outside 11' prmt. & Rg.)	On	No	3,450	lf	\$370	\$1,277,000	0.00%	100% Reimb from Vineyard Springs/ECOV	\$0	\$19,678,700
TR-4	R90	Bradenhaw Rd. at Collector	11' Pavement, 3' C&G, 6' Sidewalk = 20'	On	Yes	150	LF	\$91	\$14,000	0.00%	100% Reimb from Vineyard Springs/ECOV	\$14,000	\$19,692,700
TR-4	R91	Bradenhaw Rd. at Collector	11' Pavement, 3' C&G, 6' Sidewalk = 20'	On	Yes	150	LF	\$91	\$14,000	0.00%	100% Reimb from Vineyard Springs/ECOV	\$14,000	\$19,706,700

Mackay Sumps
Job No: 7536-0

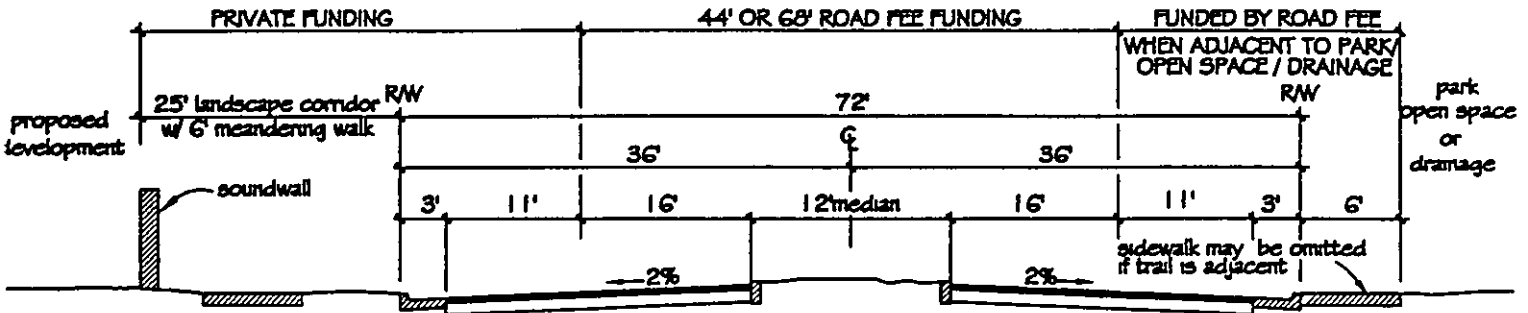
NORTH VINEYARD STATION SPECIFIC PLAN
CIP
ROADWAY
SUMMARY

RoadwayGALW
2/2/98

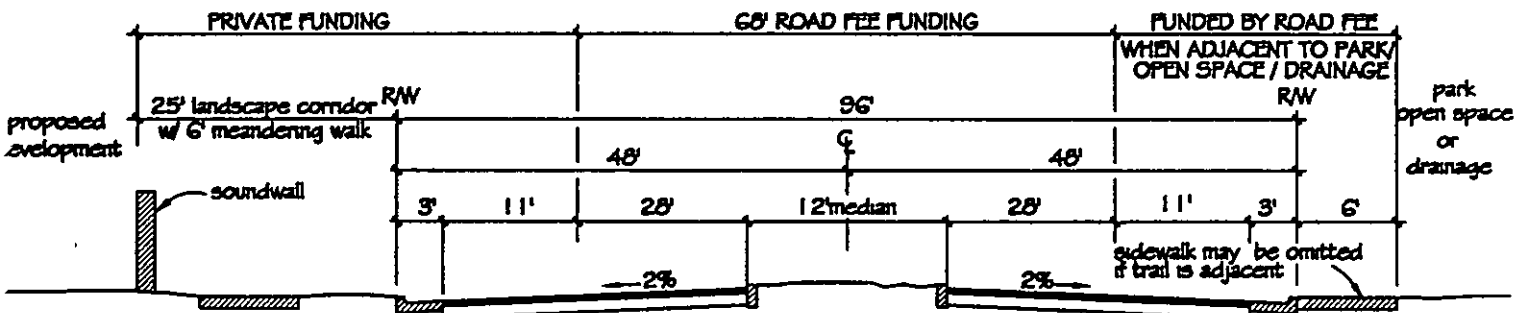
ITEMIZATION MEASURE	Project Number	Roadway Segment/Item	Project Description	On-site or Off-site		Quantity	Unit	Unit Price	Total Estimated Cost	% Funded by Other Sources	Other Funding Sources	Refin. Available	Cumulative Total Estimated Net Cost
				On-site	Detail Sheet								
TR-1	R4.1F	Garber Road-Exdkt. Road- Front- (Wideman to Bradshaw, South side only)	Outside Travel Lane, 11' pavement width with 6' shoulders, at Existing Residential	On	No	1,100	LF	\$58	\$65,000	0.00%	100% Reimb. from Vineyard Sprngs/ ESNV	\$65,000	\$14,659,100
TR-4	R4.3	Ex-Grove-Rd- Garber to Flom	4 Lane 106' RWY center sect. w/ med. (excludes outside 11' prmt. & Rq.)	On	No	4,400	LF	\$370	\$1,628,000	80.00%	See Co. Roadway Dev. Fee	\$0	\$15,164,700
TR-16	R4.2	Garber Road- Ex-Grove-Rd- Flom to Project Bndry	4 Lane 64' RWY center sect. (excludes outside 11' prmt. & Rq.)	On	No	1,650	LF	\$265	\$437,000	0.00%	60% Reimb. from Vineyard Springs	\$218,500	\$15,403,200
	R4.3	Garber Rd. at Ex-Grove-Rd- Flom	4 X 6 Intersection Widening, 4-way (Ind. 450' hix. leg lmp.s)	On	No	1	LA	\$705,000	\$705,000	100.00%	Mesa A. Dev. Fee, 0.5 T. Fee State, SLTP	\$0	\$15,403,200
	R4.2F	Garber Road-Exdkt. Residential Frontage - (E.G. Flom to Proj. Bndry)	Outside Travel Lane, 11' pavement width with 6' shoulders, at Existing Residential	On	Yes	450	LF	\$69	\$27,000	0.00%	60% Reimb. from Vineyard Springs	\$13,500	\$15,416,700
	R4.2	Vineyard Road- Garber (Project Bndry) to Flom (Project Bndry)	4 Lane 64' RWY center sect. w/ med. (excludes outside 11' prmt. & Rq.)	On	No	4,400	LF	\$265	\$1,166,000	0.00%		\$0	\$16,582,700
	R4.6	Garber Rd. at Vineyard Rd.	4 X 4 Intersection Widening & Signalization, 4-way (Ind. 450' hix. leg lmp.s)	On	No	1	LA	\$680,000	\$680,000	0.00%	60% Reimb. from Vineyard Springs	\$340,000	\$16,922,700
	R4.1	Vineyard Rd. at Collector	4 X 2 Intersection Signalization, 3-way	On	No	1	LA	\$589,000	\$589,000	0.00%		\$0	\$17,511,700
TR-8	R4.5	Flom Road- Bradshaw to Vineyard (Project Bndry)	6 Lane 106' RWY center sect. w/ med. (excludes outside 11' prmt. & Rq.)	On	No	4,400	LF	\$370	\$1,628,000	0.00%		\$0	\$17,881,700
	R4.1	Flom Rd. at Collector	4 X 2 Intersection Signalization, 3-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$18,021,700
	R4.5	Garber Road- Bradshaw to Vineyard (Project Bndry)	6 X 2 Intersection Signalization, 3-way	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$18,161,700
	R4.5	Flom Rd. at Collector	4 Lane 64' RWY center sect. w/ med. (excludes outside 11' prmt. & Rq.)	On	No	1	Each	\$140,000	\$140,000	0.00%		\$0	\$18,301,700
	R4.5	Garber Road- Bradshaw to Vineyard (Project Bndry)	2-6' X 6' Box Culverts With Headwalls (64' RWY)	On	No	1	LF	\$265	\$1,166,000	0.00%	60% Reimb. from Vineyard Springs	\$583,000	\$19,884,700
TR-5	R4.14	Garber Road- Garber Creek Crossing No. 2	6 Lane 106' RWY center sect. w/ med. (excludes outside 11' prmt. & Rq.)	On	Yes	4,400	LF	\$265	\$1,166,000	23.00%	23% Dev.Fee, Reimb. from Vineyard Springs	\$20,142,700	\$20,211,615
	R4.12	Jackson Road- South West to Bradshaw	11' Pavem. ent. 3' C&G, 6' Sidewalk = 20'	On	Yes	160	LF	\$91	\$15,000	0.00%	Unidentified	\$0	\$20,226,615
	R4.5.1	Drain Parkway Frontage Imps.- Garber Road- (Bradshaw to Vineyard)	11' Pavem. ent. 3' C&G, 6' Sidewalk = 20'	On	Yes	220	LF	\$81	\$20,000	0.00%		\$0	\$20,246,615
	R4.5.2	Detention Basin Frontage Imps.- Garber Road- (Bradshaw to Vineyard)	11' Pavem. ent. 3' C&G, 6' Sidewalk = 20'	On	Yes	370	LF	\$91	\$34,000	0.00%		\$0	\$20,280,615
	R4.3.1	Drain Parkway Frontage Imps.- Flom Road- (CCTC RR to Wideman)	11' Pavem. ent. 3' C&G, 6' Sidewalk = 20'	On	Yes	865	LF	\$91	\$78,000	0.00%		\$0	\$20,358,615
TR-25	R4.3.2	Detention Basin Frontage Imps.- Flom Road- (CCTC RR to Wideman)	6 X 4 Intersection Widening, no. & no bound. ent. (Ind. 450' hix. leg lmp.s)	On	No	1	LA	\$353,000	\$353,000	100.00%	Unidentified	\$0	\$20,358,615
TR-23	R4.6	Jackson Rd. at Excelsior	Widened shoulders to provide minimum pavement width	On	Yes	4,850	LF	\$100	\$485,000	0.00%	60% Reimb. from Vineyard Springs	\$242,500	\$20,601,115
TR-7, TR-22	R4.15	Excelsior Road- Vineyard (Project Boundary) to Excelsior	Bridge/Culvert Improvements	On	No	1	LA	\$461,000	\$461,000	0.00%		\$230,500	\$20,831,615
TR-8	R4.13	Excelsior Road- Garber to Flom	Widened shoulders to provide minimum pavement width	On	Yes	4,850	LF	\$100	\$485,000	0.00%	60% Reimb. from Vineyard Springs	\$0	\$21,317,615
TR-10	R4.13	Flom Road- Vineyard (Project Boundary) to Excelsior	Widened shoulders to provide minimum pavement width	On	Yes	4,400	LF	\$100	\$440,000	0.00%		\$0	\$21,757,615
TR-6, TR-21	R4.1	Vineyard Road- Oakhills to Garber (Project Boundary)	Bridge/Culvert Improvements	On	No	1	LA	\$86,000	\$86,000	0.00%		\$0	\$21,843,615
TR-7, TR-22	R4.1	Excelsior Road- Bradshaw to Excelsior	Widened shoulders to provide minimum pavement width	On	No	9,700	LF	\$100	\$970,000	0.00%	100% Reimb. from Vineyard Sprngs/ ESNV	\$970,000	\$22,813,615
TR-11	R4.14	Excelsior Road- Flom to Elder Creek	Widened shoulders to provide minimum pavement width	On	Yes	10,150	LF	\$100	\$1,015,000	0.00%		\$0	\$23,828,615
TR-11	R4.15	Excelsior Road- Tabulary to Elder Creek Crossing	Widened shoulders to provide minimum pavement width	On	Yes	4,850	LF	\$100	\$485,000	0.00%		\$0	\$23,343,615
TR-7, TR-22	R4.5	Cabine Road- Vineyard to Excelsior	Bridge/Culvert Improvements	On	No	1	LA	\$66,000	\$66,000	0.00%	100% Reimb. from Vineyard Sprngs/ ESNV	\$0	\$23,409,615
TR-7, TR-22	R4.15	Excelsior Road- Elder Creek to Jackson	Widened shoulders to provide minimum pavement width	On	No	4,400	LF	\$100	\$440,000	0.00%		\$0	\$23,849,615
TR-7, TR-22	R4.11.2	Excelsior Road- Cabine to Garber	Widened shoulders to provide minimum pavement width	On	Yes	2,450	LF	\$100	\$245,000	0.00%		\$0	\$24,094,615
TR-6, TR-21	R4.2	Elder Creek Road- South West to Bradshaw	Widened shoulders to provide minimum pavement width	On	No	10,150	LF	\$100	\$1,015,000	0.00%	100% Reimb. from Vineyard Sprngs/ ESNV	\$1,015,000	\$25,109,615
TR-11	R4.3	Cabine Road- 1500' East of Wideman to Bradshaw	Widened shoulders to provide minimum pavement width	On	No	9,700	LF	\$100	\$970,000	0.00%		\$0	\$26,079,615
TR-11	R4.4	Cabine Road- Bradshaw to Vineyard	Widened shoulders to provide minimum pavement width	On	No	3,100	LF	\$100	\$310,000	0.00%		\$0	\$26,389,615
	R4.4	Flom Rd. at Sundae Blvd.	Widened shoulders to provide minimum pavement width	On	No	4,400	LF	\$100	\$440,000	0.00%	100% Reimb. from Vineyard Sprngs/ ESNV	\$310,000	\$26,699,615
	R4.4B	Flom Rd. at Sundae Blvd.	Interim Intersection Improvements, 3-way (Ind. 450' hix. leg lmp.s)	On	No	1	LA	\$307,000	\$307,000	75.00%	Sac. Aggregates/Sunrise/Douglas C.P./S	\$0	\$26,944,615
	R4.10	Offsite Aerial Frontage Improvements	Ultimate Intersection Improvements, 3-way (Ind. 450' hix. leg lmp.s)	On	No	1	LA	\$668,000	\$668,000	0.00%	Sunrise/Douglas Com. Plan/Spec. Plan	\$0	\$27,612,615
	R4.10	Right of Way Acquisition for Offsite Aerial	Class "A" Frontage Improvements	On	No	1	Lump Sum	\$624,000	\$624,000	0.00%		\$0	\$28,236,615
	R4.10	Right of Way Acquisition for Offsite Aerial	ROW land acquisition	On	Yes	1	Lump Sum	\$1,558,000	\$1,558,000	0.00%		\$0	\$29,794,615
	R4.10	Preparation of P.F.F.P. and Technical Studies	ROW land acquisition	On	Yes	1	Lump Sum	\$1,101,000	\$1,101,000	0.00%		\$0	\$30,895,615
Grand Total Roadway									\$55,911,000			\$6,782,915	\$28,005,000

Note: Roadway segment lengths exclude 450' Intersection leg widening included in CIP. Regional identified intersections (except where intersection projects have not made the cut off (above the thick line))

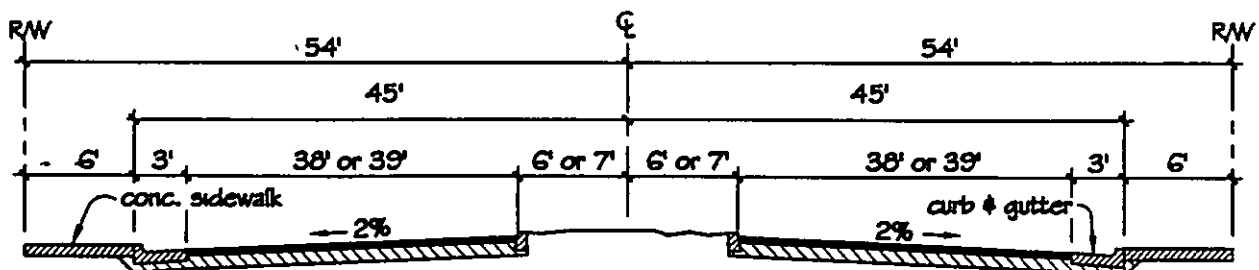
NVSSP ROADWAY CIP DETAIL SHEET


ONSITE GERBER ROAD, WATERMAN ROAD & VINEYARD ROAD

72' R. O. W.
not to scale


ONSITE FLORIN ROAD, BRADSHAW ROAD

96' R. O. W.
not to scale


OFFSITE 108' STREET

(THOROUGHFARE)

not to scale

APPENDIX D - 3

ELK GROVE / WEST VINEYARD PUBLIC FACILITIES FINANCING PLAN

**UNIT CONSTRUCTION COSTS FOR ROAD WIDENING PROJECTS
TYPICAL FOUR LANE ROAD (84 FT. RIGHT - OF - WAY)
WITH LANDSCAPED MEDIAN**

NO.	ITEM DESCRIPTION	ESTIMATED QUANTITY	UNIT PRICE	AMOUNT
1	CLEARING AND GRUBBING	24 SQ. FT.	\$0.10	\$2.40
2	PAVEMENT REMOVAL	30 SQ. FT.	0.50	15.00
3	ROADWAY EXCAVATION (0.79 PER SQ. FT.)	23 CU. YDS.	15.00	34.50
4	AGGREGATE BASE (1.50 PER SQ. FT.)	3.2 TON	15.00	48.00
5	ASPHALT CONCRETE (0.75 PER SQ. FT.)	0.80 TON	30.00	24.00
6	SIGNING AND STRIPING	1 L.F.	4.00	4.00
7	STORM DRAINAGE	1 L.F.	20.00	20.00
8	TRAFFIC SIGNAL INTERCONNECT	1 L.F.	7.00	7.00
9	TYPE 4 MEDIAN CURB	2 L.F.	4.50	9.00
10	MEDIAN LANDSCAPING	12 S. F.	3.25	39.00
	SUBTOTAL			\$202.90
	ENGINEERING AND CONTINGENCY AT 30 %			\$60.87
	TOTAL			\$ 265 PER L.F.

