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NOTICE OF COMPLETION AND AVAILABILITY OF DRAFT ENVIRONMENTAL IMPACT REPORT FOR PROPOSED NORTH FAIR OAKS COMMUNITY PLAN UPDATE

Notice is hereby given that the County of San Mateo has completed and is making available for public review a Draft Environmental Impact Report ("Draft EIR"). The Draft EIR will be available for public review for forty-five (45) days beginning August 10, 2011 to September 23, 2011. Information about the Draft EIR follows below.

PROJECT DESCRIPTION, PURPOSE, AND LOCATION
The County of San Mateo is proposing to adopt an updated North Fair Oaks Community Plan. North Fair Oaks is an unincorporated part of San Mateo County comprising approximately 798 acres bounded by the cities of Redwood City to the north, west and southwest, Atherton to the east, and Menlo Park to the northeast. The current North Fair Oaks Community Plan was adopted in 1979. The proposed updated Community Plan's policies and provisions address land use, circulation and parking, infrastructure, health and wellness, housing, economic development, and design guidelines. The proposed Community Plan Update includes new land use designations for five identified "Opportunity Areas," which due to their location, mix and intensity of existing development, and access to transportation and infrastructure, have the most potential for change. The draft North Fair Oaks Community Plan is available online at: http://www.co.sanmateo.ca.us/planning.

DRAFT EIR
The Draft EIR has been prepared by the County of San Mateo pursuant to all relevant sections of the California Environmental Quality Act (CEQA). The Draft EIR is intended to inform County of San Mateo decision-makers, other responsible agencies, and the general public of the potential environmental consequences associated with the Community Plan Update and to identify possible mitigation measures that would reduce or eliminate those impacts, pursuant to CEQA.

LEAD AGENCY: County of San Mateo

WHERE COPIES OF THE DRAFT EIR ARE AVAILABLE:

County of San Mateo Offices
Planning and Building Department
455 County Center, 2nd Floor
Redwood City, CA 94063

Public Libraries in North Fairs Oaks and the Cities of Redwood City, Menlo Park and Atherton

Posted on San Mateo County Planning and Building Department website:
http://www.co.sanmateo.ca.us/planning

DRAFT EIR PUBLIC REVIEW PERIOD: The 45-day review period starts on August 10, 2011 and concludes on September 23, 2011.

PUBLIC HEARING: The San Mateo County Planning Commission will hold two public hearings, September 14, 2011 and September 28, 2011, in the Board of Supervisors Chambers, 400 County Center, Redwood City, at which comments on the Draft EIR can be made. Also, the San Mateo County Board of Supervisors will hold a public hearing on October 18, 2011, at the same location. The public may use these forums to comment or may send written comments to County staff. If a commenter would like the County to include a response to submitted comments in the Final EIR, such comments must be submitted to the County before the close of the public review period at 5:00 PM on September 23, 2011.

Questions or written comments about this project and/or the public hearing should be directed to:

William Gibson, Planner
San Mateo County
Planning and Building Department
455 County Center, 2nd Floor
Redwood City, California 94063
Email: wgibson@co.sanmateo.ca.us
Telephone: 650/363-1816
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Comments cannot be submitted over the telephone. If you wish to challenge the County's approval of the North Fair Oaks Community Plan Update or its certification of the EIR for the North Fair Oaks Community Plan Update in court, an appeal first of said actions to the Board of Supervisors within the time period established in the County Code is required. In your appeal or in court, you may be limited to raising only those issues you or someone else raised at the Public Hearings described in this notice or in written correspondence delivered to the Planning and Building Department at the above address.

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1. INTRODUCTION

This Draft Environmental Impact Report (Draft EIR) has been prepared by the County of San Mateo in accordance with the California Environmental Quality Act (CEQA)[1] and associated CEQA Guidelines[2] to describe the potential environmental consequences of the County-proposed North Fair Oaks Community Plan Update. This Draft EIR is intended to serve as an informational document for use by public agency decision makers and the public in their consideration of the proposed Community Plan Update. The Plan itself is posted on-line at http://www.co.sanmateo.ca.us/portal/site/planning.

