DRAFT ENVIRONMENTAL IMPACT REPORT

SACRAMENTO COUNTY PEDESTRIAN MASTER PLAN

Control Number: 06-PWE-0347
Date: July 2007

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

Board Of Supervisors

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County Executive

Terry Schutten

Prepared By

Department of Environmental Review and Assessment

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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 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 an 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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827 7TH STREET, ROOM 220
SACRAMENTO, CALIFORNIA 95814

Municipal Services Agency

Department of Environmental Review and Assessment
Joyce Horizumi, Director

County of Sacramento

Terry Schutten, County Executive
Paul J. Hahn, Agency Administrator

August 2, 2007

TO: ALL INTERESTED PARTIES

Subject: Pedestrian Master Plan (Control Number 06-PWE-0347)

The subject Draft Environmental Impact Report (DEIR) is attached for your review and comment. Reviewers should focus on the sufficiency of the Environmental Impact Report in discussing possible impacts upon the environment, ways in which adverse effects might be minimized, and alternatives to the proposed project.

Reviewers who wish to comment on the DEIR are urged to submit written comments to this office by September 17, 2007. Failure to do so will not preclude your right to testify at the Project Planning Commission hearing. A public hearing on the DEIR will be held on September 24, 2007 at 5:30 p.m. before the Project Planning Commission at the County Board Chambers located at 700 H Street, Sacramento, 95814.

Please contact Lisa Worrall or Tim Hawkins of this office at 874-7914 if you have questions concerning this DEIR.

Sincerely,

[Original Signature on File]

Joyce Horizumi

Director

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1 PREFACE

This document is the Draft Environmental Impact Report (EIR) for the Sacramento County Pedestrian Master Plan project. The focus of the EIR is land use, agricultural resources, aesthetic resources, transportation/traffic, air quality, noise, hydrology and water quality, biological resources, cultural resources and hazards and hazardous materials.

The Notice of Preparation was issued on June 29, 2006. Concerns and comments raised in response to the NOP are addressed herein.

The Board of Supervisors will use the EIR in making a decision to approve or deny the project.

The Sacramento Pedestrian Master Plan is available at the Sacramento County Department of Transportation office at 906 G Street 5th Floor, Sacramento, CA 95814 or online at www.sacdot.com/.

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.

  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.

2 EXECUTIVE SUMMARY AND MITIGATION MEASURES

The subject of this Environmental Impact Report (EIR) is a project known as Sacramento County Pedestrian Master Plan. The project is located in the unincorporated area of Sacramento County.

The following environmental impact and mitigation 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.

This report identifies significant and unavoidable impacts related to aesthetics. This report has identified project-related impacts associated with biological resources, cultural resources, and hazards and hazardous materials as potentially significant, which could be reduced to a less than significant level through inclusion of recommended mitigation measures. Impacts associated with land use, population/housing, agricultural resources, airports, public services, transportation/traffic, air quality, noise, hydrology and water quality and geology and soils are considered less than significant.

The Pedestrian Master Plan proposes pedestrian enhancement projects, pedestrian programs, and pedestrian goals policies and action items. The following projects are identified in the Master Plan: signal timing, countdown signal, lighting, trail crossings, midblock crossings, sidewalk obstruction removal, pedestrian districts, alley conversions, safe routes to school and transit, sidewalks/walkways, and pathways. Projects are prioritized and the projects identified as high priority are included in the Pedestrian Capital Improvement Program and construction would occur within the first ten years of the pedestrian program. The remaining projects in the Pedestrian Master Plan would be constructed over a twenty-year period. The pedestrian programs proposed in the Master Plan are the *Pedestrian Design Guidelines and Pedestrian Policies* Training, Pedestrian Facility Maintenance, and Pedestrian Marketing. The pedestrian goals, policies, and action items represent a set of principles that would be incorporated into every pedestrian environment and roadway project.

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			
The proposed projects are consistent with the objectives, policies, and guidelines of the Sacramento County General Plan, community plans, specific plans, and comprehensive plans. The proposed projects support the general intent of Special Planning Areas and Neighborhood Planning Areas.	LS	None recommended.	LS
AGRICULTURAL RESOURCES			
CONSERVATION OF AGRICULTURAL LAND It is anticipated that the minor conversion of agricultural land would not exceed the significance thresholds established by the Sacramento County General Plan and/or the California Agricultural Land Evaluation and Site Assessment (LESA) Model and would not substantially impact agricultural production.	LS	None recommended.	LS
WILLIAMSON ACT The improvement plans in the site-specific project locations with property subject to Williamson Act are sidewalks/asphalt walkways and are consistent with uses defined in the Williamson Act contracts. Right-of-way may need to be acquired from these properties, however as sidewalks are a linear feature, and as such do not have extensive width requirements, the amount of right-of-way necessary for the sidewalks is minimal. When the property is acquired by the County, the section of property acquired would no longer remain under the Williamson Act contract.	LS	None recommended.	LS

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

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
Transportation facilities are a permitted use under the Williamson Act contract.			
AESTHETICS			
SCENIC DESIGNATED AREAS The types of pedestrian improvements proposed in areas with a scenic designation include sidewalks along portions of River Road and portions of Twin Cities Road and the placement of sidewalks along roadways in the Delta. Improvements to the streams and sloughs may include extension of culverts and bridges. Proposed pedestrian improvements would not conflict with County polices in the Scenic Highway Element.	LS	None recommended.	LS
HISTORIC PROPERTIES The pedestrian improvements identified for a particular location that may be adjacent to a historic property has the potential to affect the integrity of that property. However, policies in the Sacramento County General Plan protect historic properties from potential impact. Future site specific analysis will consider the environment in which the pedestrian project is proposed.	LS	None recommended.	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
STREET TREES Impacts to neighborhood shade trees are of concern when their removal would create a visual loss and subsequent impact to a viewshed. Removal of small amounts of trees scattered along a residential street may not significantly impact the visual character of that street or neighborhood. However, the impact of removing rows of trees and mature landscaping within residential neighborhoods for construction of pedestrian improvements would result in impacts to the viewshed of those neighborhoods. The Aesthetically Sensitive Alternative is presented as an alternative to reduce these aesthetic impacts.	S	None identified.	SU
TRANSPORTATION/TRAFFIC			
The proposed projects support and are consistent with the transportation-related goals and policies of the Sacramento County General Plan, community plans, specific plans, and comprehensive plans.	LS	None recommended.	LS
During construction, impacts to traffic flow as well as pedestrian and other non-motorized circulation are anticipated, much like those experienced with other public works projects. Typical disruptions could cause minor traffic delays and inconvenience to those traveling in these areas. The application of Sacramento County *Standard Construction Specifications* (County Specifications) would minimize these impacts and inconveniences experienced during project construction.	LS	None recommended.	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
AIR QUALITY			
PARTICULATE MATTER (PM10) Fugitive dust (particulate matter) is generated during ground disturbance, typically during grading activities. Screening for particulate matter concentrations generated during construction was conducted using the SMAQMD guidelines. Project construction activities are anticipated to actively disturb no more than 5 acres at any given time.	LS	None recommended.	LS
OZONE PRECURSORS Project analysis shows construction-related NOx emissions will be below the 85 pounds per day identified by the SMAQMD as significant.	LS	None recommended.	LS
NOISE			
Noise from construction activities would increase the noise environment in the immediate area of the particular improvement project. Construction activities would be temporary in nature, typically occurring during normal working hours. Noise sources associated with construction, demolition and paving or grading are exempt from the Sacramento County Ordinance.	LS	None recommended.	LS
HYDROLOGY AND WATER QUALITY			
FLOODPLAIN The type of improvements identified in the Master Plan within floodplains are sidewalks or pathways and trail crossings. The placement of these improvements would not raise base flood elevation levels or impede the flow of	LS	None recommended.	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
floodwaters. The majority of site-specific project topographic conditions would permit the sidewalks or walkways to be placed at the same or very similar level as existing roadways. Trail crossings would not be constructed to impede flows and would not alter base flows.			
STORMWATER RUNOFF Future development at the site-specific project sites could require clearing, grubbing, grading, and excavation of land surfaces to accommodate the pedestrian improvements (sidewalks, curbs, gutters, walkways, etc.). Each project that would disturb one or more acres during construction is required to comply with the State's General Stormwater Permit for Construction Activities. Each project, regardless of size, is required to comply with the County's Stormwater Ordinance.	LS	None recommended	LS
DRAINAGE Sidewalks have the potential to cause impacts to drainage, particularly affecting surface water overland release characteristics. Semi-rural and rural areas within the Master Plan have roadside or agricultural ditches to collect and convey surface water away from the property and roadway. Future projects will be analyzed to ensure that the roadside ditches are relocated such that surface flows are maintained and flooding of property or roadway is avoided.	LS	None recommended	LS
LEVEE There is a sidewalk installation project located along River Road in the Delta area. These roadways are on top of the levee along the Sacramento River. Construction of these	LS	None recommended.	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure		Level of Significance After Mitigation
improvements would most likely require the widening of the levee to support them. Work on levees is regulated by the State Reclamation Board. As site-specific projects are presented for construction, a review of their potential impact to the particular levee would be necessary. Project coordination with the Reclamation Board and an encroachment permit will be required. Specific mitigation may be developed at that time. Design sufficient to stabilize and support the sidewalk would be necessary to ensure long term placement of the sidewalk on the levee. These considerations would be part of the project design process.				
BIOLOGICAL RESOURCES				
RIPARIAN HABITAT Riparian habitat was identified at several project sites. Removal of riparian habitat may occur when improvements, such as sidewalk construction, require the extension of roadway widths into such habitat.	PS	BR-1	Preparation and implementation of a habitat restoration plan to mitigate project-related disturbance to riparian habitat by a qualified restoration specialist acceptable to DERA shall include at a minimum, the following elements: 1. Restoration plantings for the construction disturbance of riparian habitat. The replacement planting area for construction disturbance shall be based on a 2:1 ratio. Following construction, the construction area shall be calculated to determine the actual area of riparian habitat disturbance and the mitigation acreage shall be based on that calculation. 2. The location of the restoration areas shall include areas directly disturbed by project-related activities and other areas in the immediate project vicinity as approved by DERA. 3. The restoration plan shall include only riparian habitat	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation

found in the restoration location.

4. Plant density, species mix, and the overall planting design shall be based on and conform to what the physical site conditions (e.g. soils, hydrology) are expected to naturally support and not conflict with existing infrastructure and maintenance requirements (e.g. transmission lines, underground pipelines, levees, culverts).

5. Performance standards shall be as follows:

   a. Performance standards for replacement trees shall be 80% survival for the first year and 100% survival thereafter.

   b. Performance standards for other woody vegetation in mixed riparian woodland shall be 75% absolute non-overlapping cover by year 3 and 90% by year 5.

   c. Vegetation cover shall be measured annually by the establishment of permanent, parallel transects throughout the restoration areas and the recording of the length of vegetation cover by species that intersects a measuring tape laid on the transect line.

   d. Maintenance, monitoring and reporting of all restoration sites shall be conducted for a minimum of five (5) years following complete installation. If monitoring determines that performance goals are being met as of year five (5), the site shall be considered established, and all required maintenance, monitoring and reporting activities may be considered completed at the end of year five (5) at the discretion of the Director of DERA. If

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		performance standards are not met, then all required maintenance, monitoring and reporting activities shall continue until year five (5) goals are met or until year eight (8), whichever occurs first. e. The meeting of performance standards shall be evaluated on an individual site bases. 6. Implement a maintenance and monitoring plan that includes the following: a. Temporary irrigation methods and irrigation rate to insure growth during re-establishment of the vegetation. Hand watering of planted materials, as necessary, when irrigation systems are not in place. b. Temporary enclosures (fencing) that will be used to protect replacement vegetation from grazing animals (rabbits, beaver and deer). c. Weed control around all woody plant materials shall be a minimum 2-foot diameter zone. Weed control shall include hand pulling, mechanical removal, or spot applications of herbicide as determined by the restoration specialist. d. Maintenance measures for the elimination and non-establishment of invasive non-native vegetation such as Yellow starthistle, Spanish broom, Pampas grass, fennel, Saltceder, Giant reed amundo, Chinese red wisteria, Chinese tallow tree, Trea of Heaven, and/or White topped pepper grass. e. Volunteer seedlings of native species shall be preserved unless they are establishing within	

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		permanent easements, are within the 2 foot wide weed-free zone around the woody plant materials, and/or threaten public safety. f. Preparation of record (as maintained) drawings, monthly logs and annual monitoring reports by a qualified biologist. i. Record drawings shall contain information such as location, individual plant counts, the size of plantings and other revegetation-related features. These drawings shall be revised annually and submitted with the annual monitoring report. The revised drawings shall include summary tables or hand-written notes showing the species and location of all replacement plantings. At the end of the reporting period, the final record drawings shall show the final status of the replacement plantings and revegetation. ii. Annual Monitoring Reports shall include information pertaining to the monthly logs, the percentage of reestablishment of revegetation as it applies to the performance standard, a description of environmental and human factors adversely affecting plants, and the record drawings for the year. The annual monitoring report shall be submitted to DERA for compliance with the Mitigation Monitoring and Reporting Program.	

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
VALLEY ELDERBERRY LONGHORN BEETLE The project has the potential to impact elderberry shrubs, habitat for the valley elderberry longhorn beetle. The level of impact to the elderberry shrubs will need to be determined on a project by project basis. In general, if elderberry shrubs are found within 100-feet of proposed improvements, informal consultation with the United States Fish and Wildlife Service is necessary to assess what level of indirect impacts, if any, results from the project. Any removal of elderberry shrubs will require formal consultation under Section 7 or Section 10 of the federal Endangered Species Act, and will need to be mitigated through this process.	S	BR-2. Project construction will be prohibited within 100 feet of elderberry shrubs during the VELB emergence and mating period (March 15 – June 15) to eliminate any indirect effects of construction on the beetle or its eggs. These areas shall be fenced and flagged as areas to be avoided BR-3. In areas where encroachment on the 100-foot buffer has been approved by the Fish and Wildlife Service, protective fencing and flagging shall be installed, providing a minimum setback of at least twenty feet outside the perimeter of the dripline of each elderberry plant prior to initiating any construction activities on the site. There will be no physical alterations of any type within the area enclosed by the fencing. No application of herbicides, insecticides and/or other chemical agents shall occur within the proximity of the elderberry plants or where they might drift or wash into the area of the elderberry plants. Protective fencing shall be removed following project completion. BR-4. A qualified wildlife biologist shall inform all construction personnel that elderberry shrubs may occur in the area, the need to avoid damaging the elderberry plants and the possible penalties for not complying with these requirements. A description of the VELB natural history and identifying characteristics shall be provided, along with regulations regarding the restriction on harming or handling this species. BR-5. Erect signs every 50 feet along the edge of the avoidance area with the following information: "This area is habitat of the valley elderberry longhorn beetle, a threatened species, and must not be disturbed. This species is protected by the Endangered Species Act of 1973, as amended. Violators are subject to prosecution, fines, and imprisonment." The signs should be clearly readable from a distance of 20 feet, and must be maintained for the duration of construction.	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
VERNAL POOL SPECIES The project has the potential to encroach upon vernal pool containing special status species. The level of impact to vernal pool species will need to be determined on a project by project basis. According to USFWS protocol, a project may have indirect impacts to vernal pool species when project activities encroach within 250 feet of a vernal pool. Consultation with the US Fish and Wildlife Service is necessary to determine additional mitigation measures, if any.	PS	In addition to any requirements generated during consultation with the U.S. Fish and Wildlife Service, the following measures shall apply: BR-6. In order to protect and preserve special status species, project construction and construction-related activities shall be located a minimum of 250 feet from vernal pools. If a 250 foot buffer is not possible or vernal pools are directly impacted by the project, consultation with the USFWS shall occur. Requirements generated during this consultation shall apply. BR-7. Adequate fencing will be placed and maintained around any avoided (preserved) vernal pool habitat to prevent impacts from construction. BR-8. All on-site construction personnel shall receive instruction regarding the presence of listed species and the importance of avoiding impacts to these species and their habitat.	LS
SWAINSON'S HAWK Swainson's hawk nests are located throughout the Master Plan project area. The level of impact to the Swainson's hawk will need to be determined on a project by project basis. Project activities occurring within ¼ mile (urban setting) and ½ mile (rural setting) of a nest have the potential to disturb nesting hawks.	PS	To minimize the potential for impacts to the state-threatened Swainson's hawk, the following mitigation measures shall be implemented: BR-9. 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 for urban areas, or ¼ mile of the site for rural areas) 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

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
TRICOLORED BLACKBIRD Tricolored blackbirds have the potential to be within various locations in the Master Plan project area. Construction activities have the potential to disturb nesting tricolored blackbirds.	PS	BR-10. 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 a project 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-11. If breeding or nesting tricolored black birds are found a TBB Mitigation Plan shall be submitted to the CDFG for review and approval. The plan should include the following measures: a Perform preconstruction surveys to determine the number of nesting or breeding TBB and amount of nesting habitat onsite. b 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. BR-12. 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	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		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) to support a breeding colony of similar or greater size to the one destroyed by construction.	
BANK SWALLOW Bank swallows may be present along riparian corridors within the project area. Construction activities, such as demolition or bridgework, have the potential to disturb nesting bank swallows.	PS	BR-13. A focused survey for bank swallow nests shall be conducted within 30 days prior to the beginning of construction activities by a qualified biologist in order to identify active nests on the site. If active nests are found, the applicant shall consult with the California Department of Fish and Game for appropriate avoidance measures. If no active nests are found during the focused survey, no further mitigation will be required.	LS
BURROWING OWL Burrowing owls may be present in grasslands adjacent to the project area. Construction activities have the potential to disturb nesting burrowing owls.	PS	BR-14. Prior to construction activity a focused survey shall be conducted by a qualified biologist for burrowing owls where suitable habitat is present in the project area. Suitable habitat includes agricultural field margins, drainage ditches, and fallow fields. Surveys shall be conducted no less than 14 days and no more than 30 days prior to commencement of construction activities. Surveys shall be conducted in accordance with CDFG protocol (CDFG 1995). 1. If no occupied burrows are found in the survey area, a letter report documenting survey methods and findings shall be prepared and no further mitigation is necessary. 2. If an occupied burrow is found, consult with the California Department of Fish (CDFG), prior to construction, to determine if avoidance is possible or if burrow relocation will be required. 3. If owls are to remain on-site, a minimum of 6.5 acres of foraging habitat for each occupied burrow needs to be	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		permanently preserved according to CDFG guidelines. 4. In order to avoid direct impacts to owls, no activity shall take within 160 feet of an active burrow from September 1 to January 31 (wintering season) or 250 feet from February 1 through August 31 (breeding season). Protective fencing shall be place, at the distances above, around the active burrows and no activity shall occur within the protected buffer areas. 5. Any impact to active owl burrows, relocation of owls or mitigation for habitat loss shall be done in accordance with CDFG guidelines. Written evidence from CDFG staff shall be provided to DERA attesting to the permission to remove burrows, relocate owls, mitigate for lost habitat, and provided a method for preservation habitat in perpetuity.	
CALIFORNIA TIGER SALAMANDER California tiger salamander critical habitat (as designated by the USFWS) is shown within the Master Plan area. Project activities in aquatic environments, such as vernal pools and their associated upland habitat, could remove habitat or potentially disturb this species.	PS	BR-15. Survey all California tiger salamander (CTS) habitat that may be directly affected by proposed project activities. Not less than two weeks before ground-disturbing activities begin, a qualified biologist shall survey appropriate habitat within the project site that may be directly affected by project activities for the presence of CTS using the protocol provided by the USFWS (2003). Daily visual clearance surveys shall also be conducted during initial ground-disturbing activities. If any CTS is identified where habitat disturbance is proposed, work shall be halted and a USFWS-approved biologist shall be contacted to determine appropriate actions, unless already stipulated by the USFWS. If the USFWS approves moving salamanders, the qualified biologist shall be allowed sufficient time to move the species from the work site before work activities resume. Only USFWS-approved biologists shall participate in the capturing, handling, and translocation of CTS. Any CTS relocated by the project shall be moved to nearby	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		appropriate habitat, as determined by the qualified biologist. Results of the preconstruction surveys shall be reported to USFWS.	
GIANT GARTER SNAKE Potential habitat for giant garter snake (GGS) exists within various locations throughout the project area. Project activities in riparian areas could potentially disturb this species or remove GGS habitat.	PS	To minimize the potential for direct take of giant garter snakes, a state and federally threatened species, the following mitigation measures shall be implemented: BR-16. 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-17. 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-18. 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-19. 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	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		greater has occurred. BR-20. 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-21. 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-22. 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-23. 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-24. 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.	

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
WATERS OF THE UNITED STATES Several wetlands and other waters of the U.S. are found in the Master Plan area. Implementation of the proposed project has the potential to impact these waters of the U.S.	PS	BR-25. 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.	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
TREES Implementation of the proposed project has the potential to impact native oak trees, northern California black walnut, and California sycamore. Impacts could occur due to encroachment within the driplines of these trees or by removal.	PS	*TREE PROTECTION* BR-26. 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 shall be protected from possible impact. All portions of adjacent off-site native oak, California Black Walnut, and California Sycamore trees with driplines that extend onto the project site or may be impacted by the 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	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		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	

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		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. *TREE REMOVAL* BR-27 The removal of native oak trees and California black walnut 6 inches dbh or larger, and California sycamore 19 inches dbh or larger shall be compensated by planting native oak trees, California black walnut, or California sycamore 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 A Replacement Oak 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 Tree Planting Plan(s) shall include the following minimum elements:	

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation

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

If oak 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.

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure		Level of Significance After Mitigation
CULTURAL RESOURCES				
The project has the potential to impact cultural resources. A cultural resources review will be conducted as part of the Department of Environmental Review and Assessment (DERA) environmental review process for all future proposed construction projects. At that time, DERA will determine which projects require further investigation in the form of a project-level cultural resources analysis.	PS	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.	LS
HAZARDS AND HAZARDOUS MATERIALS				
Right-of-way identified for acquisition to construct the proposed projects may contain hazardous materials or underground storage tanks.	PS	HM-1	The Sacramento County Department of Transportation shall develop a contingency plan in the event that construction activities uncover unforeseen contamination or underground storage tanks (USTs). This plan should include steps to contain any contamination, consultation with regulatory agencies and a work plan to evaluate and characterize any contamination. In addition, the Sacramento County Department of Transportation shall consult with the County Counsel's Office regarding potential liabilities if contamination or USTs are encountered during construction activities.	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure		Level of Significance After Mitigation
Construction of the Master Plan projects has the potential to expose workers and residents to hazardous wastes or materials that are excavated, disturbed, or exposed by ground disturbance activities.	PS	HM-2	Prior to acquiring additional right-of-way or construction of the proposed project, conduct a Phase 1 Site Assessment 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.	LS

MITIGATION MONITORING AND REPORTING PROGRAM

Comply with the Mitigation Monitoring and Reporting Program (MMRP) for this project, including the payment of 100% of the Sacramento County Department of Environmental Review and Assessment staff costs, and the costs of any technical consultant services incurred during implementation of that Program.

3 PROJECT DESCRIPTION

INTRODUCTION

This project is a pedestrian Master Plan for the County of Sacramento. The types of projects listed in the Master Plan include signal timing, countdown signal, lighting, trail crossings, midblock crossings, pedestrian districts, alley conversions, sidewalks/walkways, and pathways. Adoption of this project would allow the County to consider construction of one or all of the pedestrian improvement projects listed in the Master Plan. The EIR will evaluate impacts associated with the adoption of the Pedestrian Master Plan and will recommend measures to reduce potential impacts. The EIR will discuss the types of environmental impacts that may occur if any of the improvement projects listed in the Master Plan are constructed. The EIR will be a program level document and environmental evaluation will be based on the best project detail knowledge at the time of document preparation. Further environmental review, pursuant to the California Environmental Quality Act (CEQA), is necessary for each listed improvement project as they are proposed.

PROJECT LOCATION

The Master Plan project is located in the County of Sacramento, with a list of projects that are spread throughout the unincorporated communities in the County. Plate PD -1 shows the project area.

PROJECT PROPONENTS

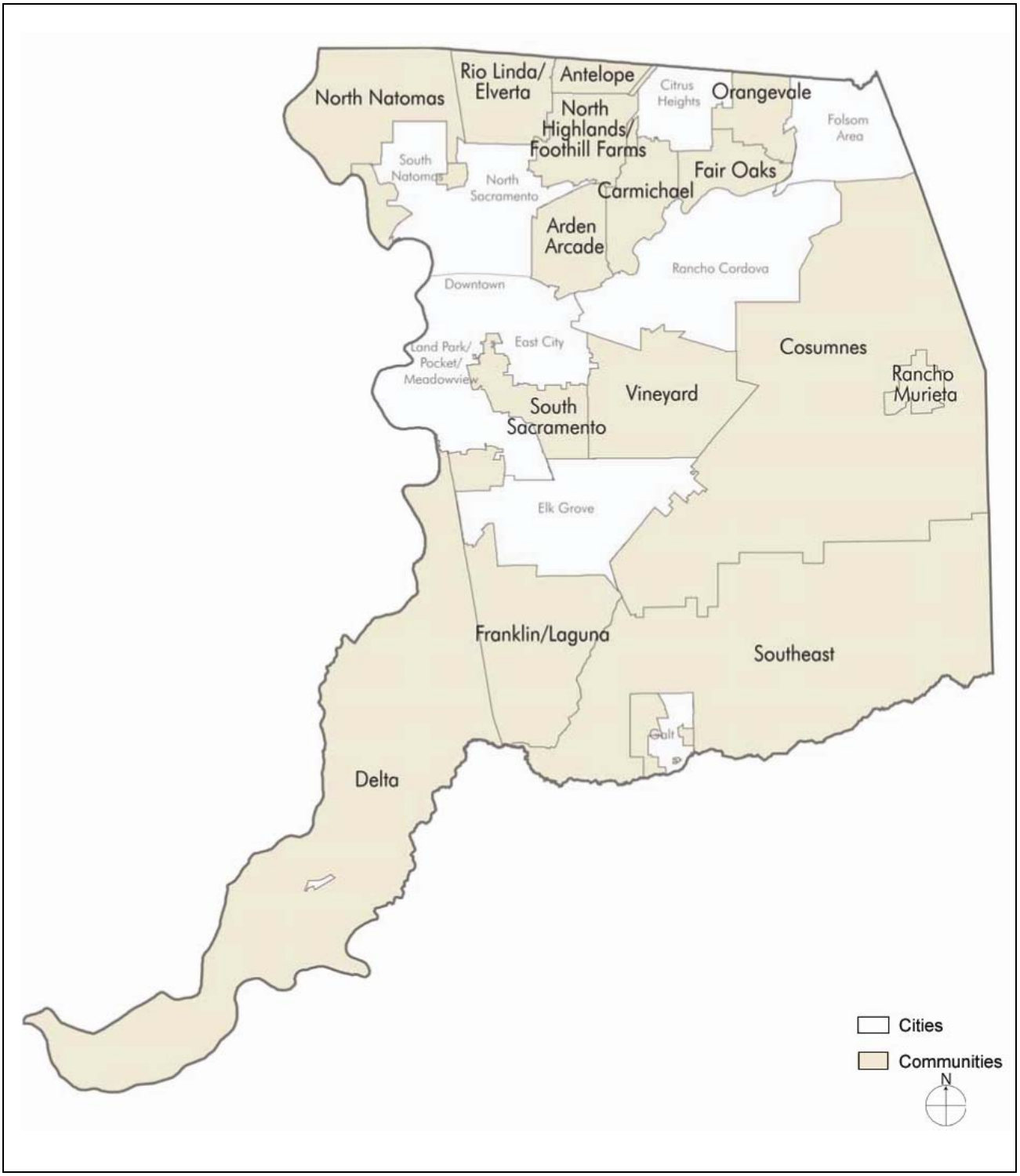
APPLICANT

Sacramento County Department of Transportation (SacDOT)
906 G Street, 5th Floor
Sacramento, CA 95814

ENVIRONMENTAL SETTING

The Master Plan area encompasses a mixed area with roughly an equal distribution of urban and rural areas. The improvement locations in the urban environment tend to

Plate PD -1 Pedestrian Master Plan Project Area



have roadways with shoulders of varying widths and sometimes no shoulders, and serve a larger more densely populated area. Land uses in the urban project locations include shopping, schools, medical offices, single-family residential, and churches. These land uses were observed during spot check of representative improvement sites in urban communities.

The improvement locations in the rural environment tend to have roadways with minimal to non-existent shoulder widths and serve a smaller less densely populated area. Many of the roadways in the rural areas have roadside ditches and some type of native vegetation. Land uses in the rural project locations include agricultural fields and rural residential homes. These land uses were observed during a spot check of pedestrian improvement projects in rural communities.

PROJECT FEATURES

SIDEWALKS/ASPHALT WALKWAYS

Concrete sidewalks are recommended for roadway segments with existing curbs and gutters and those with adjacent areas of high priority land uses, including health care facilities, schools, commercial, office and County facilities,. Asphalt walkways or widened shoulders were assumed to be placed in areas with open shoulders and where there are no substantial land uses. Concrete sidewalk and asphalt walkway projects are considered to be the most urgent projects for unincorporated Sacramento County. Design of the sidewalks and walkways will meet the pedestrian design standards based on guidelines in the Final Sacramento Pedestrian Design Guidelines (November 2005). These standards are currently being developed based on the adopted guidelines and are anticipated to be adopted before projects are proposed for construction. The guidelines for sidewalks in rural areas are different from those in urban areas. Rural areas are defined in the Land Use element of the 1993 County General Plan as open space, agricultural resources, nature preserves, or industrial areas that require large areas of land with no urban services. All other types of land uses, including those transitioning from rural to suburban or urban uses would adhere to the following guidelines:

- Standard sidewalk- 5 feet
- Sidewalk against curb: Minor residential- 5 feet; Collector, arterial and thoroughfare- 7 feet
- Sidewalks at schools, universities, hospitals, commercial districts, or other areas with high pedestrian volumes- 8 feet (or wider per capacity analysis)

In rural locations, as defined above, where a sidewalk is not necessarily warranted due to the rural nature of a roadway (lack of development or destinations served), or cannot

be constructed due to cost, environmental or other considerations, the following guidelines would apply:

- Multipurpose 4 – 6 foot shoulders adjacent to the traveled way to accommodate pedestrians and bicyclists, or

- Separated pedestrian paths from the roadway with a minimum width of 5 feet that may be constructed in asphalt or concrete.

In cases where meeting these standards is not possible due to severe physical constraints, a 4 foot sidewalk may be installed, however, a design exception would need to be obtained from the Sacramento County Department of Transportation (SacDOT). In these locations, passing spaces of at least 5 feet wide by 5 feet long must be provided at reasonable intervals not to exceed 200 feet so that those in wheelchairs can pass each other.

SAFE ROUTES TO SCHOOL

During the development of the Pedestrian Master Plan, representatives of school districts throughout the unincorporated county were contacted to solicit input on needed pedestrian improvements for possible funding. Some school representatives did not have any specific improvement requests. Project components include walkways and midblock crossings, primarily to facilitate pedestrian travel for school children.

SAFE ROUTES TO TRANSIT

Bus routes are one of the highest generators of pedestrian traffic. Project components include sidewalk or asphalt walkways along bus routes. The Americans with Disabilities Act (ADA) Transition Plan recommends projects along bus routes that involve street crossings and paths of travel between the bus stop and street crossing.

SIDEWALK OBSTRUCTION REMOVALS

These areas already have sidewalks but are obstructed by utility equipment, poles or street furniture. Discussions with the Sacramento Municipal Utility District (SMUD) regarding a cooperative program are ongoing for relocation or an improved route around these obstructions. An annual project list is envisioned to be developed to address these obstructed sidewalks in coordination with SMUD.

MIDBLOCK CROSSINGS

These projects are considered for roads with two lanes that have higher traffic volumes as well as roadways more than two lanes in each direction. A signal warrant study would be conducted for midblock crossing projects where a traffic signal is proposed. The majority of proposed midblock crossings are located adjacent to schools; however

there are five new midblock crossings proposed that would help connect shopping districts. Improvements could include the following:

- Curb extensions that make pedestrians more visible (recommended only where on-street parking exists)
- Curb ramps
- Enhanced pavement markings
- Fluorescent yellow-green warning signs (seen by driver from a greater distance)
- Lighting enhancements (particularly adjacent to schools)
- Median refuges (allowing slower pedestrians to cross the road in two phases)
- Raised crosswalks (residential streets only)
- Traffic signals with accessible pedestrian traffic signals
- "Yield to Pedestrian" signs (recommended in areas where pedestrian-involved collisions have occurred on two-lane roads)

PEDESTRIAN COUNTDOWN SIGNAL INSTALLATIONS

These projects are proposed in conjunction with accessible pedestrian signals and signal timing extensions at intersections with existing signals. These projects are also proposed for roadways with five or more lanes at a signalized intersection.

SIGNAL TIMING

These projects would extend the time allotted during the walk cycle at signals adjacent to elementary and special education schools and facilities that cater to older individuals.

LIGHTING

These projects would provide lighting at locations selected based on collision data and public input. Two streetlights would be installed if no or limited light exists, while some locations may only need adjustments to existing lighting.

TRAIL ACCESS

These projects deal with safe street crossings where trails meet with streets. Improvements could include striping treatments, raised crosswalks, flashing beacons or pedestrian signals. These improvements shall comply with the County's ADA codes and standards.

PATHWAYS

Pathways are located in areas where one residential development is separated from another residential neighborhood or commercial area by major thoroughfares (six lane road). Pathways provide access between the two neighborhoods or in some areas between the neighborhood and commercial area. These projects include upgrades to existing pathways maintained by SacDOT and alley conversions to pathways. Pathway upgrades could include graffiti removal, pedestrian-scaled lighting, landscaping, ADA compliance, improved surfaces, wayfinding signs, fencing and callboxes. The pathways mainly access schools, and may be on school property. Proposed alley conversion projects include possible conversion to pathways, pocket parks, or short distance multi-use paths

PEDESTRIAN DISTRICTS

These projects emphasize pedestrian facilities along sections of roadway where pedestrian demand is currently or could be high, based on adjacent land uses and transit activity. Also, within the Sacramento County General Plan update, the County's Planning and Community Development Department has identified a number of Targeted Commercial Corridors (areas with the greatest potential for reuse and infill) for the Pedestrian District treatments. These are included in the Master Plan. Some of the treatments that could be constructed within Pedestrian Districts include:

- Bicycle lanes
- Sidewalk enhancements and curb extensions
- Longer pedestrian intervals at signalized intersections
- Midblock crossings (new and improved)
- On-street parking
- Limit speed limits to 30 miles per hour or lower
- Pedestrian-scaled lighting [shorter light poles (15 foot tall), lower levels of illumination (except at crossings), shorter spacing between lamp posts, high pressure sodium vapor or metal halide (better color definition and "white light" for areas with higher pedestrian volumes)]
- Road diets (reducing number of lanes)
- Street trees
- Bus shelters

PEDESTRIAN PROGRAMS

The following pedestrian programs are additional components of the project:

PEDESTRIAN DESIGN GUIDELINES AND PEDESTRIAN POLICIES TRAINING

This training is targeted to SacDOT staff and other key stakeholders such as County Planning Department staff, developers, Community Planning Area Council members and pedestrian advocates.

PEDESTRIAN FACILITY MAINTENANCE

This program will ensure that maintenance needs are met. Typical maintenance needs include pedestrian signal heads, push buttons, signage, sidewalks, crosswalks, landscaping, countdown signals and graffiti removal. SacDOT is responsible for maintaining pedestrian infrastructure in the public right-of-way.

PEDESTRIAN MARKETING

SacDOT may use a variety of public outreach events such as, Walk to School Day, Walk to Work Week, neighborhood walks, public service announcements and paid media spots on television and radio to encourage walking and educate motorists and pedestrians about the planned improvements and how to use them.

COMMUNITY SPECIFIC PEDESTRIAN IMPROVEMENTS

A list of site-specific projects were developed and the sidewalk and asphalt walkway projects were prioritized based on walking conditions, accessibility, adjacent land uses, public input, cost effectiveness, pedestrian collisions, and geographic equity. Those determined as having the highest priority were included in the ten-year Pedestrian Master Plan Capital Improvement Program and identified as high priority. The remaining improvement projects were grouped in the Pedestrian Master Plan. These projects comprise the long-term pedestrian plans. Plate PD -2 through Plate PD - 10 present the locations and nature of the high priority pedestrian improvements in each of the communities in unincorporated Sacramento County. These plates show the high priority projects slated to occur in a ten-year horizon. The longer term horizon projects will occur over a twenty-year period. These projects are presented in Plate PD -11 through Plate PD -19.