ASSUMPTIONS :

- 1 STRUCTURAL SECTION OF 4" AC AND 16" AB; AB = 2.0 TONS / CU. YD., AC = 2.1 TONS / CU. YD.
- 2 COMPLETE REMOVAL OF EXISTING 30 FT. WIDE RURAL ROAD PAVEMENT (2" TO 3" AC LAYER)
- 3 UNIT PRICES BASED ON RECENT COUNTY PROJECT BID SUMMARIES
- 4 OUTSIDE 11 FT. OF PAVEMENT AND IMPROVEMENTS ARE ADJACENT OWNER'S RESPONSIBILITY
- 5 CENTER LANDSCAPED MEDIAN AND CURB

BREAKDOWN OF 30 % ENGINEERING AND CONTINGENCY :

- 9 % INSPECTION
- 1 % MATERIALS TESTING
- 5 % DESIGN AND CONSTRUCTION SURVEY
- 10 % ENGINEERING
- 5 % COST CONTINGENCY

APPENDIX D - 4

**ELK GROVE / WEST VINEYARD PUBLIC FACILITIES FINANCING PLAN
UNIT CONSTRUCTION COSTS FOR ROAD WIDENING PROJECTS
TYPICAL SIX LANE DIVIDED ROAD (108 FT. RIGHT - OF - WAY)**

NO.	ITEM DESCRIPTION	ESTIMATED QUANTITY	UNIT PRICE	AMOUNT
1	CLEARING AND GRUBBING	48 SQ. FT.	\$0.10	\$4.80
2	PAVEMENT REMOVAL	30 SQ. FT.	0.50	15.00
3	ROADWAY EXCAVATION (0.79 PER SQ. FT.)	3.6 CU. YDS.	15.00	54.00
4	AGGREGATE BASE (1.50 PER SQ. FT.)	5.5 TON	15.00	82.50
5	ASPHALT CONCRETE (0.75 PER SQ. FT.)	1.5 TON	30.00	45.00
6	SIGNING AND STRIPING	1 L.F.	5.00	5.00
7	STORM DRAINAGE	1 L.F.	20.00	20.00
8	TRAFFIC SIGNAL INTERCONNECT	1 L.F.	7.00	7.00
9	TYPE 4 MEDIAN CURB	2 L.F.	4.50	9.00
10	MEDIAN LANDSCAPING	12 S.F.	3.25	39.00
	SUBTOTAL			\$281.30
	ENGINEERING AND CONTINGENCY AT 30 %			\$84.39
	TOTAL			\$ 370 PER L.F.

ASSUMPTIONS :

- 1 STRUCTURAL SECTION OF 4" AC AND 16" AB; AB = 2.0 TONS / CU. YD., A C = 2.1 TONS / CU. YD.
- 2 COMPLETE REMOVAL OF EXISTING 30 FT. WIDE RURAL ROAD PAVEMENT (2" TO 3" AC LAYER)
- 3 UNIT PRICES BASED ON RECENT COUNTY PROJECT BID SUMMARIES
- 4 OUTSIDE 11 FT. OF PAVEMENT AND IMPROVEMENTS ARE ADJACENT OWNER'S RESPONSIBILITY
- 5 CENTER LANDSCAPED MEDIAN AND CURB

BREAKDOWN OF 30 % ENGINEERING AND CONTINGENCY :

- 9 % INSPECTION
- 1 % MATERIALS TESTING
- 5 % DESIGN AND CONSTRUCTION SURVEY
- 10 % ENGINEERING
- 5 % COST CONTINGENCY

7536-0
1/16/97
7536SUM XLW

NORTH VINEYARD STATION SPECIFIC PLAN

PRELIMINARY PER FOOT COST ESTIMATE

ARTERIAL OUTSIDE TRAVEL LN. & FRONTAGE IMPROV.'S (w/o soundwall) Adjacent to Public Uses - One Side Only

**Project Description:
11' Pavement, 3' C&G, 6' Sidewalk = 20'**

<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1. Clearing & Grubbing	20	S.F.	\$0.10	\$2.00
2. Excavation- Major Road (20 sf 1.2' deep)	0.89	C.Y.	\$6.00	\$5.34
3. Asphaltic Concrete, 4"	11	S.F.	\$0.90	\$9.90
4. Aggregate Base, 16"	11	S.F.	\$1.50	\$16.50
5. Conc.-Curb and Gutter, Type 2	1	L.F.	\$10.00	\$10.00
6. Conc.- 4" Sidewalk W/ 6" AB	6	S.F.	\$2.30	\$13.80
7. Local Drainage- Lead Pipe & D.I.-(1 Side)	1	L.F.	\$2.50	\$2.50
8. Street Lights-Major Rd., Type A 180' Spacing (1 Side)	1	L.F.	\$10.00	\$10.00
	Subtotal			\$70.04
30% (surveys, design, inspection and contingency)				\$21.01
	Grand Total per Foot			\$91.05
	Use			\$91.00

Notes:

1. Joint Trench costs are excluded.
2. Right-of-way costs are excluded.
3. Landscaping and soundwall are excluded.
4. Assumes a 4" a.c. over 16" a.b. roadway section.

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1/16/97
7536SUM.XLW

NORTH VINEYARD STATION SPECIFIC PLAN

PRELIMINARY PER FOOT COST ESTIMATE

ARTERIAL FRONTAGE IMPROVEMENTS (with soundwall) Adjacent to Existing Residential - One Side Only

(3' C&G, 6' Sidewalk = 9', Soundwall)

ITEM	QUANTITY	UNIT	UNIT PRICE	PER FOOT COST
1. Clearing & Grubbing	9	S.F.	\$0.10	\$0.90
2. Excavation- Major Road (9 sf 1.2' deep)	0.40	C.Y.	\$6.00	\$2.40
3. Conc.-Curb and Gutter, Type 2	1	L.F.	\$10.00	\$10.00
4. Conc.- 4" Sidewalk W/ 6" AB	6	S.F.	\$2.30	\$13.80
5. Local Drainage- Lead Pipe & D.I.-(1 Side) (Inlet and lead pipe)	1	L.F.	\$2.50	\$2.50
7. Street Lights-Major Rd., Type A 180' Spacing (1 Side)	1	L.F.	\$10.00	\$10.00
6. Soundwall, 6 foot	1	L.F.	\$45.00	\$45.00
	Subtotal			\$84.60
30% (surveys, design, inspection and contingency)				\$25.38
	Grand Total per Foot			\$109.98
	Use			\$110.00

Notes:

1. Joint Trench costs are excluded.
2. Right-of-way costs are excluded.
3. Pavement and landscaping are excluded.

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NORTH VINEYARD STATION SPECIFIC PLAN

PRELIMINARY PER FOOT COST ESTIMATE

WIDEN SHOULDERS AT EXISTING ROADWAY

Project Description:
6' Pavement each side

<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1. Clearing & Grubbing	12	S.F.	\$0.10	\$1.20
2. Excavation- Major Road (12 sf 1.2' deep and reconstruct roadside ditches)	1.06	C.Y.	\$6.00	\$6.36
3. Asphaltic Concrete, 4"	12	S.F.	\$0.90	\$10.80
4. Aggregate Base, 16"	12	S.F.	\$1.50	\$18.00
5. Sawcut Existing Pavement	4	L.F.	\$10.00	\$40.00
	Subtotal			\$76.36
30% (surveys, design, inspection and contingency)				\$22.91
	Grand Total per Ft			\$99.27
	Use			\$100.00

Notes:

1. Joint Trench costs are excluded.
2. Right-of-way costs are excluded.
3. Landscaping and soundwall are excluded.
4. Assumes a 4" a.c. over 16" a.b. roadway section.

APPENDIX D - 6

ELK GROVE / WEST VINEYARD PUBLIC FACILITIES FINANCING PLAN
UNIT CONSTRUCTION COSTS FOR TYPICAL 4 X 4 INTERSECTION

NO.	ITEM DESCRIPTION	ESTIMATED QUANTITY	UNIT PRICE	AMOUNT
1	CLEARING AND GRUBBING	71,124 SQ. FT.	\$0.10	\$7,112.40
2	PAVEMENT REMOVAL	54,000 SQ. FT.	0.50	27,000.00
3	ROADWAY EXCAVATION (0.79 PER SQ. FT.)	5,621 CU. YDS.	15.00	84,315.00
4	AGGREGATE BASE (1.50 PER SQ. FT.)	10,580 TON	15.00	158,700.00
5	ASPHALT CONCRETE (0.75 PER SQ. FT.)	2,777 TON	30.00	83,310.00
6	SIGNING AND STRIPING	1800 L.F.	5.00	9,000.00
7	STORM DRAINAGE	3,160 L.F.	20.00	63,200.00
8	TRAFFIC SIGNAL	LUMP SUM	80,000	80,000.00
9	TYPE 2 CURB AND GUTTER	205 L. F.	15.00	3,075.00
10	6 FT. X 3 - 5/8 IN. PCC SIDEWALK	1,170 S. F.	4.50	5,265.00
	SUBTOTAL			\$520,977.40
	ENGINEERING AND CONTINGENCY AT 30 %			\$156,293.22
	TOTAL			\$ 680,000

WITHOUT SIGNAL → USE \$600,000

ASSUMPTIONS :

- 1 CURB, GUTTER, AND SIDEWALK AT ALL CORNER ROUNDINGS
- 2 INTERSECTION AREA = 450 FT. FOR ALL LEGS
- 3 STRUCTURAL SECTION OF 4" AC AND 16" AB; AB = 2.0 TONS / CU. YD., A C = 2.1 TONS / CU. YD.
- 4 COMPLETE REMOVAL OF EXISTING 30 FT. WIDE RURAL ROAD PAVEMENT (2" TO 3" AC LAYER)
- 5 UNIT PRICES BASED ON RECENT COUNTY PROJECT BID SUMMARIES
- 6 OUTSIDE 11 FT. OF PAVEMENT AND C,G, & S IMPROVEMENTS ARE ADJACENT OWNER'S RESPONSIBIL
(100 FT. TAPERS FROM CURB RETURN IMPROVEMENTS PROVIDED)

BREAKDOWN OF 30 % ENGINEERING AND CONTINGENCY :

- 9 % INSPECTION
- 1 % MATERIALS TESTING
- 5 % DESIGN AND CONSTRUCTION SURVEY
- 10 % ENGINEERING
- 5 % COST CONTINGENCY

APPENDIX D - 7

ELK GROVE / WEST VINEYARD PUBLIC FACILITIES FINANCING PLAN
UNIT CONSTRUCTION COSTS FOR TYPICAL 4 X 6 INTERSECTION

NO.	ITEM DESCRIPTION	ESTIMATED QUANTITY	UNIT PRICE	AMOUNT
1	CLEARING AND GRUBBING	92,940 SQ. FT.	\$0.10	\$9,294.00
2	PAVEMENT REMOVAL	54,000 SQ. FT.	0.50	27,000.00
3	ROADWAY EXCAVATION	6,765 CU. YDS.	15.00	101,475.00
4	AGGREGATE BASE (0.79 PER SQ. FT.)	12,250 TON	15.00	183,750.00
5	ASPHALT CONCRETE (1.50 PER SQ. FT.)	3,125 TON	30.00	96,450.00
6	SIGNING AND STRIPING (0.75 PER SQ. FT.)	1,800 L.F.	6.00	10,800.00
7	STORM DRAINAGE	3,130 L.F.	20.00	62,600.00
8	TRAFFIC SIGNAL	LUMP SUM	80,000	80,000.00
9	TYPE 4 MEDIAN CURB	1,620 L.F.	4.50	7,290.00
10	MEDIAN LANDSCAPING	4,920 SQ. FT.	3.25	15,990.00
11	TYPE 2 CURB AND GUTTER	205 L.F.	15.00	3,075.00
12	6 FT. X 3 - 5/8 IN. PCC SIDEWALK	1,170 S. F.	4.50	5,265.00
	SUBTOTAL			\$602,989.00
	ENGINEERING AND CONTINGENCY AT 30 %			\$180,896.70
	TOTAL			\$785,000

ASSUMPTIONS :

WITHOUT SIGNAL \Rightarrow USE \$ 705,000
 3-WAY INTX. WITH SIGNAL \Rightarrow USE \$589,000

- 1 CURB, GUTTER, AND SIDEWALK AT ALL CORNER ROUNDINGS
- 2 INTERSECTION AREA = 450 FT. FOR ALL LEGS
- 3 LANDSCAPED MEDIAN AND CURB FOR 6-LANE LEGS
- 4 STRUCTURAL SECTION OF 4" AC AND 16" AB; AB = 2.0 TONS / CU. YD., AC = 2.1 TONS / CU. YD.
- 5 COMPLETE REMOVAL OF EXISTING 30 FT. WIDE RURAL ROAD PAVEMENT (2" TO 3" AC LAYER)
- 6 UNIT PRICES BASED ON RECENT COUNTY PROJECT BID SUMMARIES
- 7 OUTSIDE 11 FT. OF PAVEMENT AND C,G, & S IMPROVEMENTS ARE ADJACENT OWNER'S RESPONSIBILITY (100 FT. TAPERS FROM CURB RETURN IMPROVEMENTS PROVIDED)

BREAKDOWN OF 30 % ENGINEERING AND CONTINGENCY :

- 9 % INSPECTION
- 1 % MATERIALS TESTING
- 5 % DESIGN AND CONSTRUCTION SURVEY
- 10 % ENGINEERING
- 5 % COST CONTINGENCY

**NORTH VINEYARD STATION SPECIFIC PLAN CIP
ROADWAY DETAIL SHEET
TRANSPORTATION DIVISION
6 X 6 INTERSECTION**

Item No.	Item Description	Estimated Quantity	Unit Price	Amount (in figures)
1	Clearing and grubbing	143,534 S.F.	\$.10	\$14,353.40
2	Excavation	11,090 C.Y.	15.00	166,350.00
3	Pavement Removal	54,000 S.F.	.50	27,000.00
4	Aggregate Base	16,760. TON	15.00	251,400.00
5	Asphalt concrete	4,400. TON	30.00	132,000.00
6	Type 2 Curb & Gutter	205 L.F.	15.00	3,075.00
7	6-foot x 3 5/8" PCC Sidewalk	1,170 S.F.	4.50	5,265.00
8	Type 4 Median Curb	3,240 L.F.	4.50	14,580.00
9	Median Landscaping	9,840 S.F.	3.25	31,980.00
10	Signing and Striping	1,800 L.F.	6.00	10,800.00
11	Storm Drainage	3,100 L.F.	25.00	<u>77,500.00</u>
Sub total				\$734,303.40
Engineering & Contingency at 30%				<u>220,291.00</u>
				<u>\$954,594.40</u>

**USE \$955,000
6 x 6 INTERSECTION**

+ \$104,000 for traffic signal
= \$1,059,000

ASSUMPTIONS

- 4-inch AC/ 16-inch AB lip to lip 450 feet from intersection for all legs (450 feet covers buttturnouts, and tapers per SD H-25).
- Curb, gutter, and sidewalk at all corner roundings
- Landscaped median and curb for 6-lane legs

DALP:sb 11/92

7536-0
ROADWAY.XLW
2/5/97

ROADWAY COST DETAIL

PROJECT NO. : R3.12
PROJECT NAME: FLORIN RD. CROSSING @ ELDER CREEK
PROJECT DESCRIPTION: NEW BRIDGE CONSTRUCTION (84' R/W)
@ FLORIN RD. & ELDER CREEK

PROJECT COSTS:

<u>Item</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Total Cost</u>
Constr. New Bridge	8,250	s.f.	\$80.00	\$660,000
Subtotal				\$660,000
30% (surveys, design, inspection and contingency)				\$198,000
R/W Aquisition	_____	ac.	_____	\$0
Total Cost				\$858,000

FUNDING SOURCES:

NOTES:

1. Width = $108' + 2' = 110'$
2. Span = 75'
3. s.f. to construct = 8250 s.f.
4. Cost includes demolition, erosion control, etc.
5. Channel excav. included in Elder Creek reach 1A channel imp.
6. Rev. eng. & contingency from 10% & 10% to 30% total
consistent with Roadway Items. 2-5-97

7536-0
ROADWAY.XLW
2/5/97

ROADWAY COST DETAIL

PROJECT NO. : R4.13
PROJECT NAME: GERBER RD. CROSSING NO. 3 @ GERBER CREEK (E. OF # 4)

PROJECT DESCRIPTION: (2) 8'x6' BOX CULVERT CONSTR. w/ HEADWALLS (84' R/W)
GERBER CREEK @ GERBER RD. CROSSING NO.3
(1,100' WEST OF BRADSHAW RD.)

PROJECT COSTS:

<u>Item</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Total Cost</u>
(2) 8' x 6' Conc. Box Culverts	88	l.f.	\$800.00	\$70,400
Headwall & Wingwalls	2	each	\$25,000.00	\$50,000
Erosion Protection	1	Lump Sum	\$2,000.00	\$2,000
Demolition of Exist. Bridge	1	Lump Sum	\$20,000.00	\$20,000

Subtotal **\$142,400**

30% (surveys, design, inspection and contingency) **\$42,720**

R/W Aquisition _____ ac. _____ \$0

Total Cost **\$185,000**

FUNDING SOURCES:

NOTES:

1. Channel excav. incl. in Gerber Creek reach 2B channel imp.
2. Rev. eng. & contingency from 10% & 10% to 30% total consistent with Roadway Items. 2-5-97

7536-0
ROADWAY.XLW
2/5/97

ROADWAY COST DETAIL

PROJECT NO. : R6.12
PROJECT NAME: ELK GROVE-FLORIN RD. CROSSING @ ELDER CREEK
PROJECT DESCRIPTION: NEW BRIDGE CONSTRUCTION (108' R/W)
@ ELK GROVE-FLORIN RD. & ELDER CREEK

PROJECT COSTS:

<u>Item</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Total Cost</u>
Constr. New Bridge	7,700	s.f.	\$80.00	\$616,000
Subtotal				\$616,000
30% (surveys, design, inspection and contingency)				\$184,800
R/W Aquisition	_____	ac.	_____	\$0
Total Cost				\$801,000

FUNDING SOURCES:

NOTES:

1. Width = 108' + 2' = 110'
2. Span = 70'
3. s.f. to construct = 7,700 s.f.
4. Cost includes demolition, erosion control, etc.
5. Channel excav. Incl. in Elder Creek reach 3 channel Imps.
6. Rev. eng. & contingency from 10% & 10% to 30% total consistent with Roadway Items. 2-5-97

7536-0
ROADWAY.XLW
2/5/97

ROADWAY COST DETAIL

PROJECT NO. : R8.13
PROJECT NAME: BRADSHAW RD. CROSSING @ GERBER CREEK
PROJECT DESCRIPTION: (2) 8'x5' BOX CULVERT CONSTR. w/ HEADWALLS (108' R/W)
GERBER CREEK @ BRADSHAW RD.