1.1 PROPOSED PROJECT

The County of San Mateo is proposing to adopt an updated North Fair Oaks Community Plan. North Fair Oaks is an unincorporated part of San Mateo County comprising approximately 798 acres bounded by the cities of Redwood City to the north, west and southwest, Atherton to the east, and Menlo Park to the northeast. The current North Fair Oaks Community Plan was adopted in 1979. The proposed updated Community Plan's policies and provisions address land use, circulation and parking, parks and recreation, infrastructure, health and wellness, housing, and economic development. The proposed Community Plan update includes new land use designations for the following five identified "Opportunity Areas," which due to their location, mix and intensity of existing development, and access to transportation and infrastructure, have the most potential for change:

- Middlefield Road between the western edge of the Community Plan area and 1st Avenue, which would be designated Commercial Mixed-Use to allow a higher density mix of commercial, residential, institutional and public uses; to facilitate transit-oriented development in the area around a potential future multi-modal transit station; and to support Middlefield Road as the main commercial destination in North Fair Oaks;

- Middlefield Road between 1st Avenue and 8th Avenue, which would be designated Neighborhood Mixed-Use to encourage a mix of medium-density, locally-oriented, smaller-scale commercial, residential and public uses;

- Existing industrial areas in the area bounded by 2nd Avenue, Willow Street, Fair Oaks Avenue and Bay Road, and the area along the Southern Pacific Railroad tracks between 5th Avenue and 12th Avenue, which would be designated Industrial Mixed-Use to encourage a greater mix of employment-generating industrial, commercial, institutional and public uses, and the possibility of limited low-density residential uses as a conditional use;

[1]The California Environmental Quality Act (CEQA) is codified in section 21000, et seq., of the California Public Resources Code.

[2]The CEQA Guidelines are set forth in sections 15000 through 15387 of the California Code of Regulations, Title 14, Chapter 3.

- El Camino Real between the western edge of the Community Plan area and Loyola Avenue, and along 5th Avenue between El Camino Real and the Caltrain tracks, which would be designated Commercial Mixed-Use to allow local and regional commercial uses and higher-density residential uses; and

- The Hetch Hetchy Bay Division Pipeline right-of-way between 12th Avenue and the eastern edge of the Community Plan area, which would be designated Parks.

The updated Community Plan identifies Middlefield Road at the crossing of the Caltrain and Southern Pacific Railroad tracks as a location for a possible future *multi-modal transit hub* to accommodate bus, bus rapid transit (BRT), and potential passenger rail service if the opportunity arises; to improve local and regional transit connections; and to stimulate surrounding transit-oriented development (TOD). The Plan identifies properties within a roughly ¼-mile radius of the proposed station site as appropriate for higher-intensity, mixed-use, transit-oriented development.

The updated Community Plan identifies three locations for new or improved roadway connections to enhance neighborhood connectivity for vehicles, bicycles and pedestrians: Marlborough Avenue at Berkshire Avenue, Berkshire Avenue across the railroad tracks, and 8th Avenue and Fair Oaks Avenue across the railroad tracks.

The updated Community Plan identifies six potential "gateway" entries into North Fair Oaks, which would be marked with special signage, building form, street tree, and sidewalk and crossing treatments: El Camino Real/ 5th Avenue, Middlefield Road/10th Avenue, Marsh Road/ Florence Street, Bay Road/5th Avenue, Spring Street/Charter Street, and Middlefield Road/Northside Avenue.

The updated Community Plan identifies the Middlefield Road/5th Avenue intersection as a Neighborhood Activity Node. The crossroad is identified as an ideal location for a plaza or other community gathering space that could offer outdoor seating, landmark elements such as a statue or water feature, and other amenities.