Plate PD -2 Arden Arcade High Priority Pedestrian Projects

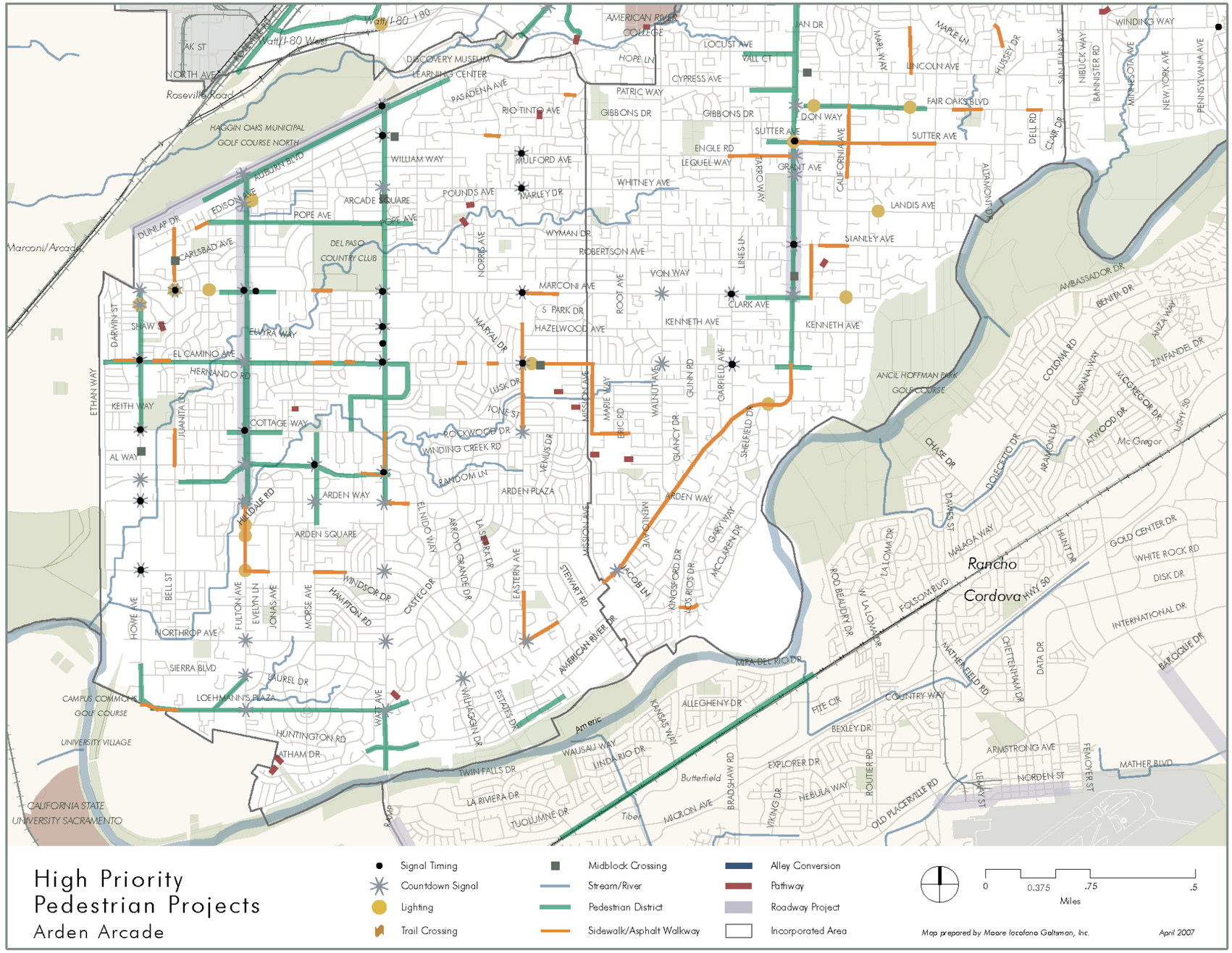


Plate PD -3 Carmichael High Priority Pedestrian Projects

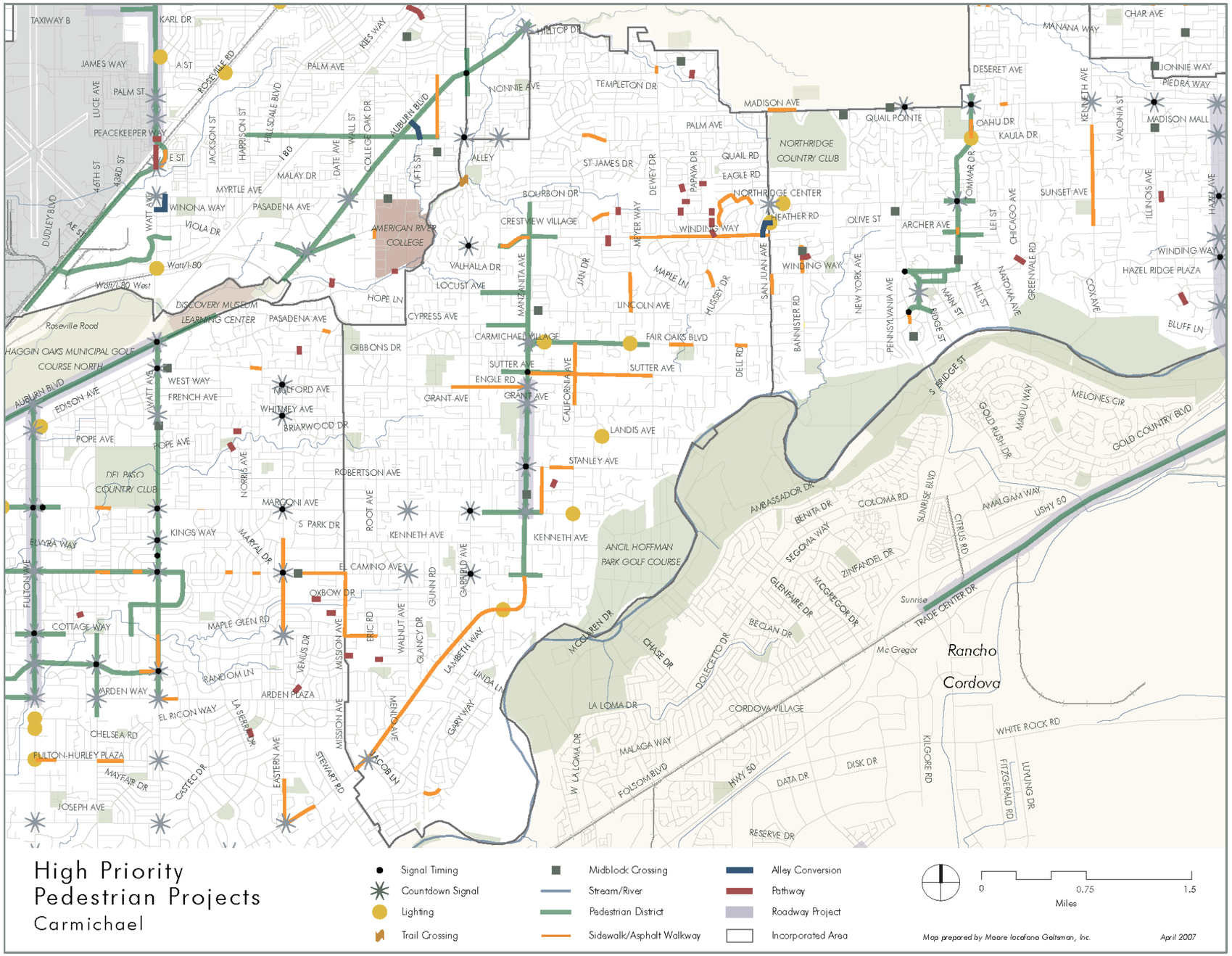


Plate PD -4 Cosumnes and Southeast High Priority Pedestrian Projects

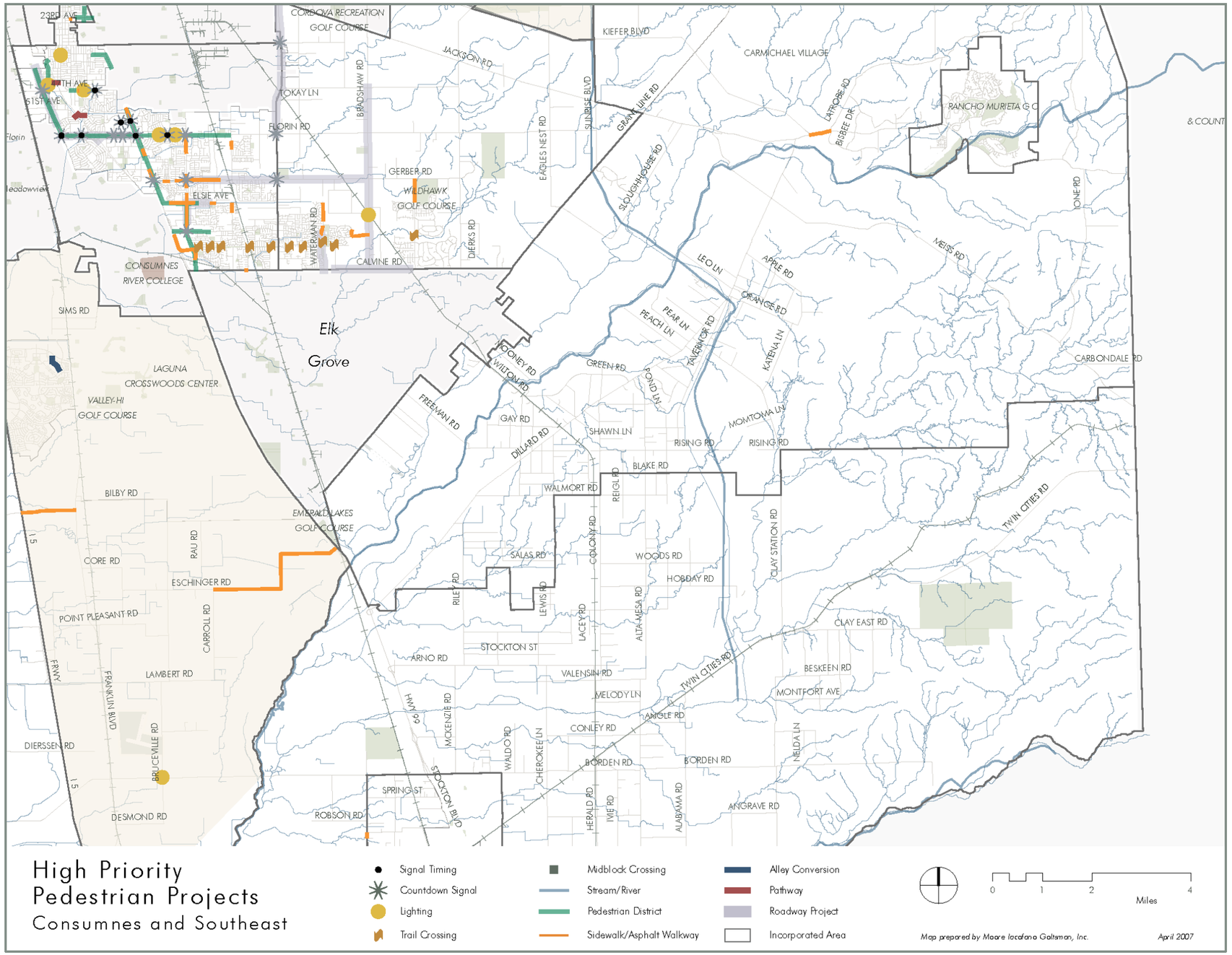


Plate PD -5 Fair Oaks High Priority Pedestrian Projects

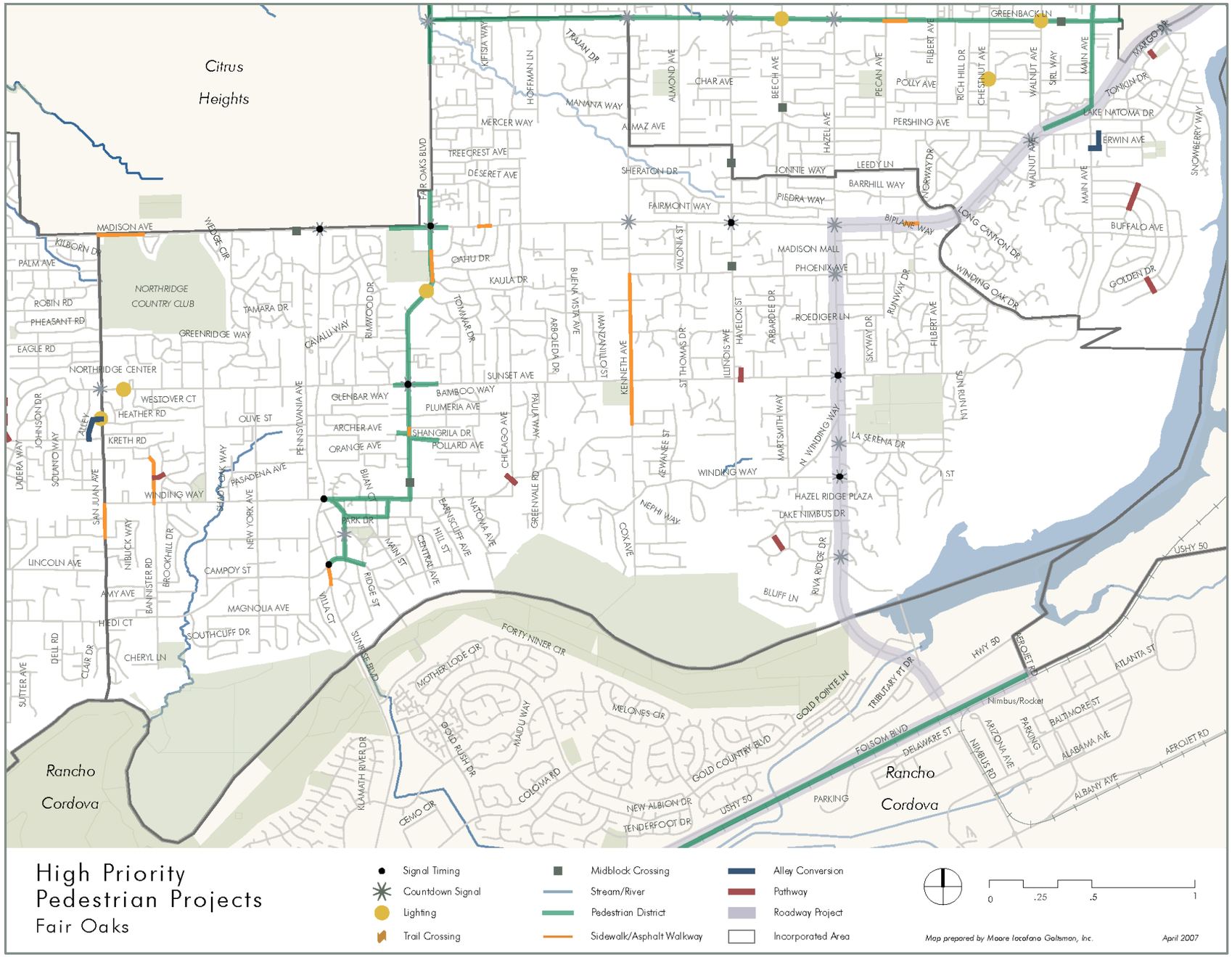


Plate PD -6 Franklin Laguna/Delta High Priority Pedestrian Projects

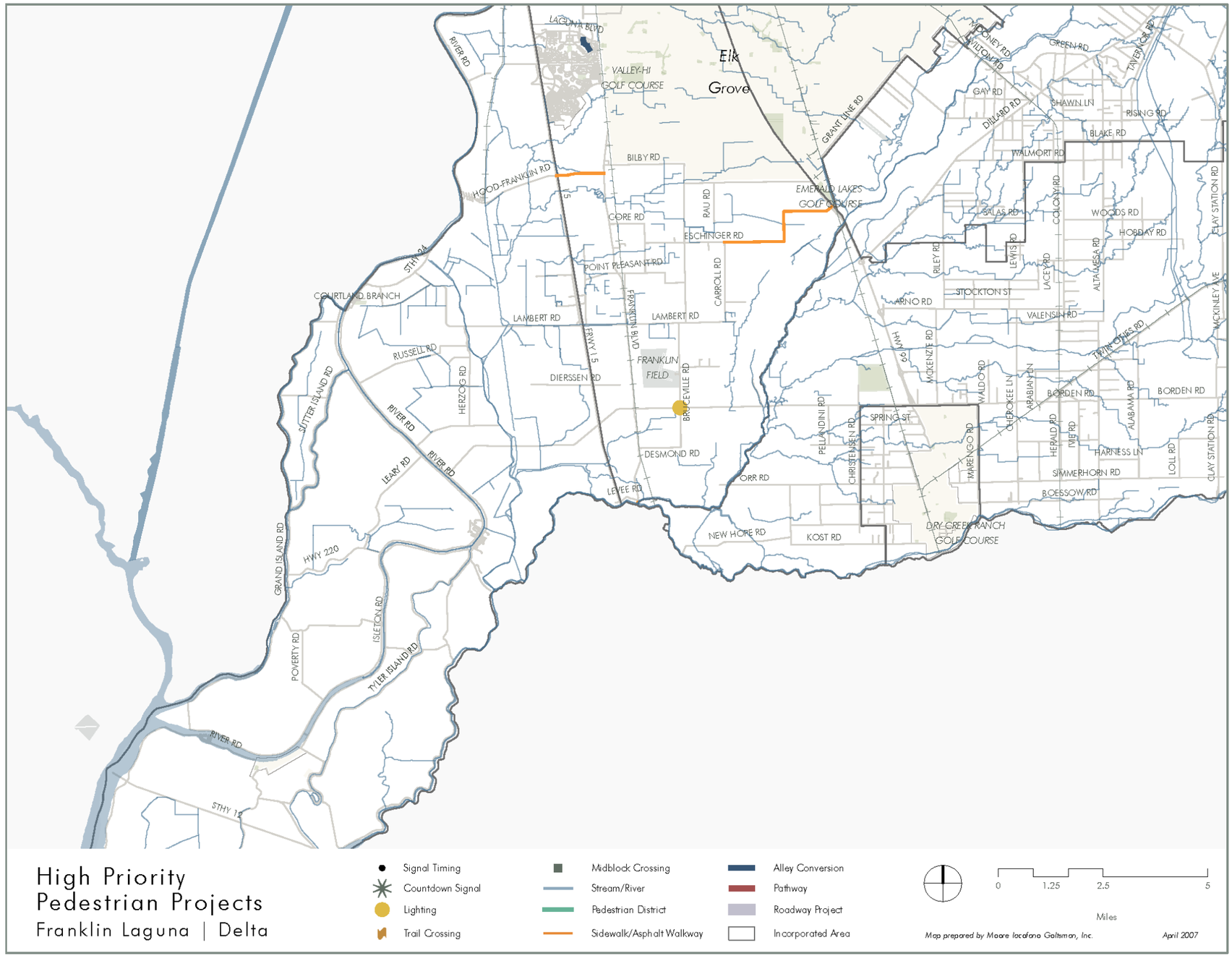


Plate PD -7 North Highlands/Foothill Farms/Antelope High Priority Pedestrian Projects

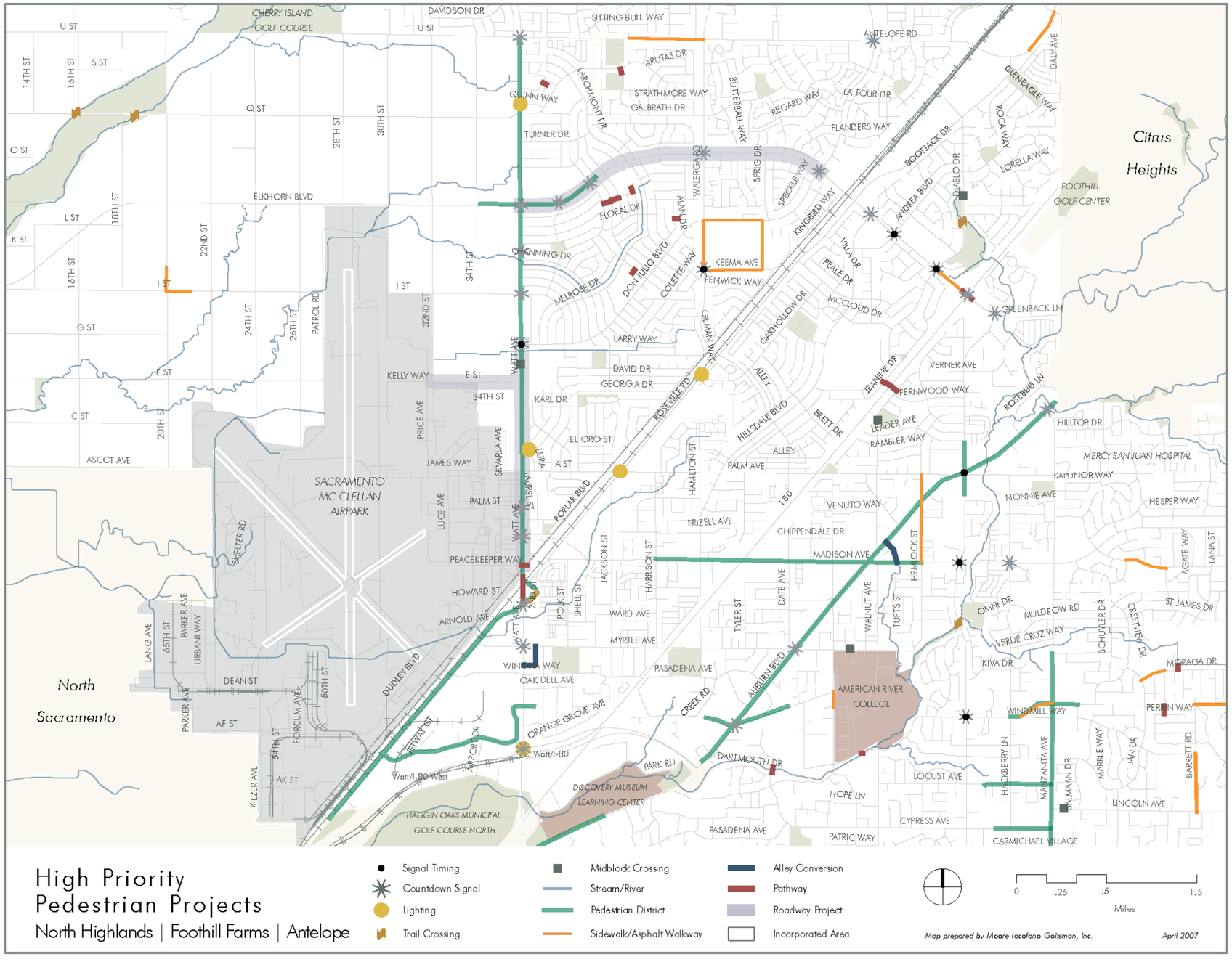
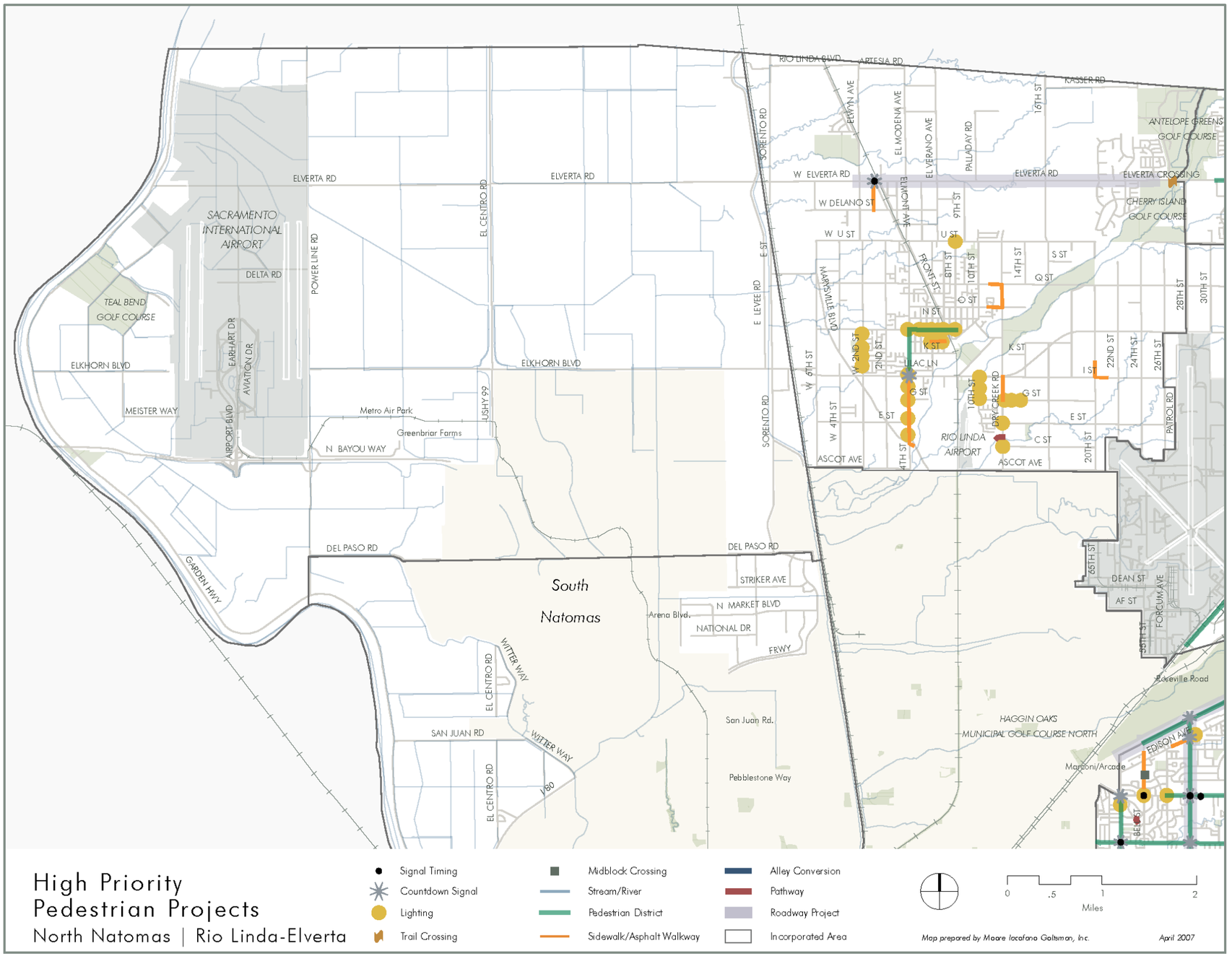


Plate PD -8 North Natomas/ Rio Linda-Elverta High Priority Pedestrian Projects



High Priority Pedestrian Projects

North Natomas | Rio Linda-Elverta

- Signal Timing
- Countdown Signal
- Lighting
- Trail Crossing
- Midblock Crossing
- Stream/River
- Pedestrian District
- Sidewalk/Asphalt Walkway
- Alley Conversion
- Pathway
- Roadway Project
- Incorporated Area

0 .5 1 2 Miles

Map prepared by Moore Iacofano Goltsman, Inc. April 2007

Plate PD -9 Orangevale High Priority Pedestrian Projects

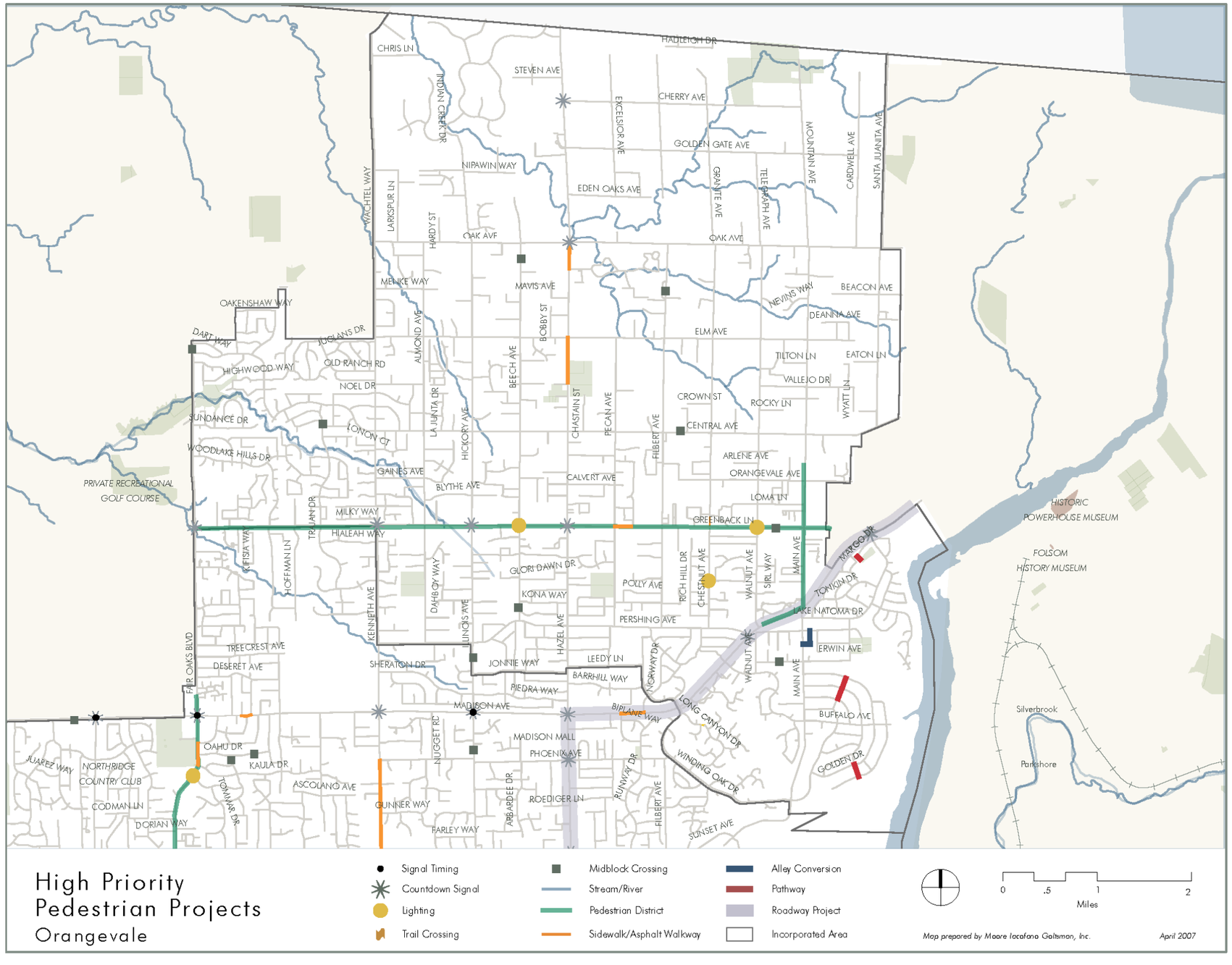


Plate PD -10 South Sacramento/Vineyard High Priority Pedestrian Projects

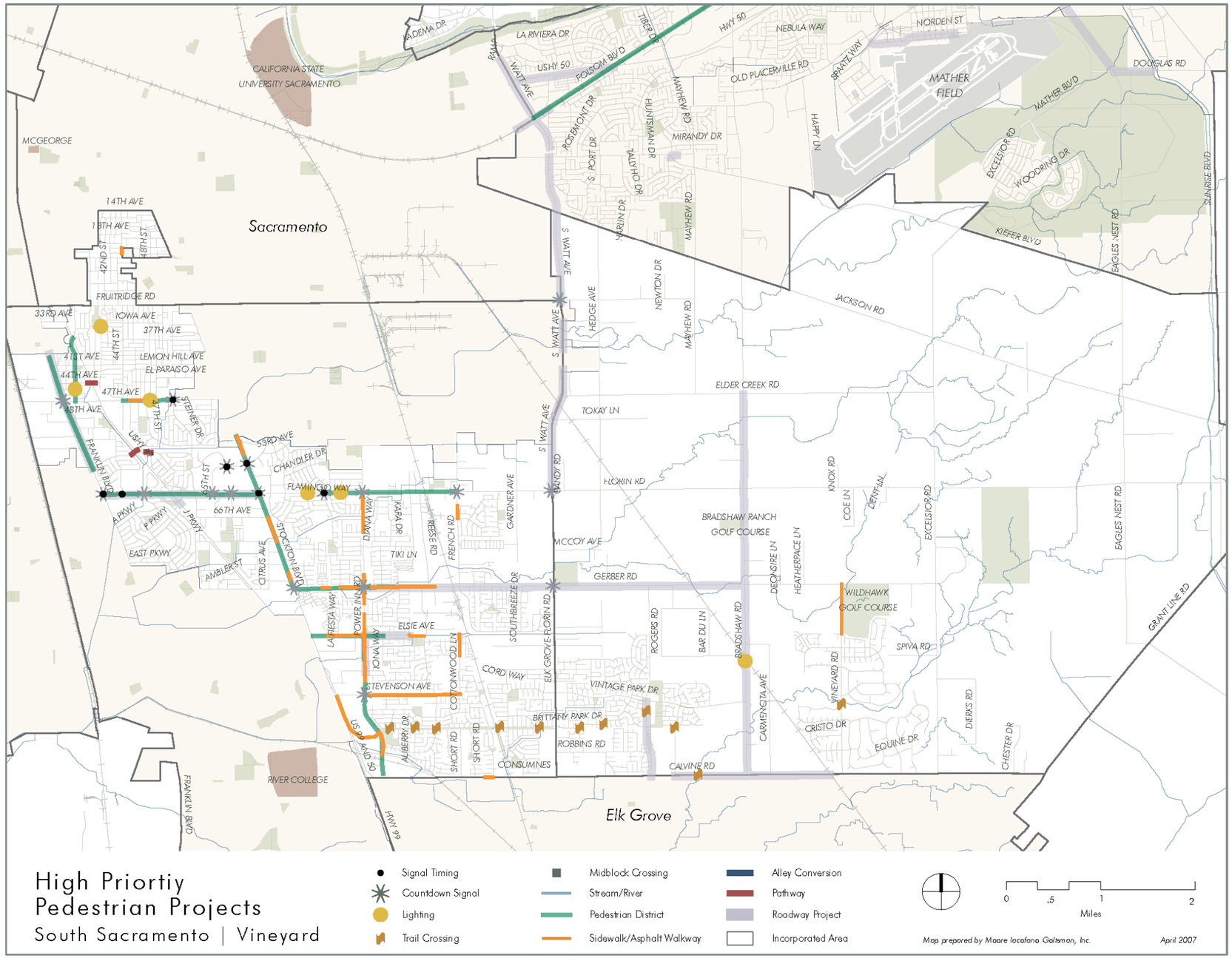


Plate PD -11 Arden Arcade Pedestrian Projects

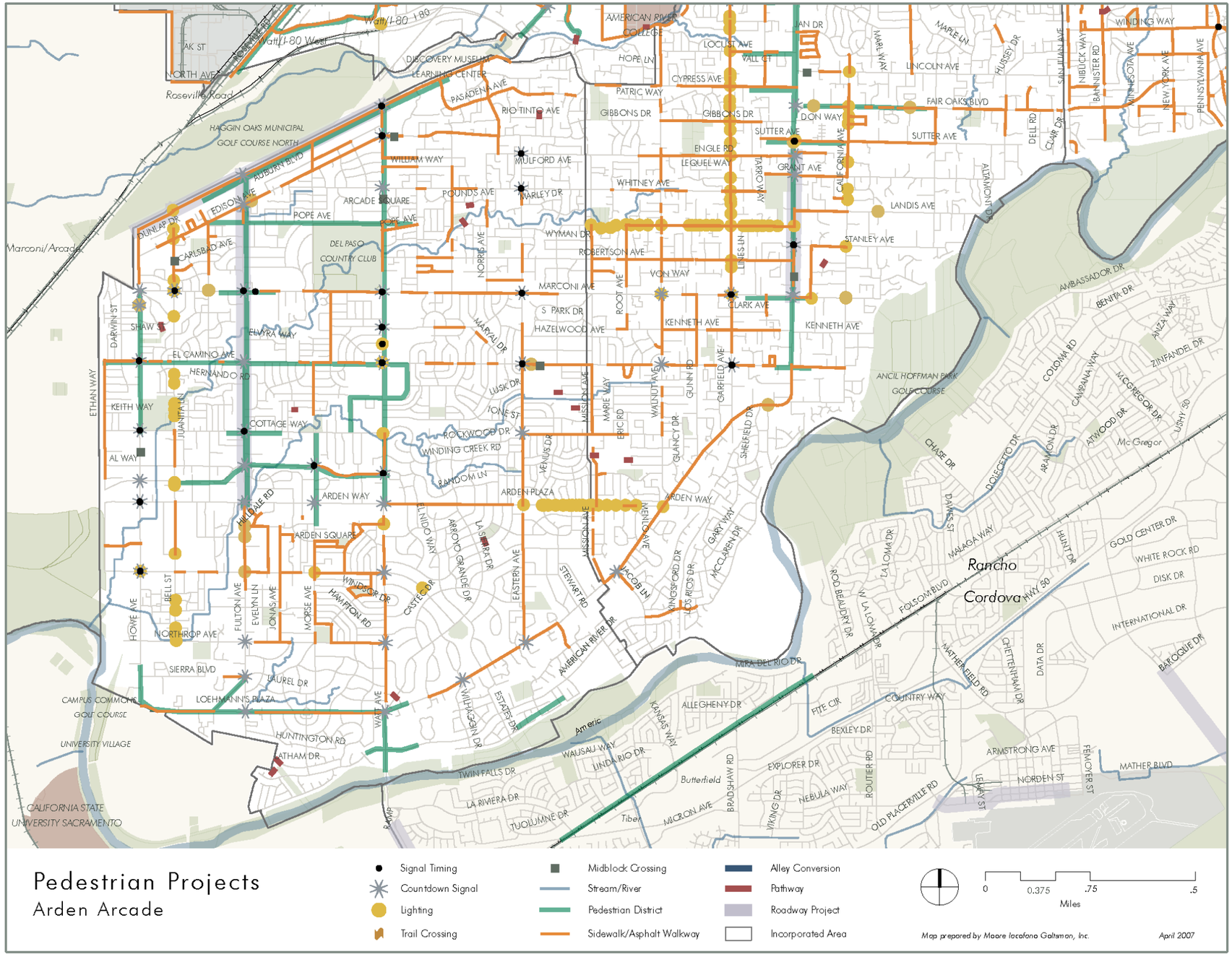


Plate PD -12 Carmichael Pedestrian Projects

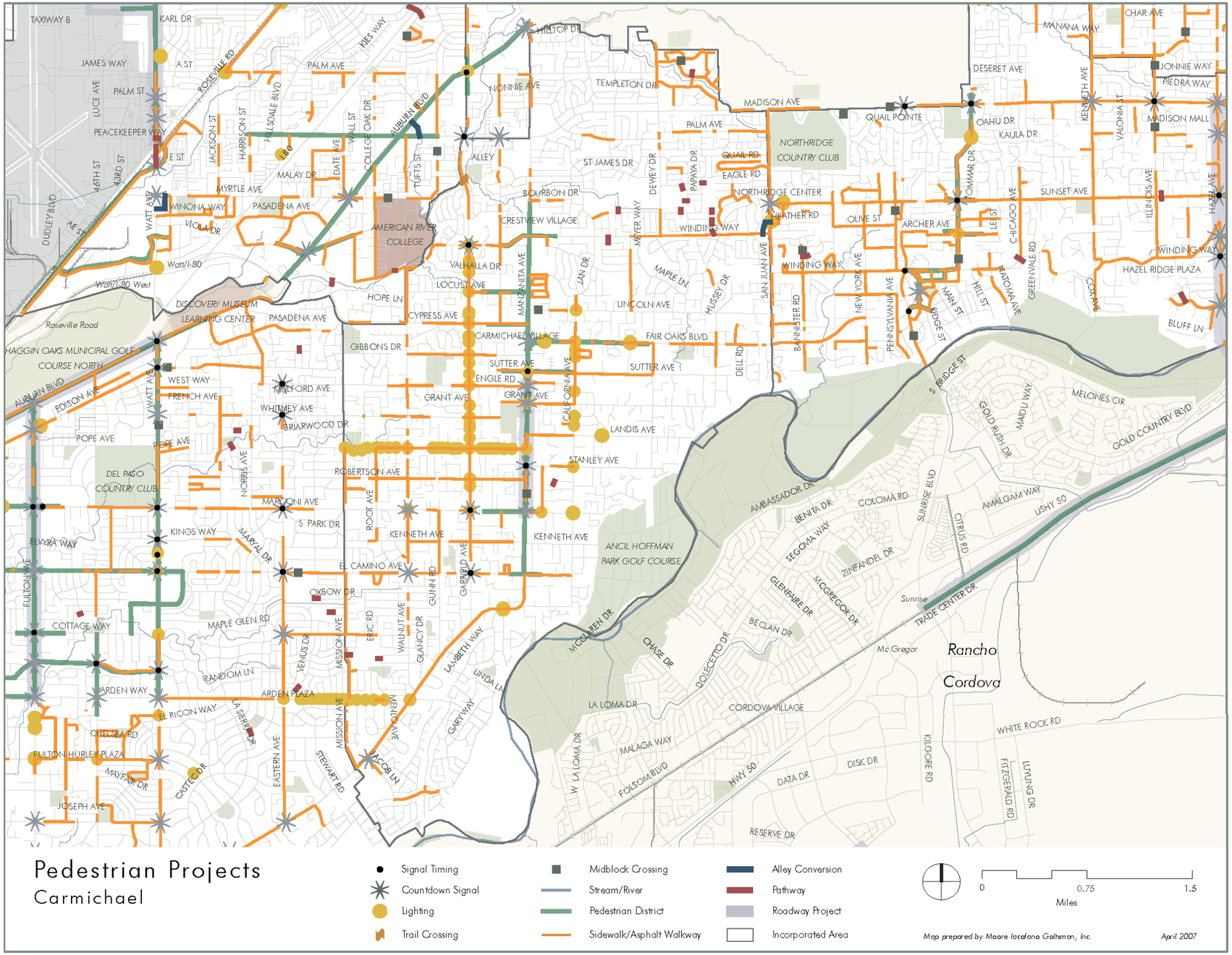


Plate PD -13 Cosumnes and Southeast Pedestrian Projects

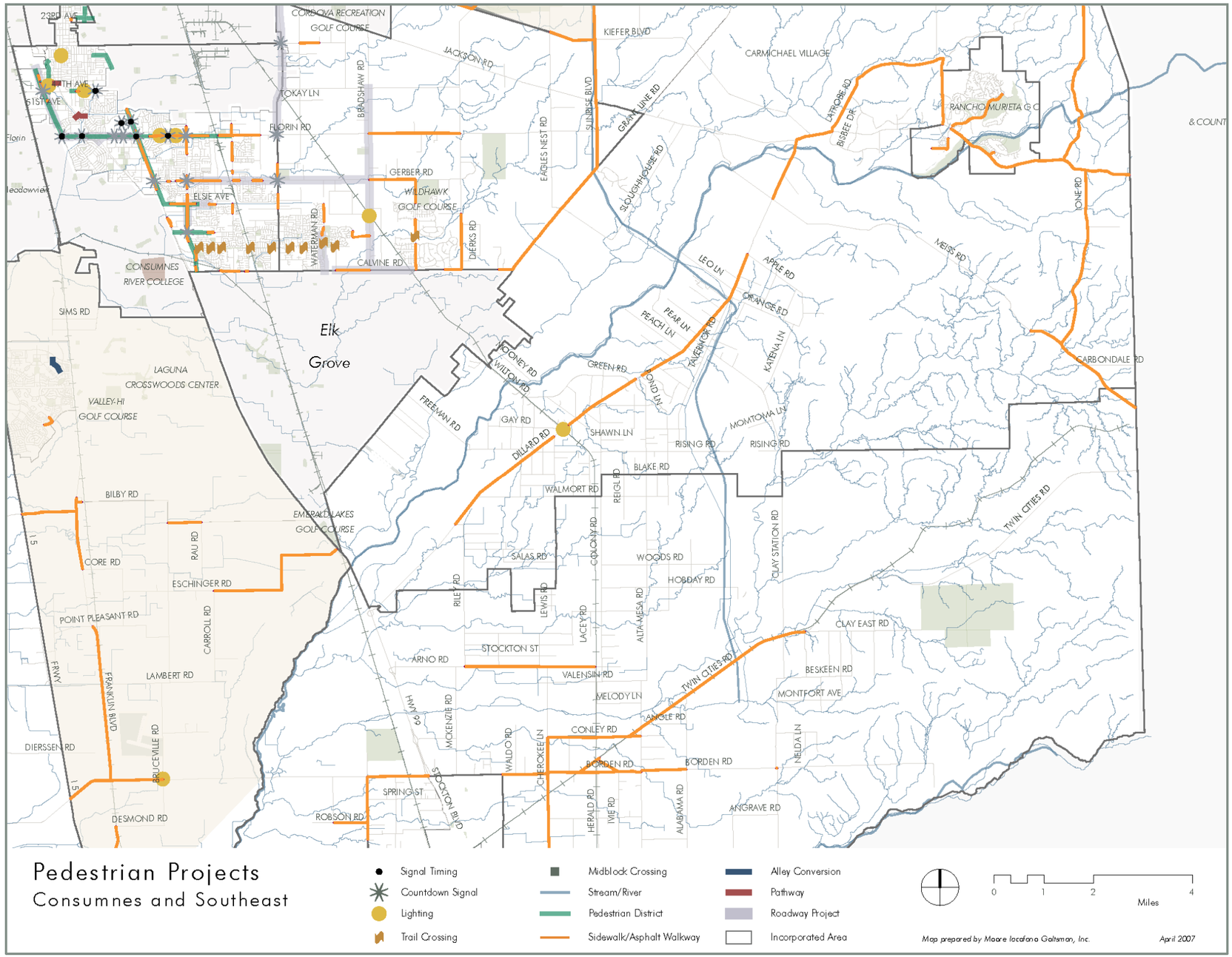


Plate PD -14 Fair Oaks Pedestrian Projects

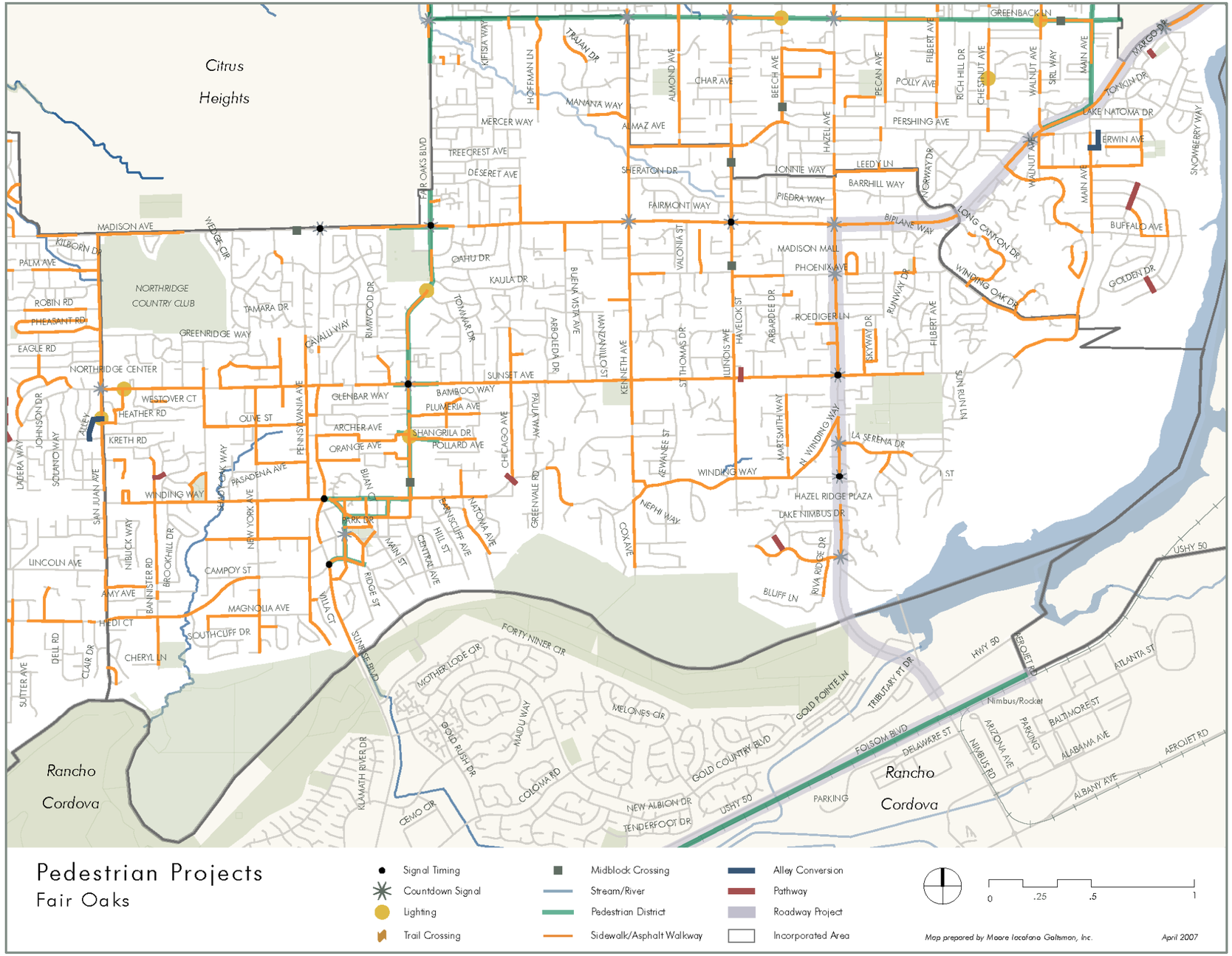
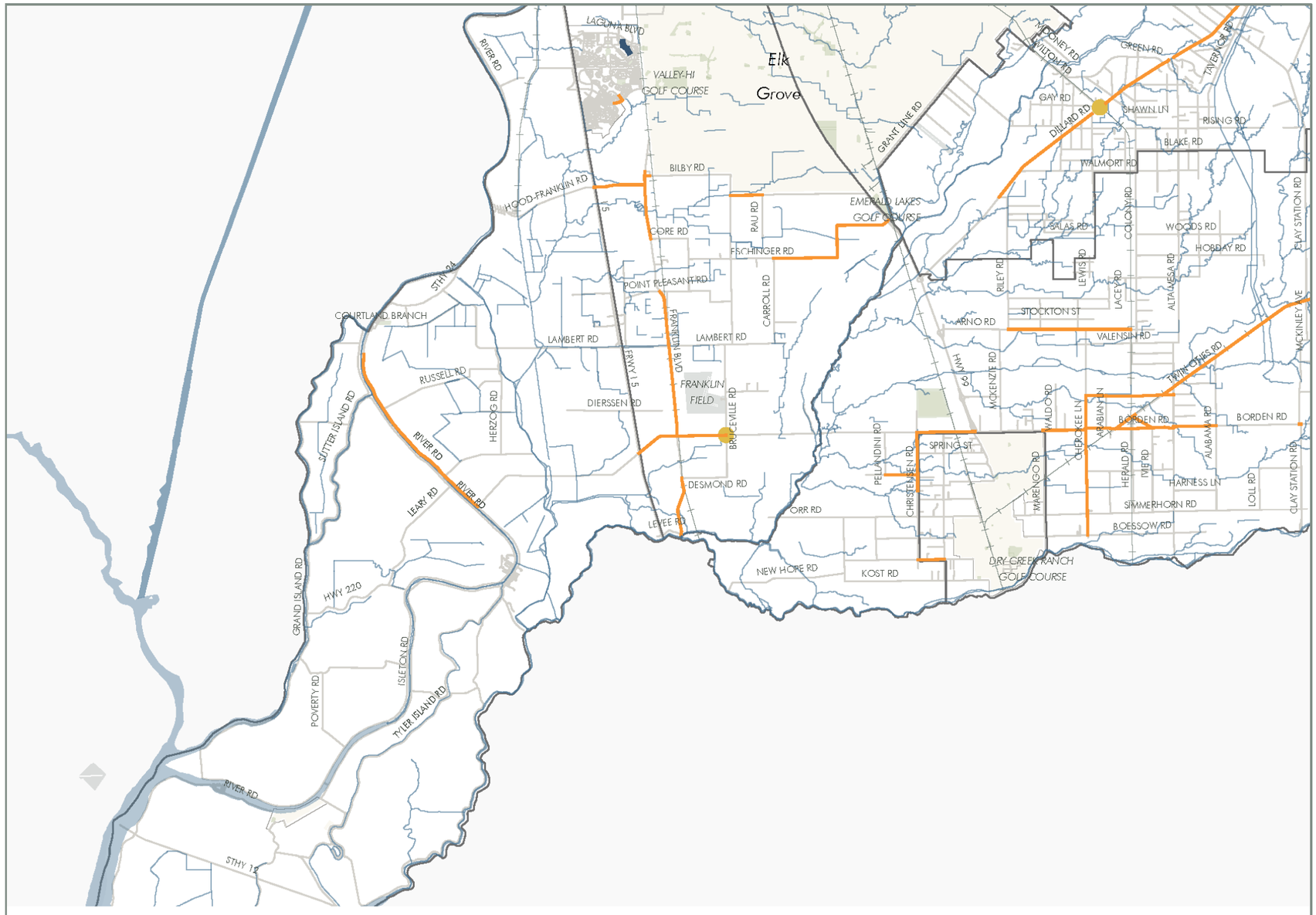