PROJECT COSTS:

<u>Item</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Total Cost</u>
(2) 8' x 5' Conc. Box Culverts	112	l.f.	\$750.00	\$84,000
Headwall & Wingwalls	2	each	\$25,000.00	\$50,000
Erosion Protection	1	Lump Sum	\$2,000.00	\$2,000
Remove Exist. Box Culverts	1	Lump Sum	\$10,000.00	\$10,000
		Subtotal		\$146,000

30% (surveys, design, inspection and contingency) \$43,800

R/W Aquisition _____ ac. _____ \$0

Total Cost \$190,000

FUNDING SOURCES:

NOTES:

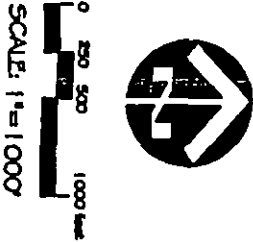
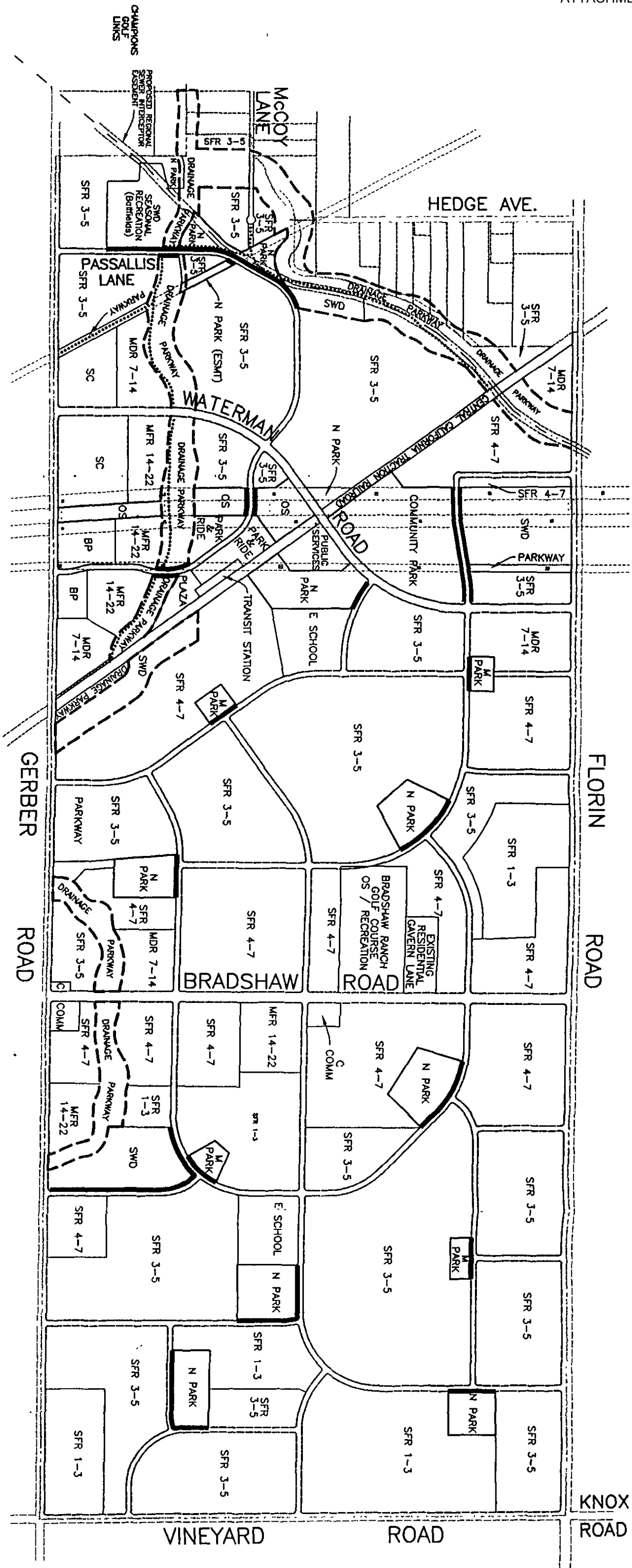
1. Channel excav. incl. in Gerber Creek reach 2C channel improvements.
2. Rev. eng. & contingency from 10% & 10% to 30% total consistent with Roadway Items. 2-5-97

III. INTERNAL ROADWAY

The Internal Roadway Capital Improvement Program includes onsite roadway frontage improvements at parks, open space, drainage corridor and drainage facilities within the Specific Plan area. The internal roadway facilities and their estimated costs are identified in the NVSSP CIP Internal Roadways Summary. The NVSSP CIP Park/O.S./Drainage Facility/Parkway Frontage at Internal Roadways Exhibit shows the location of the facilities. The Internal Roadway CIP is based on the Preferred Plan, revised July 1996.

NORTH VINEYARD STATION SPECIFIC PLAN CIP
INTERNAL ROADWAYS
SUMMARY

NORTH VINEYARD STATION SPECIFIC PLAN PRELIMINARY CAPITAL IMPROVEMENT ITEMS LISTING									
Internal Roadway Improvements Listing & Cost Estimate									
Project Number	Item	Project Description	On-site or Off-site	Detail Sheet Linked?	Quantity	Unit	Unit Price	Total Estimated Cost	
Internal Collector Frontage Improvements at Parks, Open Spaces, Drainage Parkway & Facilities									
IR1	Park 1/2 Street Fig Imps -Onsite Collector Roads-58' R/W	Complete Half Section - 21' Pavement, 3' C&G, 6' Sidewalk = 30'	On	Yes	8,780	L.F.	\$110	\$745,800	
IR2	Park 1/2 Street Fig Imps -Onsite Collector Roads-40' R/W	Complete Half Section - 18' Pavement, 3' C&G, 6' Sidewalk = 27'	On	Yes	2,100	L.F.	\$100	\$210,000	
IR3	Drain Parkway/Det. Basin 1/2 Street Fig Imps -Onsite Collector Roads-58' R/W	Complete Half Section - 21' Pavement, 3' C&G, 6' Sidewalk = 30'	On	Yes	4,000	L.F.	\$110	\$440,000	
IR4	Drain Parkway/Det. Basin 1/2 Street Fig Imps -Onsite Collector Roads-40' R/W	Complete Half Section - 18' Pavement, 3' C&G, 6' Sidewalk = 27'	On	Yes	865	L.F.	\$100	\$86,500	
IR5	Open Space Parkway 1/2 Street Fig Imps -Onsite Collector Roads-58' R/W	Complete Half Section - 21' Pavement, 3' C&G, 6' Sidewalk = 30'	On	Yes	550	L.F.	\$110	\$60,500	
IR6	Right of Way Acquisition for Collector Frontage Improvements		On	No	0	Acres	\$70,000	\$0	
	Total for Internal Collector Frontage Improvements				14,295	L.F.		\$1,532,000	
Total Internal Roadway Facilities									
								\$1,532,000	



LEGEND

— PARK/OPEN SPACE/DRAINAGE FACILITY/
PARKWAY FRONTAGE IMPROVEMENTS,
INTERNAL ROADWAYS

NOTE: SEE LAND USE PLAN FOR LAND USE LEGEND

North Vineyard Station
Capital Improvement Program
PARK/ OPEN SPACE/ DRAINAGE FACILITY/ PARKWAY
FRONTAGE AT INTERNAL ROADWAYS
Sacramento, California
January, 1998

7536-0
1/16/97
7536SUM.XLW

NORTH VINEYARD STATION SPECIFIC PLAN

PRELIMINARY PER FOOT COST ESTIMATE

40' ROW (MINOR ROADWAY) FRONTAGES

Adjacent to Parks, Open Space, Drainage Fac. & Parkway, Exist. Residential - One Side Only

Project Description:

Complete Half Section - 13' Pavement, 3' C&G, 6' Sidewalk = 22'

<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1. Clearing & Grubbing	22	S.F.	\$0.10	\$2.20
2. Excavation- Minor Road (22 sf 1.2' deep)	0.98	C.Y.	\$3.00	\$2.93
3. Asphaltic Concrete, 3"	13	S.F.	\$0.70	\$9.10
4. Aggregate Base, 10"	13	S.F.	\$0.95	\$12.35
5. Conc.-Curb and Gutter, Type 2	1	L.F.	\$10.00	\$10.00
6. Conc.- 4" Sidewalk W/ 6" AB	6	S.F.	\$2.30	\$13.80
7. Local Drainage-Minor RD.-(1 Side)	1	L.F.	\$15.00	\$15.00
8. Street Lights-Minor Rd., Type B 200' Alt. Spac.,(1 Side)	1	L.F.	\$4.00	\$4.00
	Subtotal			\$69.38
30% (surveys, design, inspection and contingency)				\$20.82
	Grand Total per Foot			\$90.20
	Use			\$90.00

Notes:

1. Joint Trench costs are excluded.
2. Right-of-way costs are excluded.
3. Landscaping and soundwall are excluded.
4. Assumes a 3" a.c. over 10" a.b. street section.

7536-0
1/16/97
7536SUM.XLW

NORTH VINEYARD STATION SPECIFIC PLAN

PRELIMINARY PER FOOT COST ESTIMATE

50' ROW (PRIMARY ROADWAY) FRONTAGES

Adjacent to Parks, Open Space, Drainage Fac. & Parkway, Exist. Residential - One Side Only

Project Description:

Complete Half Section - 18' Pavement, 3' C&G, 6' Sidewalk = 27'

<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1. Clearing & Grubbing	27	S.F.	\$0.10	\$2.70
2. Excavation- Minor Road (27 sf 1.2' deep)	1.20	C.Y.	\$3.00	\$3 60
3. Asphaltic Concrete, 3"	18	S.F.	\$0.70	\$12.60
4. Aggregate Base, 10"	18	S.F.	\$0.95	\$17.10
5. Conc.-Curb and Gutter, Type 2	1	L.F.	\$10.00	\$10.00
6. Conc.- 4" Sidewalk W/ 6" AB	6	S.F.	\$2.30	\$13.80
7. Local Drainage-Minor RD.-(1 Side)	1	L.F.	\$15.00	\$15.00
8. Street Lights-Minor Rd., Type B 200' Alt. Spac.,(1 Side)	1	L.F.	\$4.00	\$4.00
	Subtotal			\$78.80
30% (surveys, design, inspection and contingency)				\$23.64
	Grand Total per Foot			\$102.44
	Use			\$103.00

Notes:

1. Joint Trench costs are excluded.
2. Right-of-way costs are excluded.
3. Landscaping and soundwall are excluded.
4. Assumes a 3" a.c. over 10" a.b. street section.

7536-0
1/16/97
7536SUM XLW

NORTH VINEYARD STATION SPECIFIC PLAN

PRELIMINARY PER FOOT COST ESTIMATE

56' ROW (COLLECTOR ROADWAY) FRONTAGES

Adjacent to Parks, Open Space, Drainage Fac. & Parkway, Exist. Residential - One Side Only

Project Description:

Complete Half Section - 21' Pavement, 3' C&G, 6' Sidewalk = 30'

<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1. Clearing & Grubbing	30	S.F.	\$0.10	\$3.00
2. Excavation- Minor Road (30 sf 1.2' deep)	1.33	C.Y.	\$3.00	\$4.00
3. Asphaltic Concrete, 3"	21	S.F.	\$0.70	\$14.70
4. Aggregate Base, 10"	21	S.F.	\$0.95	\$19.95
5. Conc.-Curb and Gutter, Type 2	1	L.F.	\$10.00	\$10.00
6. Conc.- 4" Sidewalk W/ 6" AB	6	S.F.	\$2.30	\$13.80
7. Local Drainage-Minor RD.-(1 Side)	1	L.F.	\$15.00	\$15.00
8. Street Lights-Collector, Type B 180' Spacing (1 Side)	1	L.F.	\$4.00	\$4.00
	Subtotal			\$84.45
30% (surveys, design, inspection and contingency)				\$25.34
	Grand Total per Foot			\$109.79
	Use			\$110.00

Notes:

1. Joint Trench costs are excluded.
2. Right-of-way costs are excluded.
3. Landscaping and soundwall are excluded.
4. Assumes a 3" a.c. over 10" a.b. street section.

IV. SANITARY SEWER

The Sanitary Sewer Capital Improvement Program was developed in conjunction with the Water Quality Division of Sacramento County. The Folsom/Bradshaw Interceptor will serve development within the Specific Plan area and is not included in the NVS Sanitary Sewer CIP. Sacramento County Water Quality Division has indicated that construction of the interceptor is planned for 1998/1999. The facilities identified in the Sanitary Sewer C.I.P. and summarized in the NVSSP CIP Sewer Summary are onsite trunk facilities, carrying 1 MGD or greater. The NVSSP CIP Sewer Facilities Exhibit shows the location of the sanitary sewer facilities and their corresponding project CIP identification number.

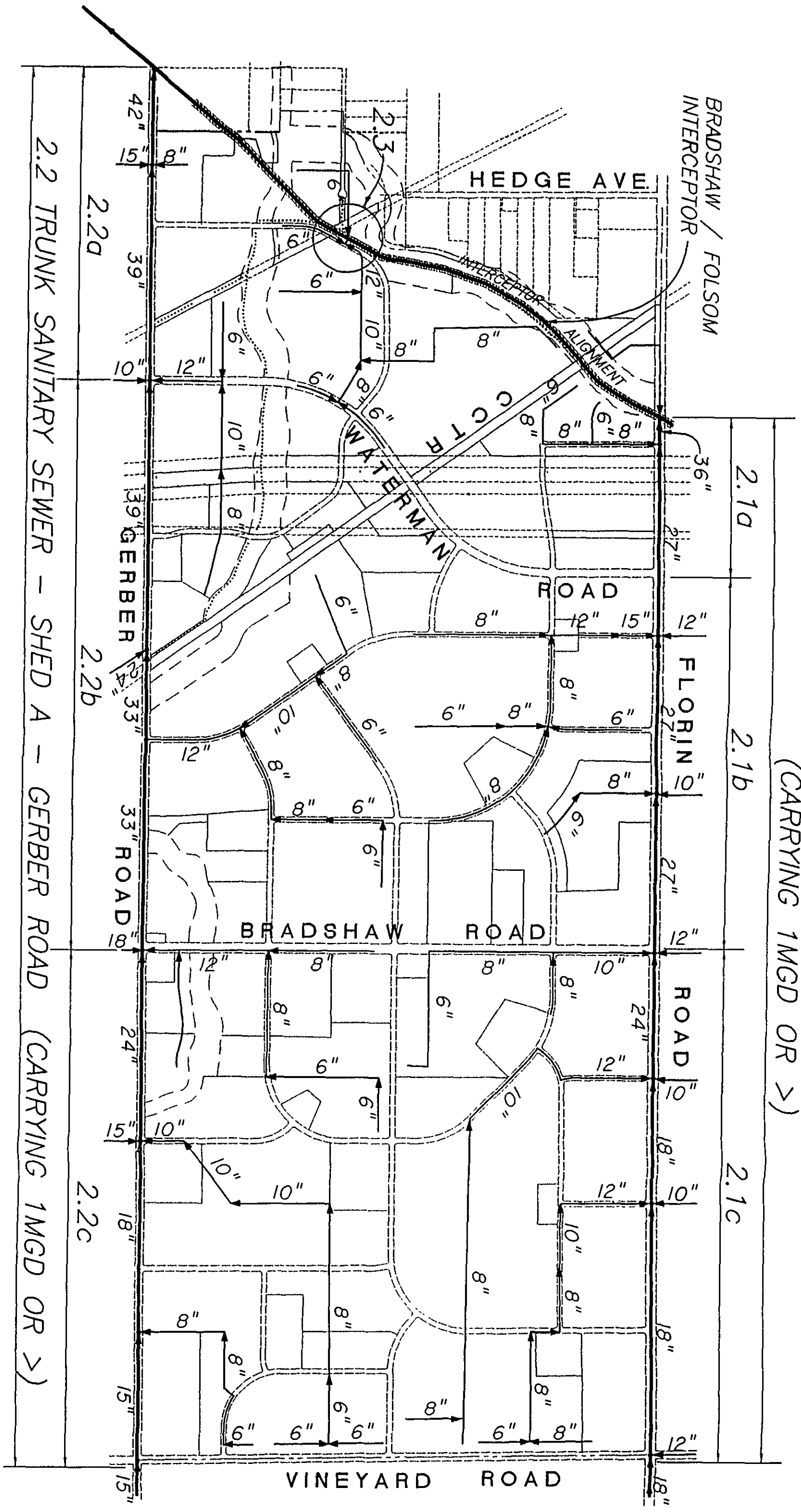
The estimates presented for trunk sewer facilities within this document are adequate for the purpose of identifying funding sources. The estimates have been prepared, in part, using the County Reimbursement Schedule (CSD-No. 1 Schedule A). CSD-No. 1 Schedule A was developed for the purpose of identifying reimbursable amounts for public sewer construction and may not reflect actual bid prices for North Vineyard Station Specific Plan. The estimates of cost should be refined before the final Financing Plan is accepted.