The updated Community Plan would allow the development of up to an additional 3,024 dwelling units, 180,000 square feet of retail uses, 155,000 square feet of office uses, 210,000 square feet of industrial uses, 110,000 square feet of institutional uses, and 3.8 acres of parks and recreation uses within the Community Plan area by 2035.

1.2 EIR PURPOSE AND INTENDED USE

Under CEQA, the County of San Mateo (County) is the designated Lead Agency[1] for the proposed North Fair Oaks Community Plan Update; i.e., the "project." As the Lead Agency, the County intends that this EIR serve as the CEQA-required environmental documentation for consideration of the project by County decision-makers, the public, any other responsible

[1]CEQA Guidelines section 15367 defines the "Lead Agency" as the public agency that has the principal responsibility for carrying out or approving a project. The County of San Mateo is the Lead Agency for the proposed North Fair Oaks Community Plan Update, ultimately responsible for adopting the Plan and all associated approvals identified in section 3.15 of this Draft EIR.

agencies and trustee agencies.[1] This EIR is intended to serve as a public information and disclosure document identifying those environmental impacts associated with the project that are expected to be significant, and describing mitigation measures and alternatives that could minimize or avoid significant impacts.[2] In accordance with CEQA Guidelines Section 15146 (Degree of Specificity), such impacts and mitigations are discussed in this Draft EIR to the level of detail necessary to allow reasoned decisions about the project. As a result of the information in this EIR, the County may act to approve or deny these various project actions, and/or to establish any associated requirements considered necessary to mitigate identified project impacts on the environment.

1.3 PROGRAM EIR APPROACH AND ASSUMPTIONS

1.3.1 Program EIR

This EIR has been prepared as a program EIR. A program EIR is a type of EIR authorized by section 15168 (Program EIR) of the CEQA Guidelines for use in documenting the environmental impacts of community general plans, redevelopment plans, specific plans, precise plans, and other planning "programs." As explained in the CEQA Guidelines, a program EIR is useful in evaluating the potential environmental impacts of a project that involves a series of interrelated actions that can reasonably be characterized as a single project. The CEQA-established program EIR concept and authority are described in more detail in Appendix 21.1 of this Draft EIR (Program EIR Authority). The approach taken in preparing this EIR under the program EIR authority has been to describe the anticipated area-wide and community-wide impacts of the Plan. The EIR describes the cumulative, aggregate effects of the Community Plan-proposed development framework, standards and guidelines, transportation and infrastructure improvements, implementation actions, and associated future development assumptions, on area-wide and community-wide environmental conditions. Such impacts are described at a level of detail consistent with the level of detail provided in the updated Community Plan.

Pursuant to CEQA, this program EIR evaluates the Community Plan-related impacts and mitigation needs that can be identified at this time. The more detailed impacts of future individual, site-specific, development and infrastructure projects that may be undertaken in accordance with the updated Community Plan, but which are not proposed at this time and therefore are not yet described in sufficient detail, are not considered in this program EIR; rather, the CEQA-required environmental review of such subsequent individual actions would be undertaken at a later time, if and when such proposals come before the County in the form of a site-specific development application or improvement project. At that time, when the details of the individual action are sufficiently defined, the action would be subject to its own, project-specific, environmental determination by the County in compliance with CEQA requirements.

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[1]Under the CEQA Guidelines, the term "Responsible Agency" includes all public agencies, other than the Lead Agency, that have discretionary approval power over aspects of the project for which the Lead Agency has prepared an EIR. Under the CEQA Guidelines, the term "trustee agency" means a state agency having jurisdiction by law over natural resources affected by the project that are held in trust by the people of California, such as the Department of Fish and Game.

[2]CEQA Guidelines section 15149(b).