Plate PD -15 Franklin Laguna/Delta Pedestrian Projects



Pedestrian Projects
Franklin Laguna | Delta

- Signal Timing
- Countdown Signal
- Lighting
- Trail Crossing
- Midblock Crossing
- Stream/River
- Pedestrian District
- Sidewalk/Asphalt Walkway
- Alley Conversion
- Pathway
- Roadway Project
- Incorporated Area

0 1.25 2.5 5
Miles

Map prepared by Moore Iacofano Goltsman, Inc. April 2007

Plate PD -16 North Highlands/Foothill Farms/Antelope Pedestrian Projects

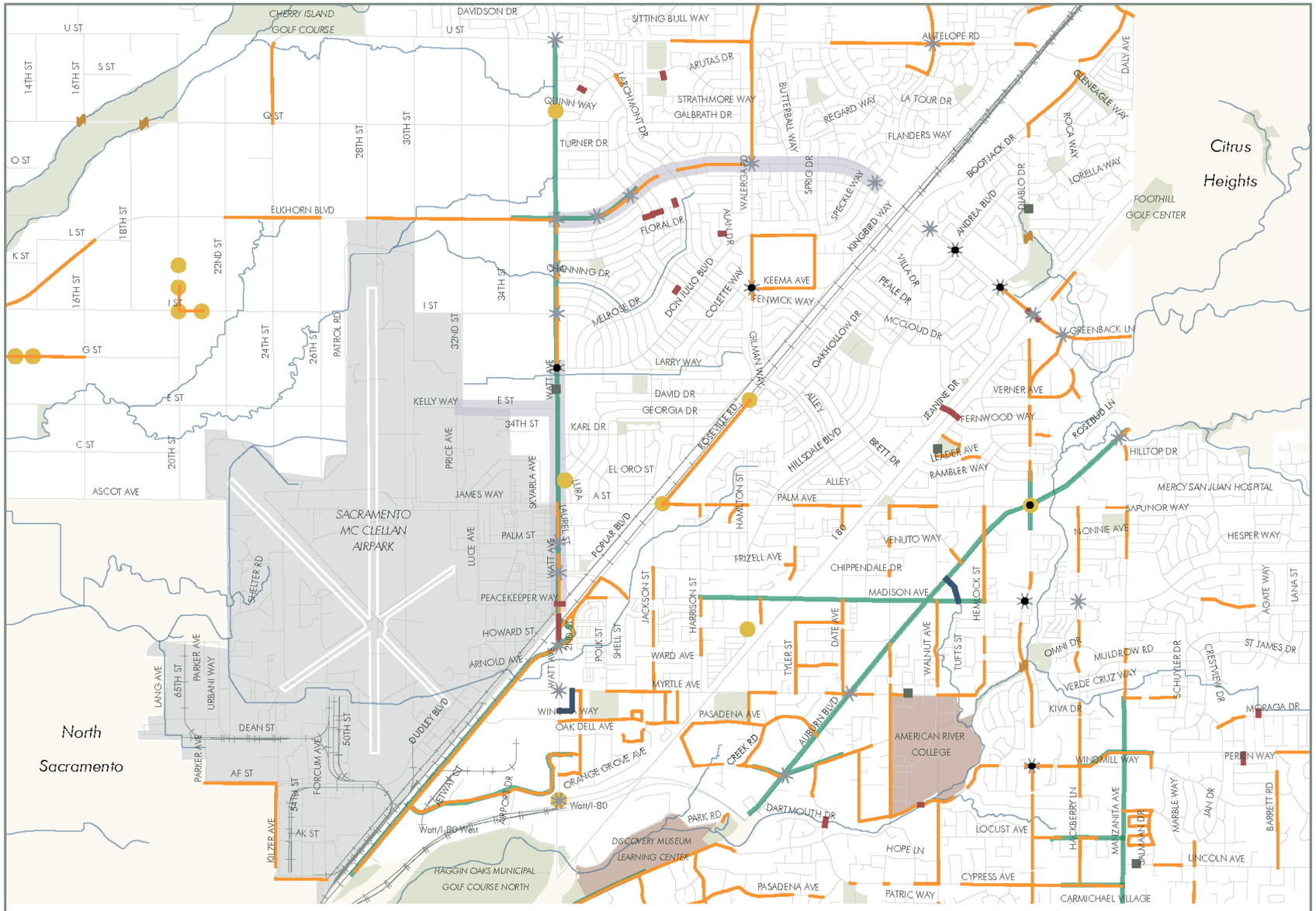


Plate PD -17 North Natomas/ Rio Linda-Elverta Pedestrian Projects

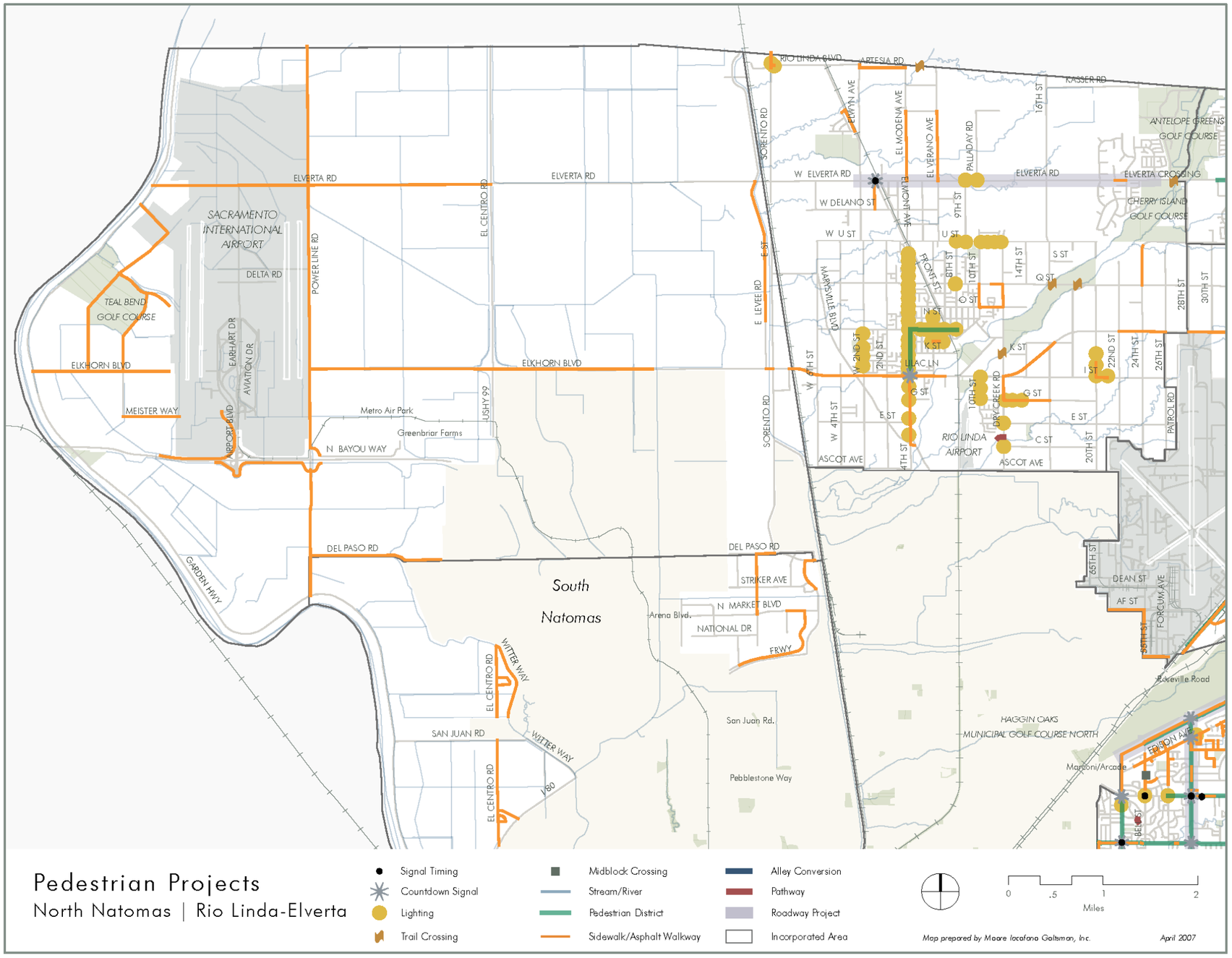


Plate PD -18 Orangevale Pedestrian Projects

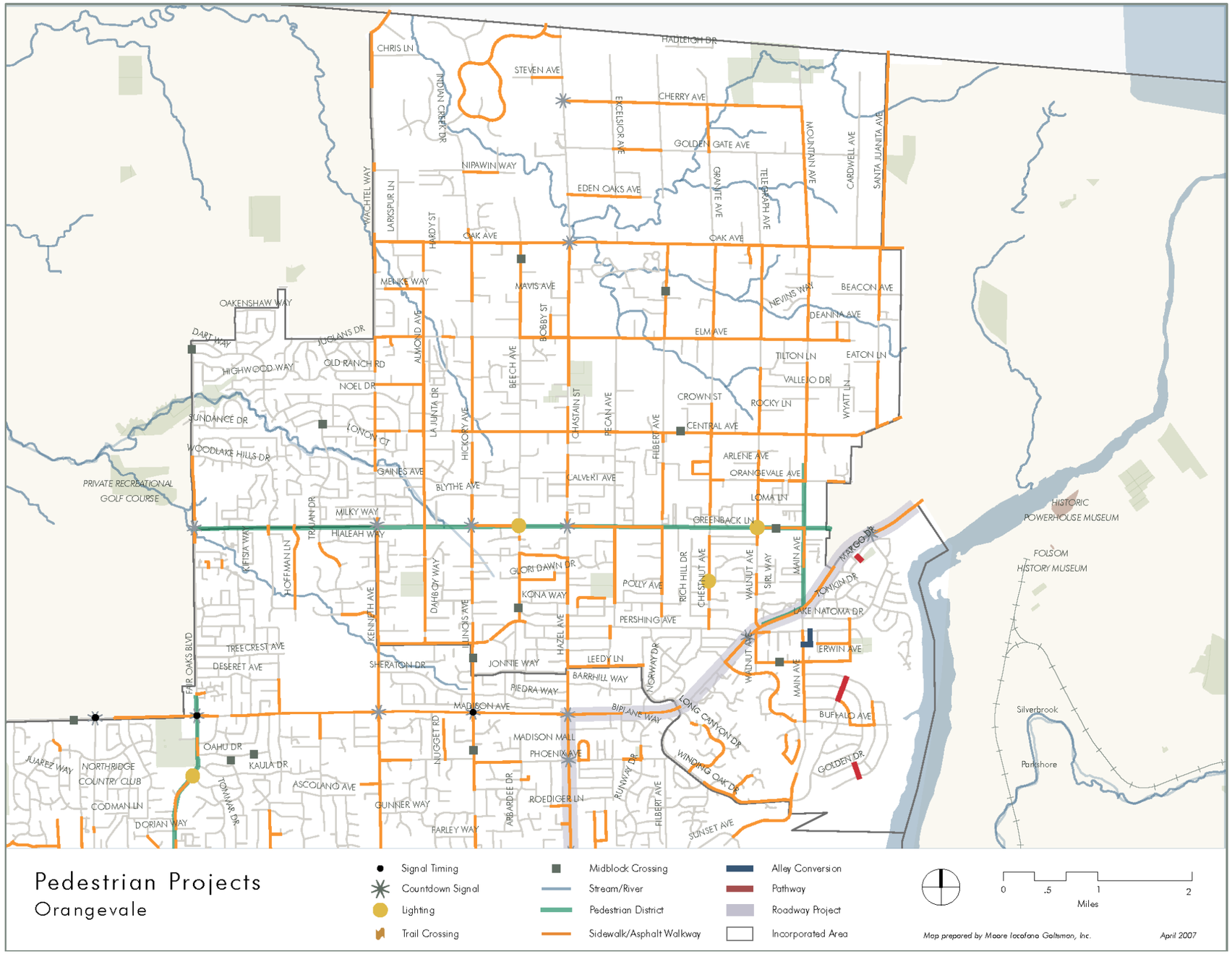
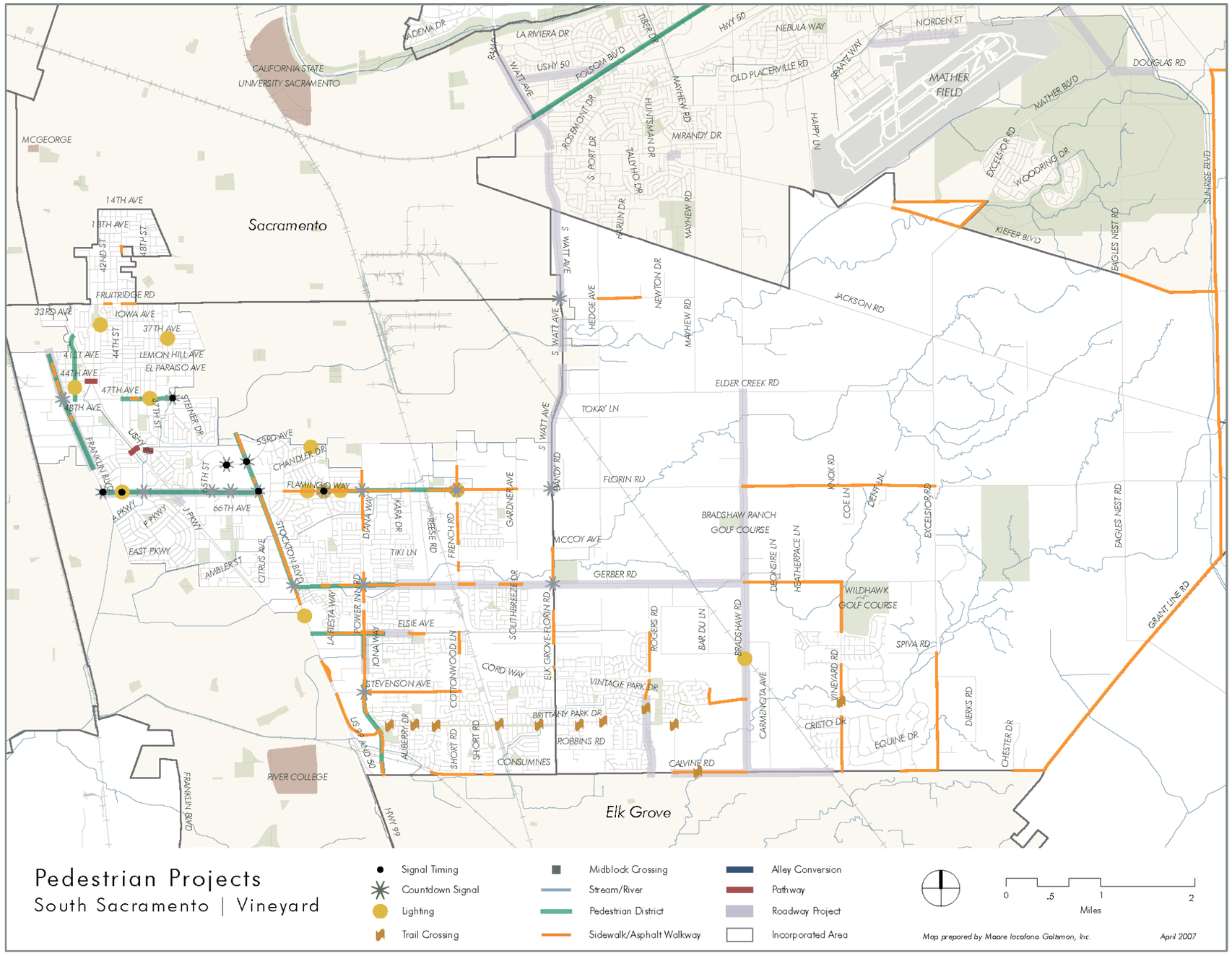


Plate PD -19 South Sacramento/Vineyard Pedestrian Projects



PROJECT OBJECTIVE

The project objective is to improve pedestrian safety and mobility along public roadways in the unincorporated County of Sacramento.

PROJECT GOALS, POLICIES AND ACTION ITEMS

The pedestrian goals, policies and action items in the Master Plan collectively serve as the implementing plan for the Pedestrian Master Plan. Additionally, to ensure that pedestrian needs are fully considered, adoption of the Caltrans Deputy Directive 64 (related to non-motorized travel) and inclusion of pedestrian policies in the Circulation Element of the General Plan are recommended within the Master Plan. The goals, policies and action items are listed below.

OVERALL GOAL

Implement the Pedestrian Master Plan to improve pedestrian safety and access in the unincorporated areas of Sacramento County.

POLICIES

1 Pedestrian Safety

Create a safe street environment for pedestrians.

ACTIONS

To accomplish this directive, the plan recommends the following actions:

1.1 Consider the full range of design elements to improve pedestrian safety.

1.2 Update the Roadway Improvement Standards based on the Pedestrian Design Guidelines recommendations.

1.3 Construct sidewalks with appropriate widths near schools and on busy streets to accommodate pedestrians.

1.4 Use state-of-the-art technologies such as pedestrian countdown signals and video detectors where appropriate.

1.5 Construct bikeways to keep bicycles off sidewalks to minimize pedestrian/bicycle collisions.

1.6 Analyze pedestrian-motor vehicle collisions to reduce the incidences of pedestrian-motor vehicle conflicts.

1.7 Develop and implement a pedestrian hazard elimination program that is based on resident requests.

1.8 Develop and enforce a sidewalk maintenance program to ensure that adjacent property owners properly maintain the sidewalks.

1.9 Wok with the Sheriff's Department to continue the Care about Neighborhoods (CAN) programs that focus on traffic safety in targeted community areas.

1.10 Improve street lighting in neighborhoods.

1.11 Work with the Planning Department to encourage architectural designs that create an "eyes on the streets" feel.

1.12 Fund the Neighborhood Traffic Management Program to develop traffic calming measures.

1.13 Work with the School Districts to identify safe routes to schools, and to prioritize pedestrian projects on the identified routes.

POLICIES

2 Disabled Access

Develop, build and maintain a pedestrian network that is accessible to all.

ACTIONS

To accomplish this directive, the plan recommends the following action:

2.1 Implement the Sacramento County ADA Transition Plan. Refer to the ADA Transition Plan for more details.

POLICIES

3 Pedestrian Access

Develop, build and maintain a convenient and well-connected pedestrian network that offers a viable alternative to the use of automobiles.

ACTIONS

To accomplish this directive, the plan recommends the following actions:

3.1 Include pedestrian (and bicycle) counts when conducting turning movements to ensure that all travel modes are considered when retrofitting intersections and roadways.

3.2 Develop procedures for analyzing the pedestrian (and bicycle) circulation systems in transportation impact studies.

3.3 Form a Sacramento County Pedestrian Advisory Committee as in the cities of Seattle and Cambridge. The goal of the committee is to raise awareness about pedestrian needs. Community members would be appointed to the committee, and a County staff liaison would help coordinate it.

3.4 Coordinate with the School Districts, the Park and Recreation Districts and the Sacramento Regional Transit District to ensure that continuous pedestrian facilities exist.

3.5 Work with W*alkSacramento*'s Walkable Neighborhoods for Seniors program to ensure that older residents' needs are being met.

3.6 Track the Pedestrian Level of Service (LOS) as pedestrian improvement projects are completed to help show progress.

3.7 Report Pedestrian Master Plan implementation progress, including Pedestrian LOS improvements, in the annual update of the Seven Year Transportation Improvement Plan.

POLICIES

4 Streetscaping and Land Use

Create a comfortable and aesthetically interesting street environment for pedestrians.

ACTIONS

To accomplish this directive, the plan recommends the following actions:

4.1 Work with the Planning Department to reduce building and driveway setbacks, and to locate parking on the side or in the rear of developments.

4.2 Work with the Sacramento Tree Foundation to provide street trees.

4.3 Prioritize pedestrian amenities to areas near transit stops and key land uses such as schools, parks, high-density housing and commercial. Pedestrian Districts also should receive high priority status for future amenities.

4.4 Incorporate public art, landscaping, resting benches and signage into the pedestrian route network.

4.5 Continue graffiti abatement and trash reduction programs.

4.6 Consider context sensitive designs at the early stage of all project developments.

4.7 Widen sidewalks in neighborhood commercial Pedestrian Districts to encourage sidewalk activities.

4.8 Coordinate with the Planning Department to create pedestrian improvements in the commercial corridor study areas.

4.9 Develop a pedestrian design checklist that the Community Planning Advisory Councils would use when reviewing and approving site design projects to ensure that they address pedestrian needs.

POLICIES

5 Cost Effectiveness

Pursue cost effective means to construct and improve pedestrian facilities.

ACTIONS

To accomplish this directive, the plan recommends the following actions:

5.1 Create assessment districts to help finance sidewalk improvements.

5.2 Construct sidewalk improvements using economy of scale to reduce mobilization costs.

5.3 Incorporate pedestrian facilities and amenities as a component of larger corridor projects.

5.4 Track the miles of sidewalks as is done for other SacDOT maintained infrastructure.

POLICIES

6 Education

Promote walking as a convenient and healthy travel alternative and increase public awareness on pedestrians' rules-of-the-road.

ACTIONS

To accomplish this directive, the plan recommends the following actions:

6.1 Fund the SacDOT staff training program on the Pedestrian Design Guidelines and the ADA Standards and Codes.

6.2 Implement a Pedestrian Marketing Program.

INTENDED USE OF THE EIR

Sacramento County Board of Supervisors will use the information contained in the EIR to evaluate the proposed Pedestrian Master Plan project and render a decision to approve or deny the project. The EIR is a Program EIR that will allow tiering for individual pedestrian improvement projects are considered for construction in the future. Referencing the EIR would assist in the environmental analysis of potential impacts resulting from construction and operation of the individual pedestrian improvement projects. The EIR is an informational document used in the decision making process. It is not the purpose of an EIR to recommend either approval or denial of a project. CEQA requires the decision makers to balance the benefits of a proposed project against its unavoidable environmental risks.

PROGRAM EIR

This Draft Environmental Impact Report (EIR) assesses the impacts of the proposed Sacramento County Pedestrian Master Plan (Master Plan) pursuant to the California Environmental Quality Act (CEQA Section 15168). CEQA requires that all state and local governmental agencies consider the environmental consequences of projects over which they have discretionary authority. Approval of the Master Plan constitutes a "project" under CEQA.

The purpose of this EIR is to allow the County of Sacramento to consider broad policy alternatives and program wide mitigation measures and to avoid reconsideration of basic policies at a later time. Subsequent projects to implement the Master Plan may be subject to further environmental review. The EIR contains a program level of analysis to be used in conjunction with subsequent actions in the program such as tiered environmental documents for specific projects.

This EIR evaluates impacts associated with the adoption of the Master Plan and suggests mitigation measures to reduce those impacts. The mitigation measures identified in this EIR will be incorporated into the Final Sacramento County Pedestrian Master Plan as environmental mitigation guidelines. The analysis prepared for this EIR assesses impacts associated with construction and operation of the improvement projects listed in the Master Plan given the limited project site-specifics.

PUBLIC POLICIES, LAWS AND REGULATIONS

Public policies, laws and regulations related to the proposed projects include, but are not limited to the Sacramento County General Plan, the Sacramento County Zoning Code,

The projects may require permits from the following agencies:

- U.S. Army Corps of Engineers
- California Department of Fish and Game
- California Reclamation Board
- U.S. Fish and Wildlife Service
- U.S. Bureau of Reclamation
- California Regional Water Quality Control Board
- California State Water Resources Control Board

PUBLIC INVOLVEMENT AND AREAS OF KNOWN CONTROVERSY

PUBLIC INVOLVEMENT

Early and continuing coordination with the general public and appropriate agencies is an essential part of the environmental process to determine the scope of environmental documentation, the level of analysis, potential impacts and mitigation measures and related environmental requirements. Agency consultation and public participation for this Master Plan have been accomplished by Sacramento County Department of Transportation through a variety of formal and informal methods, including: the formation of a study team, advisory groups, outreach to those who are visually impaired, web site, electronic newsletter, transportation fairs, presentations to the Community Planning Advisory Councils, consumer survey, and public information workshops.

ADVISORY GROUPS

Advisory groups were formed to allow for additional input from key stakeholders, planning professionals, policy makers and the general public. The advisory board acted as a sounding board for the study team. The Pedestrian Community Advisory Group (CAG) was formed for the Pedestrian Master Plan and the Technical Advisory Committee (TAC) was formed for the ADA Transition Plan and the Pedestrian Master Plan. The CAG members included representatives from the following organizations:

- Agency For Hearing
- Building Industry Association
- California Council of the Blind
- Californians for Disability Rights
- El Camino Gardens
- Environmental Council of Sacramento
- Fair Oaks Veteran's Affairs
- Greater Sacramento Safe Kids Coalition
- Highway 50 Corridor TMA
- HLA Group
- North Highlands/Foothill Farms Community Policy Advisory Committee
- North Natomas TMA
- Sacramento County, Chief Disability Compliance Office
- Sacramento Metropolitan Air Quality Management District
- Sacramento Transportation Equity Network
- Sacramento Tree Foundation
- Surface Transportation Policy Project
- University of California at Davis Medical Center
- WalkSacramento

The TAC members included representatives from the following organizations:

- Caltrans
- City of Sacramento Public Works Department
- Paratransit, Inc.
- Sacramento Area Council of Governments
- Sacramento County, Chief Disability Compliance
- Sacramento County, Construction Management
- Sacramento County, Department of Environmental Review and Assessment
- Sacramento County, Department of Parks and Recreation
- Sacramento County, Department of Water Resources
- Sacramento County, General Services
- Sacramento County, Planning Department
- Sacramento County, Physical Access Sub-Committee
- Sacramento County, Sacramento Department of Transportation (SacDOT)

- Sacramento County, Sheriff's Department
- Sacramento Metropolitan Air Quality Management District
- Sacramento Municipal Utility District
- Sacramento Regional Transit District
- WalkSacramento

Outreach to Those Who Are Visually Impaired

The Sidewalk and Intersection Database is a pedestrian facility inventory that is available for review by appointment at the ADA Program Access Coordinator's office at SacDOT, 906 G Street, Suite 510, Sacramento, CA 95814, Telephone (916) 874-6291, TYY (916) 875-7105. California Access News' Local Content Area has a free telephone reader service for individuals who are blind or with visual impairments that included information on the Pedestrian Master Plan. The service was initiated for Sacramento County's ADA Transition Plan process in August 2002, and received a total of 48 calls between August and December 2002. All information was updated on a regular basis to include upcoming events, meetings, and documents.

Electronic Media

The SacDOT website, http://www.sacdot.com was used as a means of disseminating information on the Pedestrian Master Plan and the ADA Transition Plan. Electronic newsletters were sent to interested parties to apprise them of the project's progress, providing a convenient method for project updates on a frequent, real-time basis. The newsletters were also made available in hard copy, large print, CD, floppy disk or electronic mail. The study team utilized the ADA and pedestrian-oriented organizations and other advocacy groups in the Sacramento area for distribution of project information.

Presentations, workshops, & Community Advisory Councils

Presentations made by Dan Burden, a national pedestrian expert from Walkable Communities, Inc., in November 2002, sought to educate a broad group of staff, elected officials and community members about walking concepts and issues to help encourage more pedestrian-friendly policies, programs and projects. These presentations were made before the Sacramento County Board of Supervisors, CAG, and TAC members as well as a public workshop. A site tour to a mix of pedestrian areas in the County was also conducted.

Transportation fairs were conducted for public input in the early stages of both the ADA Transition Plan and the Pedestrian Master Plan. The fairs were held in June 2003.

The study team presented the ADA Transition Plan and Pedestrian Master Plan to the fourteen Community Planning Advisory Councils (CPACs). The presentations focused on the purpose, objectives, scope, schedule and community outreach/involvement opportunities of the Master Plan and proposed improvements for each community. Attendees of the CPAC meetings provided input to guide plan development. The study team distributed a consumer survey to CPAC meeting attendees to identify specific problem areas in their neighborhoods. The fourteen CPACs included in the public participation process were:

- Antelope
- Arden Arcade
- Carmichael
- Cosumnes
- Delta
- Fair Oaks
- Franklin/Laguna
- Natomas
- North Highlands
- Orangevale
- Rio Linda/Elverta
- Southeast
- South Sacramento
- Vineyard

A public workshop was held before the Sacramento County Board of Supervisors in 2006 on the draft Pedestrian Master Plan where a brief overview of the draft Master Plan was presented, followed by a general question and answer period.

AREAS OF KNOWN CONTROVERSY

Public feedback in response to the presentation of the Draft Pedestrian Master Plan was extensive; however, a more limited response was received in response to the Notice of Preparation (NOP) of the Environmental Impact Report.

Comments were received during the circulation period for the NOP from the Carmichael Water District, the Elk Grove Unified School District, the Rio Linda Community Council and the Sacramento County Sheriff's Department. Other comments were received in response to the NOP from interested members of the public and public interest groups. Their comments are addressed within the pertinent chapters of this document. As a result of public outreach conducted by SacDOT, tree removal and its related impact on aesthetics was identified as an area of concern.

4 ALTERNATIVES TO THE PROPOSED PROJECT

INTRODUCTION

Section 15126.6 (d) of the CEQA Guidelines requires that an EIR describe a range of reasonable alternatives to a project that would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and to evaluate the comparative merits of the alternatives. The CEQA Guidelines require that a "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.

Consideration of project alternatives include, but are not limited to looking at the feasibility, site suitability, availability of infrastructure, general plan consistency and other plans or regulatory limitations. The proposed project was studied to develop possible build alternatives. The nature of the project and the proposed improvements rely on the identified improvement locations as they have been selected based on specific identified needs (see Section 4 Project Description). This EIR is a planning-level document with its certification leading to the adoption of the Sacramento County Pedestrian Master Plan. As such, the Master Plan presents a "blueprint" for the future development of pedestrian facilities in unincorporated Sacramento County.

The EIR has identified aesthetics as a ***significant and unavoidable*** impact. An alternative has been developed to avoid this impact.

DESCRIPTION OF THE NO PROJECT ALTERNATIVE

The No Project Alternative would leave the pedestrian facilities in the Master Plan area in this present state. Safety and mobility concerns would persist. The general visions and goals of the Master Plan would not be adopted, and the specific pedestrian enhancements would not be constructed as part of an overall pedestrian program.

In the absence of the overall Pedestrian Master Plan, funding for specific projects could be difficult. Obtaining funding and the development of key partnerships to facilitate development and management of the pedestrian improvement projects are major goals of the Master Plan. A Master Plan Program EIR can assess a broad range of impacts and allow policy decisions to be made that facilitate future specific projects. Without such an analysis each specific project may need to consider basic policies, cumulative impacts and regional implications redundantly. This can preclude the timely expenditure of funds and create difficulties when seeking grant funds. Considering that funding can

be competitive with other regional projects, the lack of a comprehensive master plan may be a hindrance.

Development of facilities without a Master Plan and its associated policies has the potential to adversely affect connectivity of pedestrian improvements, and presents greater difficulty in taking a holistic approach to design of such projects.

Sidewalks/asphalt walkways, signal timing, signal countdown, trail access pathways, midblock crossings, lighting, sidewalk obstruction removal, safe access to schools, safe access to transit and the creation of pedestrian districts may not be constructed and installed under the No Project Alternative. In the absence of a Master Plan, the Pedestrian Design Guidelines, Pedestrian Policies Training, and Pedestrian Facility Maintenance would require approval from the Sacramento County Board of Supervisors on an individual basis without benefit of the larger plan. The Pedestrian Marketing program would not be implemented under the No Project Alternative.

Conclusion

The above discussion illustrates the issues that would be associated with the No Project alternative. The objectives of the Master Plan would not be met in a cohesive organized fashion as envisioned within the proposed goals and policies. The No Project Alternative could result in potentially adverse impacts resulting from a non-comprehensive assessment of cumulative impacts to affected resources if projects are considered on a project specific basis.

Aesthetically Sensitive Alternative

The Aesthetically Sensitive Alternative includes the same projects as the Pedestrian Master Plan Project; however, the design and location of the projects, particularly those with sidewalks/asphalt walkways, would be revised or eliminated where large stands of neighborhood shade trees may be impacted.

This alternative would use rural pedestrian design standards to limit tree removal, could potentially install sidewalks on one side of the roadway only where feasible, and use a portion of the roadway to place pedestrian improvements.

Rural pedestrian design standards are accommodations made for pedestrians living in rural areas or areas where sidewalks cannot be constructed due to cost, environmental, or other considerations. Instead of the five to eight foot wide sidewalks separated from the roadway, multipurpose four to six foot wide shoulders adjacent to the roadway would be constructed. In general, sidewalks/asphalt walkways would be constructed within the road right-of-way unless maintaining adequate stormwater runoff or avoiding roadside features, such as trees and utilities, is necessary. Roadway shoulders would be paved to accommodate pedestrians and bicyclists.

In some cases an alternative design might be constrained by limited right-of-way. In those cases the modifications may be eliminated in favor of the tree lined existing condition. Specific areas would require a safety analysis to determine if it is possible to eliminate sidewalks. In those cases where it is determined that a safety concern exists, removal of the trees can be permitted. Since the majority of these types of situations occur on residential streets with low traffic volumes, this is a feasible alternative. Although this alternative may not meet all of the goals and project objectives, the extent of this inconsistency is minor in comparison to the larger geographical area of the Master Plan.

AESTHETICALLY SENSITIVE ALTERNATIVE IMPACT ANALYSIS

Impacts to all resources reported for the Pedestrian Master Plan Project (land use, agricultural, transportation/traffic, air quality, noise, hydrology and water quality, biological, cultural, and hazards and hazardous materials) would remain unchanged with this alternative, with the exception of aesthetic resources such as trees.

In some neighborhoods removing large stands of shade trees may be necessary under the proposed project. Some roadways are lined with trees on both sides and have minimal shoulders with no room for expansion. In such cases, pedestrian walkways or sidewalks cannot be constructed on either side of the roadway without impacting trees. Under this alternative, improvements would be incorporated only where roadway widths can accommodate them without excessive tree removal that would result in significant impacts to the aesthetics of the roadway and neighborhood.

This alternative would avoid tree removal in those areas where large shade trees contribute to an aesthetically pleasing environment. This alternative would reduce aesthetic impacts to ***less than significant***.

ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The Aesthetically Sensitive Alternative is considered the environmentally superior alternative. It includes all mitigation measures identified for the proposed project. This alternative meets the overall goals and objectives of the Pedestrian Master Plan in areas where feasible, and maintains neighborhood character. This alternative reduces the impact to aesthetics to ***less than significant***.

5 LAND USE

INTRODUCTION

The Sacramento County Pedestrian Master Plan (Master Plan) is a policy document that establishes the planning framework for the future design, implementation, and management of the pedestrian improvement projects in unincorporated Sacramento County. The goal and policies in the Master Plan provide specific guidance for the development and prioritization of pedestrian improvements. The Master Plan projects are located throughout the County of Sacramento. The Master Plan would be adopted as part of the Sacramento County General Plan.

Proposed design standards are currently being developed in light of the Pedestrian Design Guidelines that were adopted in November 2005. The updated standards would be adopted prior to any construction projects. The design standards will provide uniformity and consistency in the design parameters and general look of the pedestrian facilities.

LAND USE SETTING

Sacramento County is located in the southern part of the Sacramento Valley and encompasses approximately 1,015 square miles. It is surrounded by Yolo and Solano Counties to the west, Sutter and Placer Counties to the north, El Dorado and Amador Counties to the east, and San Joaquin and Contra Costa Counties to the south. Topography in Sacramento County is predominantly flat in the western and central areas with small rolling hills at the northeastern edge. The six incorporated cities within the Sacramento County boundaries are Sacramento, Folsom, Galt, Elk Grove, Rancho Cordova, and Isleton. The county is bisected by the American River and the Sacramento River forms the western border of the county. The highways within Sacramento County are Interstates 80 and 5, State Highways 16, 50, 99, 104, 160, and 220. There are also numerous county roadways.

LAND USE POLICIES AND ANALYSIS OF IMPACTS

GENERAL PLAN

Land use policies and designations shape the development patterns in Sacramento County. The Master Plan would provide a framework of policy and design for pedestrian facilities in unincorporated Sacramento County. The Master Plan identifies locations and the nature of necessary improvement. Upon adoption, compliance with these policies is necessary. The General Plan has a set of land use policies and

designations that direct development in the County. The Master Plan would need to be consistent with these existing polices. The following discussion from the Land Use Element presents the project pertinent goals, guidelines, objectives, and policies related to land use.

URBAN GROWTH MANAGEMENT STRATEGY

GOAL

Land use patterns that minimize the impacts of new and existing development while maintaining the quality, character, and identity of neighborhood and community areas.

PEDESTRIAN CIRCULATION

OBJECTIVE

Communities, neighborhoods, and single projects that promote pedestrian circulation and safety through amenities, good design, and a mix of different land uses in close proximity.

POLICY

LU-13 Community Plans, Specific Plans, 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.

COMMUNITY AND NEIGHBORHOOD IDENTITY

OBJECTIVE

New development that accommodates projected population increases, yet provides direct and multiple pedestrian and automobile linkages to other developments, maintains community identity, and is compatible with existing neighborhoods.

POLICY

LU-19 Incompatible urban land uses should be buffered from one another by methods that retain community character, and do not consume large land areas or create pedestrian barriers.

TRANSIT-ORIENTED DEVELOPMENT

OBJECTIVE

High intensity, mixed use neighborhoods that provide a pedestrian environment and are closely linked to transit.

POLICY

LU-26 Developments in the areas designated in a manner that conforms to the concepts of transit-oriented development, including:

- High intensity, mixed-use development concentrated in a Core Area within an easy walk (one quarter mile) of a transit stop on the Trunk or Feeder Line Network.
- An emphasis on neighborhood support commercial services at street level in the Core Area that can serve the residents of the Core and the surrounding Secondary Areas, with other employment encouraged in the Urban transit-oriented development created along the Trunk Line Network
- A pleasant walking environment created through good land use design, short distances, amenities, and streetscape features.
- Direct, multiple linkages, especially for bicycles and pedestrians, between the Core Area and the surrounding Secondary Area.

LU-28 Community Plans and Specific Plans shall employ the primary concepts in LU-26 in designating locations for higher intensity mixed use development and designing circulation and pedestrian networks.

TRANSIT-ORIENTED DEVELOPMENT DESIGN GUIDELINES

STREET AND CIRCULATION SYSTEM

GUIDELINE

8I Intersections within TOD's [Transit-Oriented Development] shall be designed to facilitate pedestrian movement and minimize the number of turning lanes.

PEDESTRIAN AND BICYCLE SYSTEM

GUIDELINE

9A Pedestrian routes should be located along or visible from streets. Routes through parking lots or at the rear of residential developments should be avoided.

Primary pedestrian routes and bikeways should be bordered by residential fronts (rather than back yards), public parks, plazas, or commercial uses.

9B The pedestrian system must provide clear, comfortable, and direct pedestrian access to the core commercial area and the transit stop.

9C Sidewalks are required on all streets in TODs and Secondary Areas[1]. Sidewalks must be at least 6 feet wide in TODs and at least 4 feet wide in Secondary Areas.

TRANSIT STOPS

10C Streets must be designed to facilitate safe pedestrian crossings to the TOD transit stop.

OPEN SPACE, PARKS, AND PUBLIC SPACES

12F If needed, school sites and community parks shall be located at the edges of TODs in Secondary Areas. Strong pedestrian and bike links should connect these sites with the commercial and transit core.

RELATIONSHIP TO SURROUNDING LAND USES

13C Existing on-site pedestrian, parking and auto circulation systems should be redesigned to encourage pedestrian access between parcels, uses and public spaces.

IMPACTS

The proposed sidewalks/asphalt walkways, signal timing, signal countdown, trail access pathways, midblock crossings, lighting, sidewalk obstruction removal, safe access to schools, safe access to transit, and pedestrian district projects support and are consistent with the objectives, policies, and guidelines of the Sacramento County General Plan to provide direct pedestrian linkages to transit, new and old residential neighborhoods, and other developments. These projects would not change land use designations; therefore, impacts are considered ***less than significant***.

COMMUNITY AREAS

The Master Plan area encompasses fourteen communities within the unincorporated area of Sacramento County. These communities are:

[1] auto-oriented land uses that also support TOD businesses

- Antelope
- Arden Arcade
- Carmichael
- Cosumnes
- Delta
- Fair Oaks
- Franklin-Laguna
- North Highlands/Foothill Farms
- North Natomas
- Orangevale
- Rio Linda-Elverta
- South Sacramento
- Southeast
- Vineyard

The following is a general discussion of the unincorporated community areas in Sacramento County, shown in Plate PD-1 in Section 5, Project Description. The communities of Cosumnes, Franklin/Laguna, North Natomas and Southeast do not have an adopted community plan so the Sacramento County General Plan is the applicable adopted plan for these communities. The Antelope Urban Study Area, the Delta Community Area Plan, the North Highlands- North Central Area Community Plan, Rio Linda/Elverta Community Plan, the Vineyard Community Plan do not have any land use-related policies, goals, or guidelines, pertinent to the proposed projects; therefore, the community plans are not discussed. Special Planning Areas (SPAs) and Neighborhood Planning Areas (NPAs) are discussed under the community in which they apply. Each SPA and NPA was reviewed for applicability to the Master Plan. Only those SPAs and NPAs found to have pedestrian projects on roadways within their boundaries or where the acquisition of right-of-way from properties within the SPAs and NPAs may be necessary are discussed.

ANTELOPE

SETTING

This community is a well-developed urban area. The County General Plan land use map shows the area designated as agricultural-residential, low density residential, commercial and offices, intensive industrial, and urban transit-oriented development. The Antelope Community Area map designates the site-specific project locations as low density and medium density residential.

POLICIES

Land use policies and designations shape the development patterns in the area they represent. The Master Plan would add a community shaping framework of identified locations and pedestrian improvement needs in unincorporated Sacramento County. Upon adoption, compliance with these policies is necessary. Each community has a set of land use policies and designations that direct development in that community. The Master Plan would need to be consistent with these existing policies.

SPECIAL PLANNING AND NEIGHBORHOOD PLANNING AREAS (SPAS & NPAS)

The Antelope Station SPA is within the community of Antelope. The general intent of the SPA is to promote walking and biking through the character of land uses and their relationship to transit.

The Master Plan proposes sidewalks/asphalt walkways within the Antelope Station SPA.

IMPACTS

The proposed sidewalks/asphalt walkways support the general intent of the Antelope Station SPA to promote walking; therefore, impacts are considered ***less than significant***.

ARDEN ARCADE

SETTING

This community is a well-developed urban area. The County General Plan land use map shows the area designated as low and high density residential, commercial and office, and park sites. The Arden Arcade Community Area map designates the site-specific project locations as, agricultural-residential, low to high density residential, parks and natural areas, community facilities, commercial travel, and mobile home park.

POLICIES

COMMUNITY PLAN

The Arden-Arcade Community Plan was adopted in November 1980 and is currently being updated, but is still applicable. The following discussion presents the project pertinent goals, objectives, and policies related to land use.

GOAL

To develop an efficient, fully integrated and ecologically balanced transportation and circulation system.

OBJECTIVES

- Require provision of bike lanes and sidewalks in appropriate areas where these improvements do not exist now.

- Cooperate with other planning authorities to investigate and promote pubic transit, pedestrian and bicycle access to commercial areas.

SPAS & NPAS

The Loma Vista SPA, Arden Court, Arden Oaks, Arden Park, Mariemont/Gordon Heights, Mission Oaks, and Sierra Oaks Vista NPAs are within the community of Arden Arcade. The general intent of the SPAs and NPAs within the community of Arden Arcade is to preserve and protect compatibility of design with the existing residential atmosphere and prevent further encroachment of commercial uses in the area.

The Master Plan proposes projects on major roadways where acquisition of right-of-way may be necessary to construct the particular project. In some cases, acquisition of right-of-way would be from properties within an SPA or NPA. The following SPAs and NPAs may be subject to right-of-way acquisition.

- Loma Vista SPA- pedestrian districts on Fulton Avenue. (Pedestrian districts could include the installation of lighting. The Loma Vista SPA development standards state that all exterior lights shall be oriented to the pedestrian corridors and shall be constructed to be ‘nonpolluting’, as low in height as practical and directed inward toward the property so that they are compatible with the residential nature of the properties to the east).