NORTH VINEYARD STATION SPECIFIC PLAN

CIP SEWER SUMMARY

NORTH VINEYARD STATION SPECIFIC PLAN PRELIMINARY SEWER CAPITAL IMPROVEMENT ITEMS LISTING						
Project Number	Project Name	On-site or Off-site	Project Description	Detail Sheet Linked	Total	
SANITARY SEWER IMPROVEMENTS						
Trunk Systems Carrying 1 MGD or Greater						
2.1	TRUNK SANITARY SEWER - FLORIN ROAD, SHED C					
2.1a	TRUNK SS - FLORIN ROAD (INTERCEPTOR TO WATERMAN)	On	36"27" TRUNK SAN SEWER CONST.	Yes	\$256,000	
2.1b	TRUNK SS - FLORIN ROAD (WATERMAN TO BRADSHAW)	On	27" TRUNK SAN SEWER CONST.	Yes	\$750,000	
2.1c	TRUNK SS - FLORIN ROAD (BRADSHAW TO VINYARD)	On	24"18" TRUNK SAN SEWER CONST.	Yes	\$820,000	
2.2	TRUNK SANITARY SEWER - GERBER ROAD, SHED A					
2.2a	TRUNK SS - GERBER ROAD (INTERCEPTOR TO WATERMAN)	On	42"39" TRUNK SAN SEWER CONST.	Yes	\$905,000	
2.2b	TRUNK SS - GERBER ROAD (WATERMAN TO BRADSHAW)	On	39"33" TRUNK SAN SEWER CONST.	Yes	\$1,482,000	
2.2c	TRUNK SS - GERBER ROAD (BRADSHAW TO VINYARD)	On	24" TO 15" TRUNK SAN SEWER CONST.	Yes	\$974,000	
Subtotal Trunk Systems Carrying 1 MGD or Greater					\$5,187,000	
Lateral Sewer Systems Carrying Less Than 1 MGD						
2.3	LATERAL SS - PASSILIS LANE (AT INTERCEPTOR)	On	LATERAL SAN SEWER CONST. (INTERCEPTOR CONNECT.)	Yes	\$25,000	
Subtotal Lateral Systems Carrying Less Than 1 MGD					\$25,000	
Total Sanitary Sewer Costs					\$5,212,000	

2.1 TRUNK SANITARY SEWER – SHED C – FLORIN ROAD
(CARRYING 1MGD OR >)



LEGEND

SANITARY SEWER PIPE
& DIRECTION OF FLOW

North Vineyard Station
Capital Improvement Program
SEWER FACILITIES

Sacramento, California January, 1997
MAKAY & SAMP
CIVIL ENGINEERS, INC.
ONE DUNDEE ROAD, SUITE 100
SACRAMENTO, CALIFORNIA 95834

NORTH VINYARD STATION SPECIFIC PLAN
CIP
SANITARY SEWER IMPS.
SEWER.XLW INDEX

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<u>SHEET</u>	<u>PROJECT NAME</u>	<u>TOTAL COST</u>
2.1a	TRUNK SS - FLORIN ROAD (INTERCEPTOR TO WATERMAN)	\$256,000
2.1b	TRUNK SS - FLORIN ROAD (WATERMAN TO BRADSHAW)	\$750,000
2.1c	TRUNK SS - FLORIN ROAD (BRADSHAW TO VINYARD)	\$820,000
2.2a	TRUNK SS - GERBER ROAD (INTERCEPTOR TO WATERMAN)	\$905,000
2.2b	TRUNK SS - GERBER ROAD (WATERMAN TO BRADSHAW)	\$1,482,000
2.2c	TRUNK SS - GERBER ROAD (BRADSHAW TO VINYARD)	\$974,000
2.3	LATERAL SS - PASSILIS LANE (AT INTERCEPTOR)	\$25,000

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SEWER COST DETAIL

PROJECT NO. : 2.1b
PROJECT NAME: TRUNK SS - FLORIN ROAD (WATERMAN TO BRADSHAW)
PROJECT DESCRIPTION: 27" TRUNK SAN. SEWER CONST.
FROM WATERMAN RD. TO BRADSHAW RD.
SHED C - CARRYING MINIMUM OF 1MGD

PROJECT COSTS:

<u>Item</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Total Cost</u>
27" San. Sewer (20'-30' deep, incl. mh's)	3350	L.F.	\$156	\$522,600
27" San. Sewer (10'-20' deep, incl. mh's)	660	L.F.	\$107	\$70,620
Subtotal				\$593,200
15% Contingency				\$89,000
Construction Cost				\$682,200
10% Engineering				\$68,200
Total Costs				\$750,000

FUNDING SOURCES:

NOTES:

1. Assumes sewer constr. concurrent with road improvements.
(Excludes pavement Removal & Replacement.)
2. Revised unit costs per W.Q. 2-4-98.

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SEWER COST DETAIL

PROJECT NO. :A28

2.2a

PROJECT NAME:

TRUNK SS - GERBER ROAD (INTERCEPTOR TO WATERMAN)

PROJECT DESCRIPTION:

42"/39" TRUNK SAN. SEWER CONST.
FROM INTERCEPTOR SEWER TO WATERMAN RD.
SHED A - CARRYING MINIMUM OF 1MGD

PROJECT COSTS:

<u>Item</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Total Cost</u>
Conn. to Interceptor Sewer	1	L.S.	\$20,000.00	\$20,000
39" San. Sewer (20'-30' deep, incl. mh's)	2,280	L.F.	\$208	\$474,240
42" San. Sewer (20'-30' deep, incl. mh's)	1,010	L.F.	\$219	\$221,190
Subtotal				\$715,400
15% Gontingency				\$107,300
Construction Cost				\$822,700
10% Engineering				\$82,300
Total Costs				\$905,000

FUNDING SOURCES:

NOTES:

1. Assumes sewer constr. concurrent with road imp.
(Excludes pavement removal and replacement.)
2. Revised unit costs per W.Q. 2-4-98.

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Sewer.xlw
2/4/98

SEWER COST DETAIL

PROJECT NO. : 2.2c
PROJECT NAME: TRUNK SS - GERBER ROAD (BRADSHAW TO VINYARD)

PROJECT DESCRIPTION: 24" TO 15" TRUNK SAN. SEWER CONST.
FROM BRADSHAW RD. TO VINEYARD RD.
SHED A - CARRYING MINIMUM OF 1MGD

PROJECT COSTS:

<u>Item</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Total Cost</u>
15" San. Sewer (20'-30' deep, incl. mh's)	1390	L.F.	\$103	\$143,170
18" San. Sewer (20'-30' deep, incl. mh's)	850	L.F.	\$114	\$96,900
18" San. Sewer (30'-40' deep, incl. mh's)	1150	L.F.	\$207	\$238,050
24" San. Sewer (20'-30' deep, incl. mh's)	2000	L.F.	\$146	\$292,000
Subtotal				\$770,100
15% Contingency				\$115,500
Construction Cost				\$885,600
10% Engineering				\$88,600
Total Costs				\$974,000

FUNDING SOURCES:

NOTES:

1. Assumes sewer constr. concurrent with road impls.
(Excludes pavement removal and replacement.)
2. Revised unit costs per W.Q. 2-4-98.

V. DRAINAGE

The Drainage Capital Improvement Program was developed in conjunction with the Water Resources Division of Sacramento County. The flood control and water quality facilities, summarized in the NVSSPCIP Drainage Summary, include channels, detention basins and trunk drainage pipe systems. The facilities will provide drainage service to the Plan area and will be a great benefit to areas outside of the Plan area as well. The NVSSP CIP Drainage Facilities Exhibit shows the drainage facilities and their corresponding project CIP identification number.

CHANNEL FACILITIES

The channel improvements include excavation, erosion control, channel landscaping, drainage crossings and a maintenance road. The maintenance road will be a joint use facility that will also function as a pedestrian bike pathway. The length of the pathway is estimated at 1.25 times the channel length. Only the portion of the pathway associated with a maintenance road is included in the Drainage CIP. The remaining improvements associated with the pedestrian/bike pathway are included in the Parks and Recreation CIP. Land acquisition for channel facilities has been included and estimated at \$100,000 per acre. Because identification of existing drainage easements has not been performed and included at this time, channel land acquisition may be reduced in the future when a more detailed study of the extent of existing easements becomes available.

Drainage crossings at collector roadways are included in the Drainage CIP. Because of the potential cost sharing for arterial roadway drainage crossing facilities, these projects are identified in both the Roadway CIP and the Drainage CIP. At this time, the arterial drainage crossing facilities are split between the two CIP categories as follows:

- Cost of providing capacity up to the existing condition 100-year flow is included in the Roadway CIP (based on 1991 conditions as determined by WRD)
- Cost of providing capacity above the existing 100-year flow to the ultimate (watershed build out) condition 100-year flow is included in the Drainage CIP.
- The percent of total flow capacity for each category will be the basis for determining the split. For example, assume that the existing flow is 500 cfs and ultimate flow is 750 cfs at a particular bridge. The cost split would therefore be 67% to the Roadway CIP and 33% to the Drainage CIP.

The arterial roadway drainage crossing projects are listed in the Roadway CIP. If the cost for the project is to be split between the Roadway and Drainage CIP's based on the criteria above, the Roadway CIP shows the project as partially funded by the County Drainage Fee, and the Drainage CIP Summary includes the remainder of the cost.

The channel facilities include both onsite and offsite improvements.

DETENTION BASIN FACILITIES

Detention basin facilities include excavation, inlet/outlet structures, landscaping and a maintenance path. Land acquisition for detention basin sites has been included and estimated at \$100,000 per acre. All detention basins are onsite except for Basin E20 which is located downstream of the Plan area.

TRUNK DRAINAGE FACILITIES

Trunk drainage facilities include onsite storm drainage pipes, manholes, and outlet structures. Trunk drainage pipe systems include pipe systems serving shed areas of 30 acres or more.

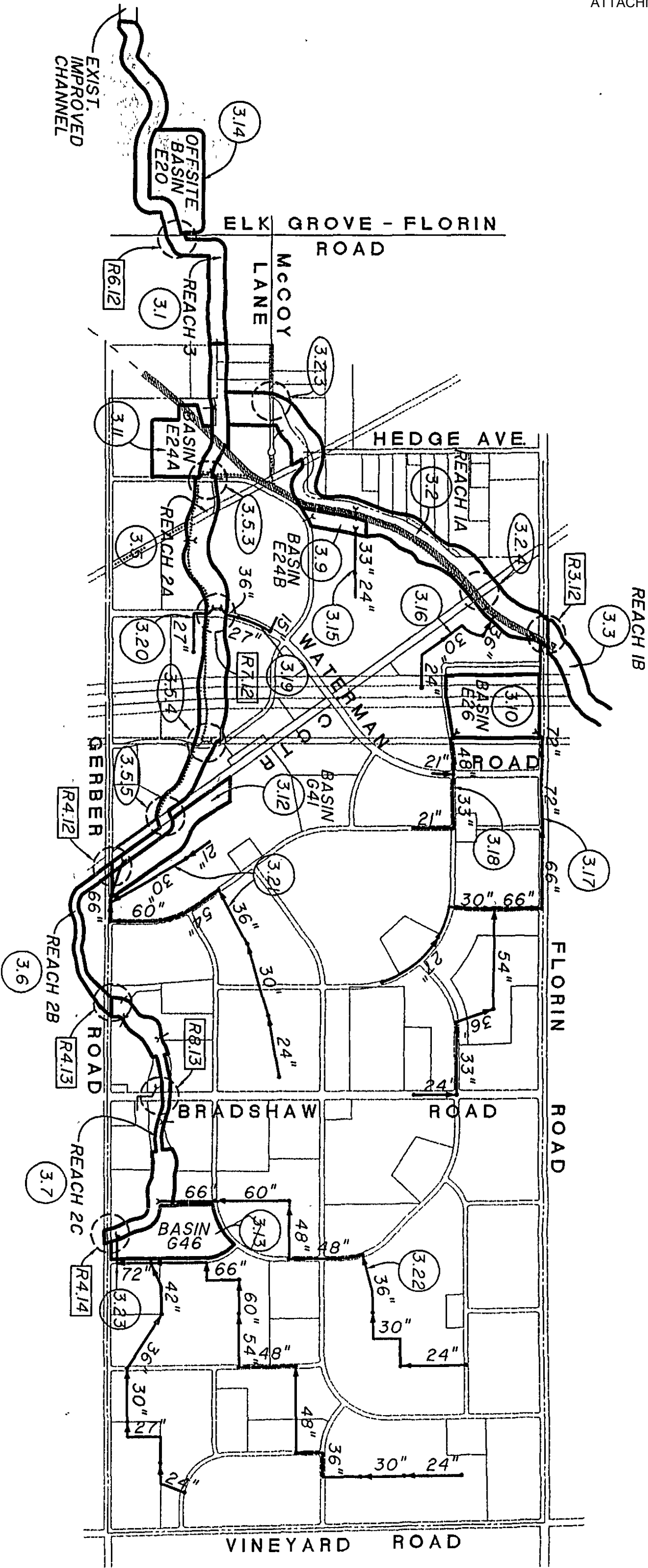
NORTH VINEYARD STATION SPECIFIC PLAN

CIP DRAINAGE SUMMARY

NORTH VINEYARD STATION SPECIFIC PLAN					
DRAINAGE CAPITAL IMPROVEMENT ITEMS SUMMARY					
Project Number	Project Name	On-site or Off-site	Project Description	Detail Sheet Linked	Total
DRAINAGE IMPROVEMENTS					
(See also Roadway Section for Additional Bridges/Culverts)					
Channel Related Items					
3.1	Elder Creek Reach 3 (Improved Channel to W. Bndry)				
3.1.1 A	ELDER CREEK REACH 3A - OFF-SITE CHANNEL IMP'S.	Off	OFF-SITE CHANNEL CONSTR. (APPROX 1,830 L.F.)	Yes	\$947,000
3.1.1 B	ELDER CREEK REACH 3B - OFF-SITE CHANNEL IMP'S.	Off	OFF-SITE CHANNEL CONSTR. (APPROX. 3,020 L.F.)	Yes	\$1,572,000
3.2	Elder Creek Reach 1A (W. Bndry to Florin Rd.)				
3.2.1 A	ELDER CREEK REACH 1A (a) - CHANNEL IMPROV'S	On	CHANNEL CONSTR. (APPROX 2,650 L.F.)	Yes	\$1,183,000
3.2.1 B	ELDER CREEK REACH 1A (b) - CHANNEL IMPROV'S	On	CHANNEL CONSTR. (APPROX. 2,910 L.F.)	Yes	\$1,300,000
3.2.2	ELDER CREEK REACH 1A - DRAINAGE PARKWAY	On	CHANNEL PARKWAY CONSTR. (APPROX. 5,560 L.F.)	Yes	\$132,000
3.2.3	ELDER CREEK REACH 1A (a) - MCCOY LANE CROSSING	On	(3) 8'x6' BOX CULVERT CONSTR. w/ HEADWALLS (4'-40' RW)	Yes	\$152,000
3.2.4	ELDER CREEK REACH 1A (b) - CCTC RR BRIDGE CROSSING	On	CONST. NEW BRIDGE @ ELDER CREEK & CCTC RR CROSSING	Yes	\$367,000
3.3	Elder Creek Reach 1B (Upstream of Florin Rd.)				
3.3.1	ELDER CREEK REACH 1B - OFF-SITE CHANNEL IMPROV'S.	Off	CHANNEL CONSTR. (APPOX. 1,400 L.F.)	Yes	\$756,000
3.4	Left Blank For Additions	---	---	---	---
3.5	Gerber Creek Reach 2A (W. Bndry to Gerber Rd. Crossing No. 4)				
3.5.1 A	GERBER CREEK REACH 2A (a) - CHANNEL IMPROV'S.	On	CHANNEL CONSTR (APPROX. 3,350 L.F.)	Yes	\$1,599,000
3.5.1 B	GERBER CREEK REACH 2A (b) - CHANNEL IMPROV'S.	On	CHANNEL CONSTR.(APPROX. 3,750 L.F.)	Yes	\$1,669,000
3.5.2	GERBER CREEK REACH 2A - DRAINAGE PARKWAY	On	CHANNEL PARKWAY CORR. CONSTR. (APPROX. 7,100 L.F.)	Yes	\$168,000
3.5.3	GERBER CREEK REACH 2A (a) -PASSALIS LN. CROSSING (WEST)	On	(3) 8'x6' BOX CULVERT CONST. w/ HEADWALLS (56' RW)	Yes	\$167,000
3.5.4	GERBER CREEK REACH 2A (b) -PASSALIS LN. CROSSING (EAST)	On	(3) 8'x6' BOX CULVERT CONSTR. w/ HEADWALLS (56' RW)	Yes	\$167,000
3.5.5	GERBER CREEK REACH 2A (b) - CCTC RR BRIDGE CROSSING	On	CONST. NEW BRIDGE @ ELDER CREEK AND CCTC RR	Yes	\$294,000
3.6	Gerber Creek Reach 2B (Gerber Rd.Crossing 4 to Crossing 3)				
3.6.1	GERBER CREEK REACH 2B - OFF-SITE CHANNEL IMP'S.	Off	CHANNEL CONSTR. (APPROX. 2,030 L.F.)	Yes	\$984,000
3.7	Gerber Creek Reach 2C (Gerber Rd.Crossing 3 to Crossing 2)				
3.7.1	GERBER CREEK REACH 2C CHANNEL IMPROVEMENTS	On	CHANNEL CONSTR. (APPROX. 3,680 L.F.)	Yes	\$1,331,000
3.7.2	GERBER CREEK REACH 2C - DRAINAGE PARKWAY	On	DRAINAGE PARKWAY CORR. CONST. (APPROX. 3,880 L.F.)	Yes	\$87,000
3.8	Arterial Roadway Drainage Crossings (also identified in Roadway CIP)	Off	Portion of Arterial Roadway Drainage Crossings (Roadway Proj. No. 4.14)	No	\$41,000
Subtotal Channel Related Items					\$12,918,000