1.3.2 Impact Assessment Assumptions

The purpose of this program EIR is to evaluate the likely environmental consequences of development in the Community Plan area under the updated Community Plan, and to identify mitigation measures and alternatives that could minimize or avoid potentially significant adverse environmental impacts and increase beneficial effects.[1] The Community Plan area buildout assumptions used as the basis for the impact analyses in this program EIR are derived from the buildout assumptions described in the draft Community Plan.

The impact analyses in this EIR are based on the conservative assumption that the updated Community Plan would be fully successful in meeting its objectives and, as a result, the Community Plan area would reach full buildout under the updated Community Plan land use designations, development framework and standards over the next approximately 25 years by 2035.

1.3.3 Impact Assessment Baseline

CEQA Guidelines sections 15125(a) and (e) stipulate that the existing environmental setting (the environmental conditions in the project vicinity at the time the environmental analysis is begun) should constitute the baseline physical conditions by which it is determined whether an impact is significant. Pursuant to this guideline, all impact assessments in this EIR are based upon comparison of the projected future "with project" conditions (i.e., buildout under the proposed updated Community Plan) with the existing environmental setting rather than with the future "without project" condition (i.e., buildout under the existing Community Plan). For a generalized comparison of anticipated future "with project" conditions with future "without project" conditions (i.e., with what would be expected to occur in the project area in the foreseeable future if the updated Community Plan were not approved), see the discussion of Alternative 2 (No Project: Existing Community Plan) in Chapter 18 of this EIR (Alternatives to the Proposed Project).

1.4 EIR SCOPE

As provided for in the CEQA Guidelines, the scope of this EIR includes all environmental issues to be resolved that are currently known to the Lead Agency (the County), including those issues and concerns identified as possibly significant by the County in its Initial Study of the proposed action and by other interested agencies and individuals in response to the County-issued Notice of Preparation of a Draft EIR (NOP). The County circulated an NOP (State Clearinghouse Number 2011042099) on May 3, 2011, in accordance with CEQA Guidelines Section 15082 (Notice of Preparation and Determination of Scope of EIR), for the purpose of soliciting views of responsible agencies, agencies with jurisdiction by law, trustee agencies, and interested parties requesting notice, as to the appropriate scope and content of the EIR. The CEQA-required 30-day NOP comment period ended on June 3, 2011. The NOP and companion Initial Study Checklist are presented in Appendix 21.2 herein.

Based on this initial scoping process, the impacts of the project on the following topics (listed in the order in which they are addressed in this EIR) are described in Chapters 4 through 16:

[1] CEQA Guidelines section 15149(b).

- Aesthetics,
- Air Quality,
- Biological Resources,
- Climate Change,
- Cultural and Historic Resources,
- Geology and Soils,
- Hazards and Hazardous Materials,
- Hydrology and Water Quality,
- Land Use and Planning,
- Noise and Vibration,
- Population, Housing and Employment
- Public Services and Utilities, and
- Transportation.

1.5 EIR ORGANIZATION AND CONTENT

Each of the topical environmental evaluations presented in Chapters 4 through 16 include the following three subsections:

- *Environmental Setting,* which describes pertinent existing conditions with regard to the environmental topic;

- *Regulatory Setting,* which describes federal, State and local laws, regulations and policies relevant to consideration of potential project impacts for the environmental topic; and

- *Impacts and Mitigation Measures,* which identifies: (1) the pertinent criteria under which an impact will be judged to be significant in this EIR, (2) identified project impacts, (3) whether each identified impact is "significant" or "less than significant," (4) mitigation measures for each identified "significant" impact, and (5) whether each impact would be "significant" or "less than significant" after implementation of the mitigation measures.

In addition, this Draft EIR includes a chapter summarizing the Draft EIR information in terms of various **CEQA-required assessment conclusions** (Chapter 17), including "unavoidable significant impacts," "irreversible environmental changes," "cumulative impacts," and "effects found not to be significant"; a chapter describing and comparing various possible **alternatives to the proposed project** (Chapter 18); and a chapter outlining the County's proposed **mitigation implementation monitoring** program for each identified mitigation measure (Chapter 19).