- Arden Court NPA - pedestrian district and sidewalks/asphalt walkways on Watt Avenue.

- Arden Oaks NPA - pedestrian district and lighting on Watt Avenue and sidewalks/asphalt walkways on Watt Avenue and Arden Way.

- Arden Park NPA- sidewalks/asphalt walkways and countdown signals on Watt Ave., Fair Oaks Blvd., Eastern Ave, and Arden Way. (Also the proposed pathway project (located at the existing pathway near La Sierra Drive) and the lighting projects on Watt Avenue and on Castec Drive are proposed).

- Mariemont/Gordon Heights NPA- sidewalks/asphalt walkways on Eastern Avenue.

- Sierra Oaks NPA- sidewalks/asphalt walkways on Fair Oaks, Watt Avenue, and Northrop Avenue.

The Master Plan proposes pathways, countdown signals, signal timing, and sidewalks/asphalt walkways within the Mission Oaks NPA.

IMPACTS

COMMUNITY PLAN

The proposed pedestrian district, sidewalks/asphalt walkways, lighting, countdown signals, and signal timing projects support and are consistent with the goals and objectives of the Arden-Arcade Community Plan to provide and promote pedestrian access; therefore, impacts are considered ***less than significant***.

SPAS AND NPAS

Right-of-way acquisition from property within the Loma Vista SPA may be necessary to construct the proposed pedestrian district on Fulton Avenue. Construction of the typical facilities within a pedestrian district, such as bicycle lanes, sidewalk enhancements, and pedestrian-scaled lighting would be constructed so that they don't create a nuisance for those residing within the Loma Vista SPA. Lighting would be designed to be consistent with the design standards in the SPA. Acquisition of right-of-way from within the SPA would not change land use designations; therefore impacts are considered ***less than significant***.

The proposed pedestrian district, sidewalks/asphalt walkways, lighting, and countdown signal projects support the general intent of the Arden Court, Arden Oaks, Arden Park, Mariemont/Gordon Heights, Mission Oaks and Sierra Oaks Vista NPAs to preserve the residential atmosphere. These projects would create a safer walking environment and would not change land use designations; therefore, impacts (including right-of-way acquisition) are considered ***less than significant***.

CARMICHAEL

SETTING

This community has urban and semi-rural neighborhoods. The County General Plan land use map shows the area designated as low and high density residential, commercial and office, and park sites. The Carmichael Community Area map designates the site-specific project locations as low to high density residential, shopping center, general and limited commercial, business and professional, commercial, public areas, and recreation facilities.

POLICIES

COMMUNITY PLAN

The policy plan that applies to this community area is the Carmichael Land Use Plan. This plan was adopted in October 1975 and may be updated, but is still applicable. The following discussion presents the project pertinent goals, objectives, and policies related to land use.

GOAL

I. To maintain and enhance the distinctive character and identity of the Carmichael community.

OBJECTIVE

E. Protect the basically residential character of the area and emphasize the semi-rural (estate type) residential character in those areas of the community where it now exists.

GOAL

III. To provide a wide range of recreational activities and facilities for the community.

OBJECTIVE

A. Provide greater access for the pedestrian, equestrian and bicyclist from the residential areas to the American River Parkway.

B. Develop a complete system of bikeways, pedestrian and equestrian trails throughout Carmichael.

The Carmichael Land Use Plan identifies the importance of maintaining and enhancing the distinctive character and identity and protecting the residential and semi-rural residential character of Carmichael. Potential inconsistencies between the Carmichael

Land Use Plan and the Pedestrian Master Plan may occur when the proposed pedestrian improvements are located in areas where placement of the identified project (e.g. provision of sidewalks) may conflict with the goal and objective. This overall goal and objective does not offer detailed guidance or parameters of its application at a project-specific level, therefore, the Carmichael Community Action Plan was consulted to obtain more specific guidance.

CARMICHAEL COMMUNITY ACTION PLAN

The Carmichael Community Action Plan was prepared as an appendix to the Carmichael Community Plan which was revised in April 2006. With a focus on more detailed guidance on maintaining the residential and semi-residential character of Carmichael, the Carmichael Community Action Plan states the following transportation action (T-4-1):

- The Department of Transportation will implement the recommendations included in the Pedestrian Master Plan.
- Prioritize funds for "Safe Routes to School" sidewalk construction and other non-vehicular programs for getting kids safely to school.
- Install or complete sidewalks…within a half-mile of schools (top priority), libraries, parks, transit stops[,] and neighborhood centers.
- County to ensure Pedestrian and wheelchair access, and fully implement ADA/Ped[estrian] master plans.
- Sidewalk to be free of obstructions (utility poles, mailboxes, etc.) with 5 ft. min. of available walking space near neighborhood centers and commercial areas. Irremovable obstructions should be mitigated by wider widths. Add lighting.
- Planting strips between roadways and sidewalks and/or parallel parking as buffers in commercial areas.
- Upgrade all residential neighborhoods' sidewalks (for all such neighborhoods that voice support for such improvements). Primary upgrade would be taking some of the existing street width for new shade-tree planting strips between sidewalk and street. Replace rolled with vertical curb and gutter. Where planting strips or sidewalks are not present and street width is narrow in existing residential areas, explore alternate-side parallel parking in order to achieve improvements.
- Replace street side drainage ditches with underground pipes to regain land for sidewalks and bike lanes. Locations shall be consistent with the Pedestrian Master Plan and Bikeway Master Plan and where financially feasible. Develop a comprehensive plan for rehabilitating and upgrading all

infrastructures, subject to approval of Neighborhood residents; cover open ditches; relocate utility poles; explore community-wide funding mechanisms or assessments to pay for improvements.

- Provide safety improvements at intersections to include pedestrian islands adjacent to turning lanes (except right-turn lanes) and on higher volume roads.

SPAs AND NPAs

The Marshall-Fair Oaks and Winding Way-Hackberry Lane SPAs, and Carmichael Colony and Carmichael Creek NPAs are within the community of Carmichael. The general intent of the SPAs and NPAs within the community of Carmichael is to preserve and protect the semi-rural residential character of the environment, preserve and protect the creeks and floodplains, and provide access to major streets.

The Master Plan proposes sidewalks/asphalt walkways on Fair Oaks Boulevard and right-of-way acquisition from properties within the Marshall-Fair Oaks SPA may be necessary.

The Master Plan proposes sidewalks/asphalt walkways within the Winding Way-Hackberry Lane SPA.

In the Carmichael Colony NPA, the Master Plan proposes projects within the NPA and on roadways that border the NPA. Proposed projects on roadways that border the NPA include sidewalks/asphalt walkways on El Camino Avenue and a pedestrian district on El Camino Avenue. Right-of-way acquisition from properties within the Carmichael Colony NPA may be necessary. Other projects such as sidewalks/asphalt walkways, a pedestrian district, a pathway, and lighting are proposed for roads inside the NPA.

The Master Plan proposes sidewalks/asphalt walkways on California Avenue and right-of-way acquisition from properties within the Carmichael Creek NPA may be necessary. Also sidewalks/asphalt walkways are proposed for roads within the NPA.

IMPACTS

COMMUNITY PLAN

The proposed sidewalks/asphalt walkways, pedestrian district, pathway, and lighting projects support and are consistent with the goals and objectives of the Carmichael Land Use Plan to maintain and enhance the distinctive character and provide a wide range of recreational activities and facilities. The proposed projects in Carmichael support the Carmichael Community Action Plan at a project-specific level, and by extension the Carmichael Land Use Plan. These projects would create safer and more accessible walkways while complimenting the distinctive character of the community; therefore, impacts are considered ***less than significant***.

SPAs AND NPAs

The general intent of the Carmichael Colony and Carmichael Creek NPAs is to protect the semi-rural character in the NPAs, which is at odds with the proposed sidewalks/asphalt walkways. These projects may be viewed as a departure from the rural setting. However, the proposed projects are located on major roadways, with the exception of Panama Avenue. The proposed sidewalk/asphalt walkway projects in both these NPAs are requested by the San Juan Unified School District to help school children have safe routes to Carmichael Elementary and Mary C. Deterding Elementary schools. The lighting projects proposed in the Carmichael Colony NPA were included in the Master Plan as a result of public requests and pedestrian district projects as requests to augment commercially-zoned corridors. The pathway project would improve the existing pathway in the Carmichael Colony NPA. The provision of safe access to schools, response to public improvement requests and improving existing pathways are the reasons the proposed projects are in the NPAs. Impacts are considered ***less than significant***.

The proposed sidewalks/asphalt walkways, pedestrian district, pathway, and lighting projects support the general intent of the Fair Oaks and Winding Way-Hackberry Lane SPAs and Carmichael Colony and Carmichael Creek NPAs to preserve the semi-rural residential character of the environment, protect the creeks and floodplains, and provide access to major streets. These projects would create improved accessibility for pedestrians; therefore, impacts (including right-of-way acquisition) are considered ***less than significant***.

COMMUNITY ACTION PLAN

The Carmichael Community Action Plan identifies a policy to accelerate the construction of pedestrian-friendly projects. The proposed projects support and are consistent with the policies of the Carmichael Community Action Plan; therefore, are considered ***less than significant***,

DELTA

SETTING

This community is a rural community. The County General Plan land use map shows the area designated as recreation and agricultural cropland. The Delta Community Area Plan designates land uses in the towns. The project specific locations are not in the Delta towns, but rather outside them where no land use designations are identified by the community plan. The land use designations for the project specific locations are those identified in the County General Plan Land Use map, which is recreation.

POLICIES

DELTA PROTECTION ACT

Within the Delta there are areas subject to the Delta Protection Act of 1992. The Delta Protection Act established the Delta Protection Commission, a state department tasked with guiding the conservation and enhancement of natural resources in the Delta, while sustaining agriculture and meeting recreational demand. The Act defines the Delta region into primary and secondary zones, as shown in Plate LU-1.

The Primary Zone is in the Commission jurisdiction and the Secondary Zone is within the "Legal Delta" but not in the Commission's jurisdiction. The Act requires the Commission to prepare and adopt a land use and resource management plan that must meet specific goals. These goals are "to protect, maintain, and where possible, enhance and restore the overall quality of the Delta environment, including but not limited to agriculture, wildlife habitat, and recreational activities; assure orderly, balanced conservation and development of Delta land resources and improve flood protection by structural and nonstructural means to ensure an increased level of public health and safety".

LAND USE AND RESOURCE MANAGEMENT PLAN FOR THE PRIMARY ZONE OF THE DELTA

This plan contains the following applicable polices and recommendations that apply to areas within the Primary Zone and within the Master Plan area (see Plate LU-1). These polices and recommendations are from the Land Use and Resource Management Plan for the Primary Zone of the Delta, adopted by the Commission on February 23, 1995 and by the Sacramento County Board of Supervisors on May 23, 1996.

RECREATION AND ACCESS

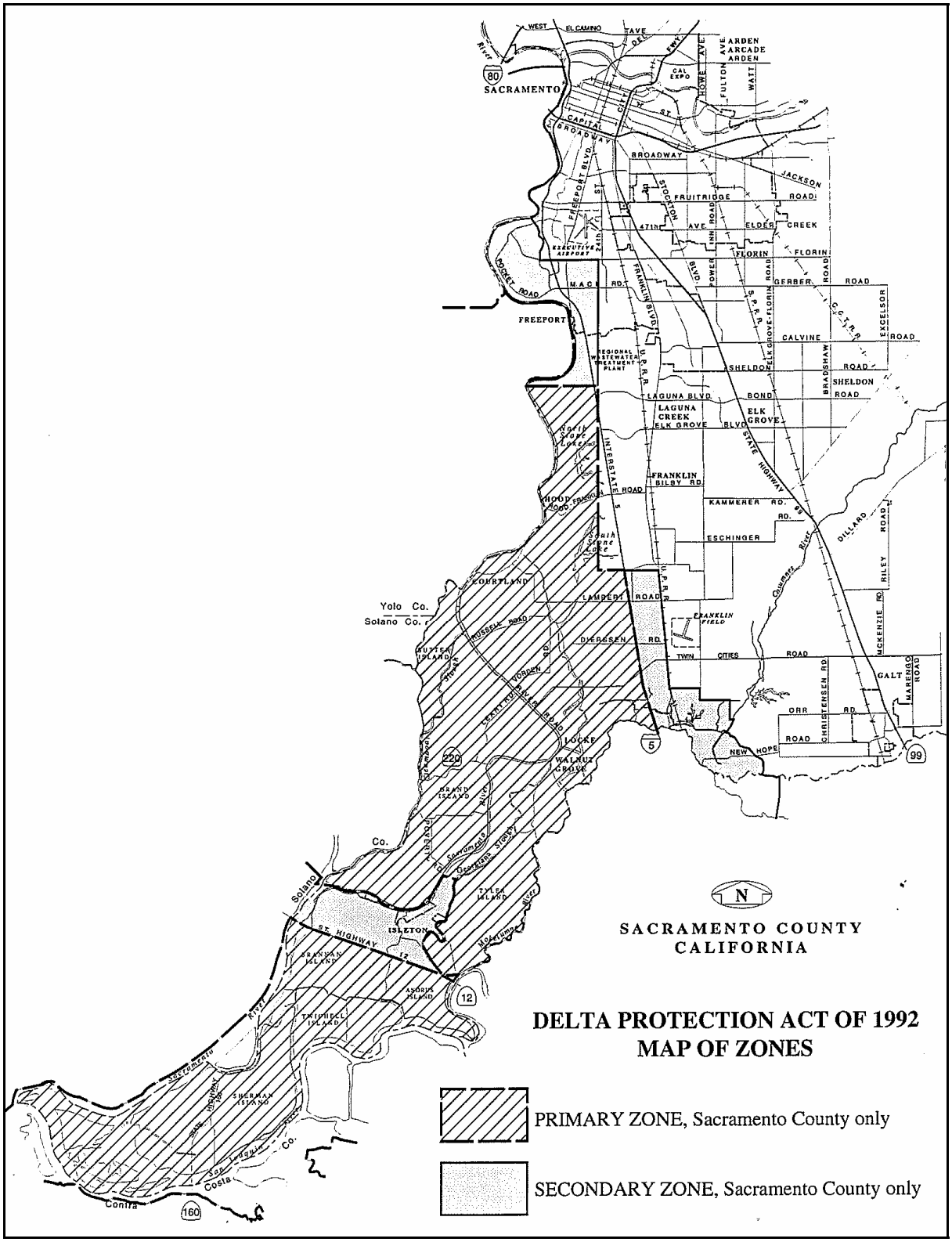
POLICY

P-5 Local governments shall encourage provision of publicly funded amenities in or adjacent to private facilities, particularly if the private facility will agree to supervise and manage the facility (fishing pier, overlook, picnic area) thus lowering the long-term cost to the public.

P-6 Local governments shall support multiple uses of Delta agricultural lands, such as seasonal use for hunting, or improved parking and access sites.

P-7 Local governments shall support improved access for bank fishing along State highways and county roads where safe and adequate parking can be provided and with acquisition of proper rights-of-access from the landowner. Adequate policing, garbage cleanup, sanitation facilities, and fire suppression for such access shall be provided.

Plate LU -1 Delta Protection Act Zoning Map



P-9 Local governments shall encourage new recreation facilities that take advantage of the Delta's unique characteristics.

RECOMMENDATIONS

R-3 New projects in the Secondary Zone, adjacent to the Primary Zone, should include commercial and public recreation facilities which allow safe, supervised access to and along the Delta waterways (pedestrian and bike trails, launch ramps including small boat launch ramps, windsurfing access, overlooks, nature observation areas, interpretive information, picnic areas, etc.).

R-6 State and federal projects in the Primary and Secondary Zones should include appropriate recreation and/or public access components to the extent consistent with project purposes and with available funding. State and federal agencies should consider private or user group improvements on publicly-owned lands to provide facilities (example: windsurf access at Brannan Island State Recreation Area).

R-7 Local governments should develop design guidelines for new or enlarged recreation facilities to protect adjacent agricultural land uses.

LEVEES

POLICY

P-1 Local governments shall ensure that Delta levees are maintained to protect human life, to provide flood protection, to protect private and public property, to protect historic structures and communities, to protect riparian and upland habitat, to promote interstate and intrastate commerce, to protect water quality in the State and federal water projects, and to protect recreational use of the Delta area. Delta levee maintenance and rehabilitation shall be given priority over other uses of the levee areas. To the extent levee integrity is not jeopardized, other uses, including support of vegetation for wildlife habitat, shall be allowed.

RECOMMENDATIONS

R-1 Levee maintenance, rehabilitation, and upgrading should be established as the first and highest priority of use of the levee. No other use whether for habitat, trails, recreational facilities, or roads should be allowed to unreasonably adversely impact levee integrity or maintenance.

IMPACTS

The proposed sidewalks/asphalt walkways projects support and are consistent with the goals of the Delta Protection Act to protect and maintain the overall quality of the Delta environment, including recreational activities. The proposed sidewalks/asphalt walkways projects support and are consistent with the policies and recommendations of

the Land Use and Resource Management Plan for the Primary Zone of the Delta to encourage new recreation areas and protect recreational use in the Delta. These projects create safer walkways that can also be used for recreational purposes; therefore, impacts are considered ***less than significant***.

FAIR OAKS

SETTING

This community is an urban area with some semi-rural neighborhoods. The County General Plan land use map shows the area designated as agricultural-residential, low and high density residential, commercial and office, and park sites. The Fair Oaks Community Area map designates the site-specific project locations as agricultural-residential, low to high density residential, limited commercial, shopping center, public areas, and recreation facilities.

POLICIES

COMMUNITY PLAN

The Fair Oaks Community Plan was adopted in January 1975 and may be outdated, but is still applicable. The following discussion presents the project pertinent goals, objectives, and policies related to land use.

GOAL

7. To maintain and enhance the identity and attractiveness of the Fair Oaks community and its social, economic and aesthetic attributes and benefits to the local residents.

    C. To recommend and pursue the enactment of a County Ordinance that provides for design review at the community level, to include but not be limited to all public and private outdoor lighting, and all outdoor advertising signs and billboards.

SOCIO-CULTURAL RESOURCES

To promote and enhance the distinctive living environment in Fair Oaks, it is the policy of the Board of Supervisors to:

POLICY

3. Consider creation of a design review body with review powers including but not limited to public and private outdoor lighting, signs, and billboards.

SPAS AND NPAS

The Fair Oaks Village and Sunrise/Sunset SPAs are within the community of Fair Oaks. The general intent of the SPAs is to retain a viable commercial center, preserve and enhance the environmental and historical character, provide adequate access and circulation, and ensure compatibility of design with the existing neighborhood development.

The Master Plan proposes a pedestrian district and sidewalks/asphalt walkways on Fair Oaks Boulevard, Winding Way, Park Drive, and Watkins Drive, and right-of-way acquisition from properties within the Fair Oaks Village SPA may be necessary. Also a pedestrian district, sidewalks/asphalt walkways, signal timing, and countdown signals are proposed for roads within the SPA.

The Master Plan proposes sidewalks/asphalt walkways on Sunset Avenue, and right-of-way acquisition from properties within the Sunrise/Sunset SPA may be necessary. Also sidewalks/asphalt walkways are proposed for roads within the SPA.

IMPACTS

The proposed pedestrian district and sidewalks/asphalt walkways projects support and are consistent with the policies and goals of the Fair Oaks Community Plan to maintain and enhance the social, economic and aesthetic attributes of the community. These projects create a safer walking environment and can be designed to compliment the aesthetic attributes of the community; therefore, impacts are considered ***less than significant***.

The proposed pedestrian district and sidewalks/asphalt walkways projects support the general intent of the Fair Oaks Village and Sunrise/Sunset SPAs to retain a viable commercial center, preserve the environmental and historical character, provide adequate access and circulation, and ensure design compatibility with the existing neighborhood. These projects provide a safer and more accessible pedestrian environment and can be designed with consideration to the existing neighborhood design; therefore, impacts (including right-of-way acquisition) are considered ***less than significant***.

NORTH HIGHLANDS/FOOTHILL FARMS

SETTING

This community is an urban neighborhood. The County General Plan land use map shows the area designated as agricultural-residential, low and high density residential, commercial and office, park sites and intensive industrial. The North Highlands – North Central Area Community Plan designates the site-specific project locations as low and medium density residential, general and limited commercial, shopping center, light industrial, and industrial office park.

POLICIES

SPAS AND NPAS

The McClellan North and Watt Avenue SPAs are within the community of North Highlands/Foothill Farms. The general intent of the SPAs is to provide land use regulations that recognize the mix of industrial, agricultural-residential and new development while considering the history and design environment of the area and the highly noise-impacted environment.

The Master Plan proposes sidewalks/asphalt walkways on Elkhorn Boulevard and may require acquisition of right-of-way from properties within the McClellan North SPA.

The Master Plan proposes lighting and a pedestrian district within the Watt Avenue SPA.

IMPACTS

The proposed sidewalks/asphalt walkways and lighting projects support the general intent of the McClellan North and Watt Avenue SPAs to recognize the mix of industrial, agricultural-residential and new development while considering the history and design of the area. These projects can enhance the walking environment and serve the varied development in the SPAs; therefore, impacts (including right-of-way acquisition) are considered ***less than significant***

NORTH NATOMAS

SETTING

This community is a rural neighborhood surrounded by a semi-urban area. The County General Plan land use map shows the area designated as agricultural cropland, agricultural-residential, natural preserve, recreation, commercial and offices, intensive industrial and public areas.

SPAS AND NPAS

The Metropolitan Airport/Vicinity SPA is within the community of North Natomas. The general intent of the SPA is to allow development of the Metro Air Park as a high quality, multi-district industrial business park.

The Master Plan proposes sidewalks/asphalt walkways on Elverta Road, Powerline Road, and North Bayou Way, and right-of-way acquisition from properties within the Metropolitan Airport/Vicinity SPA may be necessary. Also sidewalks/asphalt walkways are proposed within the SPA.

IMPACTS

The proposed sidewalks/asphalt walkways projects support the general intent of the Metropolitan Airport/Vicinity SPA to develop a high quality, multi-district industrial business park. These projects provide a safe walking environment that can serve the SPA; therefore, impacts (including right-of-way acquisition) are considered ***less than significant***.

ORANGEVALE

SETTING

This community is a semi-rural neighborhood. The County General Plan land use map shows the area designated as low and medium density residential, commercial and office, and park sites. The Orangevale Community Area map designates the site-specific project locations as agricultural-residential, low and medium density residential, shopping center, public areas, neighborhood park adjoining school, recreation facilities, and general and limited commercial.

POLICIES

COMMUNITY PLAN

The Orangevale Community Plan was adopted in 1976 and may be outdated, but is still applicable. There are no pertinent land use related policies or discussion of pedestrian circulation in this plan. The only mention of sidewalks/asphalt walkways is regarding equestrian activity where “several residents have suggested development of streets with dirt paths instead of sidewalks to encourage [equestrian] use...”

SPAS AND NPAS

The Greenback Lane SPA is within the community of Orangevale. The general intent of the SPA is to promote the development of Greenback Lane in a manner more compatible spatially and aesthetically with the overall rural character of the community through a visual break in building front elevations to create the appearance of a cluster of small structures opposed to a large building.

The Master Plan proposes a pedestrian district, sidewalks/asphalt walkways and a countdown signal within the Greenback Lane SPA. The development standards for this SPA discuss exceptions to sidewalk design. Where sidewalks/asphalt walkways are not at street intersections, already in existence, or at bus turnouts, sidewalks will meander from a minimum of nine feet to a maximum of twenty feet from the edge of pavement.

IMPACTS

The proposed pedestrian district, sidewalks/asphalt walkways and a countdown signal projects do not interfere with the general intent of the Greenback Lane SPA to promote development in an aesthetically and spatially compatible manner with the overall rural character of the community as they are proposed on Greenback Lane, a major thoroughfare. These projects will provide a safer walking environment; therefore, the impacts are considered ***less than significant***.

RIO LINDA/ELVERTA

SETTING

This community is a semi-rural neighborhood surrounded by a well-developed urban area. The County General Plan land use map shows the area designated as agricultural cropland, agricultural-residential, low density residential, intensive industrial, and recreation. The Rio Linda-Elverta Community Area map designates the site-specific project locations as agricultural-residential, shopping center, industrial intensive, and industrial park.

POLICIES

SPAS AND NPAS

The Rio Linda Business District SPA is within the community of Rio Linda-Elverta. The general intent of the SPA is to allow existing structures to be remodeled and expanded as economic development proceeds to preserve the economic base for the community.

The Master Plan proposes lighting and a pedestrian district within the Rio Linda Business District SPA.

IMPACTS

The proposed lighting and pedestrian district projects support the general intent of the Rio Linda Business District SPA to preserve the economic base for the community through remodeling and expansion. These projects can help create a more updated and safe walking environment; therefore, impacts are considered ***less than significant***.

SOUTH SACRAMENTO

SETTING

This community has semi-rural neighborhoods. The County General Plan land use map shows the area designated as low and medium density residential, commercial and offices, intensive industrial, and urban development area. The South Sacramento Community Area map designates the site-specific project locations as agricultural-

residential, low and medium density residential, heavy industrial, limited commercial, general commercial, shopping center, travel commercial, public areas, and urban reserve.

POLICIES

COMMUNITY PLAN

The South Sacramento Area Community Plan was adopted in December 1978. The following discussion presents the project pertinent goals, objectives, and policies related to land use.

GOAL

1. To achieve a South Sacramento area community plan to ensure that land uses are mutually compatible, functional, healthful, and aesthetically pleasing.

    2.1 Objective. To beautify major thoroughfares, etc.

2. To promote open space and recreational facilities within the plan area.

    4.1 Objective. To promote safe access, to the extent possible, separated from automobiles, for neighborhoods within the community, to all recreational facilities for pedestrian, bicyclists and equestrians.

SPAS AND NPAS

The Stockton Boulevard and Industrial Uses in the South Sacramento Neighborhood NPAs, the Florin-Florin Perkins Road, Gerber Road/Southern Pacific Railroad, Stockton Boulevard, and Larchmont Countryside SPAs are within the community of South Sacramento. The general intent of the SPAs and NPAs is to provide for continued industrial and commercial use while preserving the existing and planned residential neighborhoods abutting the SPAs and NPAs from incompatibility from the industrial and commercial uses within the SPAs and NPAs.

The Master Plan proposes sidewalks/asphalt walkways on Gerber Road and acquisition of right-of-way from properties within the Gerber Road/Southern Pacific Railroad SPA may be necessary.

The Master Plan proposes sidewalks/asphalt walkways within the Industrial Uses in the South Sacramento Neighborhood NPA, sidewalks/asphalt walkways, lighting, and a countdown signal within the Florin-Florin Perkins Road SPA, sidewalks/asphalt walkways in the Stockton Boulevard NPA, sidewalks/asphalt walkways and a countdown signal within the Stockton Boulevard SPA..

The Master Plan proposes sidewalks/asphalt walkways on Calvine Road and Power Inn Road and acquisition of right-of-way within the Larchmont Countryside SPA may be necessary. Trail access projects are proposed within the Larchmont Countryside SPA.

IMPACTS

The proposed sidewalks/asphalt walkways projects support and are consistent with the goals of the South Sacramento Area Community Plan to have compatible and healthful land uses. These projects can help create a more healthful environment with improved walking conditions; therefore, impacts are considered ***less than significant***.

The proposed sidewalks/asphalt walkways projects do not interfere with the general intent of the Stockton Boulevard and Industrial Uses in the South Sacramento NPAs, the Florin-Florin Perkins Road, Gerber Road/Southern Pacific Railroad, Stockton Boulevard, and Larchmont Countryside SPAs to provide for continued industrial and commercial use while preserving the abutting residential neighborhoods from incompatibility from the industrial and commercial uses within the SPAs and NPAs. These projects create a safer walking environment for the industrial and the adjacent residential areas; therefore, impacts (including right-of-way acquisition) are considered ***less than significant***.

VINEYARD

SETTING

This community is a semi-rural neighborhood surrounded by a well-developed urban area. The County General Plan land use map shows the area designated as general agriculture, agricultural-residential, low density residential, urban development area, and recreation. The Vineyard Community Area map designates the site-specific project locations as permanent agricultural, agricultural-residential, low density residential, shopping center, and industrial reserve. The North Vineyard Station Specific Plan land use map designates the site-specific project locations as commercial, low density single family residential, and drainage parkway. The Vineyard Springs Comprehensive Plan land use map designates the site-specific project locations as agricultural-residential, low and medium density residential, floodway/recreation, and golf course.

POLICIES

COMMUNITY PLAN

The policy plans that pertain to this community are the North Vineyard Station Specific Plan, Vineyard Community Plan, and the Vineyard Springs Comprehensive Plan. The following discussion presents the project pertinent goals, objectives, and policies related to land use.

SPECIFIC PLAN

The North Vineyard Station Specific Plan was adopted in November 1998.

4.0 RESIDENTIAL LAND USE

4.5 POLICIES

3. Subdivisions shall be designed 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.

5.0 COMMERCIAL LAND USE

5.5 POLICIES

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.

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.

5.6.2 SITE DESIGN

GENERAL REQUIREMENTS

3. Pedestrian circulation should be encouraged in all commercial projects by means of pathways, gateways in fences, and sidewalks.

PARKING LOT DESIGN

7. Pedestrian paths through commercial development should be separated from vehicular driveways and parking areas.

6.0 OPEN SPACE

6.3 OPEN SPACE POLICIES

6.3.1 GENERAL POLICIES

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.

6.4 OPEN SPACE DESIGN GUIDELINES

6.4.1 TRAILS AND PATHS

1. The walking surface of all trails and paths should be eight feet in width (10 feet in Drainage Parkways, where maintenance roads also serve as pedestrian facilities), constructed in accordance with County of Sacramento construction standards.

2. An asphaltic surface should be used.

3. Pathways should be designed and located to minimize visual intrusion upon the privacy of adjoining a residential property.

4. Pathways should be slightly curvilinear in alignment and should conform to natural topography to the maximum extent possible.

COMPREHENSIVE PLAN

The Vineyard Springs Comprehensive Plan was adopted in June 2000.

URBAN RESIDENTIAL POLICIES

VS-9 Provide higher density residential and higher intensity commercial uses proximate and physically related to transit stops along transit corridors in order to minimize vehicle trips and expand the use of alternative modes of transportation.

URBAN RESIDENTIAL DESIGN GUIDELINES

3. The following features should be incorporated during the design of pedestrian easement:

    a. A twelve foot wide, hard surface, all weather pavement will be installed. Access will be open at both ends to enable unrestricted pursuit by Sheriff's vehicles.

b. Proper curb and signs at both entrances prohibiting parking in front of the passage way. A standard eight inch vertical curb, painted red and signs will discourage most unwanted traffic.

C. Night illumination of 1.5 foot candles minimum maintained along the foot walk. Fixtures will be vandal resistant and have shields to prevent unwanted light directed into adjacent homes.

d. Any homes along the easement will be oriented to face the pathway. An open type of fence shall be installed for visibility. A vertical wrought iron or ornamental iron fence is highly recommended.

e. A funding mechanism and/or CC&R's in place to provide costs for lighting and maintenance, road and fence repair, ad enforcement of parking laws.

COMMERCIAL POLICIES

VS-20 Provisions shall be made to accommodate pedestrians along street frontages and through parking areas to reach main building entrances.

VS-21 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.

PUBLIC FACILITY POLICIES

VS-31 Ensure that all Plan area residents have equal and adequate access to community library facilities.

VS-34 Parks and open space areas shall be linked by a pedestrian and bicycle circulation system to the maximum extent possible.

VS-35 Whenever possible, parks should be bordered on at least two sides by streets in order to facilitate public access and surveillance.

VS-38 Where parks are adjacent to Drainage parkways, the park shall include pedestrian pathways which will connect to the pathway in the Parkway.

OPEN SPACE POLICIES

VS-41 Where feasible, pedestrian, bicycle and equestrian trails shall be provided in Open Space areas, with emphasis on trail connections to area-wide systems.

VS-43 Street and lotting patterns with the Plan area are to integrate the drainage and Open Space corridor into the neighborhood design, creating a series of trails heads and interesting open space vistas along the street.

IMPACTS

The proposed sidewalks/asphalt walkways on Florin Road and Gerber Road support and are consistent with the policies and guidelines of the North Vineyard Station Specific Plan to facilitate pedestrian access throughout residential, open space and commercial development. The proposed sidewalks/asphalt walkways, trail crossing, and lighting projects support and are consistent with the policies and guidelines of the Vineyard Springs Comprehensive Plan to accommodate pedestrians in residential, commercial, open space, and in public areas, and expand the use of alternative modes of transportation. Impacts are considered ***less than significant***.

CONCLUSION

Table LU-1 summarizes the land use goals, objectives, policies and guidelines contained in the Sacramento County General Plan; and Table LU-2 summarizes the land use goals, objectives, policies and guidelines contained in the Community Plans.

GENERAL PLAN

The proposed projects support and are consistent with the objectives, policies, and guidelines of the Sacramento County General Plan and would not change land use designations; therefore, impacts are considered ***less than significant***.

COMMUNITY PLANS

The proposed projects support and are consistent with the goals, policies, and guidelines of the Fair Oaks Community Plan, North Highlands-North Central Area Community Plan, Rio Linda – Elverta Community Plan, and South Sacramento Area Community Plan; therefore, impacts are considered ***less than significan***t.

SPECIFIC PLAN

The proposed projects support and are consistent with the policies and guidelines of the North Vineyard Station Specific Plan; therefore, impacts are considered ***less than significant***.

COMPREHENSIVE PLAN

The proposed projects support and are consistent with the policies and guidelines of the Vineyard Springs Comprehensive Plan; therefore, impacts are considered ***less than significant***.

SPAS AND NPAS

The proposed projects support the general intent of the Antelope Station, Loma Vista, Marshall-Fair Oaks, Winding Way-Hackberry Lane, Fair Oaks Village, Sunrise/Sunset, McClellan North, Watt Avenue, Metropolitan Airport/Vicinity, Greenback Lane, Rio Linda Business District, Florin-Florin Perkins Road, Gerber Road/Southern Pacific Railroad, Stockton Boulevard, and Larchmont Countryside SPAs. Impacts (including right-of-way acquisition) are considered ***less than significant***.

The proposed projects support the general intent of the Arden Court, Arden Oaks, Arden Park, Mariemont/Gordon Heights, Mission Oaks, Sierra Oaks Vista, Carmichael Colony, Carmichael Creek, Stockton Boulevard and Industrial Uses in the South Sacramento Neighborhood NPAs. Impacts (including right-of-way acquisition) are considered ***less than significant***.

Table LU-1 Master Plan Consistency with Sacramento County General Plan

Goal/Objective/Policy/Guidelines*	**Consistency Determination**
g- land use patterns minimize impacts of new and existing development while maintaining quality, character, and identity of neighborhood and community areas.	g- Consistent
o- communities, neighborhoods, and single projects promote pedestrian circulation and safety through amenities, good design, and mix of different land uses in close proximity.	o- Consistent
p- community plans, specific plans and development projects designed to promote pedestrian movement through direct, safe, and pleasant routes that connect destinations inside and outside plan or project area.	p- Consistent
o- new development provides direct and multiple pedestrian linkages to other developments, maintains community identity, and compatible with existing neighborhoods.	o- Consistent
p- incompatible urban land uses buffered by methods that retain community character, and do not create pedestrian barriers.	p- Consistent
o- high intensity, mixed use neighborhoods provide pedestrian environment closely linked to transit.	o- Consistent

Goal/Objective/Policy/Guidelines*	Consistency Determination
p- developments designated in manner that conforms to concepts of transit-oriented development, including, [a]high intensity mixed use development concentrated in Core Area within easy walk of transit stop on Trunk of Feeder Line Network, [b]emphasis on neighborhood support commercial services at street level in Core Area that serve residents of Core and Secondary Areas, with employment encouraged in Urban transit-oriented development created along Trunk Line Network, [c] pleasant walking environment created through good land use design, short distances, amenities, and streetscape features, [d] direct, multiple linkages, especially for pedestrians between Core Area and Secondary Area.	p- Consistent
p- community plans and specific plans employ primary concepts in designing circulation and pedestrian networks.	p- Consistent
o- reserve land supply to amounts that can be systematically provided with urban services and confine ultimate urban area within limits established by natural resources.	o- Consistent
p- County shall not provide urban services beyond Urban Policy area, except when County determines need for health and safety purposes.	p- Consistent
p- County shall maintain Urban Service Boundary that defines extension of public infrastructure and services.	p- Consistent
o- limited urban growth in rural towns consistent with infrastructure capacity.	o- Consistent
p- expansion of urban uses in rural areas limited to established Delta communities of Freeport, Hood, Courtland, Locke, and Walnut Grove and to specific small expansions which support recreationally based economies of the Delta.	p- Consistent
gl- intersections within TOD's designed to facilitate pedestrian movement.	gl- Consistent
gl- pedestrian routes located along or visible from streets, routes through parking lots or at rear of residential developments avoided, primary pedestrian routes bordered by residential fronts, public parks, plazas or commercial uses.	gl- Consistent
gl- pedestrian system provide clear, comfortable and direct access to core commercial area and transit stop.	gl- Consistent
gl- sidewalks required on all streets in TOD's and Secondary Areas. sidewalks at least 6 feet wide in TOD's and at least 4 feet wide in Secondary Areas.	gl- Consistent
gl- streets designed to facilitate safe pedestrian crossings to TOD transit stop.	gl- Consistent
gl- school sites and community parks located at edges of TOD's in Secondary Areas. strong pedestrian links connect these sites with commercial and transit core.	gl- Consistent
gl- existing on-site pedestrian circulation systems redesigned to encourage pedestrian access between parcels, uses and public spaces.	gl- Consistent

Goal/Objective/Policy/Guidelines*	Consistency Determination
*Notes: goal, objectives, policies and guidelines are shown in this table as a reference with project pertinent text presented in this table. See earlier discussion of goals, objectives, polices and guidelines in the Sacramento County General Plan discussion under the Regulatory Setting for the complete text. g = goal, o = objective, p = policy and gl = guideline	

Table LU-2 Master Plan Consistency with Community Plans

Community Plan	**Goal/Objective/Policy/Guideline***	**Consistency Determination**
Arden-Arcade Community Plan	g-develop efficient fully integrated transportation and circulation system.	g- Consistent.
	o-require provision of sidewalks in appropriate areas.	o- Consistent.
	o-cooperate with other planning authorities to investigate and promote pedestrian access to commercial areas.	o- Consistent.
Carmichael Land Use Plan	g- maintain and enhance the distinctive character and identity of the Carmichael community.	g- Potentially inconsistent
	o- Protect the residential character of the area and emphasize the semi-rural residential character in areas where it now exists.	o- Potentially inconsistent
	g- provide wide range of recreational activities and facilities for the community.	g- Consistent
	o- provide greater access for pedestrian[s] from residential areas to American River Parkway.	o- Consistent
	o- develop a complete system of pedestrian trails throughout Carmichael.	o- Consistent
Land Use and Resource Management Plan for the Primary Zone of the Delta	**Recreation and Access**	
	p- Local governments encourage provision of publicly funded amenities in or adjacent to private facilities, [amenities include] (fishing pier, overlook, picnic area).	p- Consistent
	p- Local governments support multiple uses of Delta agricultural lands, such as improved parking and access sites.	p- Consistent
	p- Local governments support improved access for bank fishing along State highways and county roads where safe and adequate parking can be provided and with acquisition of proper rights-of-access from landowner.	p- Consistent
	p- Local governments encourage new recreation.	p- Consistent
	r- New projects in the Secondary Zone include commercial and public recreation facilities which allow safe, supervised access to and along Delta waterways (pedestrian and bike trails, launch ramps including small boat launch ramps, windsurfing access, overlooks, nature observation areas, interpretive information, picnic areas, etc.).	r- Consistent
	r- State and federal projects in Primary and Secondary Zones include appropriate recreation and/or public access components to extent consistent with project purposes and with available funding. State and federal agencies consider private or user group improvements on publicly-	r- Consistent

Community Plan	**Goal/Objective/Policy/Guideline***	**Consistency Determination**
	owned lands to provide facilities.	
	r- Local governments develop design guidelines for new or enlarged recreation facilities to protect adjacent agricultural land uses.	r- Consistent
	Levees	
	p- Local governments ensure Delta levees maintained to protect recreational use of the Delta area. Delta levee maintenance and rehabilitation given priority over other uses of levee areas. To extent levee integrity not jeopardized, other uses, including support of vegetation for wildlife habitat, shall be allowed.	p- Consistent
	r- Levee maintenance, rehabilitation, and upgrading should be established as the first and highest priority of use of the levee. No other use whether for trails, recreational facilities, or roads allowed to unreasonably adversely impact levee integrity or maintenance.	r- Consistent
Fair Oaks Community Plan	g- maintain and enhance the identity and attractiveness of the Fair Oaks community and its social and aesthetic attributes and benefits to local residents. -provide design review at community level to include public outdoor lighting.	g- Consistent
	p- consider creation of design review body with review powers including public outdoor lighting.	p- Consistent
North Vineyard Station Specific Plan	p- subdivisions designed [to] encourage multiple linkages for pedestrians.	p- Consistent
	p- residential subdivisions designed to facilitate pedestrian travel.	p- Consistent
	p- pedestrian access to and within commercial areas facilitated by creation of sidewalks [and] pedestrian paths.	p- Consistent
	p- provisions made to accommodate pedestrians along street frontages and through parking areas to reach main building entrances.	p- Consistent
	p- pedestrian access points provided along the site perimeter of commercial and office uses to enable pedestrian access from adjacent residential neighborhoods. Access points designed appropriately to maintain land use compatibility and address safety concerns.	p- Consistent
	p- pedestrian trails and pathways encouraged within open space areas to extent possible. Located and designed to minimize disturbance of natural features.	p- Consistent
	gl- walking surface of all trails and paths eight feet in width (10 feet in Drainage Parkways), constructed County of Sacramento construction standards.	gl- Consistent
	gl- asphaltic surface used.	gl- Consistent
	gl- pathways designed and located to minimize visual intrusion upon privacy of adjoining residential property.	gl- Consistent
	gl- pathways slightly curvilinear alignment and conform to natural topography to maximum extent possible.	gl- Consistent
	gl- lighting illuminate only pavement immediately adjacent to fixture. Use low bollard-type fixtures encouraged. Tall (26 feet or higher) pole-mounted discouraged.	gl- Consistent

Community Plan	**Goal/Objective/Policy/Guideline***	**Consistency Determination**
	gl- illumination wetlands prohibited.	gl- Consistent
	gl- mercury vapor lighting may not be used.	gl- Consistent
South Sacramento Area Community Plan	g- ensure land uses are mutually compatible, functional, healthful and aesthetically pleasing.	g- Consistent
	o- beautify major thoroughfares.	o- Consistent
	g- promote open space and recreational facilities within Plan area.	g- Consistent
	o- promote safe access to extent possible, separated fro automobiles for neighborhoods within community to all recreational facilities for pedestrians.	o- Consistent
Vineyard Springs Comprehensive Plan	p- provide higher density residential and higher intensity commercial uses proximate and physically related to transit stops along transit corridors to minimize vehicle trips and expand use of alternative modes of transportation.	p- Consistent
	p- provisions made to accommodate pedestrians along street frontages and through parking areas to reach main building entrances.	p- Consistent
	p-ensure all [Vineyard Springs Comprehensive] Plan residents have equal and adequate access to community library facilities.	p- Consistent
	p- parks and open space areas linked by pedestrian circulation system to extent possible.	p- Consistent
	p- where parks adjacent to drainage parkways, park include pedestrian pathways with connect to pathway in the [Drainage] Parkway.	p- Consistent
	p- where feasible, pedestrian trails provided in open space areas with emphasis on trail connections to area-wide systems.	p- Consistent
	p- street and lotting patterns are to integrate drainage and open space corridor into the neighborhood design, creating a series of trails heads.	p- Consistent
*Notes: goal, objectives and policies are shown in this table as a reference with project pertinent text presented in this table. See earlier discussion of goals, objectives and polices in the Applicable Community Plans discussion under the Regulatory Setting for the complete text. g = goal, o = objective, p = policy and gl = guideline.		

6 AGRICULTURAL RESOURCES

INTRODUCTION

The Pedestrian Master Plan proposes sidewalks/asphalt walkways in the North Natomas, Franklin-Laguna and Delta farming communities, to be developed over a 20 year horizon. The North Natomas community is a rural neighborhood surrounded by a semi-urban area with a mix of agricultural cropland, agricultural-residential natural preserve, recreation, commercial and offices, intensive industrial and public areas. The Delta is a rural community with a mix of recreation and agricultural cropland. The Franklin-Laguna community is a semi-rural community with a mix of agricultural cropland, low density residential, and natural reserve.

The proposed sidewalks/asphalt walkways are identified to help meet future demand and safety needs and would be installed as the need arises. Potential impacts to agricultural resources from the sidewalks/asphalt walkways will be evaluated as the projects are proposed for construction in these communities. Sidewalks/asphalt walkways would result in a minor amount of intrusion into agricultural land.