DRAINAGE SUMMARY

WETLAND MITIGATION SPECIFIC PLAN DRAINAGE CAPITAL IMPROVEMENT ITEMS SUMMARY					
Project Number	Project Name	On-Go or Off-Go	Project Description	Detail Sheet	Total
Detention Basin Construction					
3.0	DETENTION BASIN E20 (ELDER CREEK REACH 1A (a))	On	3.7 AC. WATER QUALITY DETENTION BASIN CONST.	Yes	\$943,000
3.10	DETENTION BASIN E23 (ELDER CREEK REACH 1A (a))	On	10.3 AC. FLOOD CONTROL/W.O. DET. BASIN CONST.	Yes	\$2,700,000
3.11	DETENTION BASIN E24 (GERBER CREEK REACH 2A (a))	On	12 AC. FLOOD CONTROL/W.O. DET. BASIN CONST.	Yes	\$1,010,000
3.12	DETENTION BASIN G41 (GERBER CREEK REACH 2A (b))	On	10.8 AC. FLOOD CONTROL/W.O. DET. BASIN CONST.	Yes	\$1,705,000
3.13	DETENTION BASIN G48 (GERBER CREEK REACH 2C)	On	18 AC. FLOOD CONTROL/W.O. DET. BASIN CONST.	Yes	\$2,627,000
3.14	OFFSITE DETENTION BASIN E20 (ELDER CREEK REACH 3)	On	18 AC. OFFSITE FLOOD CONTROL BASIN CONST.	Yes	\$2,458,000
Subtotal Detention Basin Construction					\$12,043,000
Trunk Drainage Bending 20 Acres or More					
3.15	TRUNK DRAINAGE, SHED L	On	TRUNK DRAINAGE, (D) DISCHARGE TO ELDER CREEK, REACH 2A	Yes	\$31,000
3.16	TRUNK DRAINAGE, SHED M	On	TRUNK DRAINAGE, (D) DISCHARGE TO ELDER CREEK, REACH 2A	Yes	\$31,000
3.17	TRUNK DRAINAGE, SHEDS D & E	On	TRUNK DRAINAGE, (D) DISCHARGE TO BASIN E20	Yes	\$739,000
3.18	TRUNK DRAINAGE, SHED G	On	TRUNK DRAINAGE, (D) DISCHARGE TO BASIN E20	Yes	\$135,000
3.19	TRUNK DRAINAGE, SHED K	On	TRUNK DRAINAGE, (D) DISCHARGE TO GERBER CREEK, REACH 2A	Yes	\$53,000
3.20	TRUNK DRAINAGE, SHED J	On	TRUNK DRAINAGE, (D) DISCHARGE TO GERBER CREEK, REACH 2A	Yes	\$44,000
3.21	TRUNK DRAINAGE, SHED F	On	TRUNK DRAINAGE, (D) DISCHARGE TO GERBER CREEK, REACH 2A	Yes	\$44,000
3.22	TRUNK DRAINAGE, SHED C	On	TRUNK DRAINAGE, (D) DISCHARGE TO BASIN E20	Yes	\$30,000
3.23	TRUNK DRAINAGE, SHED A & B	On	TRUNK DRAINAGE, (D) DISCHARGE TO BASIN E20	Yes	\$30,000
Subtotal Trunk Drainage Construction					\$8,059,000
Wetland Mitigation					
3.100	WETLAND MITIGATION - ONSITE	On	Onsite Wetland Mitigation for Drainage Improvements	Yes	\$2,735,000
3.101	WETLAND MITIGATION - OFFSITE	On	Offsite Wetland Mitigation for Drainage Improvements	Yes	\$2,421,000
Subtotal Wetland Mitigation:					\$5,156,000
Grand Total Drainage Summary					\$25,258,000



SCALE: 1"=1200'

LEGEND

— STORM DRAIN PIPE
 & DIRECTION OF FLOW

[R4.12] ROADWAY FACILITY IMPROVEMENTS W/ PROJECT
 NUMBER & DRAINAGE CROSSINGS

(X.X.X) DRAINAGE CROSSING IMPROVEMENTS W/ PROJECT
 NUMBER

(3.X) DRAINAGE FACILITY IMPROVEMENTS W/ PROJECT
 NUMBER

**North Vineyard Station
Capital Improvement Program
DRAINAGE FACILITIES**

Sacramento, California January 3, 1997

MACKEY & SAMPSON
CIVIL ENGINEERS, INC.
ONE ENGINEERED PLANNING SUITE

NORTH VINEYARD STATION SPECIFIC PLAN
CIP
DRAINAGE IMPS/CHANNELS
CHANNEL.XLW INDEX

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SHEET		TOTAL
3.1.1 A	ELDER CREEK REACH 3A - OFF-SITE CHANNEL IMPS.	\$947,000
3.1.1 B	ELDER CREEK REACH 3B - OFF-SITE CHANNEL IMPS.	\$1,572,000
3.2.1 A	ELDER CREEK REACH 1A (a) - CHANNEL IMPROV'S.	\$1,183,000
3.2.1 B	ELDER CREEK REACH 1A (b) - CHANNEL IMPROV'S.	\$1,300,000
3.2.2	ELDER CREEK REACH 1A - DRAINAGE PARKWAY	\$132,000
3.2.3	ELDER CREEK REACH 1A (a) - McCOY LANE CROSSING	\$152,000
3.2.4	ELDER CREEK REACH 1A (b) - CCTC RR BRIDGE CROSSING	\$367,000
3.3.1	ELDER CREEK REACH 1B - OFF-SITE CHANNEL IMPROV'S.	\$756,000
3.5.1 A	GERBER CREEK REACH 2A (a) - CHANNEL IMPROV'S.	\$1,599,000
3.5.1 B	GERBER CREEK REACH 2A (b) - CHANNEL IMPROV'S.	\$1,669,000
3.5.2	GERBER CREEK REACH 2A - DRAINAGE PARKWAY	\$168,000
3.5.3	GERBER CREEK REACH 2A (a) -PASSALIS LN. CROSSING (WEST)	\$167,000
3.5.4	GERBER CREEK REACH 2A (b) -PASSALIS LN. CROSSING (EAST)	\$167,000
3.5.5	GERBER CREEK REACH 2A (b) - CCTC RR BRIDGE CROSSING	\$294,000
3.6.1	GERBER CREEK REACH 2B - OFF-SITE CHANNEL IMPS.	\$984,000
3.7.1	GERBER CREEK REACH 2C CHANNEL IMPROVEMENTS	\$1,331,000
3.7.2	GERBER CREEK REACH 2C - DRAINAGE PARKWAY	\$87,000
3.8	ARTERIAL ROADWAY DRAINAGE CROSSINGS	\$41,000

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Channel xlw
2/11/98

DRAINAGE COST DETAIL

PROJECT NO. : 3.1.1 A
PROJECT NAME: ELDER CREEK REACH 3A - OFF-SITE CHANNEL IMPS.
PROJECT DESCRIPTION: OFF-SITE CHANNEL CONSTR. (APPROX. 1,830 L.F.)
FROM EXISTING IMPROVED CHANNEL
TO D/S OF ELK GROVE-FLORIN RD.

PROJECT COSTS:

<u>Item</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Total Cost</u>
Channel -Excavation	35,000	c.y.	\$3.15	\$110,250
Channel-Erosion Control	1,830	l.f.	\$5.00	\$9,150
Channel-Landscaping (Channel Area Only)	1,830	l.f.	\$31.00	\$56,730
Maintenance Road (12' wide @ 1.25 x channel length, excav. & A.B. only)	2,290	l.f.	\$15.00	\$34,350
Subtotal				\$210,500
15% Contingency				\$31,600
Construction Cost				\$242,100
10% Engineering				\$24,200
Channel-Land Acquis. (high)	6.81	ac.	\$100,000	\$681,000
Total Cost				\$947,000

FUNDING SOURCES:**NOTES:**

1. Rec 2 Sections 4.799 to 5.753
2. Split Reach 3 into 3A & 3B to accommodate phasing discussions
3. Added Channel land acquisition acreages which assume no existing easements.
4. Added maintenance road, 11-13-97
5. Revised maint. Rd. width per Pete Ghelfi. Revised unit cost, 2-4-98
6. Moved wetland mitigation to proj. no. 3.100 & 3.101, 2-11-98

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Channel.xlw
2/11/98

DRAINAGE COST DETAIL

PROJECT NO. : 3.1.1 B
PROJECT NAME: ELDER CREEK REACH 3B - OFF-SITE CHANNEL IMPS.

PROJECT DESCRIPTION: OFF-SITE CHANNEL CONSTR. (APPROX. 3,020 L.F.)
FROM D/S OF ELK GROVE-FLORIN RD.
TO WESTERN SPECIFIC PLAN BOUNDARY

PROJECT COSTS:

<u>Item</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Total Cost</u>
Channel -Excavation	60,000	c.y.	\$3.15	\$189,000
Channel-Erosion Control	3,020	l.f.	\$5.00	\$15,100
Channel-Landscaping (Channel Area Only)	3,020	l.f.	\$31.00	\$93,620
Maintenance Road (12' wide @ 1.25 x channel length, excav. & A.B. only)	3,775	l.f.	\$15.00	\$56,625
Subtotal				\$354,300
15% Contingency				\$53,100
Construction Cost				\$407,400
10% Engineering				\$40,700
Channel-Land Acquis. (high)	11.24	ac.	\$100,000	\$1,124,000
Total Cost				\$1,572,000

FUNDING SOURCES:**NOTES:**

1. Hec 2 Sections 4.799 to 5.402
2. Split Reach 3 into 3A & 3B to accommodate phasing discussions.
3. Added Channel land acquisition acreages which assume no existing easements.
4. Added maintenance road, 11-13-97
5. Revised maint Rd. width per Pete Ghelfi. Revised unit cost. 2-4-98
6. Moved wetland mitigation to proj. no. 3.100 & 3.101. 2-11-98

7536-0
Channel.xlw
2/11/98

DRAINAGE COST DETAIL

PROJECT NO. : 3.2.1 A
PROJECT NAME: ELDER CREEK REACH 1A (a) - CHANNEL IMPROV'S.
PROJECT DESCRIPTION: CHANNEL CONSTR. (APPROX. 2,650 L.F.)
FROM WESTERN SPECIFIC PLAN BOUNDARY
TO BASIN E24B

PROJECT COSTS:

<u>Item</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Total Cost</u>
Channel -Excavation	58,000	c.y.	\$3.15	\$182,700
Channel-Erosion Control	2,650	l.f.	\$5.00	\$13,250
Channel-Landscaping (Channel Area Only)	2,650	l.f.	\$31.00	\$82,150
Subtotal				\$278,100
15% Contingency				\$41,700
Construction Cost				\$319,800
10% Engineering				\$32,000
Channel-Land Acquis. (high)	8.31	ac.	\$100,000	\$831,000
Total Cost				\$1,183,000

FUNDING SOURCES:

NOTES:

1. Hec 2 Sections 5.840 TO 6.365
2. Split Reach 1A into 1A(a) & 1B(b) to accommodate phasing discussions.
3. Added Channel land acquisition acreages which assume no existing easements.
4. Moved wetland mitigation to proj. no. 3.100 & 3.101. 2-11-98

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Channel.xlw
2/11/98

DRAINAGE COST DETAIL

PROJECT NO. : 3.2.2
PROJECT NAME: ELDER CREEK REACH 1A - DRAINAGE PARKWAY
PROJECT DESCRIPTION: CHANNEL PARKWAY CONSTR. (APPROX. 5,560 L.F.)
FROM WESTERN SPECIFIC PLAN BOUNDARY
TO FLORIN ROAD

PROJECT COSTS:

<u>Item</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Total Cost</u>
Joint Use Ped./Bike Path (12' wide @ 1.25 x channel length, excav. & A.B. only)	6,950	l.f.	\$15.00	\$104,250
Subtotal				\$104,300
15% Contingency				\$15,600
Construction Cost				\$119,900
10% Engineering				\$12,000
Total Cost				\$132,000

FUNDING SOURCES:

NOTES:

1. The pedestrian/bicycle path quantities are based on 1.25 times the channel length. At the time of reimbursement, cost will be based on actual length.
2. Rev. unit cost to include only excav. & A.B. The costs for A.C., striping, signing & bollards, & D.G. shoulders included in Park & Rec. CIP. 2-5-97
3. Rev. unit cost 11-13-97
- 4 Revised maint. Rd. width per Pete Ghelfi. Revised unit cost 2-4-98

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DRAINAGE COST DETAIL

PROJECT NO. : 3.2.4
PROJECT NAME: ELDER CREEK REACH 1A (b) - CCTC RR BRIDGE CROSSING
PROJECT DESCRIPTION: CONST. NEW BRIDGE @ ELDER CREEK & CCT R&R CROSSING

PROJECT COSTS:

<u>Item</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Total Cost</u>
Construct New Bridge	1	Lump Sum	\$290,000.00	\$290,000
Subtotal				\$290,000
15% Contingency				\$43,500
Construction Cost				\$333,500
10% Engineering				\$33,400
Total Cost				\$367,000

FUNDING SOURCES:

NOTES:

- 1 Channel excav included in Elder Creek Reach 1A channel improvements.
2. Per conversation with James Paluck on 1-7-97, the new SPTC Bridge construction over Middle Branch strawberry Creek just d/s of MBSC Det. Basin #1 was estimated by SPTC in 1995 at \$290,000. The project was completed in 1996, however, the County has not seen the final project cost. Steve believes it may come in low. Just u/s of this new bridge, MBSC channel bottom width is 50'. Proposed bottom width of Elder Creek u/s is 50'.
- 3 The possibility exists that the existing structure could be retrofitted for the new channel geometry and depth.

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DRAINAGE COST DETAIL

PROJECT NO. : 3.5.1 A
PROJECT NAME: GERBER CREEK REACH 2A (a) - CHANNEL IMPROV'S.
PROJECT DESCRIPTION: CHANNEL CONSTR.(APPROX. 3,350 L.F.)
FROM CONFLUENCE w/ ELDER CREEK
TO U/S WATERMAN RD.

PROJECT COSTS:

<u>Item</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Total Cost</u>
Channel -Excavation	61,000	c.y.	\$3.15	\$192,150
Channel-Erosion Control	3,350	l.f.	\$5.00	\$16,750
Channel-Landscaping (Channel Area Only)	3,350	l.f.	\$31.00	\$103,850
Subtotal				\$312,800
15% Contingency				\$46,900
Construction Cost				\$359,700
10% Engineering				\$36,000
Channel-Land Acquis. (high)	12.03	ac.	\$100,000	\$1,203,000
Total Cost				\$1,599,000

FUNDING SOURCES:**NOTES:**

1. Hec 2 Sections 5 753 to 0.888
2. Split Reach 2A into 2A(a) & 2B(b) to accommodate phasing discussions.
3. Added Channel land acquisition acreages which assume no existing easements.
4. Moved wetland mitigation to proj. no. 3.100 & 3.101. 2-11-98

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DRAINAGE COST DETAIL

PROJECT NO. : 3.5.2
 PROJECT NAME: GERBER CREEK REACH 2A - DRAINAGE PARKWAY
 PROJECT DESCRIPTION: CHANNEL PARKWAY CORR. CONSTR. (APPROX. 7,100 L.F.)
 FROM CONFLUENCE w/ ELDER CREEK TO GERBER RD.

PROJECT COSTS:

<u>Item</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Total Cost</u>
Joint Use Ped./Bike Path (12' wide @ 1.25 x channel length, excav. & A.B. only)	8,875	l.f.	\$15.00	\$133,125
Subtotal				\$133,100
15% Contingency				\$20,000
Construction Cost				\$153,100
10% Engineering				\$15,300
Total Cost				\$168,000

FUNDING SOURCES:

NOTES:

1. The pedestrian/bicycle path quantities are based on 1.25 times the channel length. At the time of reimbursement, cost will be based on actual length.
2. Rev unit cost to include only excav & A.B. The costs for A.C., striping, signing & bollards, & D.G. shoulders included in Park & Rec. CIP. 2-5-97
3. Rev unit cost 11-13-97
4. Revised maint Rd. width per Pete Ghelfi Revised unit cost 2-4-98

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DRAINAGE COST DETAIL

PROJECT NO. : 3.5.4
PROJECT NAME: GERBER CREEK REACH 2A (b) -PASSALIS LN. CROSSING (EAST)
PROJECT DESCRIPTION: (3) 8'x6' BOX CULVERT CONSTR. w/ HEADWALLS (56' R/W)
GERBER CREEK @ PASSALIS LN. (EAST) CROSSING

PROJECT COSTS:

<u>Item</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Total Cost</u>
(3) 8' x 6' Conc. Box Culverts	60	l.f.	\$1,200.00	\$72,000
Headwall & Wingwalls	2	each	\$25,000	\$50,000
Erosion Protection	1	Lump Sum	\$10,000.00	\$10,000
Subtotal				\$132,000
15% Contingency				\$19,800
Construction Cost				\$151,800
10% Engineering				\$15,200
Total Cost				\$167,000

FUNDING SOURCES:

NOTES: 1. Channel excav. incl. in Gerber Creek reach 2A channel imp

PROJECT NO. : 3.5.5
PROJECT NAME: GERBER CREEK REACH 2A (b) - CCTC RR BRIDGE CROSSING
PROJECT DESCRIPTION: CONST. NEW BRIDGE @ ELDER CREEK AND CCTC RR

Item	Quantity	Unit	Unit Cost	Total Cost
Construct New Bridge	1	Lump Sum	\$232,000.00	\$232,000
Subtotal				\$232,000
15% Contingency				\$34,800
Construction Cost				\$266,800
10% Engineering				\$26,700
Total Cost				\$294,000

1. Channel excav. included in Gerber Creek Reach 2A channel improvements.
2. Per conversation with James Paluck on 1-7-97, the new SPTC Bridge construction over Middle Branch strawberry Creek just d/s of MBSC Det. Basin #1 was estimated by SPTC in 1995 at \$290,000. The project was completed in 1996; however, the County has not seen the final project cost. Steve believes it may come in low. Just u/s of this new bridge, MBSC channel bottom width is 50'. Proposed bottom width of Gerber Creek u/s is 40'. Therefore, use prorated cost.
3. The possibility exists that the existing structure could be retrofitted for the new channel geometry and depth.

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DRAINAGE COST DETAIL

PROJECT NO. : 3.6.1
PROJECT NAME: GERBER CREEK REACH 2B - OFF-SITE CHANNEL IMPS.