1.6 "SIGNIFICANT IMPACTS" AND OTHER KEY EIR TERMINOLOGY

This Draft EIR identifies the "significant impacts" of the project and corresponding mitigation measures that would avoid or reduce those impacts to a less-than-significant level. Where it is determined in this EIR that a particular impact cannot be avoided or reduced to a less-than-significant level by the identified mitigation measures, the EIR identifies that impact as an "unavoidable significant impact." Identified unavoidable significant impacts are also listed together in Section 17.2 of this EIR, "Unavoidable Significant Adverse Impacts." These particular terms ("significant," "unavoidable," "mitigation") and other key CEQA terminology used in this EIR are defined in Table 1.1, which follows.

Table 1.1

DEFINITIONS OF KEY EIR TERMINOLOGY	
Significant/Potentially Significant Impact	"Significant effect on the environment" means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic and aesthetic significance. (CEQA Guidelines, section 15382.) *"An economic or social change by itself shall not be considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant."* (CEQA Guidelines, section 15382.)
Significant Cumulative Impact	"Cumulative impacts" are defined as *"two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts."* (CEQA Guidelines, section 15355.)
Unavoidable Significant Impact	"Unavoidable significant impacts" are defined as those significant adverse environmental impacts for which either no mitigation or only partial mitigation is feasible. If the project is to be approved without imposing an alternative design, the Lead Agency must include in the record of the project approval a written statement of the specific reasons to support its action--i.e., a "statement of overriding considerations." (CEQA Guidelines, sections 15126.2(b) and 15093(b).)
Significance Criteria	The criteria used in this EIR to determine whether an impact is or is not *"significant"* are based on (a) CEQA-stipulated "mandatory findings of significance"--i.e., where any of the specific conditions occur under which the Legislature and the Secretary of Resources have determined to constitute a potentially significant effect on the environment, which are listed in CEQA Guidelines section 15065; (b) specific criteria that a Resources Agency has determined are "normally" considered to constitute a "significant effect on the environment;" (c) the relationship of the project effect to the adopted policies, ordinances and standards of the County and of responsible agencies; and/or (d) commonly accepted practice and the professional judgment of the EIR authors and Lead Agency staff.
Mitigation Measures	For each significant impact, the EIR must identify a specific "mitigation" measure or set of measures capable of *"(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 or maintenance operations during the life of the action; or (e) compensating for the impact by replacing or providing substitute resources or environments."* (CEQA Guidelines, section 15370.)

SOURCE: Wagstaff/MIG 2011.

2. SUMMARY

This EIR chapter provides a summary description of the North Fair Oaks Community Plan Update, a list of associated environmental issues to be resolved, a summary identification of significant impacts and mitigation measures associated with the Community Plan, and a summary identification of possible alternatives to the Plan (pursuant to CEQA Guidelines Section 15123, Summary).

This summary should not be relied upon for a thorough understanding of the details of the project, its individual impacts, and related mitigation needs. Please refer to Chapter 3 for a complete description of the project, Chapters 4 through 16 for a complete description of environmental impacts and associated mitigation measures, Chapter 17 for CEQA-required assessment considerations, and Chapter 18 for a description and evaluation of alternatives to the project.

2.1 PROPOSED COMMUNITY PLAN UPDATE

The County of San Mateo is proposing to adopt an updated North Fair Oaks Community Plan. The updated Community Plan contains integrated goals, policies, and programs for land use, circulation and parking, parks and recreation, infrastructure, health and wellness, housing, and economic development, designed to support a vibrant pedestrian-friendly community and promote a healthy mix of locally oriented uses throughout the community. Key issues and opportunities in this Community Plan Update include neighborhood environmental quality, housing, community services and facilities, the local economy, transportation, and public health and safety. The primary goals/objectives of the updated Plan are to:

- Improve connectivity and reduce mobility barriers throughout North Fair Oaks for all types of travel, including pedestrian, bicycle, automobile, and public transit.