FARMLAND

ENVIRONMENTAL SETTING

The Master Plan encompasses areas with adjacent properties in agricultural use. These areas are found in three communities, North Natomas, Franklin-Laguna, and the Delta.

REGULATORY SETTING

The Sacramento County General Plan provides guidelines and policies for the unincorporated areas in Sacramento County. The following discussion presents the project pertinent goals, policies and implementation measures related to farmland and agricultural resources that may be generally applicable to pedestrian facilities.

GENERAL PLAN AGRICULTURAL ELEMENT

GOAL:

Protect important farmlands from conversion and encroachment and conserve agricultural resources.

POLICY:

AG-1 The County shall protect prime farmlands and lands with intensive agricultural investments from urban encroachment.

FARMLAND CLASSIFICATION

Mapping of Important Farmland is generated under the California Department of Conservation Farmland Mapping and Monitoring Program. This mapping provides decision-makers a current inventory of agricultural land resources upon which future planning of best agricultural use of California farmland can be made. The mapping is based upon soil survey maps prepared by the U.S. Department of Agriculture, Soil Conservation Service (SCS). The soil survey maps are supplemented with aerial photo interpretation and field mapping to ascertain existing land use and irrigation status of a particular property.

A review of the Sacramento County Important Farmland 2000 map indicates that Prime, Statewide Importance, Unique, and Local Importance designated farmland are in the Master Plan area (Cal Conservation, 2001). Table AR-1 explains the farmland classifications.

Table AR-1 Farmland Designation Descriptions

Designation	Description
Prime Farmland	Land with the best combination of physical and chemical characteristics able to sustain long term production of agricultural crops. This land must have been used for production of irrigated crops at some time during the four years prior to the mapping.
Farmland of Statewide Importance	Land with a good combination of physical and chemical characteristics for agricultural production, having only minor shortcomings, such as less ability to store soil moisture, compared to Prime Farmland. This land must have been used for production of irrigated crops at some time during the four years prior to the mapping date.
Unique Farmland	Land used for production of the state's major crops on soils not qualifying for Prime or Statewide Importance. This land is usually irrigated, but may include non-irrigated fruits and vegetables as found in some climatic zones in California.
Farmland of Local Importance	Lands which do not qualify as Prime, Statewide, or Unique designation, but are currently irrigated crops or pasture or non-irrigated crops; lands that would be Prime or Statewide designation and have been improved for irrigation, but are now idle, and lands which currently support confined livestock, poultry operations, and aquaculture.
Grazing Land	Land on which the existing vegetation is suitable for grazing of livestock. The minimum mapping unit for this category is 40 acres.
Source: California Department of Conservation, Division of Land Resource Protection, Farmland Mapping Program, 2001.	

IMPACTS

Sidewalk/asphalt walkway projects were prioritized based on the following criteria:

- Walking conditions (using the Pedestrian LOS model- see the Master Plan for details)

- Accessibility
- Adjacent land uses (pedestrian demand)
- Projects identified in North Natomas, Franklin/Laguna, and Delta communities
- Public input
- Cost effectiveness
- Pedestrian collisions
- Geographic equity

Walking conditions were the most important variable in determining whether the pedestrian system needs improvements at a particular location. The proposed projects in these agricultural communities were included in the Master Plan based on walking conditions, proximity of schools, public input and reported collisions. Both sidewalks and asphalt walkways are identified along the particular roadways in these communities. The Master Plan projects would extend pedestrian accessibility to planned developments such as the Metro Airpark in North Natomas and the City-planned Natomas Gateway project and other development near El Centro Road and Elkhorn Boulevard.

The proposed pedestrian projects are adjacent to public roadways in farmland areas. Along some sections of roadway there may not be sufficient area to install the projects, thus additional land may need to be acquired to accommodate the proposed project. As construction of pedestrian improvements in farmland and rural areas is more likely to be constructed when planned projects are developed and land use designations would likely have already been changed to a more urban designation and therefore no farmland impacts would result.

Acquisition of land in agricultural zones would necessitate an estimated maximum 10-foot wide area on each side of the road adjacent to the roadway. Exceptions to sidewalk design may be made to accommodate the specifics of the project location, such as installing a sidewalk on one side of the roadway only. The flexibility of site design accounts for possible site terrain issues where areas may need to be sloped for erosion control and safety.

It is anticipated that the minor conversion of agricultural land would not exceed the significance thresholds established by the Sacramento County General Plan and/or the California Agricultural Land Evaluation and Site Assessment (LESA) Model and would not substantially impact agricultural production. Impacts to agricultural resources are considered ***less than significant***.

MITIGATION MEASURES:

None recommended.

WILLIAMSON ACT CONTRACT PROPERTIES

REGULATORY SETTING

The California Land Conservation Act of 1965, also known as the Williamson Act, allows cities and counties to enter into contracts with property owners where the property is deemed an agricultural preserve and restricted to agricultural or related open space use. By entering into contract with the jurisdictions, the agricultural land owner is offered preferential taxation based on the income-producing value of the property with the contract stipulation that the landowner agrees to not develop the land for a minimum 10 year period. This contract is renewed annually, unless the land owner files for non-renewal or petitions for cancellation.

ENVIRONMENTAL SETTING

There are some properties that are under Williamson Act Contract in the Franklin-Laguna and Delta communities. Many properties that once were under Williamson Act contract are in non-renewal. These properties are in the North Natomas community. The majority of properties in the Master Plan area have filed for non-renewal of their contract. Construction of the pedestrian projects in the more rural areas would realistically not occur until properties are developed, given funding constraints and the number of planned pedestrian improvement projects. Improvements proposed in the Franklin-Laguna and Delta communities are sidewalks and would likely be used primarily for recreational purposes.

IMPACTS

The improvement plans in the site-specific project locations with property subject to Williamson Act are sidewalks/asphalt walkways and are consistent with uses defined in the Williamson Act contracts. Right-of-way may need to be acquired from these properties, however as sidewalks are a linear feature, and as such do not have extensive width requirements, the amount of right-of-way necessary for the sidewalks is minimal. A linear portion of each property fronting the roadway in the project limits would be acquired. This area of the property, due to its proximity to the roadway is a more marginal area of the property and may not impact agricultural production. When the property is acquired by the County, the section of property acquired would no longer remain under the Williamson Act contract. However, the County could seek an easement for the section of property that is needed for the sidewalk as transportation facilities are a permitted use under the Williamson Act contract. Impacts to Williamson Act contract properties would be considered ***less than significant***.

MITIGATION MEASURES:

None recommended.

7 AESTHETICS

INTRODUCTION

This chapter discusses aesthetic resources in the Master Plan area. Identification of aesthetic resources in the project area, potential impacts and mitigation to minimize these impacts are addressed in this chapter.

Research shows that much of what we perceive about the environment and our image of the local community is based on the view from area roadways. Adverse visual impacts associated with a project can be the source of concerned opposition to an otherwise well-received project. There is a potential for significant visual effects due to the nature of the project and the project setting. Special consideration is required for visual resources in public use areas.

The California Environmental Quality Act (CEQA) states in § 21001, subd. (b), that it is the policy of the State to "[t]ake all action necessary to provide the people of this state with… enjoyment of aesthetic… environmental qualities…."

The aesthetic qualities of a town, community, or area make up a large portion of that area's overall character. Some areas may have a more urban character, while others may have a locally designated scenic quality that warrants protection. The Master Plan project area has a wide range of aesthetic resources where the more officially recognized resources are scenic corridors, State scenic highways, scenic routes and known historic properties. These features are afforded special protection to retain their aesthetic qualities.

ENVIRONMENTAL SETTING

The Master Plan encompasses the unincorporated areas in Sacramento County. A variety of aesthetic resources ranging from rural landscapes to urban tree canopies and historic properties can be found in the Master Plan area in addition to urbanized and suburban areas.

REGULATORY SETTING

The Sacramento County General Plan provides guidelines and policies for the unincorporated areas in Sacramento County. The following discussion presents the project pertinent goals, policies and implementation measures related to aesthetic resources.

GENERAL PLAN SCENIC HIGHWAYS ELEMENT

GOAL

1 To preserve and enhance the aesthetic quality of scenic roads without encouraging unnecessary driving by personal automobile.

OBJECTIVE

1 To retain designation of the River Road (State Highways 160 and 84) as an Official State Scenic Highway and to preserve and enhance its scenic qualities.

2 To take necessary steps to preserve and enhance the scenic qualities of the Garden Highway.

3 To extend County scenic corridor protection to additional specific scenic roads in the rural portions of the County.

4 To strengthen the provisions of scenic corridor regulations so as to further protect the aesthetic values of the County's freeways and scenic roads.

5 To place a low priority on facilitation of pleasure auto driving and to encourage use of other modes of transportation.

POLICY

12 To re-evaluate the Gold Rush Parkway Plan in order to de-emphasize encouragement of auto travel, to emphasize multi-modal transportation, and to integrate the Plan into an overall program of protecting and enhancing urban aesthetics within Sacramento County.

13 To study the desirability and reasonability of including the Delta communities along the River Road in a program of preserving and enhancing urban aesthetics of the County.

14 To encourage maintenance of natural roadside vegetation and landscaping with native plants which usually provide the best habitats for native wildlife.

15 To study additional roads which would appropriately be designated as County Scenic Corridors. Roads to be considered are Jackson Highway in the foothills, Stonehouse Road, approach roads to the City of Folsom, the balance of Twin Cities Road, Ione Road, Meiss Road, and all roads running through the Permanent Agricultural lands.

18 To investigate in coordination with other County agencies the routing of bike trails and equestrian paths along scenic corridors.

GENERAL PLAN CONSERVATION ELEMENT

These policies are also presented in Chapter 16 Cultural Resources.

OBJECTIVE

Structures such as buildings, bridges, or other permanent structures with architectural or historical importance preserved to maintain exterior design elements.

POLICY

CO-163 Conduct surveys and designate structures with architectural or historical importance on community plan 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.

EXISTING VISUAL RESOURCES

The Master Plan encompasses a wide area with several different types of visual resources. The following discussion addresses the different types of visual resources that are found in the Master Plan area. As this EIR is a program level document, resources are not specifically identified as project-specific surveys and database searches were not conducted. There are some resources that are officially recognized and have been identified by name.

SCENIC DESIGNATED AREAS

SCENIC CORRIDORS

The Sacramento County General Plan (Scenic Highways Element) identifies the following scenic corridors:

- Garden Highway stretching from the Sacramento City limits north to the Placer County line
- Streams, sloughs and channels of the delta
- River Road
- Greenback Lane Extension (Sign controls only)

- Watt Avenue from Folsom Blvd on the south to 870 feet south of Fair Oaks Blvd on the north (Sign controls only)
- Isleton Road (Sign controls only)
- Sacramento and American Rivers within Sacramento County for an area extending 500 feet to each side of the river, as measured from the middle of the channel or by a minimum of a corridor 300 feet from the edge of the river
- Twin Cities Road from River Road east to Highway 99
- Scott Road from White Rock Road south to Latrobe Road
- Latrobe Road
- Michigan Bar Road

The one State scenic highway in Sacramento County is River Road (Highways 160 and 84), extending from the Sacramento City limits at the northern end of the town of Freeport, south to the tip of the Delta at Antioch Bridge.

Sacramento County has adopted the Gold Rush Parkway Plan that identifies a series of roads in the downtown area stretching out into gold rush country in Placer and El Dorado Counties and linking recreational, historic, and scenic features in the Sacramento area with similar features in the Sierra foothills. This parkway is considered a scenic route that runs from the Capitol Mall, along Capitol Avenue, then H Street, along Fair Oaks Boulevard, then Winding Way, up Hazel Avenue to Sunset Avenue, along Sunset Avenue to Main Avenue, then at Greenback Lane and Folsom-Auburn Road the route splits to two routes, the first heading to Placer County along Folsom-Auburn Road and the second heading to El Dorado County along Greenback Lane to Sutter Street, then East Natoma Street to Green Valley Road.

This plan was developed with the goal of encouraging pleasure driving and the discouragement of destination-oriented driving. This goal is in direct conflict with the scenic corridor element in the General Plan. The goal of this General Plan element is to preserve the scenic qualities of routes without encouraging pleasure driving. Also, the recommendation of the California State Transportation Board to the State Legislature in a report dated July 1, 1974 states that the development of a transportation system "be of a sufficient size and flexibility to accommodate all necessary trips but not be structured in such a way as to encourage unnecessary trips." The General Plan suggests that "the Gold Rush Parkway Plan should be treated as a project within an overall program to preserve and enhance urban aesthetics", and taken from this perspective, the Gold Rush Parkway Plan "should be modified to encompass multi-modal transportation needs."

DESIGNATED SCENIC RESOURCES POTENTIALLY AFFECTED BY THE PROJECT

The following discussion addresses the scenic resources that are in close proximity to proposed pedestrian improvement project locations and, therefore, are more likely to be affected by the improvement projects.

- Streams, sloughs and channels of the Delta cut through agricultural land and where they meet roadways, they are either culverted to pass under the road or bridges are constructed to carry the roadway over the water feature.

- River Road is a two lane highway with minimal to no shoulders atop the Sacramento River levee along the western portion of the county running through the Delta area. Agricultural fields, rural residences and small towns flank the roadway.

- The Sacramento River starts in the Cascade Range near Mt. Shasta, through the Central Valley to terminate at the north arm of San Francisco Bay. The river is navigable up to 180 feet from its southern terminus, with ocean-going vessels able to travel upstream to the City of Sacramento through the use of man-made channels.

- The section of Twin Cities Road that is in close proximity to an improvement project extends east from Interstate 5 (I-5) to its intersection with Bruceville Road. This section of road is part of the Twin Cities Road scenic corridor.

HISTORIC PROPERTIES

Historic properties include such resources as buildings (commercial, residential, etc.), landscapes, roadways, bridges and other similar structures. An historic district is an area where any of these properties are found in close proximity.

There are several historic properties in the project area and some of the pedestrian improvements may be located beside these properties. The identification of possible historic properties would be carried out as a part of a database and field search for cultural resources on a project level basis. Chapter 16 Cultural Resources discusses these resources in more detail. This chapter addresses the aesthetic impacts to historic properties that may occur.

Aesthetic impacts to historic properties can occur when a particular pedestrian improvement is in conflict with design guidelines that help protect the integrity of the property. This could be the architectural elements or feeling of the property which contributes to its qualification as an historic property.

OTHER SCENIC RESOURCES

Other less formally recognized aesthetic resources are found throughout the project area. The removal of resources, such as mature vegetation, or the placement of typical urban structures in areas with little or no urban development, would change the

viewshed. The level to which a viewshed is changed is dependant upon the nature and size of the impact. A review of a few representative projects and their locations for each community in the Master Plan area was conducted to get a sense of the type of viewsheds potentially being impacted. Placement of sidewalks and walkways would likely have the highest potential to impact the viewshed of an area. With this in mind, site review noted potential obstructions to the placement of the sidewalks.

In several communities mature landscaping, often located close to the road right-of-way, was the typical constraint in urban areas of the county. The landscaping included residential gardens, and mature native and non-native trees. In some areas, especially rural and semi-rural residential pockets in the county and urban neighborhoods, mature trees, mostly non-native, lined the streets providing shading. Because these shade canopies lined the streets and in many cases residential gardens sit behind the trees, the removal of the trees would be necessary to install the proposed pedestrian improvement. In these areas the improvement identified was a sidewalk.

In rural areas of the county, non-native and native tree removal may be necessary. As these areas are generally undeveloped with structures, and certainly not developed closely to the road, the placement of pedestrian improvements in these areas are more easily adapted to the setting.

IMPACTS AND MITIGATION

METHOD OF ASSESSING PROJECT IMPACTS

The visual experience is a combination of visual resources and viewer response. Different groups respond differently to the visual environment. The opinions or preferences of different groups depend on viewer activity and awareness, local values and the cultural significance of the visual resources. Viewer activity affects the viewer's ability to perceive the landscape. Depending on the activity, a viewer may be attracted or distracted from the landscape. For example, a person fishing from the bank of a river will be encouraged to view the landscape; whereas, a person driving along the road will be distracted from the landscape and concentrate more on the road itself. Pedestrians and bicyclists would likely be perceptive to the surrounding landscape. Viewer awareness is affected by position, preconceptions and recent visual experience. If viewer sensitivity is very high, any visible change in the area may be discouraged by a particular group. Drivers and passengers, residents, bicyclists and pedestrians are the types of groups of people that are likely to see the proposed pedestrian improvements.

IMPACTS: SCENIC DESIGNATED AREAS

Potential impacts to scenic designated areas occur when the design of the particular project does not have a context sensitive design- a design where project features appear as part of the original setting. Depending upon the particular setting, design features may become part of the setting more than other features. The types of pedestrian improvements proposed in areas with a scenic designation include sidewalks

along portions of River Road and portions of Twin Cities Road, and improvements necessary to streams and sloughs of the Delta to accommodate the placement of sidewalks along roadways in the Delta. Improvements to the streams and sloughs may include extension of culverts and bridges. A lighting project is identified at the intersection of Bruceville Road and Twin Cities Road. This project would not visually impact an identified scenic resource. These proposed pedestrian improvements would not conflict with County polices in the Scenic Highway Element. Impact to scenic designated areas would need to be assessed on a project-specific basis due to the variety of viewsheds. However, employing a context sensitive design strategy which considers the surrounding environment in which the pedestrian improvement is being placed will lessen potential impacts. Impacts to scenic designated areas are considered ***less than significant***.

MITIGATION MEASURES:

None recommended.

IMPACTS: HISTORIC PROPERTIES

Potential impacts to historic properties occur when the integrity of the property is affected by construction activities and/or development. The pedestrian improvements identified for a particular location that happens to be considered an historic property has the potential to affect the integrity of that property. However, policies in the Sacramento County General Plan protect historic properties from potential impact. Also, employing a context sensitive design strategy which considers the surrounding environment in which the pedestrian improvement is being placed will lessen potential impacts. By following these policies in addition to applicable state and federal law, impacts to historic properties are considered ***less than significant***.

MITIGATION MEASURES:

None recommended.

IMPACTS: STREET TREES

Impacts to neighborhood shade trees are of concern when their removal would create a visual loss and subsequent impact to a viewshed. Removal of small amounts of trees scattered along a residential street may not significantly impact the visual character of that street or neighborhood. However, the impact of removing rows of trees and mature landscaping within residential neighborhoods for construction of pedestrian improvements would most likely result in impacts to the viewshed of those neighborhoods and are therefore considered a ***significant impact***. The Aesthetically Sensitive Alternative is presented as an alternative to reduce these aesthetic impacts; however, this alternative does not reduce these impacts below significant. Impacts due to the large-scale removal of neighborhood trees are considered ***significant and unavoidable***.

8 TRANSPORTATION/TRAFFIC

ENVIRONMENTAL SETTING

The Master Plan encompasses the unincorporated areas of Sacramento County. The Master Plan area has many sidewalks, walkways and trails; however gaps exist within the network. The pedestrian facility type varies from area to area, for example, the Vineyard area has a substantial amount of rural-residential homes with an average of one home per acre. The streets in these areas generally have shoulders with drainage ditches and no sidewalks. The Carmichael and Arden-Arcade areas primarily consist of older post-World War II subdivisions with a number of different standards for curbs, gutters and sidewalks.

TRANSPORTATION POLICIES AND ANALYSIS OF IMPACTS

GENERAL PLAN

The Circulation Element of the Sacramento County General Plan provides guidelines and policies for the unincorporated areas in Sacramento County. The Sacramento County Pedestrian Master Plan will become an element of the General Plan Transportation Plan. The following discussion presents the project pertinent goals and policies related to traffic and circulation.

GOAL

A balanced transportation system that moves people and goods in a safe and efficient way that minimizes environmental impacts, that is supported by urban land uses, and that serves rural needs.

POLICIES

CI-5 Funding for development, operations, and maintenance of facilities for mass transit, bicycle, and pedestrian modes of transportation shall be given appropriate priority for transportation programs.

CI-6 Encourage transit, bicycle, and pedestrian projects when making decisions for the expenditure of discretionary, local, state, or federal funds and in the Sacramento County Capital Improvement Program and Congestion Management Plan.

CI-14 Sacramento County shall utilize design and development standards which support travel by transit, walking, bicycling, and clean alternative fuel and low emission vehicles.

CI-15 Sacramento County shall continue to provide for the mobility of individuals whose access to automobile transportation is limited by age, illness, income, desire, or disability.

The Sacramento County Transportation Plan designates road classifications on a pre-2010 and post-2010 timeline. The following defines the roadway classifications in the Master Plan:

- Urban and Rural Collector- a two-lane facility within a right-of-way up to 84 feet and commonly seen as part of a regional network.
- Arterial- a four lane facility within an 84 foot right-of-way commonly seen with turning lanes.
- Thoroughfare- a six-lane facility within a right-of-way of 108 feet commonly including a center median.

IMPACTS

The proposed Sidewalks/asphalt walkways, signal timing, signal countdown, trail access pathways, midblock crossings, lighting, sidewalk obstruction removal, safe access to schools, safe access to transit, and pedestrian district projects support and are consistent with the goals and policies of the Sacramento County General Plan to gain a balanced transportation system between movement of goods and people and the provision of safety and supporting urban and rural needs. These projects would not change transportation patterns or roadway classifications; therefore, impacts are considered ***less than significant***.

COMMUNITY AREAS

The Master Plan area encompasses fourteen communities within the unincorporated area of Sacramento County. The communities are:

- Antelope
- Arden Arcade
- Carmichael
- Cosumnes
- Delta

- Fair Oaks
- Franklin-Laguna
- North Highlands/Foothill Farms
- North Natomas
- Orangevale
- Rio Linda-Elverta
- South Sacramento
- Southeast
- Vineyard

The following is a general discussion of the unincorporated community areas in Sacramento County, shown in Plate PD-1 in Chapter 5, Project Description. The communities of Cosumnes, Franklin/Laguna, North Natomas and Southeast do not have an adopted community plan; therefore, the Sacramento County General Plan is the applicable adopted plan for these communities. The Antelope and Orangevale community plans do not contain pertinent policies, goals or objectives that relate to transportation and circulation; therefore, these communities are not discussed further. There is no community plan for the Vineyard Community; however, there is a specific plan and comprehensive plan that pertain to portions of this community.

ARDEN ARCADE

POLICIES

COMMUNITY PLAN

The Arden Arcade Community Plan was adopted in November 1980 and is currently being outdated, but is still applicable.

CIRCULATION

There are no policies listed in this Circulation section of the plan, however, the following discussion is part of the community plan:

> Local traffic congestion will continue to occur unless alternatives to the automobile are made available and utilized. In most cases, the car must be replaced wherever possible or trips diverted to other modes to alleviate local traffic congestion and to lower air and noise pollution levels. This implies designing a transportation system

that provides for and encourages carpools, bicycling, pedestrians and mass transit as well as accommodating the automobile in individual use.

LOCAL STREETS

Most of the local streets are Class "C" with only ditches for frontage improvements. Class "B" includes streets with curbs and gutters, while class "A" streets are in new subdivisions and have sidewalks, curbs and gutters. "Development of sidewalks in large lot areas is discouraged in order to maintain the semi-rural atmosphere, of which the Class "C" street is a part. "

IMPACTS

The proposed pedestrian district, sidewalks/asphalt walkways, lighting, countdown signals, and signal timing projects support and are consistent with the transportation related discussion in the Arden-Arcade Community Plan. The discussion emphasizes the need to encourage alternative modes of transportation and discourages the construction of sidewalks in areas with large lots. The proposed projects include sidewalks/asphalt walkways and do not propose them in areas with large lots; therefore, impacts are considered ***less than significant***.

CARMICHAEL

POLICIES

COMMUNITY PLAN

The Carmichael Land Use Plan was adopted in October 1975 and may be outdated, but is still applicable. The following discussion presents the project pertinent goals and objectives related to transportation and traffic.

GOAL

IV. To develop an efficient, fully integrated and ecologically balanced transportation and circulation system.

OBJECTIVE

C. Develop a complete system of bikeways, pedestrian and equestrian trails throughout Carmichael.

D. Secure improvements on collector and lesser streets in semi-rural residential neighborhoods of Carmichael. Provide safe walkways on all streets, particularly in the vicinity of schools and other facilities frequented by children.

RECOMMENDATIONS

4. Establish pathways for non-motorized modes of transportation on all collector and arterial streets in Carmichael. (This will include bikeways, horses and pedestrian traffic, and elderly people, all of whom have no protection on streets in the community).

12. Install Class "A" street improvements [curbs, gutters, and sidewalks] on those portions of Walnut Avenue, Garfield Avenue, Fair Oaks Boulevard, Dewey Drive, San Juan Avenue, Marconi Avenue, El Camino Avenue, Engle Road and Manzanita Avenue not presently developed to Class "A" standards.

IMPACTS

The proposed sidewalks/asphalt walkways, pedestrian district, pathway, and lighting projects support and are consistent with the transportation related goals, objectives and recommendations of the Carmichael Land Use Plan to develop an efficient and balanced transportation system. These projects would address pedestrian circulation and improve pedestrian accessibility within the community; therefore, impacts are considered ***less than significant***.

DELTA

POLICIES

COMMUNITY PLAN

The Delta Community Plan was adopted in March 1983 and may be outdated, but is still applicable. The following discussion presents the project pertinent policies related to transportation and traffic.

CIRCULATION

POLICY

7-3 Continue to seek viable transportation alternatives to the automobile in the Delta community area.

7-4 Encourage the utilization of the abandoned Southern Pacific Railroad right-of-way for a bicycle trail or other similar off-street circulation mode.

IMPACTS

The proposed sidewalks/asphalt walkways projects support and are consistent with the policies of the Delta Community Plan to seek viable alternative transportation modes. These projects add to the options for alternative modes of transportation in the

community by creating walkways; therefore, impacts are considered ***less than significant***.

FAIR OAKS

POLICIES

COMMUNITY PLAN

The Fair Oaks Community Plan was adopted in January 1975 and may be outdated, but is still applicable. The following discussion presents the project pertinent goals and policies related to transportation and traffic.

GOAL

9. To provide a circulation system of highways, streets, bicycle routes, bridle paths, and walking trails in Fair Oaks which will provide adequate, safe transportation with minimum disturbance to the tranquility of the community and the least possible pollution and degradation of the environment.

    B. To provide safe walkways in the vicinity of elementary schools (e.g., Winding Way west of Fair Oaks Boulevard) and in commercial areas. Future street agreements should be drawn to comply with this objective.

    D. To develop a network of bicycle routes, bridle paths and walkways with emphasis on connecting parks and schools as part of a County-wide system.

    H. To preserve Winding Way, east of Fair Oaks Boulevard, as a scenic route and develop means to reduce the traffic speed along that part of Winding Way.

    I. To provide for safe passage of bicycles, pedestrians, and horses along Winding Way with minimum widening of existing roadway and provide separate pedestrian/horse/bicycle crossings at the bridges on Winding Way near Park Avenue and Cozy Glen.

CIRCULATION ELEMENT

POLICY

1. Provide walkways, bridle paths, and bikeways as described in this plan. Future street agreements should be drawn to comply with this policy.

IMPACTS

The proposed pedestrian district and sidewalks/asphalt walkways projects support and are consistent with the transportation related goals and policies of the Fair Oaks Community Plan to provide safe transportation through a mix of walking trails in the community with the least possible pollution and degradation of the environment. These projects provide a safer walking environment and use environmentally sensitive methods; therefore, impacts are considered ***less than significant***.

NORTH HIGHLANDS/FOOTHILL FARMS

POLICIES

COMMUNITY PLAN

The North Highlands-North Central Area Community Plan was adopted in April 1974. The following discussion presents the project pertinent objectives and policies related to transportation and traffic.

OBJECTIVE

5. Continue to explore other innovative methods of transportation to supplement the auto.

POLICY

8. Promote a transit system oriented toward the employment center of the community and the desire for intercommunity travel that will give the area's inhabitants a true choice between alternative means of travel.

TRANSPORTATION

POLICY

7. Require bicycle, pedestrian, and equestrian trails (where appropriate in new development), designed so as not to conflict with automobile traffic and provide access to schools, open space, bus stops, and other transportation facilities.

IMPACTS

The proposed sidewalks/asphalt walkways and lighting projects support and are consistent with the transportation related objectives and policies of the North Highlands-North Central Area Community Plan to provide innovative transportation options to the auto that connect residential, commercial, and recreational areas within the community. These projects can provide a safer walking environment and connect different land uses

within the community; therefore, impacts (including right-of-way acquisition) are considered ***less than significant***

RIO LINDA/ELVERTA

POLICIES

COMMUNITY PLAN

The Rio Linda and Elverta Community Plan was adopted in June 1998. The following discussion presents the project pertinent goals and policies related to transportation and traffic.

CIRCULATION POLICIES

GOAL

A safe, efficient, and organized pattern of circulation within the community that is linked with land use.

POLICY

CI-3 In the review of street widths and design, balance the need for public safety access with other goals and objectives of the Community Plan including neighborhood design, and access by pedestrians, bicycles and other non-motorized forms of transportation.

IMPACTS

The proposed lighting and pedestrian district projects support and are consistent with the transportation related goals and policies of the Rio Linda and Elverta Community Plan to provide a safe and organized pattern of accessibility for non-motorized forms of transportation. These projects can help create a more cohesive walking environment where pedestrians, bicyclists, and other users of non-motorized travel can navigate through the community safely; therefore, impacts are considered ***less than significant***.

SOUTH SACRAMENTO

POLICIES

COMMUNITY PLAN

The South Sacramento Area Community Plan was adopted in December 1978 and may be outdated, but is still applicable. The following discussion presents the project pertinent goals related to transportation and traffic.

GOAL

7. To provide planning policies for the development of transportation systems recognizing modes of movement which provide safe, convenient transportation with the least possible pollution to the environment.

    12.2 Objective. To develop a network of on-street and off-street bicycle and pedestrian paths with emphasis on connecting parks, libraries, schools and transit access points.

IMPACTS

The proposed sidewalks/asphalt walkways projects support and are consistent with the transportation related goals of the South Sacramento Area Community Plan to develop a network of pedestrian paths that connect parks, libraries, schools and transit access points with safe access in mind. These projects provide pedestrian paths to safely connect residents with different areas within the community; therefore, impacts are considered ***less than significant***.

VINEYARD

POLICIES

SPECIFIC PLAN

The North Vineyard Station Specific Plan was adopted in November 1998. The following discussion presents the project pertinent policies and guidelines related to transportation and traffic.

7.0 TRANSPORTATION AND AIR QUALITY

7.7 CIRCULATION POLICIES

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 in this Plan, and the Design Guidelines. The minimum width of the landscape corridors on arterial and thoroughfare streets adjacent to residential and commercial projects shall be 25 feet, including a meandering sidewalk.

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.

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.

16. Safe and convenient crossings of major roads should be provided for pedestrians and bicyclists.

17. The Plan shall include a network of interconnected bicycle and pedestrian facilities.

7.10 STREETSCAPE DESIGN GUIDELINES

7.10.5 SIDEWALKS AND PATHWAYS

1. Sidewalks should be installed in the locations and at the widths shown in Section 7.5.1 of the Specific Plan.

2. All paths and sidewalks should be located to minimize visual intrusion upon private property,

3. Sidewalk and Class I pathways should be constructed of either asphalt concrete or concrete.

8.0 PUBLIC FACILITIES AND SERVICES

8.2 SCHOOLS

8.2.4 SCHOOL POLICIES

3. Provide bikeway or pedestrian facilities to link school sites with residential uses.

8.7 PARKS

8.7.4 PARK POLICIES

3. Parks and open space areas shall be linked by a pedestrian and bicycle circulation system to the maximum extent feasible.

COMPREHENSIVE PLAN

The Vineyard Springs Comprehensive Plan was adopted in June 2000. The following discussion presents the project pertinent policies and development criteria related to transportation and traffic.

CIRCULATION POLICIES

VS-49 Pedestrian/bicycle access and emergency access between the urban-residential and agricultural-residential areas shall be maintained.

VS-50 Plan for the future use of the Central California Traction Railroad corridor as a public transportation right-of-way, including fixed line bus service, or recreational trail uses.

VS-55 Provide safe and direct pedestrian routes to schools and parks.

VS-56 Support development of a Trails Master Plan to implement pedestrian and equestrian trail programs.

VS-58 Provide convenient pedestrian access throughout the plan area. Intersections should be designed to facilitate pedestrian and bicycle facilities.

CIRCULATION DEVELOPMENT CRITERIA

1. Separated sidewalks and landscape corridors shall be incorporated into multilane arterial streets (i.e., 84-foot streets) where adjacent to single family residential land use. Walks should be separated a minimum of four feet from back-of-curb. Joined curb/gutter/sidewalk shall be constructed at street intersections and bus stops.

4. Subdivision maps with primary residential or collector streets with anticipated traffic volumes higher than normal should consider including special design treatments to minimize potential nuisance problems with adjacent residential lots. Examples include side-on lots, separated sidewalks, or special driveway designs.

5. Landscape corridors along major roadways should include the following features and incorporate standards described in the Zoning Code except where noted below:

    a. Provide separated sidewalk within the landscape corridor where feasible except near street intersections.

IMPACTS

The proposed sidewalks/asphalt walkways on Florin Road and Gerber Road support and are consistent with the transportation related policies and guidelines of the North Vineyard Station Specific Plan to provide convenient pedestrian and bicycle access to

schools, parks, and open space areas. These projects create walkways along major roadways; therefore, impacts are considered ***less than significant***.

The proposed sidewalks/asphalt walkways, trail crossing, and lighting projects support and are consistent with the transportation related policies of the Vineyard Springs Comprehensive Plan to provide safe pedestrian walkways that connect residential areas, trail systems, schools and parks. These projects provide greater pedestrian accessibility throughout the plan area; therefore, impacts are considered ***less than significant***.

CONCLUSIONS

The Pedestrian Master plan projects include sidewalks, midblock crossings, sidewalk obstruction removal, lighting, signal timing work, creation of pedestrian districts, rehabilitation of pathways, improved trail access, etc. The identification of areas of need and solution type was based on input resulting from public outreach, field surveys of existing infrastructure and conditions, County demographics, pedestrian demand, available travel choices, pedestrian safety concerns, paratransit usage, and elderly and disabled accessibility, among other factors. Projects were identified to address pedestrian and accessibility needs based on the information gathered from the above sources. The Pedestrian Master Plan includes a more detailed discussion of how the proposed projects were developed. The proposed projects would enhance existing transportation facilities, provide an alternate means of travel or in some cases improve an existing pedestrian facility. With these projects in place, residents will have a greater sense of safety, and are more likely to choose walking over driving.

GENERAL PLAN

The transportation related goals and policies in the General Plan pertinent to the proposed Master Plan strive to gain a balanced transportation system between movement of goods and people and the provision of safety and supporting urban and rural needs. Securing funding for transportation projects that emphasize improving pedestrian alternatives, encouraging and funding pedestrian programs, utilizing standards for walking, and providing mobility to those with limited access to transportation are also part of the General Plan.

The proposed projects support and are consistent with the transportation-related goals and policies of the Sacramento County General Plan and would not change transportation patterns or roadway classifications; therefore, impacts are considered ***less than significant***.

COMMUNITY AREAS

Table TC-1 summarizes the transportation-related goals, objectives, policies, and guidelines within the various community plans.

The proposed projects support and are consistent with the transportation-related goals, objectives, and policies of the various community plans. Impacts resulting from the adoption of the Master Plan and subsequent construction of the identified projects are considered ***less than significant***.

CONSTRUCTION IMPACTS

During construction, impacts to traffic flow as well as pedestrian and other non-motorized circulation are anticipated, much like those experienced with other public works projects. Typical disruptions that may be experienced during project construction include possible lane closure (particularly in areas with minimal room for construction), blockages of walkways, sidewalks and driveways, service breaks to traffic lights and possible roadway and pedestrian detours. These disruptions could cause minor traffic delays and inconvenience to those traveling in these areas. The application of Sacramento County *Standard Construction Specifications* (County Specifications) would minimize these impacts and inconveniences experienced during project construction. Adherence to the County Specifications would reduce construction-related activities to traffic and circulation to ***less than significant***.

Table TC-1 Master Plan Consistency with Applicable Community Plans

Community Plan	Goal/Objective/Policy/Guideline*	Consistency Determination
Carmichael Land Use Plan	g- develop efficient fully integrated transportation and circulation system.	g- Consistent
	o- develop a complete system of pedestrian trails throughout Carmichael.	o- Consistent
	o- provide safe walkways on all streets, particularly in the vicinity of schools and other facilities frequented by children.	o- Consistent
Delta Community Plan	p- seek viable transportation alternatives to the automobile in the Delta Community Area.	p- Consistent
	p- encourage utilization of the abandoned Southern Pacific Railroad right-of-way for other off-street circulation mode.	p- Consistent
Fair Oaks Community Plan	g- provide circulation system of walking trails in Fair Oaks which will provide adequate safe transportation with minimum disturbance to tranquility of the community.	g- Consistent
	g- provide safe walkways in vicinity of elementary schools and in commercial areas.	g- Consistent
	g- develop network of walkways with emphasis on connecting parks and schools as part of Countywide system.	g- Consistent
	g- preserve Winding Way, east of Fair Oaks Blvd. as scenic route and develop means to reduce traffic speed.	g-Consistent
	g- provide safe passage of pedestrians along Winding Way with minimum widening of existing roadway and provide separate pedestrian crossings at bridges on Winding Way near Park Ave and Cozy Glen.	g- Consistent
	p- provide walkways described in [Fair Oaks Community] plan.	p- Consistent

Community Plan	**Goal/Objective/Policy/Guideline***	**Consistency Determination**
	p- wider rights-of-way may be required on streets for non-motorized traffic.	p- Consistent
North Highlands-North Central Area Community Plan	o- explore other methods of transportation to supplement auto.	o- Consistent
	p- promote desire for intercommunity travel that give the area's inhabitants true choice between alternative means of travel.	p- Consistent
	p- require pedestrian trails (in new development), designed as not to conflict with automobile traffic and provide access to schools, open space, bus stops, and other transportation facilities.	p- Consistent
North Vineyard Station Specific Plan	p- all streetscape on public and private streets, including sidewalks and pedestrian paths designed in accordance with cross sections in [the North Highlands-North Central Area Community] plan and design guidelines. Minimum width of landscape corridors on arterial and thoroughfare streets adjacent to residential and commercial 25 feet, including meandering sidewalk.	p- Consistent
	p- sidewalks or pedestrian paths provided on both sides all streets except where county allows sidewalk on one side only. Pathways separated from thoroughfare and arterials to extent possible. intrusion on privacy of residential property minimized.	p- Consistent
	p- pedestrian paths located within thoroughfare, arterial, and collector rights-of-way and in open space areas. public access rights guaranteed in all instances.	p- Consistent
	p- all residential developments designed to provide convenient pedestrian access to schools, parks, and open space areas.	p- Consistent
	p- pedestrian trails and pathways encouraged within open space areas to extent possible.	p- Consistent
	p- safe and convenient crossings or major roads provided for pedestrians.	p- Consistent
	p- [the North Vineyard Station Specific] plan include network of interconnected pedestrian facilities.	p- Consistent
	gl- street lights provided on all streets within [the North Vineyard Station Specific] plan area accordance with placement standards by Sacramento County.	gl- Consistent
	gl- lighting be minimum intensity necessary to achieve intended purpose.	gl- Consistent
	gl- downward oriented cut-off type fixtures and shielding used to prevent light spillage and glare impacts beyond target illumination and public right-of-way.	gl- Consistent
	gl- mercury vapor lighting fixtures not be used.	gl- Consistent
	gl- sidewalks installed in locations and widths shown in Section 7.5.1 of Specific Plan.	gl- Consistent
	gl- paths and sidewalks located to minimize visual intrusion private property.	gl- Consistent
	gl- sidewalk pathways constructed of asphalt concrete or concrete.	gl- Consistent

Community Plan	**Goal/Objective/Policy/Guideline***	**Consistency Determination**
	p- provide pedestrian facilities to link school sites with residential uses.	p- Consistent
	p- parks and open space areas linked by pedestrian circulation system to extent feasible.	p- Consistent
Rio Linda – Elverta Community Plan	g- develop efficient and fully integrated transportation and circulation system.	g- Consistent
	o- encourage transportation system that would serve pedestrian transportation needs in the area, especially in area of existing schools	o- Consistent
	p- provide separation of pedestrian traffic when feasible.	p- Consistent
South Sacramento Area Community Plan	g- provide planning policies for development of transportation systems recognizing modes of movement which provide safe, convenient transportation with least possible pollution to environment.	g- Consistent
	o- develop network of on-street and off-street pedestrian paths with emphasis on connecting parks, libraries, schools and transit access points.	o- Consistent
Vineyard Springs Comprehensive Plan	p- pedestrian access between urban-residential and agricultural-residential areas maintained.	p- Consistent
	p- plan for future use of Central California Traction Railroad corridor as public transportation right-of-way, including recreational uses.	p- Consistent
	p- provide safe and direct pedestrian routes to schools and parks.	p- Consistent
	p- support development of a Trails Master Plan to implement pedestrian programs.	p- Consistent
	p- provide convenient pedestrian access throughout the Plan area. Intersections designed to facilitate pedestrian facilities.	p- Consistent
*Notes: goals, objectives, policies, and guidelines are shown in this table as a reference with project pertinent text presented in this table. See earlier discussion of goals, objectives and polices in the Applicable Community Plans discussion under the Regulatory Setting for the complete text. g = goal, o = objective, p = policy and gl = guideline.		

9 AIR QUALITY

INTRODUCTION

This chapter describes existing air quality conditions, identifies potential impacts on air quality and recommends feasible air quality mitigation measures associated with construction of the Master Plan pedestrian improvement projects. This program level analysis is not intended to cover the impacts in detail, but to discuss the overall impacts of the Master Plan on air quality in the Master Plan project area. Subsequent CEQA analysis for project specific air quality impacts will be conducted once individual projects are proposed for construction. Since the Master Plan project will not generate operational emissions, only construction-related emissions are discussed. While the main purpose of the Master Plan is to improve pedestrian safety and access on public streets within the unincorporated portions of Sacramento County, the provision of these improved facilities encourages pedestrian travel, which reduces other modes of travel, such as automobile. This can lead to improved air quality, by exchanging out emission-based travel to clean pedestrian travel.

ENVIRONMENTAL SETTING

The Master Plan encompasses the unincorporated areas of Sacramento County. The geography and weather patterns of the Sacramento Valley are conducive to high air pollution levels in the Sacramento area. The Sacramento air basin lies in the northern portion of the Great Valley, enclosed by the Sierra Nevada Mountains on the east and the Coast Ranges on the west. The mountain ranges surrounding the valley are natural air current barriers, which restrict most of the circulating winds of lower elevations from mixing and dispersing air pollutants of the valley. Sea breezes pass through the Carquinez air corridor and extend to the northern parts of the Sacramento air basin, providing relief for Sacramento for much of the year. However, climate conditions during the fall cause this marine air to be infrequent in sweeping Sacramento's atmosphere. The wind during this season is often slow or absent and the air experiences little mixing or dispersal of its pollutants. Sacramento is also subject to the phenomena of thermal air inversions, especially during the summer and fall months, wherein a layer of cool air is overlain by warmer air. Such inversions restrict the vertical movement of air and concentrate pollutants within or below the inversion layer. Also, solar radiation from Sacramento's abundant sunshine acts a catalyst to drive chemical reactions between atmospheric pollutants such as reactive hydrocarbons and nitrogen oxides; the result is photochemical smog. Thus, the combination of surrounding mountains, abundant sunshine, thermal air inversions and wind patterns make the Sacramento area susceptible to high levels of air pollution.

SENSITIVE RECEPTORS

Some receptors are considered more sensitive than others to air pollutants. The reasons for greater than average sensitivity include pre-existing health problems, proximity to emissions sources, or the duration of exposure to air pollutants. Schools, hospitals, and convalescent homes are considered to be relatively sensitive to poor air quality because children, elderly people, and the infirm are more susceptible to respiratory distress and other air quality-related health problems than the general public. Residential areas are considered sensitive to poor air quality because people usually stay home for extended periods of time, with associated greater exposure to ambient air quality. Recreational uses are also considered sensitive due to the greater exposure to ambient air quality conditions because vigorous exercise associated with recreation places a high demand on the respiratory system.