PROJECT DESCRIPTION: CHANNEL CONSTR. (APPROX. 2,030 L.F.)
OFF-SITE FROM GERBER RD. CROSSING NO. 4
TO GERBER RD. CROSSING NO. 3

PROJECT COSTS:

<u>Item</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Total Cost</u>
Channel -Excavation	36,400	c.y.	\$3.15	\$114,660
Channel-Erosion Control	2,030	l.f.	\$5.00	\$10,150
Channel-Landscaping (Channel Area Only)	2,030	l.f.	\$31.00	\$62,930
Maintenance Road (12' wide @ 1.25 x channel length, excav. & A.B. only)	2,540	l.f.	\$15.00	\$38,100
Subtotal				\$225,800
15% Contingency				\$33,900
Construction Cost				\$259,700
10% Engineering				\$26,000
Channel-Land Acquis. (high)	6.98	ac.	\$100,000	\$698,000
Total Cost				\$984,000

FUNDING SOURCES:

NOTES:

1. Hec 2 Sections 1.524 to 1.900
2. Added Channel land acquisition acreages which assume no existing easements.
3. Added maintenance road, 11-13-97
4. Revised maint. Rd. width per Pete Ghelfi. Revised unit cost. 2-4-98
5. Moved wetland mitigation to proj. no. 3.100 & 3.101. 2-11-98

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DRAINAGE COST DETAIL

PROJECT NO. : 3.7.2
PROJECT NAME: GERBER CREEK REACH 2C - DRAINAGE PARKWAY
PROJECT DESCRIPTION: DRAINAGE PARKWAY CORR. CONST. (APPROX. 3,680 L.F.)
FROM GERBER RD. CROSSING NO. 3
TO GERBER RD. CROSSING NO. 2

PROJECT COSTS:

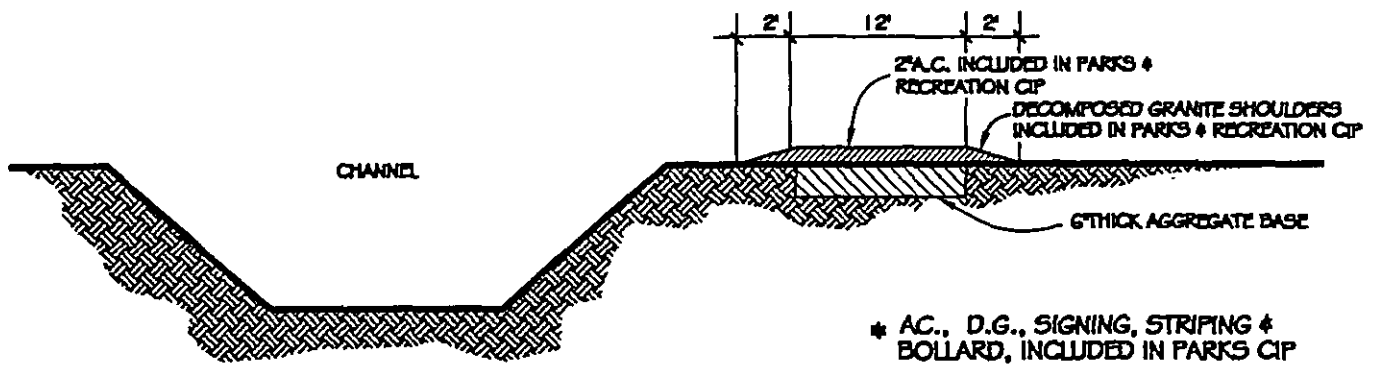
<u>Item</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Total Cost</u>
Joint Use Ped./Bike Path (12' wide @ 1.25 x channel length, excav. & A.B. only)	4,600	l.f.	\$15.00	\$69,000
	Subtotal			\$69,000
	15% Contingency			\$10,400
	Construction Cost			\$79,400
	10% Engineering			\$7,900
	Total Cost			\$87,000

FUNDING SOURCES:

NOTES:

1. The pedestrian/bicycle path quantities are based on 1.25 times the channel length. At the time of reimbursement, cost will be based on actual length.
2. Rev. unit cost to include only excav. & A.B. The costs for A.C., striping, signing & bollards, & D.G. shoulders Included in Park & Rec CIP 2-5-97
3. Rev. unit cost 11-13-97
4. Revised maint. Rd. width per Pete Ghelfi. Revised unit cost. 2-4-98

NVSSP DRAINAGE CIP DETAIL SHEET



TYPICAL SECTION
not to scale

JOINT USE PED / BIKE PATH:

1. AGGREGATE BASE 6" 12 S.F. @ \$1.25 \$ 15.00/L.F.

TOTAL \$ 15.00/L.F.

NORTH VINEYARD STATION SPECIFIC PLAN
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DRAINAGE IMPS./DETENTION BASINS
BASINS.XLW INDEX

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SHEET	PROJECT NAME	TOTAL COST
3.9	DETENTION BASIN E24B (ELDER CREEK REACH 1A (a))	\$545,000
3.10	DETENTION BASIN E26 (ELDER CREEK REACH 1A (b))	\$2,790,000
3.11	DETENTION BASIN E24A (GERBER CREEK REACH 2A (a))	\$1,918,000
3.12	DETENTION BASIN G41 (GERBER CREEK REACH 2A (b))	\$1,705,000
3.13	DETENTION BASIN G46 (GERBER CREEK REACH 2C)	\$2,627,000
3.14	OFFSITE DETENTION BASIN E20 (ELDER CREEK REACH 3)	\$2,456,000

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DRAINAGE COST DETAIL

PROJECT NO. : 3.9
PROJECT NAME: DETENTION BASIN E24B (ELDER CREEK REACH 1A (a))
PROJECT DESCRIPTION: 3.7 AC. WATER QUALITY DETENTION BASIN CONST.

PROJECT COSTS:

<u>Item</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Total Cost</u>
Det. Basin - Excavation	28,000	c.y.	\$3.15	\$88,200
Basin Outlet	1	Lump Sum	\$25,000	\$25,000
Det. Basin - Maint. Path (6" ab @ 10')	18,800	s.f.	\$1.00	\$18,800
Landscaping	1	Lump Sum	\$6,000	\$6,000
Det. Basin - Fencing	0	l.f.	\$10	\$0
	Subtotal			\$138,000
	15% Contingency			\$20,700
	Construction Cost			\$158,700
	10% Engineering			\$15,900
Basin-Land Acquis. (high)	3.7	ac.	\$100,000	\$370,000
	Total Costs			\$545,000

FUNDING SOURCES:**NOTES:**

1. Landscaping assumed at \$1500/acre of basin area.
2. Basin is sized for NPDES Facility to serve onsite areas east of Elder Creek. Areas within the Elder Creek shed and located outside the S.P.A. and west of Elder Creek are assumed to provide adequate N.P.D.E.S. for future development as needed.

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DRAINAGE COST DETAIL

PROJECT NO. : 3.11
PROJECT NAME: DETENTION BASIN E24A (GERBER CREEK REACH 2A (a))
PROJECT DESCRIPTION: 12 AC. FLOOD CONTROL/W.Q. DET. BASIN CONST.

PROJECT COSTS:

<u>Item</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Total Cost</u>
Det. Basin - Excavation	137,000	c.y.	\$3.15	\$431,550
Inlet Structure	1	Lump Sum	\$42,000	\$42,000
Water Quality Outlet	1	Lump Sum	\$12,000	\$12,000
Flood Control Outlet	1	Lump Sum	\$22,000	\$22,000
Weir Erosion Protection	1	Lump Sum	\$12,000	\$12,000
Det. Basin - Maint. Path (6" ab @ 10')	30,000	s.f.	\$1.00	\$30,000
Landscaping	1	Lump Sum	\$18,000	\$18,000
Det. Basin - Fencing	0	l.f.	\$10	\$0
Subtotal				\$567,600
15% Contingency				\$85,140
Construction Cost				\$652,700
10% Engineering				\$65,300
Basin-Land Acquis. (high)	12.0	ac.	\$100,000	\$1,200,000
Total Costs				\$1,918,000

FUNDING SOURCES:

NOTES: 1. Landscaping assumed at \$1500/acre of basin area.

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DRAINAGE COST DETAIL

PROJECT NO. : 3.13
PROJECT NAME: DETENTION BASIN G46 (GERBER CREEK REACH 2C)
PROJECT DESCRIPTION: 16 AC. FLOOD CONTROL/W.Q. DET. BASIN CONST.

PROJECT COSTS:

<u>Item</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Total Cost</u>
Det. Basin - Excavation	224,500	c.y.	\$3.15	\$707,175
Water Quality Outlet	1	Lump Sum	\$12,000	\$12,000
Flood Control Outlet	1	Lump Sum	\$22,000	\$22,000
Weir Erosion Protection	1	Lump Sum	\$12,000	\$12,000
Det. Basin - Maint. Path (6" ab @ 10')	35,000	s.f.	\$1.00	\$35,000
Landscaping	1	Lump Sum	\$24,000	\$24,000
Det. Basin - Fencing	0	l.f.	\$10	\$0
			Subtotal	\$812,200
			15% Contingency	\$121,800
			Construction Cost	\$934,000
			10% Engineering	\$93,400
Basin-Land Acquis. (high)	16.0	ac.	\$100,000	\$1,600,000
			Total Costs	\$2,627,000

FUNDING SOURCES:

NOTES: 1. Landscaping assumed at \$1500/acre of basin area.

NORTH VINEYARD STATION SPECIFIC PLAN
CIP
DRAINAGE IMPS./TRUNK DRAINAGE
TRUNKSD.XLW INDEX

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SHEET	PROJECT NAME	TOTAL COST
3.15	TRUNK DRAINAGE, SHED L	\$55,000
3.16	TRUNK DRAINAGE, SHED H	\$93,000
3.17	TRUNK DRAINAGE, SHEDS D & E	\$739,000
3.18	TRUNK DRAINAGE, SHED G	\$135,000
3.19	TRUNK DRAINAGE, SHED K	\$53,000
3.20	TRUNK DRAINAGE, SHED J	\$44,000
3.21	TRUNK DRAINAGE, SHED F	\$497,000
3.22	TRUNK DRAINAGE, SHED C	\$508,000
3.23	TRUNK DRAINAGE, SHEDS A & B	\$935,000

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DRAINAGE COST DETAIL

PROJECT NO. : 3.15
PROJECT NAME: TRUNK DRAINAGE, SHED L
PROJECT DESCRIPTION: TRUNK DRAIN FAC. (DISCHARGE TO BASIN E24B)
DRAINING 30 ACRES OR MORE

PROJECT COSTS:

<u>Item</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Total Cost</u>
Outfall Structure (12" to 36")	1	each	\$5,000.00	\$5,000
33" Storm Drain (incl. mh's)	540	l.f.	\$49	\$26,460
24" Storm Drain (incl. mh's)	300	l.f.	\$40	\$12,000
Subtotal				\$43,500
15% Contingency				\$6,500
Construction Cost				\$50,000
10% Engineering				\$5,000
Total Costs				\$55,000

FUNDING SOURCES:

NOTES: 1. Added 24" Storm Drain on 12-30-96.

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DRAINAGE COST DETAIL

PROJECT NO. : 3.17
PROJECT NAME: TRUNK DRAINAGE, SHEDS D & E
PROJECT DESCRIPTION: TRUNK DRAIN FAC. (DISCHARGE TO BASIN E26)
DRAINING 30 ACRES OR MORE

PROJECT COSTS:

<u>Item</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Total Cost</u>
Outfall Structure (42" to 72")	1	each	\$10,000.00	\$10,000
24" Storm Drain (incl. mh's)	525	l.f.	\$40	\$21,000
27" Storm Drain (incl. mh's)	900	l.f.	\$41	\$36,900
30" Storm Drain (incl. mh's)	960	l.f.	\$44	\$42,240
33" Storm Drain (incl. mh's)	900	l.f.	\$49	\$44,100
36" Storm Drain (incl. mh's)	490	l.f.	\$51	\$24,990
54" Storm Drain (incl. mh's)	1,250	l.f.	\$83	\$103,750
66" Storm Drain (incl. mh's)	1,580	l.f.	\$105	\$165,900
72" Storm Drain (incl. mh's)	1,200	l.f.	\$113	\$135,600
Subtotal				\$584,500
15% Contingency				\$87,700
Construction Cost				\$672,200
10% Engineering				\$67,200
Total Costs				\$739,000

FUNDING SOURCES:

NOTES: 1. Assumes Storm Drain Const. concurrent w/ Road Imps.
(Excludes pavement removal & replacement)

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DRAINAGE COST DETAIL

PROJECT NO. : 3.19
PROJECT NAME: TRUNK DRAINAGE, SHED K
PROJECT DESCRIPTION: TRUNK DRAIN FAC. (DISCHARGE TO GERBER CREEK, REACH 2A)
DRAINING 30 ACRES OR MORE

PROJECT COSTS:

<u>Item</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Total Cost</u>
Outfall Structure (12" to 36")	1	each	\$5,000.00	\$5,000
15" Storm Drain (incl. mh's)	200	l.f.	\$29	\$5,800
27" Storm Drain (incl. mh's)	400	l.f.	\$41	\$16,400
36" Storm Drain (incl. mh's)	280	l.f.	\$51	\$14,280
Subtotal				\$41,500
15% Contingency				\$6,200
Construction Cost				\$47,700
10% Engineering				\$4,800
Total Costs				\$53,000

FUNDING SOURCES:

NOTES:

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DRAINAGE COST DETAIL

PROJECT NO. : 3.21
PROJECT NAME: TRUNK DRAINAGE, SHED F
PROJECT DESCRIPTION: TRUNK DRAIN FAC. (DISCHARGE TO GERBER CREEK, REACH 2A)
DRAINING 30 ACRES OR MORE

PROJECT COSTS:

<u>Item</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Total Cost</u>
Outfall Structure (42" to 72")	1	each	\$10,000.00	\$10,000
21" Storm Drain (Incl. mh's)	700	l.f.	\$37	\$25,900
24" Storm Drain (Incl. mh's)	775	l.f.	\$40	\$31,000
30" Storm Drain (Incl. mh's)	2,040	l.f.	\$44	\$89,760
36" Storm Drain (Incl. mh's)	750	l.f.	\$51	\$38,250
54" Storm Drain (Incl. mh's)	815	l.f.	\$83	\$67,645
60" Storm Drain (Incl. mh's)	630	l.f.	\$100	\$63,000
66" Storm Drain (Incl. mh's)	640	l.f.	\$105	\$67,200
Subtotal				\$392,800
15% Contingency				\$58,900
Construction Cost				\$451,700
10% Engineering				\$45,200
Total Costs				\$497,000

FUNDING SOURCES:

NOTES: 1. Assumes Storm Drain Const. concurrent w/ Road Imps.
(Excludes pavement removal & replacement)

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DRAINAGE COST DETAIL

PROJECT NO. : 3.23
PROJECT NAME: TRUNK DRAINAGE, SHEDS A & B
PROJECT DESCRIPTION: TRUNK DRAIN FAC. (DISCHARGE TO BASIN G46)
DRAINING 30 ACRES OR MORE

PROJECT COSTS:

<u>Item</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Total Cost</u>
Outfall Structure (42" to 72")	2	each	\$10,000.00	\$20,000
24" Storm Drain (incl. mh's)	1,250	l.f.	\$40	\$50,000
27" Storm Drain (incl. mh's)	950	l.f.	\$41	\$38,950
30" Storm Drain (incl. mh's)	1,190	l.f.	\$44	\$52,360
36" Storm Drain (incl. mh's)	1,890	l.f.	\$51	\$96,390
42" Storm Drain (incl. mh's)	700	l.f.	\$58	\$40,600
48" Storm Drain (incl. mh's)	1,790	l.f.	\$66	\$118,140
54" Storm Drain (incl. mh's)	670	l.f.	\$83	\$55,610
60" Storm Drain (incl. mh's)	420	l.f.	\$100	\$42,000
66" Storm Drain (incl. mh's)	1,340	l.f.	\$105	\$140,700
72" Storm Drain (incl. mh's)	750	l.f.	\$113	\$84,750
Subtotal				\$739,500
15% Contingency				\$110,900
Construction Cost				\$850,400
10% Engineering				\$85,000
Total Costs				\$935,000

FUNDING SOURCES:

NOTES: 1. Low flow discharge to basin G46. High flow discharge to Gerber Creek reach 3.

DRAINAGE COST DETAIL

PROJECT NO. : 3.101
 PROJECT NAME: WETLAND MITIGATION - OFFSITE
 PROJECT DESCRIPTION: Offsite Wetland Mitigation for Drainage Improvements

PROJECT COSTS:	Quantity (acres)		Unit Cost	Total Cost
	Creation	Acquisition		
Item				
Vernal Pool	1.3	2.6	\$210,000.00	\$819,000
Seasonal Wetland	1.1	2.2	\$210,000.00	\$693,000
Emergent Marsh	4.1	0	\$100,000.00	\$410,000
			Subtotal	\$1,922,000
			15% Contingency	\$288,300
			Construction Cost	\$2,210,300
			10% Engineering	\$221,000
			Total Cost	\$2,431,000

FUNDING SOURCES:

NOTES:

VI. WATER

The Water Capital Improvement Program was developed in conjunction with the Water Resources Division of Sacramento County. The onsite and offsite water supply, treatment and distribution facilities will serve the Specific Plan areas both outside and within the City's Place of Use. The water facilities, summarized in the NVSSP CIP Water Summary, include supply, treatment, storage, pumping, transmission mains, and a limited number of distribution mains. The NVSSP CIP Water Facilities Exhibit shows the water facilities and their corresponding project CIP identification number.

Two sites are identified for water facilities including wells, treatment, storage and pumping. Land acquisition for the two sites has been included and estimated at \$50,000 per acre.

All transmission mains required to serve the Plan area are included in the CIP. In addition, a limited number of distribution mains to complete the transmission grid have been included.

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WATER COST DETAIL

PROJECT NO. : 4.1
PROJECT NAME: OFF-SITE ZONE 40 FACILITIES
PROJECT DESCRIPTION: T-MAIN FAC. (POWER INN RD. TO W. BNDRY)

PROJECT COSTS:

<u>Item</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Total Cost</u>
16" T-Main (incl. valves)	7,250	L.F.	\$70.00	\$507,500
24" T-Main (incl. valves)	4,700	L.F.	\$120.00	\$564,000
36" T-Main (incl. valves)	10,000	L.F.	\$180.00	\$1,800,000
36" Tie to Exist City Sys.	1	Lump Sum	\$20,000.00	\$20,000
24" T-Main (incl. valves, feed to Booster Pump Sta.)	500	L.F.	\$120.00	\$60,000
Booster Pump Station (2,900 gpm)	1	Lump Sum	\$290,000.00	\$290,000
Bore & Jack 24" T-Main (SPTC RR)	100	L.F.	\$330.00	\$33,000
Purchase Capacity at City W.T.P.	4.2	MGD	\$535,000.00	\$2,247,000
Upgrade City Water System	1	Lump Sum	\$0.00	\$0

Subtotal \$5,521,500

15% Contingency \$828,200

Construction Cost \$6,349,700

10% Engineering \$635,000

Right of Way Aquisition _____ Acres _____ \$0

Total Cost \$6,985,000

FUNDING SOURCES:**NOTES:**

12/12/96:

Revised Upgrade to City Water System, Pump Station Capacity, T-Main quantities, & added Purchase of Capacity at City W.T.P.