- Improve area health and safety by increasing walkability and bikeability within North Fair Oaks, increasing access to healthy food sources, increasing access to open space and recreational opportunities, adding trees and other greenery, and promoting land uses and urban design patterns that mitigate health and safety issues.

- Improve travel and transit connections between North Fair Oaks and surrounding communities and the region.

- Provide sufficient, safe, and affordable housing of all types to meet the needs of current and future residents.

- Maintain and enhance a vital and viable mix of land uses, including commercial, industrial, residential, public, and other land uses to create a vibrant, livable environment for area residents, with ready access to local goods and services, recreational opportunities, employment, and transportation access.

- Provide adequate infrastructure to support current uses and facilitate future development.
- Promote development and redevelopment of unused and underutilized land with appropriate types of uses to serve the needs of the community.
- Maintain local employment opportunities and facilitate new job-generating development by preserving and encouraging a mix of uses in designated parts of North Fair Oaks, including preservation of key areas of existing industrial and commercial uses.
- Require and encourage appropriate development densities to support sufficient housing and employment-generating land uses to meet the needs of North Fair Oaks residents.
- Improve access to park and recreational facilities for all area residents.
- Support the creation of new public transit routes and stations, and promote appropriate development to facilitate creation of new transit facilities.

The updated North Fair Oaks Community Plan would allow up to approximately 3,024 additional dwelling units, 155,000 additional square feet of office uses, 180,000 additional square feet of retail uses, 210,000 additional square feet of industrial (R&D and general) uses, 110,000 additional square feet of institutional (community and school) uses, and 3.8 additional acres of public (parks and recreation) uses. This development capacity includes development within identified "Opportunity Areas" (described in subsection 3.4.2 of Chapter 3, Project Description) as well as infill development and redevelopment throughout the Community Plan area.

Implementation of the updated Community Plan would require the following County actions:

(1) certification of the Final Environmental Impact Report (Final EIR) for the proposed updated Community Plan;

(2) adoption of the updated Community Plan itself as an amendment to the San Mateo County General Plan; and

(3) approval of associated zoning amendments and associated amendments to subdivision regulations to reflect and implement the land uses, policies, development standards, programs, and strategies specified by the updated Community Plan.

2.2 ENVIRONMENTAL ISSUES

As required by the CEQA Guidelines, this EIR addresses the following areas of potential environmental impact or controversy known to the Lead Agency (the County), including those issues and concerns identified by the County in its Notice of Preparation (NOP) of this EIR (dated April 28, 2011) and by other agencies, organizations, and individuals in response to the NOP. These environmental concerns relate to the following topics (listed in the order that they are addressed in this EIR):

- Aesthetics,

- Air Quality,
- Biological Resources,
- Climate Change,
- Cultural and Historic Resources,
- Geology and Soils,
- Hazards and Hazardous Materials,
- Hydrology and Water Quality,
- Land Use and Planning,
- Noise,
- Population and Housing,
- Public Services and Utilities, and
- Transportation and Traffic.

2.3 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

For each of the 13 environmental topics listed above, any ***"significant"*** project or cumulative impact and associated mitigation measure or measures identified in this EIR are summarized in Table 2.1, the SUMMARY OF POTENTIALLY SIGNIFICANT IMPACTS AND RECOMMENDED MITIGATION MEASURES, which follows. The summary chart has been organized to correspond with the more detailed impact and mitigation discussions in chapters 4 through 16 of this EIR. The chart is arranged in five columns: (1) identified impacts, (2) potential significance without mitigation, (3) recommended mitigation measures, (4) the entity responsible for implementing each mitigation measure, and (5) the level of impact significance after implementation of the mitigation measure(s).