AIR POLLUTANTS

Construction activities can generate substantial amounts of air pollutants. Emissions from construction equipment (fuel combustion from mobile heavy-duty diesel and gasoline-powered equipment, portable auxiliary equipment and worker commute trips), fugitive dust from soil disturbance, and possible release of asbestos during demolition of structures and earth disturbance (where naturally occurring asbestos containing rocks are know to be found) can be released during construction. While these releases are temporary, they can impact the ambient air quality conditions. The types of pollution that can be generated by construction activities include reactive organic gasses (ROG), oxides of nitrogen (NOx), particulate matter (PM10), carbon monoxide (CO), and possibly air toxics (diesel exhaust PM). No ROG emission thresholds of significance have been established for construction in the Sacramento Metropolitan Air Quality Management District (SMAQMD) jurisdiction. NOx is considered a major contributor to construction-related ozone precursor emissions. CO emission levels during construction can violate state ambient air quality standards (AAQS). Diesel particulate matter and fugitive dust generated from construction equipment and their activities can contribute to violations of state AAQS. There are no federal or state construction air quality standards; however, there are local construction air quality standards for NOx emissions and PM_{10}. The following discussion elaborates on these construction-related air pollutants.

CARBON MONOXIDE

Carbon monoxide is a colorless, odorless, poisonous gas that is particularly threatening because it combines readily with hemoglobin, restricting the amount of oxygen in the bloodstream and preventing sufficient oxygen from reaching the body's organs. Carbon monoxide can cause dizziness and fatigue and can impair central nervous system functions. Exposure to carbon monoxide is especially critical to people with heart disease, since the heart is further stressed, trying to compensate for the oxygen deficiency. Unlike ozone which requires chemical reactions to form, carbon monoxide is a directly emitted pollutant, and as such motor vehicles are the dominant source of CO emissions in most areas, therefore, concentrations are highest near major

thoroughfares and heavily congested urban streets. High CO levels develop primarily during winter when periods of light winds combine with the formation of ground level temperature inversions (typically from the evening through early morning), resulting in reduced dispersion of vehicle emissions. Motor vehicles also exhibit increased CO emission rates at low air temperatures.

OZONE

Ozone is not emitted directly into the air, but is formed by a photochemical reaction in the atmosphere. Ozone precursors, which include ROG and NOx, react in the atmosphere in the presence of sunlight to form ozone. High temperatures, low wind speed, lack of clouds, shallow air mixing depths and wind patterns that fail to disperse ozone precursors all help ozone formation. Once formed, ozone is widely dispersed, producing a regional air pollution problem rather than a localized one. Dispersion of ozone is dependent upon the prevailing wind patterns, with the highest concentrations occurring downwind from major pollutant emission sources. On typical days with southwesterly air flow patterns through Sacramento, ozone concentrations would be highest in northeastern Sacramento County and southwestern Placer County. Because photochemical reaction rates depend on the intensity of ultraviolet light and air temperature, ozone is primarily a summer air pollution problem with the ozone season extending roughly from April through October, with July and August being the months with the highest concentrations. Ozone acts as a strong irritant that attacks body tissues. Adverse health effects associated with ozone include aggravation of chronic conditions such as asthma, bronchitis, emphysema and cardiovascular disease. The elderly, young children and pregnant women are particularly susceptible to adverse health impacts. However, significant concentrations of ozone can cause even healthy people of all ages to become nauseous, dizzy, develop headaches or coughs, or experience burning sensations in the chest. In addition, ozone interferes with photosynthesis and causes substantial damage to leaf tissue of crops and natural vegetation. For many of the region's crops, ozone exposure stunts growth, reduces yields and causes aesthetic damage which lowers market value.

PARTICULATE MATTER

Particulate matter is the generic term for a broad class of chemically and physically diverse substances that exist as discrete particles (liquid droplets or solids) over a wide range of sizes. The U.S. Environmental Protections Agency (EPA) has designated airborne particulates which are 10 microns or less in diameter, PM_{10}, as having the greatest potential to be harmful to human health, as they are small enough to reach the lungs when inhaled. Particles greater than 10 microns in diameter can cause irritation in the nose, throat and bronchial tubes; however, natural mechanisms such as nasal hair and sneeze-response reflex remove many of these particles. Particles less than 10 microns (PM_{10}) are able to pass through the natural defenses of the body and the mucous membranes of the upper respiratory tract and enter into the lungs. Particulate matter's major effects of concern for human health include respiratory symptoms, aggravation of existing respiratory and cardiovascular disease, alterations in the body's

defense systems against foreign materials, damage to lung tissue, carcinogenesis, and premature mortality. Components of particulate matter, such as sulfuric acid, also contribute to acid deposition. Particulates originate from a variety of stationary and mobile sources. They are emitted directly or formed in the atmosphere by transformations of gaseous emissions such as sulfur oxides, nitrogen oxides, and volatile organic substances. Important sources include fossil fuel combustion, activities that create and stir up dust and dirt (such as construction and highway traffic), and abrasion of (wear on) such things as tires and brake linings. In Sacramento County, sources of PM_{10} are found in a mix of rural and urban sources, such as agricultural activities, dust suspended by vehicle traffic, industrial emissions and secondary aerosols formed by reactions in the atmosphere.

Construction activities have the potential to generate dust (PM_{10}). Dust generation is dependent on soil type and soil moisture, as well as the amount of total acreage actually involved in clearing, grubbing and grading activities. Clearing and earthmoving activities comprise the major source of construction dust generation, but traffic and general disturbance of the soil also contribute to the problem. Sand, lime or other fine particulate materials may be used during construction, and stored on-site. If not stored properly, such materials could become airborne during periods of high winds. The effects of construction activities include increased dust fall and locally elevated levels of suspended particulates. PM_{10} is considered unhealthy because the particles are small enough to inhale and damage lung tissue, which can lead to respiratory problems.

The PM_{10} component of diesel exhaust has been identified by the California Air Resources Board (ARB) as a carcinogen. Diesel-powered construction vehicles associated with the project site would generate PM_{10} emissions during the construction period. The California ARB has developed a diesel risk reduction plan designed to reduce health risks from on- and off-road mobile sources of diesel exhaust (CARB, 2000). That plan was necessitated by the realization that a comprehensive statewide plan was superior to a piecemeal approach that would vary by individual air basins

REGULATORY SETTING

The following discussion summarizes the regulatory setting in Sacramento County for construction.

AIR QUALITY MANAGEMENT IN SACRAMENTO COUNTY

The Sacramento County Air Quality Management District (SMAQMD) developed the Air Quality Attainment Plan (AQAP) for Sacramento County based on data collected between 2001 and 2003 (SMAQMD, 2003). The AQAP addresses attainment of California air quality standards for ozone and CO. The plan listed Sacramento as a serious non-attainment area for ozone (compliance to be achieved after 1997) and an attainment area for CO. The 2003 AQAP placed great emphasis on both transportation

control measures and indirect source control measures. Updates of the AQAP's are required once every three years.

The SMAQMD has also published the Sacramento Area Regional Ozone Attainment Plan to address attainment of the federal ozone standard (SMAQMD, 1994). This 1994 plan has been incorporated into California's State Implementation Plan (SIP). This plan was prepared to comply with one of the requirements of the federal Clean Air Act Amendments of 1990. To avoid duplication, the California Air Resources Board (CARB) has proposed that the SMAQMD use this plan to also meet state requirements. Consequently, this plan satisfies the requirement for an updated AQAP.

GENERAL PLAN

There are no construction-related air quality polices in the Sacramento County General Plan.

IMPACTS AND MITIGATION MEASURES

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT CRITERIA

In addition to the general criteria described above, the SMAQMD adopted a series of CEQA significance thresholds. These thresholds are reported in their July 2004 *Guide to Air Quality Assessment in Sacramento County*. Under this most recent guidance, a project is considered to have a significant short-term construction-related impact if it would generate more than 85 pounds per day (ppd) of NOx (SMAQMD, 2004). The NOx level is used as an indicator of possible CO violations. If NOx emissions are elevated, we can assume that CO levels are elevated too and mitigation applied to NOx emissions will also reduce CO emissions.

METHODOLOGY

CONSTRUCTION-RELATED IMPACT ANALYSIS

Construction of roadway facilities results in the temporary generation of ROG, NOx and PM_{10} emissions. Construction-related emissions result from construction equipment exhaust, and fugitive dust from land clearing, earthmoving, and wind erosion of exposed soil. Emissions of ROG, NOx, and PM_{10} associated with the project were estimated by applying the Roadway Construction Emissions Model (SMAQMD, 2003b). This model analyzes emissions associated with construction of roadway projects, but due to the similar linear nature of the projects (most notably the sidewalk projects); this model was used as the best available estimating tool to characterize construction-related emissions.

The Roadway Construction Emissions Model provides opportunities for the user to override model default values. The instructions included in the Roadway Construction Emissions Model note that the user "is encouraged to do so if project specific information is available. Due to the difficulty in developing reliable default values for road construction projects, the user is encouraged to enter as much site specific information as is available for the project being analyzed."

During construction of the projects, various phases of construction would result in the use of different groups of equipment. This would result in the generation of different amounts of emissions during the various construction phases. As the construction of the pedestrian improvement projects would be carried out over a twenty-year period and because sidewalk projects would likely result in the most intensive construction activities and timeline, certain assumptions were made to best categorize the worst-case construction emissions scenario. Table AQ-1 presents the criteria used in the model and the model results.

Table AQ-1 Estimated Construction-Related Emissions

Project Phases	**ROG (lbs/day)**	**CO (lbs/day)**	**NOx (lbs/day)**	**PM10 (lbs/day)**	**Exhaust PM10 (lbs/day)**	**Fugitive PM10 (lbs/day)**
Grubbing/Land Clearing	10	47	51	13	3	10
Grading/Excavation	11	49	53	13	3	10
Drainage/Utilities/Sub-Grade	11	52	55	13	3	10
Paving	5	22	31	2	2	0
Maximum (pounds/day)	11	52	55	13	3	10
Total (tons/construction project)	0	0	1	0	0	0
Parameters Entered:						
Project Start Year ->[1]	2007					
Project Length (months) ->[2]	1					
Total Project Area (acres) ->	4					
Maximum Area Disturbed/Day (acres) ->	1					
Total Soil Imported/Exported (yd^3/day)->	2					

Notes: [1]2007 was determined to be the earliest reasonable construction year. The use of 2007 as the project start year is the most conservative date and as years progress, emissions are reduced from the 2007 results.

[2]One month was selected as a conservative estimate of construction duration. The highest emissions were generated in one month as opposed to longer construction durations.

Source: SMAQMD, 2003.

IMPACT: CONSTRUCTION EMISSIONS

Construction activities can generate a substantial amount of emissions that can contribute to decreased air quality even though emissions are emitted on a temporary

basis. The recommended Master Plan projects are grouped into the following categories:

- Sidewalks or asphalt walkways
- Safe routes to school (midblock crossings, walkways, curb extension)
- Safe routes to transit (sidewalk or asphalt walkway)
- Sidewalk obstruction removals (utility equipment, poles, street furniture)
- Midblock crossings (curb extensions, curb ramps, enhanced pavement markings, waning signs, lighting enhancements, median refuges, raised crosswalks in residential areas, traffic signal with accessible pedestrian signals, yield to pedestrian signs)
- Pedestrian countdown signal installations
- Signal timing
- Lighting
- Trail access (striping treatments, raised crosswalks, flashing beacons or pedestrian signals)
- Pathways (graffiti removal, pedestrian-scaled lighting, landscaping, ADA compliance, improved surfaces, wayfinding signs, fencing and callboxes)
- Pedestrian Districts (bicycle lanes, curb extensions, longer pedestrian intervals at signalized intersections, midblock crossings, on-street parking, lower speed limit to 30 miles per hour or less, pedestrian-scaled lighting, road diets (lane reduction), sidewalk enhancements, street trees or bus shelters)

The types of construction activities that would typically occur to construct the Master Plan projects include ground clearing and grubbing, soil compaction, grading, and trenching for drainage or electrical, paving sidewalks, striping crosswalks, installation of new lighting, pedestrian signals, trading out for new electrical equipment or adjusting existing electrical equipment, and removal and disposal of unwanted items.

Emissions generated by these types of construction activities include fuel combustion from mobile heavy-duty diesel- and gasoline-powered equipment; portable auxiliary equipment and worker commute trips, in addition to fugitive dust from soil disturbance.

Particulate Matter (PM10)

Fugitive dust (particulate matter) is generated during ground disturbance, typically during grading activities. The nature and extent of construction activities that are anticipated to occur given the adoption of the Master Plan and presentation of individual improvements for construction were considered in reference to the potential levels of

fugitive dust generation. Screening for particulate matter concentrations resulting from fugitive dust generated during construction was conducted using the SMAQMD *Guide to Air Quality Assessment in Sacramento County*. As project construction activities are anticipated to actively disturb no more than 5 acres at any given time, this impact is considered ***less than significant***.

Ozone Precursors

As presented in Table AQ-1, construction-related NOx emissions reach a high of 53 pounds per day, and are below the 85 pounds per day identified as a CEQA threshold of significance. Because the project's NOx emissions from heavy-duty mobile sources is considered not potentially significant, according to the SMAQMD's *Guide to Air Quality Assessment in Sacramento County*, the "Lead Agency may assume that exhaust emissions of other pollutants from operation of equipment and worker commute vehicles are also not significant ." Impacts from construction-related NOx and other related emissions are considered ***less than significant***.

Mitigation Measures:

None recommended.

10 NOISE

INTRODUCTION

This chapter discusses noise impacts and sensitive receptors in the Master Plan area. Identification of noise and sensitive receptors in the project area, potential impacts and mitigation to minimize these impacts are addressed in this chapter.

NOISE SETTING

The Master Plan encompasses the unincorporated areas of Sacramento County. The noise generators and sensitive noise receptors are distributed throughout the Master Plan in areas from rural to urban settings. Noise is defined as unwanted sound and therefore is a subjective reaction to changes in noise levels. Increases in noise levels are known to be a health concern as changes in noise levels can interfere with human activities such as, sleep, speech, work demanding concentration and recreation. Stress and annoyance from increasing noise levels also play a role in public annoyance and tolerance levels. In very quiet areas, almost any change in local activities creates an increase in noise levels. These areas are more sensitive to fluctuations in noise, whereas in areas where community noise is fairly constant and perceptible, such as along busy roadways, changes in noise levels are not as easily detected. Noise levels and perceptions of changes in the levels can be characterized as shown in Table NS-1

REGULATORY SETTING

NOISE ELEMENT

The Sacramento County General Plan does not have any policies addressing construction noise.

NOISE CONTROL ORDINANCE

Noise generated by non-transportation noise sources are regulated by the County Noise Ordinance as summarized in Table NS-2.

Table NS-1
Examples of Noise Levels

Sound Source	Decibels	Subjective Evaluation
Jet engine at 75 feet	140	Painful and dangerous
Jet aircraft at 300 feet	130	
Nearby thunderclap	120	Deafening
Accelerating motorcycle at 50 feet	110	
Car horn at 10 feet	100	
Pneumatic concrete breaker	90	Very loud
Reverberant cafeteria	80	
Boeing 757 cabin during flight	70	
Normal conversation at close range	60	
Office activities	50	Moderate
Soft stereo music in residence	40	
Interior of residence without stereo	30	Faint
Whisper	20	
Human breathing	10	Very faint
Threshold of hearing	0	
Note: Decibels on the A-weighted scale (dBA).		
Source: BAC, 1998.		

Table NS-2
Sacramento County Noise Ordinance Standards

Cumulative Duration of the Intrusive Sound	Descriptor	Exterior Noise Standard, dB	
		Daytime (7am-10pm)	Nighttime (10pm-7am)
30-60 minutes per hour	L50	55	50
15-30 minutes per hour	L25	60	55
5-15 minutes per hour	L08	65	60
1-5 minutes per hour	L02	70	65
Level not to be exceeded at any time	Lmax	75	70
Source: County, 1993.			

Noise sources associated with construction repair, remodeling, demolition, paving or grading are exempt from the ordinance provided such activities do not take place between 8:00 p.m. and 6 a.m. on weekdays and between 8:00 p.m. and 7 a.m. on weekends.

CONSTRUCTION-RELATED IMPACTS

IMPACT:

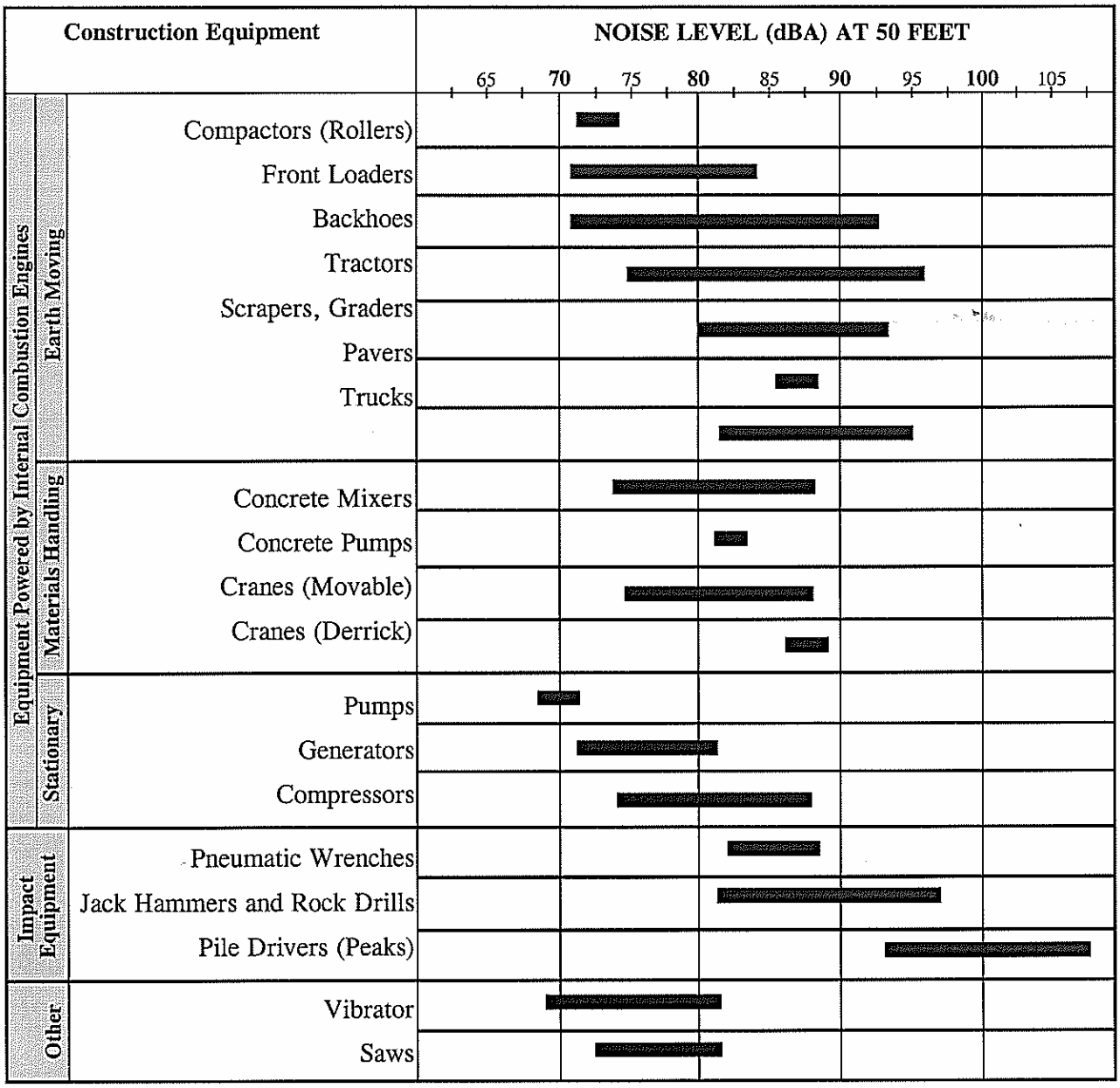
Although the Master Plan does not propose the construction of specific pedestrian facilities, the adoption of the Master Plan would result in future construction activities as identified site-specific projects are presented for construction. During construction, noise from construction activities would increase the noise environment in the immediate area of the particular improvement project. Typical noise levels emitted by construction equipment are described in Table NS-3. Noise levels range from approximately 67 dBA at a 50 foot distance to a high of 108 dBA. Construction activities would be temporary in nature, typically occurring during normal working hours.

While project construction may result in noise levels above thresholds established by the Sacramento County Noise Control Ordinance (Chapter 6.68), noise sources associated with construction, demolition and paving or grading are exempt from the ordinance, as discussed earlier in this chapter. Impacts from noise generated during construction activities are considered ***less than significant***.

MITIGATION MEASURES:

None recommended.

Table NS-3
Construction Equipment Noise Levels



Source: EPA PB 206717, Environmental Protection Agency, Dec. 31, 1971,"Noise from Construction Equipment & Operations".

11 HYDROLOGY AND WATER QUALITY

INTRODUCTION

This chapter discusses hydrology and water quality in the Master Plan area and the potential impacts and activities that contribute to these impacts, such as grading and erosion. Mitigation to minimize these impacts is also addressed in this chapter.

HYDROLOGIC SETTING

The Master Plan encompasses the unincorporated areas of Sacramento County. The hydrologic setting in Sacramento County encompasses watersheds, a network of rivers and their tributaries, and a series of floodplains. A watershed is "a region bounded at the periphery by physical barriers that cause water to part and ultimately drain to a particular body of water" (Sac River, 2006). The watersheds in Sacramento County include the Lower Sacramento River, Lower American River, and Upper Cosumnes. The North Fork of the American River and the South Fork of the American River are on the eastern edge of Sacramento County and contribute to downstream watersheds in Sacramento County. The Sacramento River, American River, Cosumnes River, and Mokelumne River are the major rivers in Sacramento, each with numerous tributaries spreading throughout the county. Floodplains are identified on Federal Emergency Management Insurance Rate Maps (FIRM) and are discussed below.

FLOODPLAINS

FIRM mapping was consulted to characterize a representative section of the Master Plan area and identify the range of types of flood rated areas in the Plan.

Table WQ-1 presents the types of flood rated areas in the Master Plan area and corresponding explanation of terms.

Table WQ-1 Floodplain Zones in the Master Plan Area

Floodplain Zone	Description
A	Special flood hazard area inundated by 100-year floods. No base flood elevations have been determined.
AE	Special flood hazard area inundated by 100-year floods. Base flood elevations have been determined.
AO	Special flood hazard area inundated by 100-year flood where depths of 1 to 3 feet (usually sheet flow on sloping terrain). Average depths determined and areas of alluvial fan flooding velocities determined.
AR	Special flood hazard areas as a result of decertification of a previously accredited flood protection system which is determined to be in the process of being restored to provide a 100-year or greater level of flood protection.
X	Areas of 500-year floods with areas of 100-year floods with average depths of less than 1 foot, or with drainage areas less than one square mile with levee protection. Areas outside the 500-year floodplain.

DRAINAGE

In rural areas local surface water generally flows adjacent to roadways and is controlled by roadside or agricultural ditches that are parallel to the roadway. In urban areas drainage is controlled by drainage inlets and storm drain systems. However, roadside ditches are found in semi-rural and residential areas, such as Orangevale, Carmichael, and North Highlands/Foothill Farms.

REGULATORY SETTING

There are several agencies with jurisdiction over the water bodies, wetlands, floodways, and flood control facilities in the Master Plan area. These agencies include: the County of Sacramento, the Sacramento Area Flood Control Agency (SAFCA) the American River Flood Control District (ARFCD), the California Department of Fish and Game (CDFG), State Water Resources Control Board (SWRCB) and Regional Water Quality Control Board (RWQCB), the State Reclamation Board, the State Lands Commission, and the U.S. Army Corps of Engineers (Corps). Specific conditions of approval and

requirements imposed on the pedestrian improvement projects by these agencies may be in addition to mitigation measures adopted pursuant to CEQA.

SACRAMENTO COUNTY GENERAL PLAN

The Sacramento County General Plan provides guidelines and policies for the unincorporated areas in Sacramento County. The following discussion presents the project pertinent goals, objectives, policies, and implementation measures related to hydrology and water quality.

OPEN SPACE ELEMENT

GOAL

Natural and open space values of urban stream corridors preserved and protected.

OBJECTIVE

Natural character of 100-year floodplain maintained by limiting fill.

POLICY

CO-103 Allow no fill in the 100-year floodplain as delineated by currently effective FEMA Flood Insurance Rate Maps or subsequent comprehensive drainage plans adopted by the County unless the fill would cause no increase in food surface elevation; in the absence of a floodway master plan the resulting floodplain would not be less than 600 feet at road crossings; depth of fill would not exceed two feet, except as the proposed fill area is not necessary to serve as a detention basin for stormwater runoff; and no wetlands as defined by the U.S. Army Corps of Engineers exist within the proposed fill area.

OBJECTIVE

Land uses within and development adjacent to the Urban Stream Corridor consistent with natural values.

POLICY

CO-119 Roads, parking and associated fill slopes shall be located outside of the Urban Stream Corridor, except at stream crossings. Crossings shall be minimized and be aesthetically compatible with naturalistic values of the stream channel.

U.S. ARMY CORPS OF ENGINEERS

The Sacramento River, and portions of the American River and Mokelumne River are classified as navigable waters of the United States (U.S.); therefore, actions affecting these rivers require evaluation and permitting pursuant to Section 10 of the Rivers and Harbors Act and Sections 301, 402, and 404 of the Clean Water Act (CWA) which are

administered by the Corps. Section 404 of the CWA regulates the discharge of dredged or fill material in jurisdictional waters of the U.S., including wetlands, as stated in 33 CFR 328.3[a]; 40 CFR 230.3[s].

Environments within the project study area that are potentially subject to Corps jurisdiction include wetland habitats and the deepwater habitat of the river itself, and "other waters of the U.S." (wetland resources are discussed in the Biological Resources chapter of this document). The landward limits of deepwater habitat in non-tidal waters are defined by the Ordinary High Water line (OHW). The OHW is the line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter or debris, or other appropriate means that consider the characteristics of the surrounding areas.

STATE WATER RESOURCES CONTROL BOARD, DIVISION OF WATER QUALITY/ REGIONAL WATER QUALITY CONTROL BOARD, CENTRAL VALLEY REGION

The State Water Resources Control Board (SWRCB) and Regional Water Quality Control Board (RWQCB) review activities that affect water quality and administer requirements mandated by the Clean Water Act (CWA). For the project, the Central Valley RWQCB is responsible for CWA Section 401 water quality certification. Section 401 certification (or wavier thereof) is necessary prior to final issuance of a Section 404 permit from the Corps.

Pursuant to the CWA, as amended, federal regulations promulgated by the EPA require stormwater discharges, specific municipal areas and industrial and construction activities to be authorized by National Pollutant Discharge Elimination system (NPDES) permits. The Corps permit generally supersedes the NPDES permit for portions of a project which include dredging and/or filling of waters of the U.S., and, if RWQCB determines that adequate mitigation measures are in place through the CEQA/County approval process (Yeadon, 1996).

THE RECLAMATION BOARD

The Reclamation Board maintains jurisdiction over all flood control works constructed with funds from Federal-State cost-sharing agreements. Generally, jurisdiction extends from a point 10 feet landward of the levee across to a point 10 feet landward on the other side, and includes all portions of the levee and riverbed. The Reclamation Board requires an encroachment permit for any activity along or near federal flood control project levees and floodways, or in Board-designated floodways to ensure that proposed actions or projects do not impair the integrity of the existing flood control systems. Encroachment permit applications are evaluated according to criteria in designated floodways plans and the Board's Standards for Encroachment. Applications are typically reviewed after necessary environmental review is completed.

The California Code of Regulations permits uses in designated floodways as long as such uses do not "unduly impede the free flow of water in the floodway or jeopardize public safety" (23 CCR s 107) (CCR, 2006). The following listed uses are pertinent to the pedestrian improvement project plans:

(b) Fences, fills, walls, or other appurtenances which do not create an obstruction or debris-catching obstacle to the passage of floodwaters.

(d) Railroads, streets, bridges, and public utility wires and pipelines for transmission and local distribution.

(i) Other uses which are not appreciably damaged by floodwaters.

STATE LANDS COMMISSION

The State Lands Commission has exclusive jurisdiction and ownership of all ungranted tidelands and submerged lands, and the beds of navigable rivers, sloughs, and lakes (PRC Section 6301). State ownership extends to lands lying below the ordinary high-water mark of tidal waterways and the low-water mark of non-tidal waterways (Civil Code, Section 830). The area between the low-water mark and the ordinary high-water mark of non-tidal waterways is subject to a "public trust easement." Projects such as bridge widening or trail crossings, that cross waterways, cannot use the lands without obtaining a lease from the State Lands Commission. Lease arrangements are typically made after necessary environmental review is completed.

DEPARTMENT OF FISH AND GAME

Pedestrian improvement projects located in close proximity to rivers, streams and other bodies of water may require work along the bank and in the water. When projects require work that may divert or obstruct the natural flow of the water body, change its bed, channel or bank, or use material from its streambed, a streambed alteration agreement, pursuant to California Fish and Game Code Sections 1601 – 1603 is required. The agreement will establish measures to protect fish and wildlife during the particular project, set terms for amendment, termination, renewal, time extensions, and describe CDFG's authority to suspend or revoke the agreement. The agreement is typically formalized after completion of the environmental documents.

STORMWATER POLLUTION AND EROSION/SEDIMENT CONTROL

BACKGROUND

Sacramento County has a National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater Permit issued by the Regional Water Quality Control Board. The Municipal Stormwater Permit requires the County to reduce pollutants in stormwater discharges to the maximum extent practicable. The County complies with this permit in part 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.

STORMWATER ORDINANCE

This ordinance, (County Code 15.12), prohibits the discharge of unauthorized non-stormwater to the County's stormwater conveyance system and local creeks. It applies to all private and public projects in the County, regardless of size or land use type.

LAND GRADING AND EROSION CONTROL ORDINANCE

This ordinance requires construction sites disturbing one or more acres or moving 350 cubic yards or more of earthen material to obtain a grading permit. To obtain a grading permit, project proponents must prepare and submit for approval an Erosion and Sediment Control (ESC) Plan describing erosion and sediment control best management practices (BMP's) that will be implemented during construction to prevent sediment from leaving the site and entering the County's storm drain system or local receiving waters. Construction projects not subject to SCC 16.44 are subject to the Stormwater Ordinance as described above.

FLOODPLAIN MANAGEMENT ORDINANCE

This ordinance has the following pertinent measures (County Code 6. 906-09):

(A) New construction, substantial improvements, and other development within a floodway is prohibited unless certification by a registered professional engineer is provided which demonstrates to the satisfaction of the Floodplain Administrator that such development will not result in any increase in the base flood elevation.

(B) All new construction, substantial improvements, and other development within floodways which satisfies the requirements of this section shall also comply with all other applicable provisions of this title.

(C) All new construction, substantial improvements, and other development within floodways which will cause increases in the base flood elevation shall only be permitted if the County has applied to the Federal Emergency Management Agency for modification of the flood insurance rate maps and has received conditional approval of such modifications, and all other applicable provisions of this title are satisfied.

STATE PERMIT FOR CONSTRUCTION PROJECTS

Construction sites disturbing one or more acres are required to comply with the State's General Stormwater Permit for Construction Activities, issued by the State Water Resources Control Board and enforced by the Regional Water Quality Control Board. Coverage is obtained by submitting a Notice of Intent (NOI) to the State Board prior to construction. The General Permit requires preparation and implementation of a site-

specific Stormwater Pollution Prevention Plan (SWPPP) that must be kept on site at all times for review by the State inspector.

TEMPORARY CONSTRUCTION BMP'S

During the wet season (October 1 – April 30), each project must include an effective combination of erosion, sediment and other pollution control BMP's in compliance with the County ordinances and the State's Construction General Permit. During the rest of the year, typically erosion controls are not required, except in the case of predicted rain.

Erosion controls should always be the *first line of defense*, to keep soil from being mobilized in wind and water. Examples include stabilized construction entrances, tackified mulch, 3-step hydroseeding, spray-on soil stabilizers and anchored blankets. Sediment controls are the *second line of defense*; they help to filter sediment out of runoff before it reaches the storm drains and local waterways. Examples include rock bags to protect storm drain inlets, staked or weighted straw wattles/fiber rolls, and silt fences.

In addition to erosion and sediment controls, each project must have BMP's in place to keep other construction-related wastes and pollutants out of the storm drains. Such practices include, but are not limited to: filtering water from dewatering operations, providing proper washout areas for concrete trucks and stucco/paint contractors, containing wastes, managing portable toilets properly, and dry sweeping instead of washing down dirty pavement.

It is the responsibility of the project proponent to verify that the proposed BMP's for each project are appropriate for the unique site conditions, including topography, soil type and anticipated volumes of water entering and leaving the site during the construction phase. In particular, the project proponent should check for the presence of colloidal clay soils on the site. Experience has shown that these soils do not settle out with conventional sedimentation and filtration BMP's. The project proponent may wish to conduct settling column tests in addition to other soils testing on the site, to ascertain whether conventional BMP's will work for the project.

If sediment-laden or otherwise polluted runoff discharges from the construction site are found to impact the storm drain system and/or Waters of the State, the project proponent will be subject to enforcement action and possible fines.

POST-CONSTRUCTION STORMWATER QUALITY CONTROL MEASURES

Development and urbanization can increase pollutant loads, temperature, volume and discharge velocity of runoff over the predevelopment condition. The increased volume, increased velocity, and discharge duration of stormwater runoff from developed areas has the potential to greatly accelerate downstream erosion and impair stream habitat in natural drainage systems. Studies have demonstrated a direct correlation between the degree of imperviousness of an area and the degradation of its receiving waters. These

impacts must be mitigated by requiring appropriate runoff reduction and pollution prevention controls to minimize runoff and keep runoff clean for the life of the project.

The County Water Resources Department requires that projects include source and/or treatment control measures be installed on selected new development and redevelopment projects. Source control BMP's are intended to keep pollutants from contacting site runoff. Examples include "No Dumping-Drains to Creek/River" stencils/stamps on storm drain inlets to educate the public, and providing roofs over areas likely to contain pollutants, so that rainfall does not contact the pollutants. Treatment control measures are intended to remove pollutants that have already been mobilized in runoff. Examples include vegetated swales and water quality detention basins. These facilities slow water down and allow sediments and pollutants to settle out prior to discharge to receiving waters. Additionally, vegetated facilities provide filtration and pollutant uptake/absorption. The project proponent should consider the use of "low impact development" techniques to reduce the amount of imperviousness on the site, since this will reduce the volume of runoff and therefore will reduce the size/cost of stormwater quality treatment required. Examples of low impact development techniques include pervious pavement and bioretention facilities.

IMPACTS AND MITIGATION MEASURES

IMPACT: FLOODPLAIN

Placement of structures, pavement or other fill material in a designated floodplain must not raise the base flood elevation or impede the flow of floodwaters. The type of improvements identified in the Master Plan in identified floodplains are sidewalks or pathways and trail crossings. The placement of these improvements would not be at an elevation change that would raise base elevation levels or impede the flow of floodwaters. The majority of site-specific project topographic conditions would permit the sidewalks or walkways to be placed at the same or at least very similar level as existing roadways. Trail crossings will be assessed on a site-specific basis as these types of projects are presented for construction. It is unlikely that trails in the floodplain will have any impacts on base flood elevations. Trails are routinely constructed in the floodplain in the American River and Dry Creek Parkways. Impacts to floodplains are considered ***less than significant***.

MITIGATION MEASURES:

None recommended.

IMPACT: STORMWATER RUNOFF

Future development at the site-specific project sites could require clearing, grubbing, grading, and excavation of land surfaces to accommodate the pedestrian improvements

(sidewalks, curbs, gutters, walkways, etc.). Land grading activities associated with development have the potential to affect surrounding properties and cause adverse water quality and siltation impacts to existing drainage systems.

Each project that would disturb one or more acres during construction is required to comply with the State's General Stormwater Permit for Construction Activities. Compliance with County and State requirements will ensure that project-related erosion, siltation, grading, and stormwater impacts are considered ***less than significant***.

MITIGATION MEASURES:

None recommended.

IMPACT: DRAINAGE

Of the various pedestrian improvements identified in the Master Plan, sidewalks have the greatest possibility to cause impacts to drainage, particularly affecting surface water overland release characteristics. Semi-rural and rural areas within the Master Plan have roadside or agricultural ditches to collect and convey surface water away from the property and roadway. As these areas are not likely to be connected to a storm drain system, the ditch would need to be maintained to collect surface drainage. To accommodate the sidewalk, the roadside ditch would need to be shifted with possible additional grading to ensure surface flows are maintained so flooding of property or roadway will not result.

Compliance with applicable requirements of the County Floodplain Management Ordinance, County Drainage Ordinance, and Improvement Standards will insure impacts are ***less than significant***.

MITIGATION MEASURES:

None recommended.

IMPACT: LEVEES

There are a few sidewalk installation projects located along the River Road in the Delta area. This roadway is on top of the levee along the Sacramento River. A site visit showed that the roadway has two-lanes with minimal to no shoulders and very little to no additional levee width to place sidewalks. Construction of these improvements would most likely require the widening of the levee to support them.

Work on levees is regulated by the State Reclamation Board. As site-specific projects are presented for construction, a review of their potential impact to the particular levee would be necessary. Project coordination with the Reclamation Board during project development through construction phases is necessary. According to staff at the Reclamation Board, an encroachment permit will be required and mitigation measures to reduce impacts to the levee may be required (Dawson, personal comm.).

Widening a levee does not affect the capability of the levee to protect human life and property. The Board's area of concern with work conducted on or in proximity to levees extends to a project's potential impacts to operational and maintenance capabilities of the levee.

Early coordination with the State Reclamation Board at the project-specific level and adoption and adherence to any recommendations they deem necessary, will reduce impacts to ***less than significant***.

MITIGATION MEASURES:

None recommended.

12 BIOLOGICAL RESOURCES

INTRODUCTION

The Biological Resources Section analyzes the Sacramento County Pedestrian Master Plan (Master Plan) at a policy level and not at the project specific level. Policy level analysis identifies biological resources that might be impacted given the approximate location of the pedestrian improvements as described and shown in the Master Plan. However, because the improvements and policies are general, no intensive biological analysis and subsequent detailed mitigation is possible. Consequently, all analysis presented below shall act as a framework addressing potential issues and impacts involved with policy direction. Proposed improvements may require further environmental review when site-specific plans become available.

ENVIRONMENTAL SETTING

Several biotic communities occur within the County of Sacramento. Of these communities, pedestrian improvements could impact riparian woodland-oak woodland habitats, agricultural cropland, non-native annual grassland, fresh-water emergent marsh, and vernal pools. These habitats are discussed below.

RIPARIAN WOODLAND-OAK WOODLAND HABITATS

VEGETATION

Riparian woodland-oak woodland habitats occur along floodplains of seasonal and perennial water sources such as ditches, creeks, streams, sloughs, and rivers throughout the County. Depending on available moisture, soil types, and disturbance frequency, canopies vary from shrubby thickets of willow (*Salix spp*.) and Himalayan blackberry (*Rubus procerus*), to multi-leveled forests dominated by Fremont's cottonwood (*Populus fremontii*), Valley oak (*Quercus lobata*), and California sycamore (*Plantanus recemosa*). Other vegetation typically found in the understory riparian habitats include California grape (*Vitis californica*), boxelder (*Acer negudo*), Oregon ash (*Fraxinus latifolia*), buttonwillow (*Cephalanthus occidentalis*), red willow (*Salix laevigata*), stinging nettle (*Urtica dioica*), manroot (*Marah macrocarpus*), white alder (*Alnus rhombifolia*), elderberry (*sambucus mexicana*), black walnut (*Juglans hindsii*), and poison oak (*Toxicodendron diversiloba*).

WILDLIFE

Riparian woodland-oak woodland habitats support the greatest wildlife diversity of all the habitats in Sacramento and provide critical resources (e.g., nesting sites, denning habitat, resting areas, thermal cover, and water) for many species that forage extensively in adjacent grasslands or croplands (Sacramento County, 1992b). Mature riparian forest with a closed canopy and a well developed understory is expected to support the greatest species diversity. Less mature stands of riparian vegetation may contain less species diversity, but are still valuable wildlife habitat. Among the many birds which nest in the mature riparian habitat of Sacramento County are Swainson's hawk (*Buteo swainsoni*), red-shouldered hawk (*Buteo lineatus*), wood duck (*Aix sponsa*), and northern oriole (Icterus galbula). Other species which may be found in these areas include Wilson's warbler (*Wilsonia pusilla*), yellow-rumped warbler (*Dendroica coronata*), opossum (*Didelphis virginiana*), and the federally threatened Valley elderberry longhorn beetle (*Desmocerus californicus dimporphus*).

FRESHWATER EMERGENT WETLAND

VEGETATION

Freshwater emergent vegetation occurs in marshes, ponds, and drainageways. This habitat is usually associated with agricultural irrigation water, but can be found in connection with naturally occurring creeks, sloughs, and rivers, where soils are saturated during the summer months. Vegetation varies in height, cover, and species composition, according to inundation depth and frequency. Typical vegetation may include dense stands of cattails (*Typha latifolia*) and tule (*Scripus rubustus*), with tufts of Baltic rush (*Juncus balticus*), umbrella sedge (*Cyperus eragrostis*), and dallis grass (*Paspalum dilatatum*). Other hydrophytic species typically found in this habitat include water smart weed (*Polygonum amphibium*), curly dock (*Rumex crispus*), ditchgrass (*Paspalum distichum*), salt grass (*Distichlis spicata*), spikerush (Eleocharis macrostachya), floating boxseed (*Ludwigia repens*), and South American vervain (*Verbena bonariensis*).

WILDLIFE

Freshwater emergent wetland supports many species of wildlife. The loss of more than 90 percent of the historic wetlands in the Central Valley has increased the importance of remaining wetlands. The diversity of wildlife is dependant upon the quality and size of the wetland. Larger wetlands which contain perennial water and support emergent vegetation, including marshes and ponds, are especially important because they provide habitat for many water-dependant species.

Freshwater emergent wetlands in Sacramento provide many animals with suitable habitats. Reptiles and amphibians which can be found in emergent wetlands include western pond turtle (*Clemmys marmorata*), bullfrog (*Rana catesbeiana*), and giant garter snake (*Thamnophis gigas*). These wetlands provide critical habitat for both migratory and resident bird species, including black-necked stilt (*Himantopus*

mexicanus), American avocet (Recurvirostra americana), great-blue heron (*Ardea herodias*), and a variety of waterfowl species. Many mammalian species utilize these wetlands as foraging habitat, including raccoon (*Procyon lotor*), striped skunk (*Mephitus mephitus*), and muskrat (*Ondatra zibethicus*).

VERNAL POOLS

VEGETATION

Vernal pools occur throughout non-native grassland habitat where seasonal rainfall is trapped in naturally-occurring depressions. These pools range in size from small to large vernal pool systems covering several acres. Vernal pool systems are generally large, sprawling basins with complex topography that may contain several upland islands. These pools fill during rainfall events throughout the wet season and retain water until the late spring. This unusual hydrologic regime supports a unique flora, including yellow carpet (*Blennosperma nanum*), goldfields (*Lasthenia fremontii*), slender popcornflower (*Plagiobothrys stipitatus*), toothed dowingia (*Dowingia cuspidata*), Douglas' meadowfoam (*Limnanthes douglasii var. rosea*), California semaphore-grass (*Pleuropogon californicus*), and bent-knees barley (*Hordeum geniculatum*). These plants germinate in the fall, remain submerged throughout the winter, and flower in the spring before withering in the summer heat.

WILDLIFE

Vernal pools provide foraging and breeding habitat for many wildlife species. They support a large number of rare endemic species, including invertebrates such as fairy shrimp (*Branchinecta spp*.) and vernal pool tadpole shrimp (*Lepidurus packardi*). Vernal pools also provide habitat for larger wildlife species such as shorebirds and waterfowl, which visit these pools to forage and rest. Several amphibians use vernal pools for breeding, including California tiger salamander (*Ambystoma californiese*) and western spadefoot (*Scaphiopus hammondii*).

NON-NATIVE GRASSLAND

VEGETATION

Non-native grassland occurs in the Central Valley and surrounding coastal and Sierra foothills. This habitat occurs throughout Sacramento County, and is most extensive to the east where the grassland intergrades with the blue oak woodlands of the foothills. Non-native grasses and other weedy annuals dominate these grasslands, and in some instances they are found exclusively. Grasses germinate with the fall rains, growing through the winter, and set seed in the late spring before withering with the summer heat. In response to this annual cycle, these areas usually are grazed by cattle during the winter and spring seasons and then moved to greener pastures. Species commonly found in this habitat include foxtail barley (*Hordeum leporinum*), soft chess (*Bromus*

mollis), wild oat (*Avena barbata*), ripgut brome (*Bromus diandrus*), red-stemmed filaree (*Erodium cicutarium*), and yellow star thistle (*Centaurea solstitialis*).