5/5/97: Revised 12" T-Main to 16" T-Main per Steve Kenning's comments.

7536-0
Water.xlw
1/31/98

WATER COST DETAIL

PROJECT NO. : 4.2
PROJECT NAME: ZONE 40 FACILITIES (WITHIN P.O.U.)
PROJECT DESCRIPTION: STORAGE, PUMPING, INTERIM WELLS & TREATMENT

PROJECT COSTS:

<u>Item</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Total Cost</u>
24" T-Main (Incl. valves)	1,000	L.F.	\$120.00	\$120,000
2.0 mg Storage Tank	2,000,000	Gallons	\$0.40	\$800,000
Pumping Station (2,900 gpm)	1	Lump Sum	\$290,000.00	\$290,000
Interim Phase I Facilities:				
Wells, (1275gpm)	3	Each	\$400,000.00	\$1,200,000
Pumping Station (2,550 gpm)	1	Lump Sum	\$270,000.00	\$270,000
Treatment Facility	2,550	GPM	\$1,296.00	\$3,304,800
			Subtotal	\$5,984,800
			15% Contingency	\$897,700
			Construction Cost	\$6,882,500
			10% Engineering	\$688,300
Right of Way Acquisition	2	Acres	\$100,000.00	\$200,000
			Total Cost	\$7,771,000

FUNDING SOURCES:**NOTES:**

12-12-96: Moved facility site location, revised facilities and added Interim Phase I facilities with ROW acquisition.
2-1-98: Revised land acquisition to \$100k per Bob Davison & John Goetz.

7536-0
Water.xlw
1/31/98

WATER COST DETAIL

PROJECT NO. : 4.3
PROJECT NAME: ON-SITE ZONE 40 FACILITIES (SPECIFIC PLAN AREA)
PROJECT DESCRIPTION: T-MAIN FACILITIES

PROJECT COSTS:

<u>Item</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Total Cost</u>
24" T-Main (incl. valves)	6,800	L.F.	\$120.00	\$816,000
18" T-Main (incl. valves)	12,400	L.F.	\$80.00	\$992,000
16" T-Main (incl. valves)	13,900	L.F.	\$70.00	\$973,000
12" T-Main (incl. valves)	30,800	L.F.	\$40.00	\$1,232,000

Subtotal	\$4,013,000
15% Contingency	\$602,000

Construction Cost	\$4,615,000
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10% Engineering	\$461,500
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Right of Way Aquisition	_____	Acres	_____	\$0
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Total Cost	\$5,077,000
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FUNDING SOURCES:**NOTES:**

12-12-96: Revised project description to include all onsite T-Main facilities.
5-5-97: Revised 12", 16", & 18" T-Main quantities and revised 16" & 18" T-Main unit costs per Steve Kenning's comments.

7536-0
Water.xlw
1/31/98

WATER COST DETAIL

PROJECT NO. : 4.4
PROJECT NAME: ZONE 40 FACILITIES (OUTSIDE P.O.U.)
PROJECT DESCRIPTION: WELLS, TREATMENT, STORAGE & PUMPING

PROJECT COSTS:

<u>Item</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Total Cost</u>
24" T-Main (incl. valves)	1,000	L.F.	\$120.00	\$120,000
2.0 mg Storage Tank	2,000,000	Gallons	\$0.40	\$800,000
Pumping Station (4,440 gpm)	1	EA.	\$400,000.00	\$400,000
Wells, (1275gpm)	3	Each	\$400,000.00	\$1,200,000
Treatment Facility	3,000	GPM	\$1,296.00	\$3,888,000

Subtotal	\$6,408,000
15% Contingency	\$961,200

Construction Cost	\$7,369,200
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10% Engineering	\$736,900
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Right of Way Acquisition	3	Acres	\$100,000.00	\$300,000
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Total Cost	\$8,406,000
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FUNDING SOURCES:**NOTES:**

12-12-96: Revised facility site location, capacities, & added R.O.W. acquisition
5-5-97: Revised wells (1275gpm) unit cost per Steve Kenning's comments.
2-1-98: Revised land acquisition to \$100k per Bob Davison & John Goetz.

7536-0
Water.xlw
1/31/98

WATER COST DETAIL

PROJECT NO. . 4.5
PROJECT NAME: ON-SITE FACILITIES (SPECIFIC PLAN AREA)
PROJECT DESCRIPTION: DISTR. FAC. REQ'D TO COMPLETE TRANSMISSION GRID

PROJECT COSTS:

<u>Item</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Total Cost</u>
12" Water Main (incl. valves)	15,450	L.F.	\$40.00	\$618,000
10" Water Main (incl. valves & fh stubs)	4,300	L.F.	\$30.00	\$129,000
			Subtotal	\$747,000
			15% Contingency	\$112,100
			Construction Cost	\$859,100
			10% Engineering	\$85,900
Right of Way Aquisition	_____	Acres	_____	\$0
			Total Cost	\$945,000

FUNDING SOURCES:**NOTES:**

12-12-96: Revised project description to all onsite distribution mains.

5-5-97: Revised project name per Steve Kenning's comments.

VII. PARKS AND RECREATION

The Parks and Recreation Capital Improvement Program was developed in conjunction with Southgate Recreation and Park District. The facilities, summarized in the NVSSP CIP Parks and Recreation Summary, include drainage parkway facilities, park facilities, linear parkway facilities, and a community center within the Plan area. The CIP reflects improvements associated with the Preferred Plan.

The drainage parkway facilities include landscaping, a low flow crossing, and a joint use pedestrian bike pathway along the proposed Elder Creek and Gerber Creek onsite corridors. The pedestrian bike pathway is a joint use facility that will also function as a maintenance road. The length of the pathway is estimated at 1.25 times the channel length. A portion of the pathway facility, associated with the maintenance road, is included in the Drainage CIP. The remaining improvements, associated with the pedestrian/bike path, are included in the Parks and Recreation CIP. It is assumed that the open space drainage parkway will be dedicated as development occurs. Therefore, no land acquisition has been included.

The park facilities include basic site improvements for onsite parks identified in the Plan area as well as for fifteen onsite tot lots. In addition, the CIP includes an onsite community center facility. The estimated cost for the community center facility includes site improvements, building, fees, landscaping, architecture and engineering.

The linear parkway facilities include landscaping and a pedestrian bike path. It is assumed that the open space linear parkway will be dedicated as development occurs. Therefore, no land acquisition has been included.

NORTH VINEYARD STATION SPECIFIC PLAN									
PRELIMINARY CAPITAL IMPROVEMENT ITEM'S LISTING									
PERY C Restoration Improvements to Lagoon & Canal Estimation									
Project Number	Item	Project Description	Quantity	Unit	Unit Price	Total Estimated Cost	Year	Estimate	Cost
Ditchway Parkway Realities									
DP1	Low Flow Pedestrian / Bicycle Path Crossing	Low Flow Crossing (1 Elder Creek and CCTC Road)	1	Each	\$25,000	\$25,000			
DP2	Elder Creek Reach 1A (Western SPA Boundary to Farm Rd)	Ditchway Parkway Landscaping Improvements (Adjacent to Lagoon and 8,050 L.F. L.F.)	8,050.0	L.F.	\$11.00	\$111,000			
DP3	Gerber Creek Reach 2A (Continued w/ Elder Creek to Gerber Rd Crossing)	Ditchway Parkway Landscaping Improvements (Adjacent to 8,075 L.F. L.F.)	8,075.0	L.F.	\$12.00	\$112,200			
DP4	Gerber Creek Reach 2C (Gerber Rd Crossing (3 to 42)	Ditchway Parkway Landscaping Improvements (Adjacent to 4,000 L.F. L.F.)	4,000.0	L.F.	\$18.00	\$74,000			
DP5	JOINT USE DRAINAGE PARALLEL PED/BICYCLE PATH	JOINT USE DRAINAGE PARALLEL PED/BICYCLE PATH (Excludes excavation and connected to be included in Ditchway CIP)	20,000	L.F.	\$10.00	\$200,000			
DP6	Ditchway Parkway Landscaping		20,000.0	AC	\$0	\$0			
Total For Ditchway Parkway Costs									
			20,000.0	AC		\$74,000			
Park Development									
P1	Block Park Improvements (0 acres x 100 by 100 ft)	Site Improvements and Engineering	24.0	AC	\$52,500	\$1,260,000			
P2	Block Park Improvements (3 acres x 100 by 100 ft)	Site Improvements and Engineering	43.8	AC	\$10,000	\$438,000			
P3	Block Park Improvements (10 acres x 100 by 100 ft)	Site Improvements and Engineering	10	AC	\$2,000	\$20,000			
P4	Block Park Improvements (10 acres x 100 by 100 ft)	Site Improvements and Engineering	10	AC	\$2,000	\$20,000			
Total for Park Development									
			43.8	AC		\$478,000			
Linear Parkway Development									
P20	Linear Parkway Landscaping	Linear Parkway Landscaping	1,000.0	L.F.	\$10	\$10,000			
P21	Linear Parkway Ped/Bicycle Path	Linear Parkway Ped/Bicycle Path	1,000.0	L.F.	\$22	\$22,000			
P22	Linear Parkway Landscaping	Linear Parkway Landscaping	1,000.0	AC	\$0	\$0			
Total for Linear Parkway Development									
			1,000.0	AC		\$22,000			

PROJECT NO. :	DP5
PROJECT NAME:	JOINT USE DRAINAGE PARKWAY PED./BIKE TRAIL
PROJECT DESCRIPTION:	JOINT USE DRAINAGE PARKWAY PED./BIKE PATH MEANDERING ADJACENT TO CHANNEL

Item	Quantity	Unit	Unit Cost	Total Cost
Asphaltic Concrete, 2"	12	S.F.	\$0.45	\$5.40
Decomposed Granite Sholders	4	S.F.	\$1.50	\$6.00
Signing, striping, bollards	1	Lump Sum	\$3.00	\$3.00

FUNDING SOURCES:

- 1 The pedestrian/bicycle path quantities are based on 1.25 times the channel length. At the time of reimbursement, cost will be based on actual length.
2. Costs for excavation and aggregate base included in Drainage CIP.
- 3 Revised joint use path width per Pete Ghelfi.
Revised quantity. 2-4-98.

7536-0
Parks
11/13/97

PARKS COST DETAIL

PROJECT NO. : P21
PROJECT NAME. LINEAR PARKWAY PED./BIKE TRAIL
PROJECT DESCRIPTION: PED./BIKE PATH AT PARKS & LINEAR PARKWAY

PROJECT COSTS.

<u>Item</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Total Cost</u>
Excavation	0.2	c.y.	\$3.00	\$0.60
Asphaltic Concrete, 2"	10	S.F.	\$0.45	\$4.50
Aggregate Base, 4"	10	S.F.	\$0.40	\$4.00
Decomposed Granite Sholders	4	S.F.	\$1.50	\$6.00
Signing, striping, bollards	1	Lump Sum	\$3.00	\$3.00
Subtotal				\$18.10
10% Contingency				\$1.81
Construction Cost				\$19.91
10% Surveys, design & inspection				\$1.99
Total Cost				\$21.90
Use				\$22.00

FUNDING SOURCES**NOTES.**

1 The pedestrian/bicycle path quantities are based on 1.25 times the channel length. At the time of reimbursement, cost will be based on actual length.

VIII. FIRE PROTECTION

The Fire Protection Capital Improvement Program was developed in conjunction with the American River Fire Protection District. The estimated cost for the Fire Protection Capital Improvement Program includes the re-opening of Station 52. The District has indicated that the existing Station 52 property will meet the needs of a new station.

In November 1996, the American River Fire Protection District estimated the costs as follows:

Fire Station	\$1,200,000
Engine/Water Tender	\$252,000
Model 14 Wildland Interface Engine	\$198,000
Ambulance	\$145,000
TOTAL =	\$1,795,000

IX. TRANSIT

The Transit CIP was developed in cooperation with Regional Transit. The Transit CIP includes a Park and Ride facility located within the Plan area. Land acquisition for the 9 acre site is included and estimated at \$70,000 per acre.

7536-00

2/3/98

NVSSP TRANSIT CIP COST DETAIL SHEET

Park & Ride

(9 AC, Site)

1.	Grading	9 AC = 392,040 S.F. @ \$1.25/S.F. =	\$490,050
2.	Paving	85% of 9 AC = 333,234 S.F. @ \$1.10/S.F. =	\$366,557
3.	Landscaping w/ irrig. & planters	15% of 9AC = 58,806 S.F. @ \$3.00/S.F. =	\$176,418
4.	Water Services	1 EA \$600 =	\$600
5.	Sewer Service	1 EA \$600 =	\$600
6.	Perimeter Curbs	2,650 L.F. \$2.00 =	\$5,300
7.	Drainage - Local	1 L.S. \$40,000 =	\$40,000
8.	Streetlights	30 EA \$2,000 =	\$60,000
9.	Signs	4 EA \$225 =	\$900
10.	Joint Utility Trench	1 L.S. \$20,000 =	\$20,000
SUBTOTAL			\$1,160,000
30% eng, design, inspection, survey, cont.			\$ 348,100.00
LAND ACQUISITION			
SUBTOTAL			\$1,508,100
9 AC @ \$70 K/AC			\$ 630,000
TOTAL			\$2,138,100
USE			\$ 2,138,000

X. LIBRARY

The NVSSP Library CIP was developed in cooperation with the Sacramento Public Library and the County of Sacramento. The cost identified in the CIP includes NVSSP's fair share of the Elk Grove Regional Library proposed at the intersection of Elk Grove Boulevard and Williamson Road. The cost of the Elk Grove Regional Library was estimated in 1997 dollars by Sacramento Public Library as follows:

Construction and Interior Furnishings	\$7,939,200
Initial Book Collection	\$3,477,900
TOTAL	\$11,417,100

The regional portion of this facility was estimated in Elk Grove/ West Vineyard Public Facility Financing Plan to be 50% of the total costs, or \$5,708,550.

$$50\% \text{ of } \$11,417,100 = \$5,708,550$$

The NVSSP area's projected build out population of 15,847 is 15.7% of the total 101,071 build out population of the NVSSP and EGWV areas. Based on this revised build out population, the estimated plan area cost is \$896,000.

$$(15,847 / 101,071) \times \$5,708,550 = \$896,000$$

XI. SCHOOL

The School Capital Improvement Program was developed in conjunction with Elk Grove Unified School District. Based on the Preferred Plan, the District estimated the student generation and financial impact for development in the Plan area. The following School CIP Detail sheet shows the E.G.U.S.D. Environmental Review Project Worksheet for the Plan area. The E.G.U.S.D. estimated the total cost to be \$67,712,000. This cost includes both onsite and offsite facilities.

NORTH VINEYARD STATION SPECIFIC PLAN CIP SCHOOL DETAIL SHEET

ENVIRONMENTAL REVIEW PROJECT WORKSHEET

PROJECT NAME	North Vineyard Station Preferred Plan	NUMBER OF DWELLING UNITS (SF)	5689
CONTROL NUMBER		NUMBER OF DWELLING UNITS (MF)	637

STUDENT YIELD BY DWELLING TYPE

DWELLING TYPE	NO. OF UNITS		K-12 YIELD RATE		STUDENT YIELD
SINGLE FAMILY *	5689	X	0.6746	-	3837.80
MULTI FAMILY **	637	X	0.5057	-	322.13
PROJECT'S TOTAL ESTIMATED STUDENT YIELD					4159.93

STUDENT YIELD BY GRADE

DWELLING TYPE/NUMBER		K - 6		7 - 8		9 - 12	
SINGLE FAMILY *	5689	2202.78	0.3872	618.96	0.1088	1016.06	0.1786
MULTI FAMILY **	637	206.96	0.3249	48.09	0.0755	67.08	0.1053
TOTAL STUDENTS		2409.74		667.06		1083.13	

STUDENT HOUSING COSTS

GRADE LEVEL	NUMBER OF UNITS		COST PER STUDENT		COST
Elementary	2409.74	X	\$13,070	-	\$31,495,329
Middle	667.06	X	\$16,866	-	\$11,250,578
High/Cont	1083.13	X	\$23,050	-	\$24,966,181
TOTAL COST				-	\$67,712,089

DEVELOPMENT FEES COLLECTED

DWELLING TYPE	NUMBER OF UNITS		SQ FT PER UNIT ***		FEE PER SQ FT		FEE PER UNIT
SINGLE FAMILY *	5689	X	1762	X	\$3.17	-	\$31,776,137
MULTI-FAMILY **	637	X	966	X	\$3.17	-	\$1,950,634
COMMERCIAL				X	\$0.30	-	\$0
TOTAL FEE			*** AVERAGE SIZE			-	\$33,726,771

CURRENT FINANCIAL IMPACT SUMMARY

STUDENT HOUSING COSTS	\$67,712,089
RESIDENTIAL FEES GENERATED	\$33,726,771
NEGATIVE FINANCIAL IMPACT	\$33,985,317

* Includes single family detached homes, halfplexes, mobile homes not located in mobile home parks, and homes located on agricultural land

** Includes apartments, condominiums, duplexes & mobile homes located in mobile home parks.

ATTACHMENT 4

NVSSP POLICY PLAN

REVISED POLICIES

**endorsed by the Policy Planning Commission
on December 10, 1997**

RESIDENTIAL LAND USE POLICIES

1. Preserve the integrity of existing neighborhoods by preventing the encroachment of incompatible land uses and associated activities (e.g., excessive through traffic).
2. Rear and side yards shall face streets designated as Arterial and Thoroughfare streets on the Circulation Plan. Subdivisions shall be separated from Arterial and Thoroughfare streets by landscaped areas, sound walls, fences, and/or berms that conform to the Design Guidelines included in this Plan.
3. The number of vehicular access points to subdivisions shall be limited in order to reduce through traffic; however, multiple linkages for pedestrians and bicyclists are encouraged.
4. Residential subdivisions shall be designed to facilitate pedestrian and bicycle travel.
5. Design and architecture of proposed residential projects ~~should~~ shall consider the Design Guidelines included in the Specific Plan.
6. Private open space and recreation amenities that will meet the needs of the resident population shall be provided in multi-family residential projects.
7. Residential lotting patterns should promote opportunities for public access into public open spaces. Parks and other community open spaces should be accessible at points along the street systems.
8. Residential subdivisions shall be designed to facilitate surveillance of parks and open space areas by residents and Sheriff patrols.
9. Single Family and Medium Density Residential dwellings shall have frontage on, and driveway access to, Collector Streets only in accordance with average daily traffic counts described in Section 7.5.1.
10. Provide a range of land use densities within newly developing areas to enhance community vitality and create a mix of lot and housing types.
11. Variation of housing within neighborhoods is encouraged, provided the mix is architecturally compatible.
12. Long stretches of backup lots along parkways and drainage/creek corridors should be discouraged. The use of front on streets, side yard lotting patterns and open-ended cul-de-sacs are appropriate.