Wildlife

Non-native grassland typically supports a lower wildlife diversity than riparian habitats, however, grasslands are important for many species. A number of birds, mammals, and reptiles are adapted to this open environment. Typical grassland bird species in Sacramento include western meadowlark (*Sturnella neglecta*), savannah sparrow (*Passerculus sandwichensis*), horned lark (*Eremophila alpestris*), and red-tailed hawk (*Buteo jamaicensis*). Other grassland wildlife species include California ground squirrel (*Spermophilus beecheyi*) and black-tailed jackrabbit (*Lepus californicus*).

Agricultural Cropland

Vegetation

The mild climate, abundant water, and productive soils of Sacramento County allow for the production of field, row, truck, and tree crops. Nine major field crops are grown in the County, including barley, corn, oats, rice, safflower, wheat, alfalfa, milo, and irrigated pasture. Row crops include dry beans, sugar beets, canning tomatoes, asparagus, and melons. Numerous truck crop operations are located along the Sacramento River and at other scattered locations throughout the County and produce many different vegetable crops, such as lettuce, cabbage, spinach, cauliflower, onions, and sweet corn. Tree crops harvested in the County include almonds, pears, apricots, prunes, oranges, peaches, walnuts, and apples.

Tree crops occur on alluvial, terraced, and hill soils scattered throughout the County. Except for oranges and other citrus, these trees are winter deciduous. Irrigation begins with leaf-out in the spring and continues until harvest. Within these orchards, weeds are controlled during the spring and summer mechanically and by herbicide application. In winter, trees are pruned and winter annuals are allowed to grow under the bare branches. The evergreen citrus trees flower in March and April and fruit is picked in the winter. Because these habitats are intensively cultivated, wildlife usage is limited.

Cropping practices typically result in low plant species diversity within agricultural cropland. Some native vegetation may occur at the margins of fields, but regular cultivation and herbicide application generally precludes native vegetation from becoming established in agricultural croplands.

Wildlife

Although agricultural cropland often supports a lower diversity of wildlife species than native plant communities, it can provide important habitat for many wildlife species. Species present in agricultural lands vary with the crop type and season. Relatively few reptiles and amphibians are found in agricultural fields. This is partly due to farming

practices such as plowing, which may eliminate suitable habitat. However, a few species which can sometimes be found in agricultural fields include western toad (*Bufo boreas*), gopher snake (*Pituophis melanoleucus*), and pacific treefrog (*Hyla regilla*). In agricultural fields, as in many habitats, birds are often the most diverse animal group. Species common in agricultural areas of Sacramento County include brewer's blackbird (*Euphagus cyanocephalus*), American crow (*Corvus brachyrhynchos*), mourning dove (*Zenaida macroura*), and ring-necked pheasant (*Phasianus colchicus*). These fields also support a number of mammalian species including black-tailed jackrabbit, California ground squirrel, and house mouse (*Mus musculus*).

RUDERAL HABITAT

VEGETATION

Ruderal habitat occurs throughout the County along railroads, rights-of-way, roadsides, and on vacant lots where regular soil disturbance provides new sites for colonizing weedy species. Some plants in ruderal habitats are annuals that germinate with the fall rains, others lie dormant until spring. Various mowing, discing, and herbicide practices clear these sites, allowing other species to colonize the area. Species dominance varies depending on soil type and disturbance frequency. Typical species include chicory (*Cichorium intybus*), bull thistle (*Cirsium vulgare*), horseweed (*Conyza canadensis*), telegraphplant (*Heterotheca grandifolia*), prickly lettuce (*Lactuca serriola*), bristly oxtongue (*Picris echioides*), milk thistle (*Silybum marianum*), annual sowthistle (*Sonchus oleraceus*), redroot pigweed (*Amaranthus retroflexus*), prostrate knotweed (*Polygonum aviculare*), broadleaf filaree (*Erodium botrys*), common lambsquarters (*Chenopodium album*), Russian thistle (*Salsola kali*) field bindweed (*Convolvulus arvensis*), black mustard (*Brassica nigra*), charlock (*Brassica kaber*), hoary cress (*Cardaria draba*), wild radish (*Raphanus sativus*), American black nightshade (*Solanum americanum*), English plantain (*Plantago lanceolata*), scarlet pimpernel (*Anagallis arvensis*), redmaids (*Calendrinia ciliata*), turkey mullein (*Eremocarpus setigerus*), prostrate spurge (*Chamaesyce maculata*), and puncture vine (*Tribulus terrestris*). Non-native grasses, such as wild oat, ripgut brome and soft chess, are also common in these areas, including oleander (*Nerium oleander*), privet (*Ligustrum sp*.), tree of heaven (*Ailanthus altissima*), olive (*Olea europea*), and firethorn (*Pyracantha angustifolia*). Because of the regular disturbance and heavy competition, native plants are not common in these areas.

WILDLIFE

Many of the wildlife species expected to occur in agricultural cropland also occur in ruderal habitats. Typically, ruderal land is less frequently disturbed and therefore may support higher species diversity. Reptiles expected to occur in such areas include the western fence lizard (*Sceloporus occidentalis*), common kingsnake (*Lampropeltis getulus*), and gopher snake. Various birds are known to inhabit ruderal habitats, such as the western meadowlark, mourning dove, northern mockingbird (*Mimus polyglottos*), house finch (*Carpodacus mexicanus*), and European starling (*Sturnus vulgaris*).

Mammals using these areas include the California ground squirrel, black-tailed jackrabbit, domestic dog (*Canis domesticus*), and domestic cat (*Felis domesticus*).

SPECIAL STATUS BIOLOGICAL RESOURCES

Discussed within this section are species and habitats afforded special recognition by federal, state, or local resource conservation agencies and organizations. Sources used for the determination of sensitive biological resources are as follows:

- Plants – California Department of Fish and Game's (CDFG) Natural Diversity Data Base (CNDDB); California Native Plant Society's (CNPS) Inventory of Rare and Endangered Vascular Plants of California; and Resolution No. 81-1097 – Sacramento County Tree Preservation Ordinance (SCC No. 480).

- Wildlife – United States Fish and Wildlife Service (USFWS) Threatened and Endangered Species List (Sacramento/San Joaquin Delta area- created) and CNDDB.

Special status species include:

- species that are listed or proposed for listing as Rare, Threatened, or Endangered under the state or federal Endangered Species Acts;
- species that meet the definitions or rare or endangered under CEQA;
- animals listed as Species of Special Concern by the CDFG;
- animal species which are Fully Protected in California;
- plant taxa listed by the CNPS; and
- plants listed under the California Native Plant Protection Act.

Table BR-1 shows those species with the potential to occur within Sacramento County according to the USFWS and CDFG. The following discussion focuses on those species most likely to be encountered during implementation of the Master Plan.

Table BR-1 Special Status Species Potentially Occurring in Sacramento County

Scientific Name (Common Name)	Federal/State Status	Critical Habitat*
American badger *Taxidea taxus*	-/SC	
Bald eagle *Haliaeetus leucocephalus*	T/-	
Bank swallow ***Riparia riparia***	**-/T**	
Boggs Lake Hedge-hyssop ***Gratiola heterosepala***	**-/E**	

Scientific Name (Common Name)	Federal/State Status	Critical Habitat*
Burrowing owl ***Athene cunicularia***	**-/SC**	
California clapper rail *Rallus longirostris obsoletus*	E/-	
California red-legged frog *Rana aurora draytonii*	T/-	X
California tiger salamander ***Ambystoma californiese***	**T/SC**	**Central population X**
Central Valley fall/late fall-run Chinook salmon, Sacramento River *Oncorhynchus tshawytscha*	**C/-**	**C**
Central Valley spring-run Chinook salmon *Oncorhynchus tshawytscha*	**T/-**	**X**
Central Valley steelhead *Oncorhynchus mykiss*	**T/-**	**X**
Central Valley winter-run Chinook salmon, Sacramento River *Oncorhynchus tshawytscha*	E/-	X
Conservancy fairy shrimp ***Branchinecta conservatio***	**E/-**	**X**
Cooper's hawk *Accipiter cooperii*	-/SC	
Delta green ground beetle *Elaphrus viridis*		X
Delta smelt *Hypomesus transpacificus*	**T/T**	**X**
Giant garter snake ***Thamnophis gigas***	**T/T**	
Golden eagle *Aquila chrysaetos*	-/SC	
Northwestern pond turtle *Emys (=Clemmys) marmorata marmorata*	-/SC	
Purple martin *Progne subis*	-/SC	
Sacramento orcutt grass ***Orcuttia viscida***	**E/E**	
Sacramento splittail *Pogonichthys macrolepidotus*	**-/SC**	
Saltmarsh common yellowthroat *Geothlypis trichas sinuosa*	-/SC	
Slender orcutt grass ***Orcuttia tenuis***	**T/E**	
Suisun song sparrow *Melospiza melodia maxillaris*	-/SC	

Scientific Name (Common Name)	Federal/State Status	Critical Habitat*
Swainson's hawk ***Buteo swainsoni***	**-/T**	
Tricolored blackbird ***Agelaius tricolor***	**-/SC**	
Valley elderberry longhorn beetle ***Desmocerus californicus dimorphus***	**T/-**	**X**
Vernal pool fairy shrimp ***Branchinecta lynchi***	**T/-**	**X**
Vernal pool tadpole shrimp ***Lepidurus packardi***	**E/-**	
Western pond turtle *Emys (=Clemmys) marmorata*	-/SC	
Western spadefoot *Spea (=Scaphiopus) hammondii*	-/SC	

*Status:
E endangered; T threatened; C candidate; SC species of concern; R rare; X Critical habitat designated for this species; - no listing.

Source:

California National Diversity Database, Sacramento Fish & Wildlife Office Endangered and Threatened Species that may be affected by projects in the Sacramento/San Joaquin Delta.

VEGETATION

RIPARIAN AND MARSH HABITAT

A riparian habitat is simply defined as a distinct community of plants and animals found in and alongside a stream or river. These communities can be up to a mile wide adjacent to large rivers, or a narrow border along the banks of small creeks. A marsh is a shallow wetland with few trees and standing water for most of the year. The 1993 Sacramento County General Plan Update recognizes that riparian and marsh areas are an integral and vital element of the County's natural landscape. These communities provide a rich and diverse habitat that serves as a permanent or seasonal home to a plethora of wildlife species and provide open space and flood control. In 1993 in the Sacramento River Valley, of the estimated 500,000 acres of riparian habitat existing in 1850, only 25,000 acres remained. Recognizing the need protect this valuable and dwindling habitat, Sacramento County adopted policies to preserve and protect existing habitat while encouraging the creation and/or restoration of riparian and marsh habitat when possible.

BOGGS LAKE HEDGE-HYSSOP

Boggs lake hedge-hyssop (*Gratiola heterosepala*) is a small, semi-aquatic, herbaceous annual in the figwort family (Scrophulariaceae). It is found in shallow waters or moist clay soils of vernal pools and lake margins in scattered sites from Modoc County south

to Fresno County. Reasons for the decline are unknown; however negative factors such as drought, habitat invasion by weedy upland species, grazing by deer and horses may have all contributed to the decline. DFG's Dales Lake Ecological Reserve supports a natural population and several transplanted populations in created vernal pools. Several other sites are known to incur varying levels of land disturbance that adversely affect the species, such as discing, grading, and overgrazing. The species tolerates light to moderate levels of grazing, but higher levels appear to be detrimental (CDFG, 2006).

SACRAMENTO ORCUTT GRASS

Sacramento orcutt grass (*Orcuttia viscida*) is a small, densely tufted annual member of the grass family (Poaceae). It grows 1 to 4 inches in height. The plant is covered with small glandular hairs and is sticky even when young, and more so at maturity. It has few to many slender stems and a spike-like inflorescence, which is congested at the apex.

Flowers are characterized by a five-toothed lemma (bract) with the middle tooth conspicuously longer than the lateral ones. The lemma teeth curve outward at maturity, giving the inflorescence a distinct bristly appearance. As in other orcutt grasses, the leaves lack a ligule (small, scale-like outgrowth found on some grasses).

Sacramento orcutt grass grows in relatively large, deep vernal pools. It is restricted to a region of approximately 135 square miles in eastern Sacramento County, with no historic locations are known outside this area.

Urbanization, competition from other native and non-native plants, mining, off-road vehicle use and vandalism all threaten this species. Although the individual populations are sufficiently large that they are not subject to random fluctuations such as genetic drift, the very restricted range of the species as a whole puts it in continued danger of extinction from random, catastrophic events (USFWS, 2006).

SLENDER ORCUTT GRASS

Slender orcutt grass (*Orcuttia tenuis*) is a small, weakly tufted annual in the grass family (Poaceae). The plant has several stems 2-6 inches tall, ending in an elongate inflorescence of scattered spikelets. The lemmas (bracts) are deeply cleft into fine, equal-length, prominent teeth that are sharp-pointed or short-awned. Foliage is grayish, with sparse hairs.

Slender orcutt grass occurs in valley grassland and blue oak woodland. It grows in vernal pools on remnant alluvial fans and high stream terraces and recent basalt flows. It has some ability to colonize artificial habitats, such as the margins of stock ponds.

The primary area of concentration is in the vicinity of Dales, Tehama County. A secondary area of concentration is the Modoc Plateau Vernal Pool Region in Lassen, Plumas, Shasta and Siskiyou Counties. There are a few occurrences in the Lake-Napa and Southeastern Sacramento Valley Vernal Pool Regions.

Habitat loss and fragmentation are the largest threats to the survival and recovery of vernal pool species. Loss of habitat generally results from urbanization, agricultural conversion and mining.

Habitat loss also occurs in the form of habitat alteration and degradation as a result of changes to natural hydrology, invasive species, incompatible grazing regimes, infrastructure projects (e.g., roads, water storage and conveyance, utilities), recreational activities (e.g., off-highway vehicles and hiking), erosion, contamination and inadequate management and monitoring.

A number of specific threats are also continuing. In particular, urbanization is a continuing threat to populations in the vicinity of Redding and Sacramento (USFWS, 2006).

WETLANDS

Wetlands have been recognized for their importance in regulating floods, cleansing runoff, and providing valuable habitat.

WILDLIFE

CONSERVANCY FAIRY SHRIMP

Conservancy fairy shrimp (*Branchinecta conservatio*) inhabit rather large, cool-water vernal pools with moderately turbid water (Eriksen and Belk 1999). The pools generally last until June. However, the shrimp are gone long before then. They have been collected from early November to early April. The ephemeral wetlands that support this network of populations are remnants of what was formerly a pristine vernal pool ecosystem, which has been converted to primarily agricultural and urban uses. This highly disturbed remnant habitat is imperiled by a variety of human-caused activities, primarily urban development, water supply/flood control projects and conversion of land to agricultural use. It is likely the conservancy fairy shrimp once occupied suitable vernal pool habitats throughout a large portion of the Central Valley and southern coastal regions of California. It may still exist in unsurveyed pools within this region.

Holland (1978) estimated that between 60 and 85 percent of the habitat that once supported vernal pools, had been destroyed by 1973. Since 1973, a substantial amount of remaining habitat has been converted for human uses. The rate of loss of vernal pool habitat in the state has been estimated at two to three percent per year (Holland and Jain 1988).

VALLEY ELDERBERRY LONGHORN BEETLE

The valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) is a federally listed threatened species. Adult beetles of this subspecies feed and lay eggs in crevices in the elderberry bark (*Sambucus* sp.) of shrubs in riparian communities of the

Central Valley. After approximately ten days, the eggs hatch and the larvae bore into elderberry shrub stems to feed and mature (Essig Museum, 1999).

VERNAL POOL FAIRY SHRIMP

The vernal pool fairy shrimp (*Branchinecta lynchi*), is a small crustacean in the Branchinectidae family. It ranges in size from ½ to one inch long. Fairy shrimp are aquatic species in the order Anostraca. They have delicate elongate bodies, large stalked compound eyes, no carapaces, and eleven pairs of swimming legs. They glide gracefully upside down, swimming by beating their legs in a complex, wavelike movement that passes from front to back. Fairy shrimp feed on algae, bacteria, protozoa, rotifers and bits of detritus.

The vernal pool fairy shrimp occupies a variety of different vernal pool habitats, from small, clear, sandstone rock pools to large, turbid, alkaline, grassland valley floor pools. Although the species has been collected from large vernal pools, including one exceeding 25 acres, it tends to occur in smaller pools. It is most frequently found in pools measuring less than 0.05 acre. These are most commonly in grass or mud bottomed swales, or basalt flow depression pools in unplowed grasslands. Vernal pool fairy shrimp have been collected from early December to early May.

Female fairy shrimp carry their eggs in a ventral brood sac. The eggs are either dropped to the pool bottom or remain in the brood sac until the mother dies and sinks. When the pool dries out, so do the eggs. They remain in the dry pool bed until rains and other environmental stimuli hatch them.

Resting fairy shrimp eggs are known as cysts. They are capable of withstanding heat, cold and prolonged desiccation. When the pools refill, some, but not all, of the cysts may hatch. The cyst bank in the soil may contain cysts from several years of breeding.

Average time to maturity is only forty-one days. In warmer pools, it can be as little as eighteen. (Eriksen and Belk 1999)

Habitat loss and fragmentation is the largest threat to the survival and recovery of vernal pool species. Habitat loss generally is a result of urbanization, agricultural conversion, and mining.

Habitat loss also occurs in the form of habitat alteration and degradation as a result of changes to natural hydrology, invasive species, incompatible grazing regimes, including insufficient grazing for prolonged periods; infrastructure projects (e.g., roads, water storage and conveyance, utilities), recreational activities (e.g., off-highway vehicles and hiking), erosion, climatic and environmental change, and contamination (USFWS, 2006).

VERNAL POOL TADPOLE SHRIMP

The vernal pool tadpole shrimp (*Lepidurus packardi*) is a small crustacean in the Triopsidae family. It has compound eyes, a large shield-like carapace (shell) that covers most of the body, and a pair of long cercopods (appendages) at the end of the last abdominal segment. Vernal pool tadpole shrimp adults reach a length of 2 inches in length. They have about 35 pairs of legs and two long cercopods. This species superficially resembles the rice field tadpole shrimp (*Triops longicaudatus*).

Tadpole shrimp climb or scramble over objects, as well as plowing along or within bottom sediments. Their diet consists of organic debris and living organisms, such as fairy shrimp and other invertebrates. This animal inhabits vernal pools containing clear to highly turbid water, ranging in size from 54 square feet in the former Mather Air Force Base area of Sacramento County, to the 89-acre Olcott Lake at Jepson Prairie.

The life history of the vernal pool tadpole shrimp is linked to the seasonal cycle of the vernal pool. After winter rainwater fills the pool, the population is reestablished from cysts that lie dormant in the dry pool sediments. Sexually mature adults have been observed in vernal pools three to four weeks after the pools had been filled. Some cysts hatch immediately and the others remain dormant in the soil to hatch during later rainy seasons.

In the Northeastern Sacramento Valley region the species are threatened by roadway improvement projects related to general urban growth (USFWS, 2006).

SWAINSON'S HAWK

Currently, the Swainson's hawk (*Buteo swainsoni*) is listed as a threatened species pursuant to the California Endangered Species Act (CESA). At the Federal level, the Swainson's hawk is provided protection under the Migratory Bird Treaty Act (MBTA).

The Swainson's hawk is a large (1.75-2 pounds), broad winged bird-of-prey that frequents open country. It is a long distance migrator, nesting in North America (Canada, western United States, and Mexico) and over wintering in South America. It was estimated that approximately 80% of the total state-wide population of breeding pairs are found in the Central Valley (Estep, 1989). Swainson's hawk nests are generally found in scattered trees or along riparian systems adjacent to agricultural fields or pastures. These open fields and pastures are the primary foraging areas. Suitable foraging habitat is necessary to provide an adequate energy source for breeding adults, particularly for the support of nestlings and fledglings. If prey resources are not sufficient, or adults must hunt long distances from the nest site, the excess energy expended in the foraging effort may result in reduced nestling vigor with an increased likelihood of disease and/or starvation, or nest abandonment. A ten-mile radius is generally the maximum flight distance between active and successful nest sites and suitable foraging habitat.

The Swainson's hawk was historically regarded as one of the most common and numerous raptor (bird-of-prey) species in the state. The breeding population has

declined by an estimated 91% in California since the turn of the century (Bloom, 1980). This dramatic population decline has been attributed to loss of native nesting and foraging habitat, and more recently to the loss of suitable nesting trees and the conversion of agricultural lands. Due to this precipitous decline, the California Fish and Game Commission in accordance with the California Endangered Species Act (CESA) have classified the Swainson's hawk as Threatened.

Sacramento, Yolo, and San Joaquin Counties support most of the Central Valley's breeding population of Swainson's hawk. Management and mitigation strategies for this population should be designed to ensure that suitable nesting habitat continues to be available by protecting existing nesting habitat and increasing the number of suitable nest trees. In addition, suitable foraging habitat must be made available by maintaining or creating foraging habitat in areas of existing and potential nest sites and along migration paths.

CDFG recommends implementing the mitigation measures set forth in the CDFG Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (*Buteo swainsoni*) in the Central Valley of California (November 1, 1994). These state that no intensive disturbances (e.g., heavy equipment operation associated with construction, etc.) should be initiated within ¼ mile of an active Swainson's hawk nest in an urban setting or within ½ mile in a rural setting between March 1 and September 15.

TRICOLORED BLACKBIRD

Tricolored blackbirds (*Agelaius tricolor*) are largely native to California, with over 99 percent of the population occurring within the state, and have been listed as a California State Species of Special Concern. Breeding tricolors nest in colonies, but forage away from their nesting habitat. They form the largest colonies of any North American passerine bird. They nest mainly in wetlands or in dense vegetation near open water. Surveys indicate that populations have been rapidly declining for decades, probably due to water diversion, land conversion, and heavy predation by mammals, corvids and Black-crowned Night Herons (Beedy and Hamilton 1997, Beedy and Hamilton, 1999, Hamilton et al. 1999).

The birds are known to nest in blackberry thickets and to forage in a two to three mile radius from the nesting-colony site. The birds nest in colonies of several hundred to several thousand birds.

BANK SWALLOW

The bank swallow (*Riparia riparia*) is a state listed threatened species. Foraging bank swallows take insects while in flight; accordingly, they are found over a wide variety of land cover types. However, bank swallows dig nest burrows in nearly vertical banks/cliff faces and requires substrates comprised of soft soils such as fine sandy loam, loam, silt loam, and sand. Suitable banks for nesting must be at least 1 meter (3.3 feet) above ground or water for predator avoidance. Suitable nest sites are few and are scattered

throughout the species' remaining California range; they are most often found at coastal river mouths, large rivers in the Sacramento Valley, rivers and wildlife refuges in northeastern California, and occasionally in gravel and sand mines that provide and maintain nesting habitat.

Bank swallows usually initiate a single breeding attempt in April. They lay clutches of one to nine eggs (usually four to five) and incubate them for 13 – 16 days. The young hatch in May and are fledged by July each year; there is no information on lifetime reproductive success.

Colony sites are often used in subsequent years as long as the substrate and burrows remain intact. There is no information on fidelity to colony or burrow sites from year to year, but it is likely that adults that breed successfully at a colony one year will return in subsequent years, especially considering the limited number of suitable colony sites.

Generally, populations in North America appear to be stable. However, because the species breeds locally in colonies that often change locations between years, most population-monitoring programs may not measure population trends reliably. Breeding bird atlas data and focused surveys conducted specifically for bank swallow colonies provide the best available population trend data.

Bank swallows have been extirpated as a nesting species from southern California, and its range in northern California has been reduced by 50% since 1900. Most colonies are along the Sacramento River north of the town of Colusa; some remain along the coast, the Feather River in the Sacramento Valley, and northeastern sections of northern California. Along the Sacramento River, an estimated population of 13,170-pairs in 1986 declined to 4,990 pairs in 1998, and then rebounded to 8,210 pairs the following year.

BURROWING OWL

The burrowing owl (*Athene cunicularia*) is small to medium sized ground-dwelling raptor that inhabits rodent burrows in non-native grassland. They can also use man-made structures such as openings beneath cement, asphalt or wood debris piles (CDFG, 2006). In Sacramento County the natural environment for burrowing owls may be seen in grasslands, vacant lots, and inactive farmlands.

CALIFORNIA TIGER SALAMANDER

The California tiger salamander (*Ambystoma californiese*) typically inhabits grassland but requires vernal pools or similar aquatic habitats for breeding. Adults use rodent burrows and other subterranean habitats as refuge during the non-breading season. This species is most easily located by surveying for larvae in seasonal ponds in late spring.

GIANT GARTER SNAKE

The giant garter snake (*Thamnophis gigas*) is the largest member of the garter snake family, reaching lengths of over five feet. Endemic to the Central Valley, this semi-aquatic snake occurs along sloughs, ponds, low gradient streams, and irrigation/drainage canals with open basking sites and uplands for winter hibernation retreats. They primarily prey on fish and frogs. Suitable habitat must include an adequate prey base as well as sufficient emergent or bank vegetation. Within Sacramento County, the giant garter snake (GGS) could occur where suitable habitat is present near an aquatic environment.

REGULATORY SETTING

GENERAL PLAN 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 AND STATE REGULATORY AUTHORITY

FEDERAL

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.”

U.S. Fish and Wildlife Service

As site-specific projects are presented for construction, consultation with the USFWS will be necessary if federally listed species are present within the immediate project area and/or if work will be carried out 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 beyond those identified in this document.

United States Army Corps of Engineers

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.

State

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

The Fish and Game Code of California Sections 1601-1603 set forth requirements for Streambed Alteration Agreements. These are 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 presented for construction, consultation with the CDFG 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 may generate additional requirements for avoidance, minimization and/or mitigation.

TREE PROTECTION

NATIVE OAK TREES

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 requires 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, the ideal condition would be for nothing to 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.

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). Individual mature Northern California black walnut trees are being lost to urbanization and agricultural uses.

CALIFORNIA SYCAMORE

The California sycamore (*Platanus racemosa*) may be found within the project area as it is found in riparian woodland habitat below elevations of 3,000 feet.

IMPACTS AND ANALYSIS

This biological resources impact analysis is based on project information known at the time of writing this EIR. Where protected biological resources are present in the project area that may be impacted by project activities, mitigation measures to reduce these impacts may be necessary. Consultation with the pertinent agency with jurisdiction over the particular species affected may also be necessary.

During consultation with the appropriate agencies, compensatory mitigation for impacts may be required. However, the recommended mitigation measures below are based on County policy and agency protocols. Application of these mitigation measures will reduce impacts.

IMPACT: RIPARIAN HABITAT

Riparian habitat was identified during site visits to a selection of project sites. Loss of riparian habitat is possible when the site-specific projects are constructed. Removal of riparian habitat can occur when improvements, such as sidewalk construction, require the extension of roadway widths. Mitigation measures addressing habitat loss can reduce impacts to ***less than significant***.

MITIGATION MEASURES: RIPARIAN HABITAT

BR-1 Preparation and implementation of a habitat restoration plan to mitigate project-related disturbance to riparian habitat by a qualified restoration specialist acceptable to DERA shall include at a minimum, the following elements:

1. Restoration plantings for the construction disturbance of riparian habitat. The replacement planting area for construction disturbance shall be based on a 2:1 ratio. Following construction, the construction area shall be calculated to determine the actual area of riparian habitat disturbance and the mitigation acreage shall be based on that calculation.

2. The location of the restoration areas shall include areas directly disturbed by project-related activities and other areas in the immediate project vicinity as approved by DERA.

3. The restoration plan shall include only riparian habitat found in the restoration location.

4. Plant density, species mix, and the overall planting design shall be based on and conform to what the physical site conditions (e.g. soils, hydrology) are expected to naturally support and not conflict with existing infrastructure and maintenance requirements (e.g. transmission lines, underground pipelines, levees, culverts).

5. Performance standards shall be as follows:

    a. Performance standards for replacement trees shall be 80% survival for the first year and 100% survival thereafter.

    b. Performance standards for other woody vegetation in mixed riparian woodland shall be 75% absolute non-overlapping cover by year 3 and 90% by year 5.

    c. Vegetation cover shall be measured annually by the establishment of permanent, parallel transects throughout the restoration areas and the recording of the length of vegetation cover by species that intersects a measuring tape laid on the transect line.

d. Maintenance, monitoring and reporting of all restoration sites shall be conducted for a minimum of five (5) years following complete installation. If monitoring determines that performance goals are being met as of year five (5), the site shall be considered established, and all required maintenance, monitoring and reporting activities may be considered completed at the end of year five (5) at the discretion of the Director of DERA. If performance standards are not met, then all required maintenance, monitoring and reporting activities shall continue until year five (5) goals are met or until year eight (8), whichever occurs first.

e. Performance standards shall be evaluated on an individual site bases.

6. Implement a maintenance and monitoring plan that includes the following:

a. Temporary irrigation methods and irrigation rate to insure growth during re-establishment of the vegetation. Hand watering of planted materials, as necessary, when irrigation systems are not in place.

b. Temporary enclosures (fencing) that will be used to protect replacement vegetation from grazing animals (rabbits, beaver and deer).

c. Weed control around all woody plant materials shall be a minimum 2-foot diameter zone. Weed control shall include hand pulling, mechanical removal, or spot applications of herbicide as determined by the restoration specialist.

d. Maintenance measures for the elimination and non-establishment of invasive non-native vegetation such as Yellow starthistle, Spanish broom, Pampas grass, fennel, Saltceder, Giant reed amundo, Chinese red wisteria, Chinese tallow tree, Trea of Heaven, and/or White topped pepper grass.

e. Volunteer seedlings of native species shall be preserved unless they are establishing within permanent easements, are within the 2 foot wide weed-free zone around the woody plant materials, and/or threaten public safety.

f. Preparation of record (as maintained) drawings, monthly logs and annual monitoring reports by a qualified biologist.

i. Record drawings shall contain information such as location, individual plant counts, the size of plantings and other revegetation-related features. These drawings shall be revised annually and submitted with the annual monitoring report. The revised drawings shall include summary tables or hand-written notes showing the species and location of all replacement plantings. At the end of the reporting period, the final record drawings shall show the final status of the replacement plantings and revegetation.

ii. Annual Monitoring Reports shall include information pertaining to the monthly logs, the percentage of reestablishment of revegetation as it applies to the performance standard, a description of environmental and human factors adversely affecting plants, and the record drawings for the year. The annual monitoring report shall be submitted to DERA for compliance with the Mitigation Monitoring and Reporting Program.

IMPACT: SPECIAL STATUS SPECIES

WILDLIFE

VALLEY ELDERBERRY LONGHORN BEETLE

Site visits to a selection of project sites revealed the potential for project activities to impact elderberry shrubs and habitat for the valley elderberry longhorn beetle (VELB). The level of impact to the elderberry shrubs will need to be determined on a project by project basis. In general, if elderberry shrubs are found within 100-feet of proposed improvements, informal consultation with the United States Fish and Wildlife Service is necessary to assess what level of indirect impacts, if any, results from the project. Any removal of elderberry shrubs will require formal consultation under Section 7 or Section 10 of the federal Endangered Species Act. Directly or indirectly impacting elderberry shrubs is considered a ***significant impact.*** With the incorporation of mitigation measures, impacts to the valley elderberry longhorn beetle would be reduced to ***less than significant***.

VERNAL POOL SPECIES

Vernal pools are known to be present within Sacramento County, particularly in the southeastern section of the County.

The level of impact to vernal pool species will need to be determined on a project by project basis. According to USFWS protocol, a project may have indirect impacts to vernal pool species when project activities encroach within 250 feet of a vernal pool. With the incorporation of mitigation measures, impacts to vernal pool species would be reduced to ***less than significant***.

SWAINSON'S HAWK

Swainson's hawk nests occur throughout the Master Plan project area. The level of impact to the Swainson's hawk will need to be determined on a project by project basis. Project activities occurring within ¼ mile (urban setting) and ½ mile (rural setting) of a nest have the potential to disturb nesting hawks. With the incorporation of mitigation measures, the impact would be reduced to ***less than significant***.

TRICOLORED BLACKBIRD

Review of the CNDDB mapping showed sightings of the tricolored blackbird at various locations in the Master Plan project area. The level of impact to tricolored blackbirds will be determined on a project by project basis. Construction activities have the potential to disturb nesting tricolored blackbird. With the incorporation of mitigation measures, the impact would be reduced to ***less than significant***.

BANK SWALLOW

Bank swallows may be present along riparian corridors within the project area. Construction activities, such as demolition or bridgework, have the potential to disturb nesting bank swallows. With the incorporation of mitigation measures, this impact would be reduced to ***less than significant***.

BURROWING OWL

Burrowing owls may be present in grasslands adjacent to the project area. Construction activities have the potential to disturb nesting burrowing owls. With the incorporation of mitigation measures, the impact would be reduced to ***less than significant***.

CALIFORNIA TIGER SALAMANDER

California tiger salamander critical habitat (as designated by the USFWS) is shown within the Master Plan area. Project activities in aquatic environments, such as vernal pools and their associated upland habitat, could remove habitat or potentially disturb this species. With the incorporation of mitigation measures, the impact would be reduced to ***less than significant***.

GIANT GARTER SNAKE

Potential habitat for giant garter snake (GGS) exists within various locations throughout the project area. Project activities in riparian areas could potentially disturb this species or remove GGS habitat. With the incorporation of mitigation measures, the impact would be reduced to ***less than significant***.

MITIGATION MEASURES: SPECIAL STATUS SPECIES

WILDLIFE

VALLEY ELDERBERRY LONGHORN BEETLE

BR-2. Project construction will be prohibited within 100 feet of elderberry shrubs during the VELB emergence and mating period (March 15 – June 15) to eliminate any indirect effects of construction on the beetle or its eggs. These areas shall be fenced and flagged as areas to be avoided

BR-3. In areas where encroachment on the 100-foot buffer has been approved by the Fish and Wildlife Service, protective fencing and flagging shall be installed, providing a minimum setback of at least twenty feet outside the perimeter of the dripline of each elderberry plant prior to initiating any construction activities on the site. There will be no physical alterations of any type within the area enclosed by the fencing. No application of herbicides, insecticides and/or other chemical agents shall occur within the proximity of the elderberry plants or where they might drift or wash into the area of the elderberry plants. Protective fencing shall be removed following project completion.

BR-4. A qualified wildlife biologist shall inform all construction personnel that elderberry shrubs may occur in the area, the need to avoid damaging the elderberry plants and the possible penalties for not complying with these requirements. A description of the VELB natural history and identifying characteristics shall be provided, along with regulations regarding the restriction on harming or handling this species.

BR-5. Erect signs every 50 feet along the edge of the avoidance area with the following information: "This area is habitat of the valley elderberry longhorn beetle, a threatened species, and must not be disturbed. This species is protected by the Endangered Species Act of 1973, as amended. Violators are subject to prosecution, fines, and imprisonment." The signs should be clearly readable from a distance of 20 feet, and must be maintained for the duration of construction.

VERNAL POOL SPECIES

In addition to any requirements generated during consultation with the U.S. Fish and Wildlife Service, the following measures shall apply:

BR-6. In order to protect and preserve special status species, project construction and construction-related activities shall be located a minimum of 250 feet from vernal pools. If a 250 foot buffer is not possible or vernal pools are directly impacted by the project, consultation with the USFWS regarding shall occur. Requirements generated during this consultation shall apply.

BR-7. Adequate fencing will be placed and maintained around any avoided (preserved) vernal pool habitat to prevent impacts from construction.

BR-8. All on-site construction personnel shall receive instruction regarding the presence of listed species and the importance of avoiding impacts to these species and their habitat.

SWAINSON'S HAWK

To minimize the potential for impacts to the state-threatened Swainson's hawk, the following mitigation measures shall be implemented:

BR-9. 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 for urban areas, or ¼ mile of the site for rural areas) 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-10. 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 a project 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-11. If breeding or nesting tricolored blackbirds are found a TBB Mitigation Plan shall be submitted to the CDFG for review and approval. The plan should include the following measures:

a Perform preconstruction surveys to determine the number of nesting or breeding TBB and amount of nesting habitat onsite.

b 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.

BR-12. 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.

BANK SWALLOW

BR-13. A focused survey for bank swallow nests shall be conducted within 30 days prior to the beginning of construction activities by a qualified biologist in order to identify active nests on the site. If active nests are found, the applicant shall

consult with the California Department of Fish and Game for appropriate avoidance measures. If no active nests are found during the focused survey, no further mitigation will be required.

BURROWING OWL

BR-14. Prior to construction activity a focused survey shall be conducted by a qualified biologist for burrowing owls where suitable habitat is present in the project area. Suitable habitat includes agricultural field margins, drainage ditches, and fallow fields. Surveys shall be conducted no less than 14 days and no more than 30 days prior to commencement of construction activities. Surveys shall be conducted in accordance with CDFG protocol (CDFG 1995).

1. If no occupied burrows are found in the survey area, a letter report documenting survey methods and findings shall be prepared and no further mitigation is necessary.

2. If an occupied burrow is found, consult with the California Department of Fish (CDFG), prior to construction, to determine if avoidance is possible or if burrow relocation will be required.

3. If owls are to remain on-site, a minimum of 6.5 acres of foraging habitat for each occupied burrow needs to be permanently preserved according to CDFG guidelines.

4. In order to avoid direct impacts to owls, no activity shall take within 160 feet of an active burrow from September 1 to January 31 (wintering season) or 250 feet from February 1 through August 31 (breeding season). Protective fencing shall be place, at the distances above, around the active burrows and no activity shall occur within the protected buffer areas.

5. Any impact to active owl burrows, relocation of owls or mitigation for habitat loss shall be done in accordance with CDFG guidelines. Written evidence from CDFG staff shall be provided to DERA attesting to the permission to remove burrows, relocate owls, mitigate for lost habitat, and provided a method for preservation habitat in perpetuity.

CALIFORNIA TIGER SALAMANDER

BR-15. Survey all California tiger salamander (CTS) habitat that may be directly affected by proposed project activities. Not less than two weeks before ground-disturbing activities begin, a qualified biologist shall survey appropriate habitat within the project site that may be directly affected by project activities for the presence of CTS using the protocol provided by the USFWS (2003). Daily visual clearance surveys shall also be conducted during initial ground-disturbing activities. If any CTS is identified where habitat disturbance is proposed, work shall be halted and a USFWS-approved biologist shall be

contacted to determine appropriate actions, unless already stipulated by the USFWS. If the USFWS approves moving salamanders, the qualified biologist shall be allowed sufficient time to move the species from the work site before work activities resume. Only USFWS-approved biologists shall participate in the capturing, handling, and translocation of CTS. Any CTS relocated by the project shall be moved to nearby appropriate habitat, as determined by the qualified biologist. Results of the preconstruction surveys shall be reported to USFWS.

GIANT GARTER SNAKE

To minimize the potential for direct take of giant garter snakes, a state and federally threatened species, the following mitigation measures shall be implemented:

BR-16. 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-17. 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-18. 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-19. 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-20. 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-21. 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-22. 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-23. 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-24. 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.

IMPACT: WATERS OF THE UNITED STATES

Several wetlands and other waters of the U.S. are found in the Master Plan area. Implementation of the proposed project has the potential to impact these waters of the U.S. With the incorporation of mitigation measures, the impact would be reduced to ***less than significant***.

MITIGATION MEASURES: WATERS OF THE UNITED STATES

BR-25. 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.

IMPACT: TREES

Implementation of the proposed project has the potential to impact native oak trees, northern California black walnut, and California sycamore. Impacts could occur due to encroachment within the driplines of these trees or by removal. With the incorporation of mitigation measures, the impact would be reduced to ***less than significant***.

MITIGATION MEASURE: TREE PROTECTION

BR-26. 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 shall be protected from possible impact. All portions of adjacent off-site native oak, California black walnut, and California sycamore trees with driplines that extend onto the project site or may be impacted by the 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.

MITIGATION MEASURE: TREE REMOVAL

BR-27 The removal of native oak trees and California black walnut 6 inches dbh or larger, and California sycamore 19 inches dbh or larger shall be compensated by planting native oak trees, California black walnut, or California sycamore 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

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

If oak 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.

13 CULTURAL RESOURCES

INTRODUCTION

Cultural resources are analyzed at a programmatic level for the Sacramento County Pedestrian Master Plan and will be considered at a project level when specific projects are proposed. CEQA defines cultural resources as historical and unique archaeological resources that meet the significance criteria of the California Register of Historical Resources. Under CEQA, lead agencies must consider the effects of their projects on cultural resources.

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 historic context and to define resources associated with that context, thereby establishing expectations for survey results.

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 (Basgall and Bouey 1991). The development of

sedentism 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	Windmiller 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 Pedestrian Master Plan project area in the proceeding section.

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 Windmiller Pattern (Early Horizon), as defined by Fredrickson (1973), was first identified at Windmiller 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 Windmiller 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 Windmiller Pattern deposits. Johnson (1982) notes that virtually all Early Horizon sites have some detectable midden, and every Windmiller 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 Windmiller 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 Windmiller 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 Master Plan area is located within the territory commonly attributed to the ethnographic Nisenan, sometimes 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)

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 Pedestrian Master Plan facilities are proposed within the historical Franklin, San Joaquin, Brighton, Mississippi, Granite, Georgiana, American, Centre, Lee, Cosumnes, Alabama, Dry Creek and Natoma townships. Past use of the area has focused primarily on agricultural endeavors associated with ranches, dairy and other farms, and orchards. Since 1849, use of the area has largely consisted of family farming and ranching operations crossed by transportation corridors, although mining has played an important role in the Folsom, Fair Oaks and Rancho Cordova areas.

Today, the Pedestrian Master Plan area, along with the rest of Sacramento County, is becoming increasingly developed for residential subdivisions. Nonetheless, agricultural operations and multiple-acre family parcels remain.

INFORMATION CENTER RECORD SEARCH

No information center record search was conducted as this EIR is a planning level document and when each site-specific project is considered for construction, a record search will be conducted at that time.

NATIVE AMERICAN AND HISTORICAL SOCIETY CONTACTS

No Native American or Historical Society contacts were consulted as this EIR is a planning level document and when each site-specific project is considered for construction, contact with these groups will be made at that time.

FIELD ASSESSMENT

No field assessment was conducted as this EIR is a planning level document and when each site-specific project is considered for construction, a field assessment will be conducted at that time.

PREHISTORIC RESOURCES

Prehistoric sites in the Pedestrian Master Plan area tend to be located on high ground near permanent water sources. Many archaeological sites have been identified along major drainages, such as the American, Sacramento, and Cosumnes Rivers, and along the smaller creeks in the Master Plan area. Sites that have been identified and are still preserved along these drainages are often highly significant. Many are known to contain or would be likely to contain Native American burials. In addition, numerous unidentified sites probably are extant because intensive, systematic surveys have never been conducted.

HISTORIC RESOURCES

Historic period structures, buildings, and archaeological sites are found predominately where early settlements are located and along transportation routes connecting these settlements. For example, much of the City of Sacramento overlays archeological deposits dating to the early settlement of the region. These settlements and outlying areas are likely to contain structures and archaeological deposits dating from the mid-19th century to the early part of the 20th century.

In rural parts of the Master Plan area, it is more difficult to assess historic resource sensitivity because of the lack of identified historic period sites. For the most part, early historic settlements in the rural portions of the western Master Plan area usually can be predicted by proximity to high ground. In fact, before reliable flood control measures were established in this area, historic residences frequently coincided with topographically elevated prehistoric site locations. These prehistoric sites became even more elevated as refuse accumulated over hundreds or even thousands of years of occupation, and these mounds were attractive building locations for early settlers. Resources in these areas usually are related to ranching and agriculture.

In the eastern part of the Master Plan area, gold mining has resulted in extensive resources in the area around Folsom and Fair Oaks and to the south toward upper Deer Creek and the Cosumnes River. These resources practically blanket the area and consist of placer and dredge tailing, habitation sites, roads, ditches, and other mining related features.

REGULATORY SETTING

The following policies may apply to the project within the Pedestrian Master Plan:

GENERAL PLAN CONSERVATION ELEMENT

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.

IMPACTS AND ANALYSIS

IMPACT: POTENTIAL FOR IMPACT TO AN IMPORTANT CULTURAL RESOURCE

Construction of the Pedestrian Master Plan facilities could disturb known or unknown cultural resources that could be present in the Pedestrian Master Plan planned facilities. This disturbance could result in the demolition of, or damage to, significant cultural resources.

A cultural resources review will be conducted as part of the Department of Environmental Review and Assessment (DERA) environmental review process for all future proposed construction projects. At that time, DERA will determine which projects require further investigation in the form of a project-level cultural resources analysis.

For those projects that require a project-level cultural resources analysis, a site specific records and literature search will be completed. The records and literature search will determine what further investigation is necessary.

The design phases of project development should be planned to avoid sites identified in the records search and field survey. If unknown buried resources are encountered, construction in the immediate vicinity should be discontinued until a qualified

archaeologist can investigate. Implementation of mitigation measures will reduce this potentially significant impact to ***less than significant***.

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.

14 HAZARDS AND HAZARDOUS MATERIALS

INTRODUCTION

This chapter discusses hazards and hazardous materials in the Master Plan area. Identification of these hazardous substances in the project area, potential impacts and mitigation to minimize these impacts are addressed in this chapter.