13. Provide adequate buffering within the urban-residential areas where adjacent land uses differ significantly. Appropriate buffering techniques include larger lots, additional setbacks, landscape corridors or any appropriate combination.

COMMERCIAL LAND USE POLICIES

1. Parking lots, loading areas, outdoor lighting, trash enclosures, and other potentially disruptive features of commercial development shall be located, designed, and oriented to minimize negative impacts on adjacent residential areas.
2. Pedestrian and bicycle access to and within commercial areas should be facilitated by the creation of sidewalks, pedestrian/bicycle paths, and bicycle parking facilities.
3. To further encourage walking and cycling to work, businesses shall be encouraged to provide shower and locker room facilities for their employees.
4. All aspects of commercial development, including architecture, landscaping, lighting, and signage should consider the Design Guidelines included in the Specific Plan.
5. Commercial development shall be located, designed, and oriented to minimize negative impacts on nearby residential areas utilizing buffering techniques such as vegetative screening, open space, or other means to accomplish this objective.
6. The Commercial land uses located along Planning Area arterials and thoroughfares should be accessible by public transportation.
7. Provisions shall be made to accommodate pedestrians along street frontages and through parking areas to reach main building entrances.
8. Pedestrian access points shall be provided along the site perimeter of commercial and office uses to enable pedestrian access from adjacent residential neighborhoods. These access points should be designed appropriately to maintain land use compatibility and address safety concerns.
9. Consideration shall be given to the reduction of parking requirements for individual uses where it can be demonstrated that an overlap of parking demand exists for the overall commercial complex.

OPEN SPACE LAND USE POLICIES

General Policies

1. Storm drainage in open space areas shall be by means of natural or natural-appearing stream courses, rather than closed culverts, except where in conflict with other planned facilities.
2. Except where wetlands mitigation, drainage channel, or stormwater detention construction is proposed and where necessary to prevent erosion, grading and construction shall be prohibited in designated open space areas. In instances where grading is permitted, the minimum necessary shall be allowed.
3. Pedestrian and bicycle trails and pathways are encouraged within open space areas to the extent possible. Such facilities shall be located and designed to minimize disturbance of natural features.
4. To the maximum extent feasible, uses abutting Open Space shall be oriented and designed to permit surveillance of these areas in order to discourage unlawful activities.
5. Where residential development abuts Parkways and Drainage Parkways, fences shall adhere to the following design: six (6) feet in height, consisting of three (3) feet of wrought iron on top of three (3) feet of masonry wall. **The Planning Commission may waive this requirement where privacy is an issue adjacent to a bicycle path.**

Drainage Parkway Policies

1. The Drainage Parkways (i.e., Elder Creek and Gerber Creek) shall be designed as natural-appearing corridors, serving to enhance wetlands and riparian habitats, act as natural flood water detention areas, and function as water quality enhancement features. The Drainage Parkways shall be designed to permit the growth of vegetation that does not impede the design flow characteristics. Periodic clearing is allowed to maintain channel function.
2. Drainage Parkways should be crossed by streets only in those locations shown in the Specific Plan Land Use Diagram.
3. To the maximum extent possible, only one side of any segment of Drainage Parkway shall have homes backing up to it. However, homes shall not backup to the Drainage Parkway on sides containing a Pedestrian/Bicycle pathway.
4. Stormwater detention should include consideration for joint-use of park and recreation facilities at the time of final design.

Wetlands Policies

1. Except where off-site mitigation is allowed, all wetlands to be retained shall be contained within designated open space areas shown in the Specific Plan.
2. All activities within jurisdictional wetlands shall be in accordance with the applicable Section 404 U.S. Army Corps of Engineers permit.
3. Development shall be planned and carried out in a manner that to the extent possible preserves wetlands and their functional value. Preservation of small wetlands isolated by development greatly diminishes its functional value and is therefore undesirable.
4. Natural area buffers will be provided around the periphery of constructed wetlands in order to maintain their value to wildlife. While the precise dimensions of these buffers will vary depending on the type of habitat buffered and adjoining land uses, the goal is that the buffers will average a minimum of 50 feet in width. These buffers shall be maintained in their natural state and landscaping activities such as watering, mowing, or planting ornamental species shall not be allowed. It is further intended that the construction of structures or roads within buffers be restricted. Construction of low-impact passive recreation facilities such as nature trails, waterfowl viewing areas, etc. is considered compatible within these buffers.
5. Temporary fencing shall be installed along the boundary of the wetland preserve areas prior to construction, grading, movement of material or machinery onto the site, or issuance of any construction permits for abutting properties. The fencing shall not be removed until construction activity is completed.
6. Passive recreation facilities, such as hiking or bicycle trails, shall be designed to avoid impacts to wetlands and shall be approved by appropriate state and federal agencies prior to construction when necessary.
7. No grading, planting of non-native vegetation, vegetation removal, structures, fences, dams, fills, ponds, or excavation shall occur within wetland preserve areas, except for specifically approved activities.
8. Where impacts to wetlands cannot be avoided or where preserved wetlands would be relatively small and isolated by development, compensation shall occur as required by the Army Corps of Engineers.
9. Where wetland habitat must be compensated, a mitigation plan will be prepared which sets forth the goals, objectives and procedures for accomplishing the mitigation. Each plan must establish criteria for judging the relative success of the

mitigation effort, set forth a monitoring plan and provide a mechanism for the long-term management of the created habitat.

10. Detailed wetland delineations shall be completed and verified by the U.S. Army Corps of Engineers for each property prior to its development.

NATURAL RESOURCES PRESERVATIONS POLICIES

1. Individual development projects, which include oak trees 6 4-inches dbh or larger (as indicated in the project arborist report), shall comply with the following measures:
 - a. An arborist report shall be prepared for the individual developments and included in the project application. The report shall include a description of the health and condition of the oak trees, and shall include recommendations to mitigate the impacts of project development.
 - b. Following review of the individual development application by the County Planning and Community Development Department, requirements shall be placed on the project which require oak tree preservation and include appropriate protection measures, or allow tree removal, with mitigation when justified. Oak trees which are removed, because they are dead; in poor health, create a substantial safety hazard or conflict with the construction of arterial roadways shall not require mitigation.
 - c. Improvement Plans for individual development projects shall implement measures to preserve oak trees. Easements or other restrictions to ensure preservation of oak trees may be required in Final Maps.
 - d. If building permit applications are submitted for lots with preserved oak trees and required mitigation measures are to be implemented during construction of the subdivision lots, then building permits shall be reviewed by the County Planning and Community Development Department and the County Department of Environmental Review and Assessment (DERA) as part of the plan check process.
2. All native oak trees 6 inches dbh or larger, except those that are specifically approved for removal, shall be preserved and protected by utilizing the following measures:
 - a. A circle with a radius measurement from the trunk of the tree to the tip of its longest limb constitutes the dripline protection area of each tree. The longest limb may not be cut back in order to change the dripline. The area beneath the dripline is critical portion of the root zone and defines the minimum protected area of each tree. Removing limbs which make up the dripline does not change the protected area.
 - b. Chain-link fencing or similar protective barrier shall be installed at least one foot

outside the driplines of the oak trees prior to initiating construction, in order to avoid damage to the tree canopies and root systems.

- c. No signs, ropes, cables (except those which may be installed by a certified arborist to provide limb support) or any other items shall be attached to the oak trees. Small metallic numbering tags for the purpose of preparing tree reports and inventories shall be allowed.
 - d. No vehicles, construction equipment, mobile home/office, supplies, materials or facilities shall be driven, parked, stockpiled or located within the driplines of oak trees.
 - e. No grading (grade cuts or fills) shall be allowed within the driplines of oak trees.
 - f. Drainage patterns on the site shall not be modified so that water collects or stands within, or is diverted across, the dripline of any oak tree.
 - g. No mechanized trenching shall be allowed within the driplines of oak trees. If it is absolutely necessary to install underground utilities within the dripline of an oak tree, the utility line shall be bored and jacked under the supervision of a certified arborist.
 - h. The construction of impervious surfaces within the driplines of oak trees shall be stringently minimized. When it is absolutely necessary, porous materials shall be used and/or a piped aeration system shall be installed under the supervision of a certified arborist.
 - i. No sprinkler or irrigation system shall be installed in such a manner that sprays water or requires trenching within the driplines of oak trees. An above-ground drip irrigation system is recommended.
 - j. Landscaping beneath oak trees may include non-plant materials such as bark mulch, wood chips, boulders, etc. The only plant species which shall be planted within the driplines of oak trees are those which are tolerant of the natural semi-arid environs of the trees. A list of such drought-tolerant plant species is available from the Sacramento County Department of Environmental Review and Assessment (DERA). Limited drip irrigation approximately twice per summer is recommended for the understory plants.
3. Make every effort to protect and preserve non-oak native trees(excluding cottonwoods), including heritage (trees with a diameter at breast height, dbh, of 19 inches or greater) and/or landmark trees (as defined in the County Tree Ordinance). Native trees other than oaks which cannot be saved or are removed shall be replaced with in-kind species in accordance with established tree planting specifications and

established replacement/compensation ratio of one 15-gallon tree for every inch dbh of tree removed.

4. Development shall be planned and carried out to avoid impacts to special status species where possible. Where impacts are unavoidable, mitigation plans will be developed and implemented which reduce these impacts to a less than significant level. Where a special status species is listed as a threatened or endangered species by either the United States Fish and Wildlife Service and/or the California Department of Fish and Game, the mitigation plan shall be approved by the applicable agency. Where other mitigation measures required by this specific plan (i.e. wetlands mitigation) would also satisfactorily mitigate sensitive species impacts, such measures will satisfy this requirement.

CIRCULATION POLICIES

1. Thoroughfare, Arterial and Collector streets shown on the Specific Plan Diagram are approximate locations. Minor adjustments may be permitted in conjunction with review and approval of tentative subdivision maps and as specified in Section 11.0.
2. Local streets shall be constructed on a subdivision-by-subdivision basis within individual residential subdivisions. Thoroughfare and Arterial streets may be constructed in advance of residential subdivision development, as needed for access and public safety.
3. Bus shelters and turnouts, designed in accordance with County improvement standards, shall be located along thoroughfare and arterial streets at residential subdivision entrances, at commercial centers, and at public facilities to facilitate extension and use of public transit.
4. All streetscape on public and private streets, including sidewalks, pedestrian paths, bicycle lanes and landscaping, shall be designed and constructed in accordance with the cross sections included this Plan, and the Design Guidelines.
5. Sidewalks or pedestrian paths shall be provided on both sides of all streets, except where the County allows sidewalk construction on one side, only. Paths shall be separated from thoroughfare and arterial streets to the maximum extent possible. Intrusion upon the privacy of residential property shall be minimized.
6. Minor streets within residential subdivisions shall be designed to emphasize internal circulation and discourage through traffic and unsafe speeds. Minor streets should be designed with interconnected routes; excessively winding and dead-end streets are discouraged. Figure 7.7 illustrates discouraged and recommended examples of street patterns.

7. Pedestrian and bicycle paths shall be located within Thoroughfare, Arterial, and Collector street rights-of-way and in open space areas. Public access rights shall be guaranteed in all instances.
8. All residential developments shall be designed to provide convenient pedestrian and bicycle access to schools, parks, and open space areas.
9. Pedestrian and bicycle trails and pathways are encouraged within open space areas to the extent possible. Such facilities shall be located and designed to minimize disturbance of important natural features.
10. No streets other than those shown on the Specific Plan Land Use Diagram shall cross or be constructed upon a Drainage Parkway or other open space area identified on the Land Use Diagram.
11. Residential streets adjacent to Drainage Parkways should be designed to allow surveillance of these open space features from the street.
12. Plan for the future use of the Central California Traction Railroad corridor as a public transportation right-of-way, including fixed line bus service.
13. The street pattern within urban residential areas should be simple in design, and should be interconnected, linking neighborhoods and providing multiple access routes which converge on commercial areas, parks and transit stops.
14. Support the acquisition of parcels of land that may be needed in the future for any transportation purpose when the opportunity arises through conditions of approval, dedication, sale or donation.
15. The project proponents should work with County Transportation staff to identify alternative forms of traffic control (such as roundabouts) on the minor roadways internal to the project.
16. Safe and convenient crossings of major roads should be provided for pedestrian and bicyclists.
17. The Plan shall include a network of interconnected bicycle and pedestrian facilities.
18. The Plan area should participate in a Transportation Management Association.
19. Encourage commercial buildings to be located near adjacent streets with parking in the rear.

20. Permit park and ride lots as joint use facilities within the commercial center of the planning area.

PUBLIC FACILITY AND SERVICES POLICIES

School Facilities:

1. Provide the number, type, design, and location of school facilities consistent with the Elk Grove Unified School District's Master Plan.
2. New elementary schools sites should be designated adjacent to existing or proposed neighborhood or community park sites and designed to promote joint use of both facilities.
3. Provide bikeways or pedestrian facilities to link schools sites with residential areas.

Law Enforcement:

1. Residential-based surveillance and law enforcement notification programs, such as Neighborhood Watch, shall be encouraged.
2. All land uses in the Plan area should be designed to facilitate surveillance and access by law enforcement equipment and personnel.
3. Streets shall be designed to ensure that emergency response is not impaired.

Fire Protection

1. Fire stations shall be located, designed and oriented in a manner harmonious with adjoining land use.
2. Ensure adequate water flows to serve the Plan area with an adequate level of fire protection.
3. The provision of fire protection services and facilities within the Plan area should be at a level sufficient to address public health and safety needs.

Solid Waste Disposal:

1. Recycling of residential and commercial solid waste should be promoted and encouraged within the Plan Area.

2. Residential developments shall be designed to facilitate the use of automated solid waste collection trucks.
3. All residential projects shall be designed so that solid waste containers can be hidden from street view.

Library Service:

1. Encourage the provision of adequate library facilities in conveniently proximity to Plan area residents.
2. A branch library shall be accommodated within the Public Services site, if deemed appropriate by the County.

Park:

1. Whenever possible, park sites should be located adjacent to public facilities, such as schools, libraries, and fire stations. Joint-use agreements should be encouraged. In such instances, recreation amenities, including play equipment, should be coordinated to minimize duplication.
2. Parks shall be located in the approximate locations shown on the Specific Plan Map. Precise locations will be determined at the time of tentative subdivision map approval for each residential project.
3. Parks and open space areas shall be linked by a pedestrian and bicycle circulation system to the maximum extent feasible.
4. Wherever possible, parks should be bordered on at least two sides by streets in order to facilitate public access and surveillance.
5. Park facilities and sites shall be provided in conformance with the Southgate Recreation and Park District Master Plan.
6. Parks shall be designed, and facilities oriented, to minimize noise and visual impacts on adjoining residential lots.
7. Where parks are adjacent to Drainage Parkways, the park shall include pedestrian pathways which connect to the pathway in the Drainage Parkway.
8. Parks adjacent to Drainage Parkways shall include appropriate fencing or plant buffering to separate active recreation areas from the Drainage Parkway.

INFRASTRUCTURE POLICIES

Water Supply:

1. Annex developing portions of the North Vineyard Station planning area to Zone 40 of the Sacramento County Water Agency and the Sacramento County Water Maintenance District.
2. Insure a reliable supply of water to the North Vineyard Station planning area through the implementation of programs identified in the Zone 40 Master Plan.
3. Install and maintain public fire hydrants with adequate flow to serve the fire protection needs of all residents.
4. Building permits and improvement plans for proposed projects shall not be approved until a Public Infrastructure/Financing Plan has been adopted for the Plan area.
5. Development projects shall participate in the cost of constructing master infrastructure facilities. Determination of fair share costs, timing, and funding mechanisms for master infrastructure facilities shall be determined by the adoption of a Financing Plan for this Specific Plan area.

Sewer Service:

1. Annex developing portions of the North Vineyard Station planning area into the Sacramento County Sanitation District No. 1 and the Sacramento Regional County Sanitation District, prior to recordation of any final maps or approved improvements plans.

Storm Drainage:

1. Stormwater Detention Basins shall be designed to ensure public safety, shall be visually unobtrusive, and shall provide wildlife habitat. Basins shall comply with guidelines set forth in Section 6.0.
2. Public infrastructure, such as electrical substations, water wells, and sewer lift stations, shall be designed, located and maintained so that safety and nuisance factors, such as noise, light glare, and odors will not adversely impair nearby land uses.

Public Utility:

1. All new electrical and telecommunication facilities shall be installed underground, excluding primary transmission lines and substations. Undergrounding of existing overhead facilities should be promoted.

ENVIRONMENTAL IMPACT REPORT/ACKNOWLEDGMENTS
DEPARTMENT OF ENVIRONMENTAL REVIEW & ASSESSMENT

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