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 infections 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, bioaccumulative 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).

ENVIRONMENTAL SETTING

The Master Plan area includes the unincorporated areas of Sacramento County. The Master Plan projects are located within many new and long-established residential, commercial, industrial, agricultural, and former military areas.

Projects proposed for the Natomas, Rio Linda, Elverta, Antelope, and North Highlands areas traverse various commercial, industrial and agricultural areas that have a potential for hazardous materials issues. The former McClellan Air Force Base is located just south and east of Rio Linda. McClellan is a Superfund site with known soil and groundwater contamination. In the Natomas area, the recently closed Natomas Airport is working with the Regional Water Quality Control Board on the groundwater contamination at that location.

To the northeast in the communities of Orangevale, Fair Oaks, Carmichael community and Arden Arcade, there are known hazardous material sites primarily associated with commercial uses such as gas stations.

To the southeast in the communities of Vineyard and Southeast, there are known hazardous materials sites associated with commercial, industrial, former military and solid waste uses. There are two Superfund sites with known soil and groundwater contamination: Aerojet and Mather Airport.

To the southwest in the South Sacramento and Franklin/Laguna areas, the presence of hazardous materials most likely would originate from the agricultural and rural residential uses.

Several areas traversed by the Master Plan projects were developed before the imposition of hazardous materials regulations at any level. Therefore, in addition to know areas of contamination, the potential exists for encountering unknown areas of hazardous materials contamination.

REGULATORY SETTING

FEDERAL DATABASES

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 (CERLA) in 1980. CERLA 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 AND COUNTY DATABASES

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).

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 Environmental Management Department, Hazardous Materials Division (HMD) regulates the use, storage and disposal of hazardous materials in Sacramento County by issuing permits, monitoring regulatory compliance, investigating complaints, and other enforcement activities. HMD oversees remediation of certain contaminated sites resulting from leading underground storage tanks.

IMPACTS AND ANALYSIS

IMPACT: RIGHT-OF-WAY ACQUISITION

There may be cases when existing County right-of-way does not provide enough area to construct the proposed projects. Right-of-way identified for acquisition to construct the proposed projects may contain hazardous materials or underground storage tanks. Acquisition and acceptance of properties with hazardous materials creates risk for the County and construction workers. This impact is considered ***potentially significant***; however, with the incorporation of mitigation measures this impact can be reduced to ***less than significant***.

IMPACT: CONSTRUCTION-RELATED IMPACTS

Construction of the Master Plan projects has the potential to expose workers and residents to hazardous wastes or materials that are excavated, disturbed, or exposed by ground disturbance activities. Exposure of workers or residents to hazardous wastes or materials during construction is considered significant because of the possible threat to human health.

During construction, unforeseen hazardous substances may be discovered. Typical discoveries can include the detection of underground storage tanks and hazardous waste deposits. The discovery of such hazardous substances could result in a ***potentially significant impact***. In the event that such discoveries are made, mitigation measures would be applied and would minimize impacts to ***less than significant***.

MITIGATION MEASURES:

HM-1 The Sacramento County Department of Transportation shall develop a contingency plan in the event that construction activities uncover unforeseen contamination or underground storage tanks (USTs). This plan should include steps to contain any contamination, consultation with regulatory agencies and a work plan to evaluate and characterize any contamination. In addition, the Sacramento County Department of Transportation shall consult with the County Counsel's Office regarding potential liabilities if contamination or USTs are encountered during construction activities.

HM-2 Prior to acquiring additional right-of-way or construction of the proposed project, conduct a Phase 1 Site Assessment 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.

15 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 (CO_2), methane (CH_4), and nitrous oxide (N_2O), occur naturally and are emitted to the atmosphere through natural processes. Although CO_2, CH_4, and N_2O occur naturally in the atmosphere, human activities have changed their atmospheric concentrations. From 1750 to 2004, concentrations of CO_2, CH_4, and N_2O 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 CO_2, CH_4, N_2O, 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 (CO_2) 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 CO_2 emissions accounted for 84.6% of greenhouse gas emissions in the United States in 2004. (EPA 2006.) The California Energy Commission (CEC) estimates that CO_2 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 CO_2 emissions in the United States increased by 20% from 1990 to 2004. (EPA 2006.)

METHANE

Methane (CH_4) 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 CO_2, N_2O, and CFCs). CH_4 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 CH_4 emissions accounted for 7.9% of total greenhouse gas emissions in the United States in 2004. (EPA 2006.) The CEC estimates that in CH_4 emissions from various sources represent 6.2% of California's total greenhouse gas emissions. (CEC 2005.) Total CH_4 emissions in the United States decreased by 10% from 1990 to 2004. (EPA 2006.)

NITROUS OXIDE

Concentrations of nitrous oxide (N_2O) also began to rise at the beginning of the industrial revolution. N_2O 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 N_2O 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 N_2O 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 N_2O emissions in the United States decreased by 2% from 1990 to 2004. (EPA 2006.)

FLOURINATED GASES (HFCS, PFCS, AND SF_6)

Flourinated gases, such as hydroflourocarbons (HFCs), perflourocarbons (PFCs) and sulfurhexafluoride (SF_6), are powerful greenhouse gases that are emitted from a variety of industrial processes. Flourinated gases are occasionally used as substitutes for ozone-depleting substances such as chloroflourocarbons (CFCs), hydrochloroflourocarbons (HCFCs), and halons, which have been regulated since the mid-1980s because of their ozone destroying potential. Flourinated gases are typically emitted in smaller quantities than CO_2, CH_4, and N_2O, 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 SF_6) 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.)

IMPACT: GLOBAL WARMING

The proposed projects would not generate CO_2, CH_4 and N_2O emissions associated with vehicle emissions, nor would they generate any fluorinated gas emissions. They may assist in reducing CO_2, CH_4 and N_2O emissions through a reduction of vehicle trips, particularly those short trips typically made to destinations within the neighborhood. The proposed projects will improve pedestrian accessibility and create safer walking conditions. The proposed projects will help connect residential with commercial, schools, and other public areas. The projects would make choosing pedestrian travel over automobile travel a more viable alternative, particularly for short trips to shopping centers, restaurants, banks and other neighborhood destinations.

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. Most of the strategies that would result in the greatest reductions in greenhouse gas emissions are outside local control, such as stricter regulations on coal-fired energy plants and vehicle emissions. The users of the pedestrian projects will not generate greenhouse gases, forgoing the automobile, thus not contributing to and possibly helping to reduce greenhouse gas emissions.

According to a recent white paper by the Association of Environmental Professionals, global climate change is a cumulative impact; a project participates in this potential impact through its incremental contribution combined with the cumulative increase of all other sources of greenhouse gases

Recognizing that 98 percent of California's GHG emissions are from the burning of fossil fuels and 40 percent of all human made GHG emissions are from transportation, it is important to disclose the proposed project's potential contribution to a major global environmental issue.

The improved pedestrian accessibility and safety and foreseeable increase in pedestrian travel and reduction in vehicle trips will contribute to the overall goal in

reducing GHG emissions; therefore, project impacts on global climate change are considered **less than significant.**

MITIGATION MEASURES: GLOBAL WARMING

None recommended.

16 SUMMARY OF IMPACTS AND THEIR DISPOSITION

SIGNIFICANT EFFECTS WHICH CANNOT BE AVOIDED

Project-related impacts that are significant or potentially significant and cannot be reduced to a less than significant level by mitigation measures identified in the document include impacts to aesthetic resources.

AESTHETIC RESOURCE IMPACTS

Impacts to neighborhood shade trees are of concern when their removal would create a visual loss and subsequent impact to a viewshed. Removal of small amounts of trees scattered along a residential street may not significantly impact the visual character of that street or neighborhood. However, the impact of removing rows of trees and mature landscaping within residential neighborhoods for construction of pedestrian improvements would result in impacts to the viewshed of those neighborhoods and are therefore considered a ***significant impact***. The Aesthetically Sensitive Alternative is presented as an alternative to reduce these aesthetic impacts. This alternative would avoid tree removal in those areas where large shade trees contribute to an aesthetically pleasing environment. This alternative would reduce aesthetic impacts to ***less than significant***.

SIGNIFICANT EFFECTS WHICH COULD BE AVOIDED WITH IMPLEMENTATION OF MITIGATION MEASURES

Project-related impacts that are significant or potentially significant, but could be reduced to a less than significant level by mitigation measures identified in the document include impacts to biological resources, cultural resources and hazards and hazardous materials.

BIOLOGICAL RESOURCE IMPACTS

Riparian habitat was identified during site visits to a selection of project sites. Loss of riparian habitat is possible when the site-specific projects are constructed. Removal of riparian habitat can occur when improvements, such as sidewalk construction, requires the extension of roadway widths to accommodate them. Mitigation measures addressing habitat loss can reduce impacts to ***less than significant***.

WILDLIFE

VALLEY ELDERBERRY LONGHORN BEETLE

Site visits to a selection of project sites revealed the potential to impact elderberry shrubs, habitat for the valley elderberry longhorn beetle, by project activities. The level of impact to the elderberry shrubs will need to be determined on a project by project basis. In general, if elderberry shrubs are found within 100-feet of proposed improvements, informal consultation with the United States Fish and Wildlife Service is necessary to assess what level of indirect impacts, if any, results from the project. Any removal of elderberry shrubs will require formal consultation under Section 7 or Section 10 of the federal Endangered Species Act. Directly or indirectly impacting elderberry shrubs is considered a ***significant impact.*** With the incorporation of mitigation measures, impacts to valley elderberry longhorn beetle would be reduced to ***less than significant***.

VERNAL POOL SPECIES

Vernal pools that are habitat for special status species are known to be present within Sacramento County, particularly in the southeastern section of the County.

The level of impact to vernal pool species will need to be determined on a project by project basis. According to USFWS protocol, a project may have indirect impacts to vernal pool species when project activities encroach within 250 feet of a vernal pool. With the incorporation of mitigation measures, impacts to vernal pool species would be reduced to ***less than significant***.

SWAINSON'S HAWK

The CNDDB shows Swainson's hawk nests throughout the Master Plan project area. The level of impact to the Swainson's hawk will need to be determined on a project by project basis. According to CDFG protocol, project activities occurring within ¼ mile (urban setting) and ½ mile (rural setting) of a nest have the potential to disturb nesting hawks. With the incorporation of mitigation measures, the impact would be reduced to ***less than significant***.

TRICOLORED BLACKBIRD

Review of the CNDDB mapping showed sightings of the tricolored blackbird at various locations in the Master Plan project area. The level of impact to tricolored blackbirds will need to be determined on a project by project basis. Construction activities have the potential to disturb nesting tricolored blackbirds. With the incorporation of mitigation measures, the impact would be reduced to ***less than significant***.

BANK SWALLOW

Bank swallows may be present along riparian corridors within the project area. Construction activities, such as demolition or bridgework, have the potential to disturb nesting bank swallows. With the incorporation of mitigation measures, this impact would be reduced to ***less than significant***.

BURROWING OWL

Burrowing owls may be present in grasslands adjacent to the project area. Construction activities have the potential to disturb nesting burrowing owls. With the incorporation of mitigation measures, the impact would be reduced to ***less than significant***.

CALIFORNIA TIGER SALAMANDER

California tiger salamander critical habitat (as designated by the USFWS) is shown within the Master Plan area. Project activities in aquatic environments, such as vernal pools and their associated upland habitat, could remove habitat or potentially disturb this species. With the incorporation of mitigation measures, the impact would be reduced to ***less than significant***.

GIANT GARTER SNAKE

Potential habitat for giant garter snake exists within various locations throughout the project area. Project activities in riparian areas could potentially disturb this species or remove GGS habitat. With the incorporation of mitigation measures, the impact would be reduced to ***less than significant***.

WATERS OF THE U.S.

Several wetlands and other waters of the U.S. are found in the Master Plan area. Implementation of the proposed project has the potential to impact these waters of the U.S. With the incorporation of mitigation measures, the impact would be reduced to ***less than significant***.

TREES

Implementation of the proposed project has the potential to impact native oak trees, northern California black walnut, and California sycamore. Impacts could occur due to encroachment within the driplines of these trees or by removal. With the incorporation of mitigation measures, the impact would be reduced to ***less than significant***.

CULTURAL RESOURCES

Construction of the Pedestrian Master Plan facilities could disturb known or unknown cultural resources that could be present in the Pedestrian Master Plan planned facilities.

This disturbance could result in the demolition of, or damage to, significant cultural resources.

A cultural resources review will be conducted as part of the Department of Environmental Review and Assessment (DERA) environmental review process for all future proposed construction projects. At that time, DERA will determine which projects require further investigation in the form of a project-level cultural resources analysis.

If unknown buried resources are encountered, construction in the immediate vicinity should be discontinued until a qualified archaeologist can investigate. Implementation of mitigation measures will reduce this potentially significant impact to ***less than significant***.

HAZARDS AND HAZARDOUS MATERIALS IMPACTS

There may be cases when existing County right-of-way does not provide enough area to construct the proposed projects. Right-of-way identified for acquisition to construct the proposed projects may contain hazardous materials or underground storage tanks. This impact is considered ***potentially significant***; however, with the incorporation of mitigation measures this impact can be reduced to ***less than significant***.

Construction of the Master Plan projects has the potential to expose workers and residents to hazardous wastes or materials that are excavated, disturbed, or exposed by ground disturbance activities. Exposure of workers or residents to hazardous wastes or materials during construction is considered significant because of the possible threat to human health.

During construction, unforeseen hazardous substances may be discovered. Typical discoveries can include the detection of underground storage tanks and hazardous waste deposits. The discovery of such hazardous substances could result in a ***significant impact***. In the event that such discoveries are made, mitigation measures would be applied and would minimize impacts to ***less than significant***.

EFFECTS FOUND NOT TO BE SIGNIFICANT

The following resources are considered to be impacted at a less than significant level:

- Land Use
- Population/Housing
- Agricultural Resources
- Airports

- Public Services
- Transportation/Traffic
- Air Quality
- Noise
- Hydrology and Water Quality
- Geology and Soils
- Global Warming

IRREVERSIBLE ENVIRONMENTAL CHANGES

Construction of the pedestrian improvement projects will require irretrievable commitments of a variety of limited natural resources, including aggregates, petrochemicals and metals.

GROWTH INDUCING IMPACTS

The CEQA Guidelines identify several ways in which a project could have growth-inducing impacts. Projects that remove obstacles to population growth and projects that encourage and facilitate other activities that are beyond those proposed as part of the project and that could affect the environment are considered growth-inducing (CEQA Guidelines Section 15126.2[d]). Potential inducements to population growth include the availability of adequate water supplies, the availability of sewage treatment facilities, the availability of developable land, and local government growth policies contained in general plans and zoning ordinances.

Growth inducement may not be considered necessarily detrimental, beneficial, or of significance under CEQA. Induced growth 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, significantly affects the environment, for example, requiring the construction of facilities that would adversely affect the environment.

The majority of pedestrian improvements are in areas that are already developed, but in some of the Master Plan area, such as North Natomas and the Delta area, few services are provided and development is limited. The Rural Growth Management Strategy section in the Land Use Element of the Sacramento County General Plan has the following discussion related to growth inducement:

OBJECTIVE

Limited urban growth in rural towns consistent with infrastructure capacity, natural constraints, and the economic base.

POLICY

LU-59 Expansion of urban uses in rural areas shall be limited to the established Delta communities of Freeport, Hood, Courtland, Locke, and Walnut Grove and to specific small expansions which support the agriculturally and recreationally based economies of the Delta.

Provision of pedestrian improvements in rural areas is anticipated to occur as land is converted over to more intensive uses, such as housing and retail, so pedestrian improvements would not necessarily result independently of development. The provision of pedestrian improvements in this area consists of sidewalks, serving the recreational visitors and also the local residents. Provision of sidewalks in an area does not necessarily increase the urbanization of an area as this infrastructure serves an existing residential and recreational base. The growth inducing potential of the project is considered ***less than significant***.

CUMULATIVE IMPACTS

Cumulative impacts refer to two or more individual impacts that, when considered together, are considerable or that compound or increase other environmental impacts. Cumulative impacts can also result from the incremental impact of the project when added to other, closely related projects.

The project improvements are widespread throughout the County, and in themselves don't necessarily result in an unmitigatable significant impact, with the exception of particular areas where neighborhood street trees would need to be removed. These projects tend to be small in scale and would typically be constructed as a feature of roadway improvement projects or as frontage improvements for various development projects. They would serve existing and projected areas of population. By themselves, the pedestrian improvements do not contribute to air quality impacts, traffic impacts, and noise impacts; and have minimal impacts upon agricultural resources, biological resources, and cultural resources. These projects contribution to cumulative impacts throughout the region is minimal, and, therefore, cumulative impacts are considered ***less than significant***.

17 BIBLIOGRAPHY

BAC, 1998. Community Noise Workshop. Bollard Acoustical Consulting (BAC). Presented to Sacramento County Department of Environmental Review and Assessment on January 29, 1998.

Barrett, S.A. 1908. The geography and dialects of the Miwok Indians. University of California Publications in American Archaeology and Ethnology 6(2):333-368.

Basgall, M. E., and P. D. Bouey. 1991. The Prehistory of North-Central Sonoma County: Archaeology of the Warm Springs Dam-Lake Sonoma Locality. Vol. I. January. Published by U.S. Army Corps of Engineers, Sacramento District. Sacramento, CA.

Beals, R.L. 1933. Ethnology of the Nisenan. University of California Publications in American Archaeology and Ethnology. Berkeley.

Beck, A.W., and Y.D. Haase. 1974. Historical atlas of California. University of Oklahoma Press. Norman, OK.

Bennyhoff, James A. 1977 Ethnography of the Plains Miwok. Center for Archaeological Research at Davis, Publication Number 5. Davis.

Cal Conservation, 2004. California Department of Conservation, Division of Land Resource Protection, Williamson Act Program, Public Acquisitions, June 2004. Internet url: http://www.consrv.ca.gov/DLRP/lca/FAQ/public_acquisitions.htm.

CARB, 2005. 2005 Estimated Annual Average Emissions. California Air Resources Board. Internet url: http://www.arb.ca.gov/app/emsinv/emssumcat.php.

CARB, 2005b. California Ambient Air Quality Standards. California Air Resources Board. Internet url: http://www.arb.ca.gov/aqs/aaqs2.pdf. Last revision: May 17, 2006.

CCR, 2004. California Code of Regulations (online), adopted May 20, 2004. Internet url: http://government.westlaw.com/linkedslice/default.asp?SP=CCR-1000.

CNDDB, 2006. California Natural Diversity Database. Updated March, 2006.

CDFG, 2006. California's Plants and Animals, California Department of Fish and Game Habitat Conservation Planning Branch. Internet url: http://www.dfg.ca.gov/hcpb/cgi-bin/read_one.asp?specy=birds&idNum=65. Accessed July 3, 2006.

Cook, S. 1955. The aboriginal population of the San Joaquin Valley, California. University of California Anthropological Records 16(2):31-74.

County, 1974. North Highlands – North Central Area Community Plan. Sacramento County Planning Department. Adopted April 17, 1974.

County, 1975. Carmichael Land Use Plan. Sacramento County Planning Department. Adopted October 15, 1975.

County, 1975b. Fair Oaks Community Plan. Sacramento County Planning Department. Adopted January 8, 1975.

County, 1975c, Rio Linda-Elverta Community Plan, Technical Report. Sacramento County Planning Department. Adopted October 15, 1975.

County, 1976. Orangevale Community Plan Technical Report 1976. Sacramento County Planning Department. Internet url: http://www.saccounty.net/planning/specific/orangevale/orangevale-cp-text.pdf. Adopted 1976.

County, 1978. South Sacramento Area Community Plan. Sacramento County Planning Department.

County, 1980. Arden-Arcade Community Plan. Sacramento County Planning and Community Development Department. Adopted November 6, 1980.

County, 1983. Delta Community Area Plan. Sacramento County Planning and Community Development Department. Adopted March, 1983.

County, 1984. Antelope Urban Study Area. Sacramento County Planning and Community Development Department. Adopted October 1984.

County, 1985. Vineyard Community Plan. Sacramento County Planning and Community Development Department. Adopted June 12, 1985.

County, 1993. County of Sacramento General Plan. Sacramento County Planning and Community Development Department General and Advance Planning Section. Adopted December 15, 1993.

County, 1996. Orangevale Community Area (map). Sacramento County Planning and Community and Development Department. Internet url: http://www.saccounty.net/planning/specific/orangevale/orangevale-cp.pdf. Latest revision: October 13, 1996.

County, 1998. North Vineyard Station Specific Plan. Sacramento County Planning and Community Development Department. Adopted November 4, 1998.

County, 1998b. Policy Plan for the Rio Linda and Elverta Community Plan. Sacramento County Planning and Community Development Department. Adopted June 3, 1998.

County, 1998c. Rio Linda and Elverta Community Area (map). Sacramento County Planning and Community Development Department. Internet url: http://www.saccounty.net/planning/pdf/rio-linda-cp.pdf. Latest revision: May 5, 1998.

County, 2000. Vineyard Springs Comprehensive Plan. Sacramento County Planning and Community Development Department. Adopted June 21, 2000.

County, 2000b. Vineyard Springs Comprehensive Plan (map). Sacramento County Planning and Community Development Department. Internet url: http://www.saccounty.net/planning/specific/vineyard-springs/vineyard-springs.pdf. Adopted June 21, 2000.

County, 2001. Vineyard Community Area (map). Sacramento County Planning and Community Development Department. Internet url: http://www.saccounty.net/planning/florin/pdf/vineyard-cp.pdf. Latest revision: May 9, 2001.

County, 2002. North Highlands/Foothill Farms Community Area (map). Sacramento County Planning and Community Development Department. Internet url: http://www.saccounty.net/planning/pdf/north-highlands-cp.pdf. Latest revision: March 27, 2002.

County, 2002b. South Sacramento Community Area (map). Sacramento County Planning and Community Development Department. Internet url: http://www.saccounty.net/planning/pdf/south-sacramento-cp.pdf. Latest revision: June 2, 2002.

County, 2003. Carmichael Community Area (map). Sacramento County Planning and Community Development Department. Internet url: http://www.saccounty.net/planning/carmichael/index.html. Latest revision: April 23, 2003.

County, 2003b. Final Environmental Impact Report, Dry Creek Parkway Recreation Master Plan. County of Sacramento Department of Environmental Review and Assessment. May 2003.

County, 2004. Antelope Community Area (map). Sacramento County Planning and Community Development Department. Internet url: http://www.saccounty.net/planning/pdf/antelope-cp.pdf. Latest revision: April 14, 2004.

County, 2004b. Arden Arcade Community Area (map). Sacramento County Planning and Community Development Department. Internet url: http://www.saccounty.net/planning/arden-arcade/index.html. Latest revision: April 14, 2004.

County, 2004c. Fair Oaks Community Area (map). Sacramento County Planning and Community Development Department. Internet url: http://www.saccounty.net/planning/specific/fair-oaks/fair-oaks.html. Latest revision: February 11, 2004.

County, 2004d. North Vineyard Station Specific Plan (map). Sacramento County Planning and Community Development Department. Internet url: http://www.saccounty.net/planning/specific/no-vineyard-sta/land-use.html. Latest revision: November 10, 2004.

County, 2004e. CSD-1 Sewage Facilities Expansion Master Plan, FEIR. County of Sacramento Department of Environmental Review and Assessment. April 2004.

County, 2006. Community Action Plan. Final Draft Carmichael Community Action Plan – An appendix to the 1975 Carmichael Community Plan. Adopted revisions on April 26, 2006.

Delta, 2002. Delta Protection Commission – Land Use and Resource Management Plan for the Primary Zone of the Delta. Sacramento County Planning and Community Development Department. Internet url: http://www.delta.ca.gov/plan.asp. Reprinted May 2002.

Dixon, R. 1905. The Northern Maidu. Bulletin of the American Museum of Natural History 17(3):119-346.

Dowling Associates, 2006. County of Sacramento Draft Pedestrian Master Plan, April 2006. Prepared for County of Sacramento Department of Transportation. Prepared by Dowling Associates, Inc. & Moore Iacofano Goltsman, Inc. in association with All Traffic Data, Sprinkle Consulting, Inc. & the Hoyt Company.

Elsasser, A. B. 1978. "Development of regional prehistoric cultures," pages 37-57 in Volume 8, California (edited by Robert F. Heizer) of the Handbook of North American Indians, W.G. Sturtevant, general editor. Smithsonian Institution. Washington, DC.

EPA, 2006. National Ambient Air Quality Standards (NAAQS). U.S. Environmental Protection Agency, Air and Radiation. Internet url: http://epa.gov/air/criteria.html. Last updated: September 21, 2006.

Eriksen, C.H., and D. Belk. 1999. Fairy shrimps of California's puddles, pools, and playas, Mad River Press, Eureka, CA.

Faye, P.L. 1923. Notes on the southern Maidu. University of California Publications in American Archaeology and Ethnology 20(3):35-53.

Fredrickson, David A. 1973 Early cultures of the North Coast Ranges, California. Unpublished Ph.D. dissertation, Department of Anthropology, University of California, Davis. Davis, CA.

Gifford, E.W. 1927 Southern Maidu religious ceremonies. American Anthropologist 29(3):214-257.

Heizer, R. F. 1949. The archaeology of central California. I: The Early Horizon. University of California Anthropological Record 12:1.

Holland, R.F. 1978. The geographic and edaphic distribution of vernal pools in the Great Central Valley, California. California Native Plant Society, Special Publication 4:1-12.

Holland, R. F., and S. Jain. 1988. Vernal pools. Pages 515-533 *In:* M.E. Barbour and J. Major, eds. Terrestrial vegetation of California, new expanded edition. California Native Plant Society, Special Publication Number 9, Sacramento, CA.

Johnson, J.J., C Assad, G. Greenway, B. Poswall, W. Soule, W. Wiant, K. Wilson, H. Keesling, J. Wood, D. Sumner, and P. Morgan. 1976. Archaeological investigations of the Blodgett site (CA-Sac-267), Sloughhouse locality, California. Submitted to National Park Service, Western Region. On file, North Central Information Center, California State University, Sacramento, Sacramento.

Johnson, Jerald J. 1982 Summary of the Prehistory of the Lower Sacramento Valley and Adjacent Mountains, Chapter II (draft). On file, North Central Information Center of the California Historical Resources Information System, Sacramento.

Kielusiak, C. 1982. Variability and distribution of baked clay artifacts from the lower Sacramento-northern San Joaquin Valley of California. Master's Thesis, Department of Anthropology, California State University, Sacramento, Sacramento.

Kroeber, A.L. 1925 Handbook of the Indians of California. Smithsonian Institution Bureau of American Ethnology Bulletin 78, Washington, D.C.

Levy, Richard 1978 "Eastern Miwok." In Handbook of North American Indians, Volume 8: California, pp. 398-413. R.F. Heizer, ed., Smithsonian Institution, Washington, D.C.

Meighan, C.W. 1987. Re-examination of the early California culture. American Antiquity 52(1):28-36.

Moratto, Michael J. 1984 California Archaeology. Academic Press, New York.

MSA, 2006a. Arden Arcade Community Action Plan. Municipal Services Agency, County of Sacramento, Department of Planning and Community Development, Department of Neighborhood Services. Adopted April 6, 2006.

MSA, 2006b. Carmichael Community Action Plan. Municipal Services Agency, County of Sacramento, Department of Planning and Community Development, Department of Neighborhood Services. Adopted April 26, 2006.

Ragir, S. 1972. The Early Horizon in central California prehistory. Contributions of the University of California Archaeological Research Facility No. 15.

Powers, S. 1976. Tribes of California. Berkeley and Los Angeles: University of California Press. (originally printed in 1877 as Tribes of California, Washington, DC: U.S. Department of the Interior, Geographical and Geological Survey of the Rocky Mountain Region, Contributions to North American Ethnology, III).

Sac FWS, 2005. Vernal Pool Critical Habitat Maps. Sacramento Fish and Wildlife Office. Internet url: http://www.fws.gov/sacramento/es/maps/vp_final_crit_hab_maps/vp_crit_hab_map_index.htm. August, 11, 2005.

Sac FWS, 2006. Endangered Species Accounts. Sacramento Fish and Wildlife Office. Internet url: http://www.fws.gov/sacramento/es/spp_info.htm. Accessed July 3, 2006.

Sac River, 2006. Sacramento River Watershed Program. Internet url: http://www.sacriver.org/education/. Accessed August 3, 2006.

Schulz, P.D., D.M. Abels, and E.W. Ritter. 1979. Archaeological investigations at the Safflower site (CA-SJO-145), San Joaquin County, CA.. (California Archaeological Reports, No. 18) Cultural Heritage Section, California Department of Parks and Recreation. Sacramento.

Shulz, P.D., and Simons, D.D. 1973. Fish species diversity in a prehistoric central California Indian midden. California Fish and Game 59:107-113.

SMAQMD, 1994. Sacramento Area Regional Ozone Attainment Plan. Sacramento Metropolitan Air Quality Management District. Internet url: http://64.143.64.21/cleanairplan/94SACSIP.pdf. November 15, 1994.

SMAQMD et al., 2000. Sacramento Area Regional 1999 Milestone Report. Sacramento Metropolitan Air Quality Management District, El Dorado Air Pollution Control District, Feather River Air Quality Management District, Placer County Air Pollution Control District, Yolo-Solano Air Quality Management District. Internet url: http://64.143.64.21/cleanairplan/94SACSIP.pdf. April 2000.

SMAQMD, 2003. Sacramento 2003 Air Quality Attainment Plan. Sacramento Metropolitan Air Quality Management District. Internet url: http://64.143.64.21/aqdata/attainmentstat.shtml. 2003.

SMAQMD, 2003b. Road Construction Emissions Model, Version 5.1. http://www.airquality.org/ceqa/index.shtml.

SMAQMD, 2004. Guide to Air Quality Assessment in Sacramento County. Sacramento Metropolitan Air Quality Management District. July 2004.

Thompson, Thomas and Albert A. West 1880 History of Sacramento County, California. Thompson and West Company. Oakland. (Reprinted in 1968 by Howell-North Books, Berkeley).

US DOT, 1981. U.S.DOT, Federal Highway Administration, Office of Environmental Policy, Visual Impact Assessment for Highway Projects, U. S. Department of Transportation Washington D. C. March 1981.

Wilson, Norman L. and Arleane H. Towne 1978 Nisenan. In Smithsonian Institution Handbook of the North American Indians, Volume 8: California, pp. 398-413. Washington, D.C.

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18 INITIAL STUDY CHECKLIST

FOR SACRAMENTO COUNTY PEDESTRIAN MASTER PLAN

CONTROL NUMBER: 06-PWE-0347

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	Adoption of the Sacramento County Pedestrian Master Plan (Master Plan) is consistent with the land use policies of the Sacramento County General Plan, affected community plans, specific plans, comprehensive plans, and supports the general intent of the affected Special Planning Areas and Neighborhood Planning Areas in Sacramento County. Refer to Chapter 5 Land Use for further discussion.
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 Master Plan area encompasses the unincorporated communities of Sacramento County. These urban and rural areas would not experience growth induced by the pedestrian improvements listed in the Master Plan. Pedestrian improvements include sidewalks or asphalt walkways, midblock crossings, pedestrian countdown signal installations, lighting, trail access, pedestrian districts, safe routes to school and transit, signal timing and sidewalk obstruction removal. This extension of infrastructure is intended to service existing or planned development would not induce substantial unplanned population growth. In the Delta area along River Road, the pedestrian improvements intend to service the existing residents and recreational users.
b. Displace substantial amounts of existing housing, necessitating the construction of replacement housing elsewhere?			X	The adoption of the Master Plan and subsequent construction of the pedestrian improvement projects would not result in the removal of existing housing.

	Potentially Significant[i]	Less Than Significant with Mitigation[ii]	Less Than Significant or No Impact[iii]	Comments
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	Properties in the rural areas adjacent to the pedestrian improvement locations within the Master Plan area have Prime and Non-Prime Farmland designations. Acquisition of right-of-way may be necessary to construct identified improvements. At this stage of Master Plan project development, it is unknown how much of this land would be acquired to accommodate the pedestrian improvements. It is anticipated that the improvements would require minor amounts of agricultural land and would not exceed the significance thresholds established by the Sacramento County General Plan and/or the California Agricultural Land Evaluation and Site Assessment (LESA) Model and would not substantially impact agricultural production. Refer to Chapter 6 Agricultural Resources for further discussion.
b. Conflict with any existing Williamson Act contract?			X	Within the Master Plan project area there is at least one parcel under Williamson Act contract (California Land Conservation Act of 1965). However, the proposed improvement projects would not affect this contract. Refer to Chapter 6 Agricultural Resources for further discussion.
c. Introduce incompatible uses in the vicinity of existing agricultural uses?			X	Though the Master Plan project area has projects identified in an area where agricultural uses occur, the project will not substantially interfere with agricultural operations. The improvement projects are located along roadways and so do not introduce different uses into the existing conditions. Refer to Chapter 6 Agricultural Resources for further discussion.
4. **AESTHETICS -** Would the project:				
a. Substantially alter existing viewsheds such as scenic highways, corridors or vistas?			X	The Master Plan project does encompass several scenic highways, corridors, or vistas. Given its nature, the project is not expected to substantially alter any viewshed associated with scenic highways and corridors. Refer to Chapter 7 Aesthetics for further discussion.

	Potentially Significant[i]	Less Than Significant with Mitigation[ii]	Less Than Significant or No Impact[iii]	Comments
b. Substantially degrade the existing visual character or quality of the site and its surroundings?	X			Construction may substantially degrade the visual character or quality of the project site. Given the nature of the planned pedestrian improvements, the adoption of the Master Plan project and subsequent implementation would not substantially alter the visual character or quality of the project site or vicinity. Some of the location-specific projects may be set in an Historic District, as designated on the California Register of Historic Places and/or the National Register of Historic Places. In these situations, a context-sensitive design shall be employed to reduce possible aesthetic and visual impacts to a less than significant level. Historic District design standards shall be adhered, further insuring a less than significant impact. Removal of neighborhood street trees may be necessary to install pedestrian improvements in some locations. In areas where large stands of these shade trees need to be removed, a substantial degradation of the particular area's visual character and quality may result. Mitigation measures to minimize these impacts may not completely address these impacts. It is acknowledged that aesthetic impacts are subjective and may be perceived differently by various affected individuals. Refer to Chapter 7 Aesthetics for further discussion.
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. However, there would be some new sources of light introduced as a result of adoption of the project. Compliance with development and lighting standards contained in the Sacramento Zoning Code would insure impacts are less than significant.
5. **AIRPORTS -** Would the project:				
a. Result in a safety hazard for people residing or working in the vicinity of an airport/airstrip?			X	Although there are some pedestrian improvements located in airport safety zones, the nature of the improvements (sidewalks, lighting, trail crossings, walkways, and signals) would not result in a safety hazard. The airports involved include Sacramento International Airport, Rio Linda Airport, Mc Clellan Airport, and Mather Airport.

	Potentially Significant[i]	Less Than Significant with Mitigation[ii]	Less Than Significant or No Impact[iii]	Comments
b. Expose people residing or working in the project area to aircraft noise levels in excess of applicable standards?			X	The project is located in the vicinity of Sacramento International Airport, Rio Linda Airport, Mc Clellan Airport, and Mather Airport. None of the proposed improvements are shown in areas subject to aircraft noise levels in excess of the Sacramento County Noise Ordinance standard of 60 - 65 dB Ldn (decibels, day-night noise level).
c. Result in a substantial adverse effect upon the safe and efficient use of navigable airspace by aircraft?			X	The adoption of the Master Plan and subsequent construction of the pedestrian improvement projects would not affect navigable airspace.
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 adoption of the Master Plan and subsequent construction of the pedestrian improvement projects would 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 of each of the pedestrian improvement projects, the projects 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.
c. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			X	The adoption of the Master Plan and subsequent construction of the pedestrian improvement projects would not require solid waste disposal.
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 adoption of the Master Plan and subsequent construction of the pedestrian improvement projects 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	The adoption of the Master Plan and subsequent construction of the pedestrian improvement projects may require the addition or upgrading of storm water drainage facilities. This would be determined on a project-specific basis. No substantial adverse physical impacts are anticipated.

	Potentially Significant[i]	Less Than Significant with Mitigation[ii]	Less Than Significant or No Impact[iii]	Comments
f. Result in substantial adverse physical impacts associated with the provision of electric or natural gas service?			X	The adoption of the Master Plan and subsequent construction of the pedestrian improvement projects would not require natural gas service. Provision of electric service is required for operation of improvements at several project locations; however, many locations would likely have electric service already provided. Where locations do not have existing electric service, the provision of that service is not anticipated to result in substantial adverse physical impacts.
g. Result in substantial adverse physical impacts associated with the provision of emergency services?			X	The adoption of the Master Plan and subsequent construction of the pedestrian improvement projects may incrementally increase demand for emergency services. However, this would not result in substantial adverse physical impacts.
h. Result in substantial adverse physical impacts associated with the provision of public school services?			X	The adoption of the Master Plan and subsequent construction of the pedestrian improvement projects would not require the provision of public school services.
i. Result in substantial adverse physical impacts associated with the provision of park and recreation services?			X	The adoption of the Master Plan and subsequent construction of the pedestrian improvement projects would not increase the need for park and recreation 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 adoption of the Master Plan and subsequent construction of the pedestrian improvement projects would not increase peak hour vehicle trip-ends.
b. Result in a substantial adverse impact to access and/or circulation?			X	The adoption of the Master Plan and subsequent construction of the pedestrian improvement projects would not involve traffic circulation or vehicle access issues. However, during construction temporary circulation impacts could result. The application of Sacramento County *Standard Construction Specifications* (County Specifications) would minimize these impacts and inconveniences experienced during project construction. Refer to Chapter 8 Transportation/Traffic for further discussion.
c. Result in substantial adverse impact due to inadequate parking capacity?			X	The adoption of the Master Plan and subsequent construction of the pedestrian improvement projects would not result in impacts to parking capacity.

	Potentially Significant[i]	Less Than Significant with Mitigation[ii]	Less Than Significant or No Impact[iii]	Comments
d. Result in a substantial adverse impact to public safety on area roadways?			X	The adoption of the Master Plan and subsequent construction of the pedestrian improvement projects would not result in an impact to public safety on area roadways.
e. Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?			X	The adoption of the Master Plan and subsequent construction of the pedestrian improvement projects would not conflict with adopted policies, plans, or programs supporting alternative transportation. Refer to Chapter 8 Transportation/Traffic for further discussion.
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 adoption of the Master Plan and subsequent construction of the pedestrian improvement projects would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment. Refer to Chapter 9 Air Quality for further discussion.
b. Expose sensitive receptors to pollutant concentrations in excess of standards?			X	There are sensitive receptors (schools, nursing homes, hospitals, daycare centers, etc.) adjacent to the identified pedestrian improvement sites; however, the Master Plan project will not expose sensitive receptors to pollutant concentrations in excess of standards. Refer to Chapter 9 Air Quality for further discussion.
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	The completed project is not anticipated to generate noise or result in exposure of persons to noise levels in excess of applicable standards.
b. Result in a substantial temporary increase in ambient noise levels in the project vicinity?			X	Construction activities 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 the 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). Refer to Chapter 10 Noise for further discussion.

	Potentially Significant[i]	Less Than Significant with Mitigation[ii]	Less Than Significant or No Impact[iii]	Comments
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**.**
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 Master Plan and identified pedestrian improvements may result in flooding on- or off-site through substantial alteration of the existing drainage pattern of the Master Plan area and/or by increasing the rate or amount of surface runoff. Compliance with applicable requirements of the County Floodplain Management Ordinance, County Drainage Ordinance, and Improvement Standards will insure impacts are less than significant. Refer to Chapter 11 Hydrology and Water Quality for further discussion.
c. Develop within a 100-year floodplain as mapped on a federal Flood Insurance Rate Map or within a local flood hazard area?			X	The Master Plan identifies pedestrian improvements at locations within a 100-year floodplain and/or local floodplain. Refer to Chapter 11 Hydrology and Water Quality for further discussion.
d. Place structures that would impede or redirect flood flows within a 100-year floodplain?			X	Although some of the pedestrian improvement projects are within a 100-year floodplain, the type of improvements proposed will not impede or redirect flows within a 100-year floodplain. Refer to Chapter 11 Hydrology and Water Quality for further discussion.
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 Master Plan and identified pedestrian improvements 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 Master Plan and identified pedestrian improvements will not create or contribute runoff that would exceed the capacity of existing or planned stormwater drainage systems.
g. Create substantial sources of polluted runoff or otherwise substantially degrade ground or surface water quality?			X	The Master Plan and identified pedestrian improvements will not create substantial sources of polluted runoff or otherwise substantially degrade ground or surface water quality. Refer to Chapter 11 Hydrology and Water Quality for further discussion.

	Potentially Significant[i]	Less Than Significant with Mitigation[ii]	Less Than Significant or No Impact[iii]	Comments
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	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.
b. Result in substantial soil erosion, siltation or loss of topsoil?			X	The Master Plan and identified pedestrian improvements will not result in substantial soil erosion, siltation, or loss of topsoil. Compliance with the County's Land Grading and Erosion Control Ordinance will reduce the amount of construction site erosion and minimize water quality degradation by providing stabilization and protection of disturbed areas, and by controlling the runoff of sediment and other pollutants during the course of construction. Refer to Chapter 11 Hydrology and Water Quality for further discussion.
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	Pursuant to Title 16 of the Sacramento County Code Uniform Building Code a soils report will be required prior to building construction. If the soils report indicates than soils may be unstable for building construction then site specific measures (e.g., special engineering design or soil replacement) must be incorporated to assure that soil conditions will be satisfactory for the proposed construction.
d. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available?			X	The Master Plan and identified pedestrian improvements do not need the use of a sewer system.
e. Result in a substantial loss of an important mineral resource?			X	The identified pedestrian improvements in the Master Plan are not located within an Aggregate Resource Area as identified by the Sacramento County General Plan Land Use Diagram, nor are any important mineral resources known to be located in this area.
f. Directly or indirectly destroy a unique paleontological resource or site?			X	No known paleontological resources (e.g. fossil remains) or sites occur in the Master Plan area.

	Potentially Significant[i]	Less Than Significant with Mitigation[ii]	Less Than Significant or No Impact[iii]	Comments
12. **BIOLOGICAL RESOURCES** - Would the project:				
a. Have a substantial adverse effect on any special status species?		X		Refer to Chapter 12 Biological Resources for further discussion.
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community?		X		Refer to Chapter 12 Biological Resources for further discussion.
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		Refer to Chapter 12 Biological Resources for further discussion.
d. Have a substantial adverse effect on the movement of any native resident or migratory fish or wildlife species?			X	No major wildlife corridors would be affected.
e. Adversely affect or result in the removal of native or landmark trees?		X		Refer to Chapter 13 Biological Resources for further discussion.
f. Conflict with any local policies or ordinances protecting biological resources?			X	The Master Plan and identified pedestrian improvements are consistent with local policies/ordinances protecting biological resources. Refer to Chapter 12 Biological Resources for further discussion.
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 known historical resources occur on the sites of the pedestrian improvements identified in the Master Plan. Nonetheless, mitigation has been recommended to insure appropriate project-level environmental review takes place before construction. Refer to Chapter 13 Cultural Resources for further discussion.

	Potentially Significant[i]	Less Than Significant with Mitigation[ii]	Less Than Significant or No Impact[iii]	Comments
b. Have a substantial adverse effect on an archaeological resource?		X		No known archaeological resources occur on the sites of the pedestrian improvements identified in the Master Plan. Nonetheless, mitigation has been recommended to insure appropriate project-level environmental review takes place before construction. Refer to Chapter 13 Cultural Resources for further discussion.
c. Disturb any human remains, including those interred outside of formal cemeteries?		X		No known human remains exist on the sites of the pedestrian improvements identified in the Master Plan. Nonetheless, mitigation has been recommended to insure appropriate project-level environmental review takes place before construction. Refer to Chapter 13 Cultural Resources for further discussion.
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	The Master Plan and identified pedestrian improvements do not involve the transport, use, and/or disposal of hazardous material.
b. Expose the public or the environment to a substantial hazard through reasonably foreseeable upset conditions involving the release of hazardous materials?			X	See 14.a
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	The Master Plan and identified pedestrian improvements do not involve the use or handling of hazardous material.
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	The Master Plan and identified pedestrian improvements are not located in areas at a known hazardous materials site. Refer to Chapter 15 Hazards and Hazardous Materials for further discussion.
e. Impair implementation of or physically interfere with an adopted emergency response or emergency evacuation plan?			X	The Master Plan and identified pedestrian improvements 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	Various	X		See Land Use discussion
Community Plan	Various	X		See Land Use discussion
Land Use Zone	Various	X		See Land Use discussion

[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.

19 ACKNOWLEDGEMENTS

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