Table 2.1
SUMMARY OF POTENTIALLY SIGNIFICANT IMPACTS AND RECOMMENDED MITIGATION MEASURES

Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
AIR QUALITY				
Impact 5-1: Short-Term Construction Emissions. Demolition or construction activities facilitated by the updated Community Plan may generate temporary emissions of ROG, NO_X and PM_{10} that exceed BAAQMD thresholds of significance. In addition, related construction dust could cause localized health and nuisance impacts on adjacent residential sensitive receptors. These possible effects represent a ***potentially significant impact.***	S	**Mitigation 5-1.** Grading, demolition, or construction activity for future discretionary development projects within the Community Plan area shall be conditioned to implement the following or similar best management practices: (a) The following dust control measures by construction contractors, where applicable: During *demolition* of existing structures: ▪ Water active demolition areas to control dust generation during demolition of structures and break-up of pavement. ▪ Cover all trucks hauling demolition debris from the site. ▪ Use dust-proof chutes to load debris into trucks whenever feasible. During all *construction phases*: ▪ Water all active construction areas at least twice daily.	County	LS

S = Significant
LS = Less than significant
SU = Significant unavoidable impact
NA = Not applicable

Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
		▪ Water or cover stockpiles of debris, soil, sand, or other materials that can be blown by the wind. ▪ Cover all trucks hauling soil, sand, and other loose materials, or require all trucks to maintain at least two feet of freeboard. ▪ Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites. ▪ Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at construction sites. ▪ Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets. ▪ Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more). ▪ Enclose, cover, water twice daily, or apply (non-toxic) soil binders to exposed stockpiles (dirt, sand, etc.).		

S = Significant
LS = Less than significant
SU = Significant unavoidable impact
NA = Not applicable

Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
		▪ Limit traffic speeds on unpaved roads to 15 miles per hour. ▪ Install sandbags or other erosion control measures to prevent silt runoff to public roadways. ▪ Replant vegetation in disturbed areas as quickly as possible. ▪ Consult with the BAAQMD prior to demolition of structures suspected to contain asbestos to ensure that demolition/construction work is conducted in accordance with BAAQMD rules and regulations. (b) The following best management controls on emissions by diesel-powered construction equipment used by construction contractors, where applicable: ▪ When total construction projects at any one time would involve greater than 270,000 square feet of development or demolition, a mitigation program to ensure that only equipment that would have reduced NO_X and particulate matter exhaust emissions shall be implemented. This program shall meet BAAQMD performance standards for NO_x standards--e.g., should demonstrate		

S = Significant
LS = Less than significant
SU = Significant unavoidable impact
NA = Not applicable

Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
		that diesel-powered construction equipment would achieve fleet-average 20 percent NO_X reductions and 45 percent particulate matter reductions compared to the year 2010 ARB statewide fleet average. ▪ Ensure that visible emissions from all on-site diesel-powered construction equipment do not exceed 40 percent opacity for more than three minutes in any one hour. Any equipment found to exceed 40 percent opacity (or Ringelmann 2.0) shall be repaired or replaced immediately. ▪ The contractor shall install temporary electrical service whenever possible to avoid the need for independently powered equipment (e.g., compressors). ▪ Diesel equipment standing idle for more than three minutes shall be turned off. This would include trucks waiting to deliver or receive soil, aggregate, or other bulk materials. Rotating drum concrete trucks could keep their engines running continuously as long as they were on-site and away from residences. ▪ Signs shall be posted to alert workers that diesel equipment standing idle for more		

S = Significant
LS = Less than significant
SU = Significant unavoidable impact
NA = Not applicable

Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
		than five minutes shall be turned off. This would include trucks waiting to deliver or receive soil, aggregate, or other bulk materials. Rotating drum concrete trucks could keep their engines running continuously as long as they were on-site and away from residences. ▪ Properly tune and maintain equipment for low emissions. Implementation of these BAAQMD-identified "feasible control measures" for construction emissions would reduce the short-term construction-related air quality impact of the updated Community Plan to a ***less-than-significant level***.		
Impact 5-2: Community Risk and Hazard Impacts. Future development in accordance with the updated Community Plan could expose sensitive receptors to levels of toxic air contaminants (TACs) or $PM_{2.5}$ that cause an unacceptable cancer risk or hazard, which represents a ***potentially significant impact.***	S	**Mitigation 5-2.** For future discretionary development intended for occupancy by sensitive receptors located within the following specified distances from the identified sources of TACs and $PM_{2.5}$ within the Community Plan area, the County shall implement one of the mitigation measure options listed below: ▪ El Camino Real – 100 feet, ▪ Caltrain and Dumbarton Rail Corridor – 100 feet, ▪ Dry cleaning operations – 300 feet (see Figure 5.1), and	County	LS

S = Significant
LS = Less than significant
SU = Significant unavoidable impact
NA = Not applicable

Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
		▪ Other stationary sources – 100 feet (see Figure 5.1). (Site-specific modeling for future development projects proposed within these distances may provide a data basis upon which this buffer distance may be reconsidered and reduced.) (1) Change the updated Community Plan proposed land use map to avoid the siting of new sensitive receptors (e.g., residential uses) within these setback areas. (This mitigation option may be considered by the County to be inconsistent with the basic objectives of the updated Community Plan to provide additional housing along these corridors in order to generate additional vitality and foot traffic, ridership for transit, and social and business activity.) (2) Alternatively, require future individual discretionary development projects within the Community Plan area that would place air quality sensitive receptors within these specified distances from identified sources, to either: (a) For projects within the specified distances from identified sources, conduct a site-specific health risk assessment using		

S = Significant
LS = Less than significant
SU = Significant unavoidable impact
NA = Not applicable

Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
		air quality dispersion modeling methodologies and screening thresholds recommended by the BAAQMD to demonstrate that, despite a location within the screening setback distances, modeled site-specific exposures would be less-than-significant. *or* (b) Mitigate anticipated community risks and hazards through implementation of the following mitigations: ▪ Where residential uses or other sensitive receptors are proposed to be located within the setback distances specified above or identified through site-specific health risk assessment using air quality dispersion modeling to indicate potentially significant exposure, air filtration units shall be installed and maintained. The air filtration systems shall be installed to achieve BAAQMD effectiveness performance standards in removing $PM_{2.5}$ from indoor air. The system effectiveness requirement shall be determined during final design, when the exact level of exposure is known, based on proximity to these sources;		

S = Significant
LS = Less than significant
SU = Significant unavoidable impact
NA = Not applicable

Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
		▪ Locate ventilation air intakes and operable windows away from these sources; ▪ Where appropriate, install passive (drop-in) electrostatic filtering systems, especially those with low air velocities (i.e., 1 mph); ▪ Consider tiered plantings of trees, such as redwood, deodar cedar, live oak and oleander, between sensitive uses and these sources; ▪ Consider plan implementation phasing that delays occupancy of units with highest exposure so that source emissions regulations and vehicle fleet turnover that would result in lower emissions may take more effect and lower exposure levels (since emission rates will decrease in the future, projects developed later in the updated Community Plan buildout timeframe would have less exposure); ▪ Avoid locating truck loading zones near sensitive units;		

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Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
		▪ Require rerouting of nearby heavy-duty truck routes; ▪ Enforce illegal parking and/or idling restrictions on heavy-duty trucks in the vicinity; and ▪ Install indoor air quality monitoring units in buildings. With implementation of either one of these mitigation options, the potential TAC and $PM_{2.5}$ exposure impacts of the updated Community Plan would be reduced to a ***less-than-significant level.*** Potential future preparation and implementation by the County of a Community Risk Reduction Plan (CRRP) to bring TAC and $PM_{2.5}$ concentrations for the entire community down below BAAQMD thresholds of significance as an alternative to addressing associated community health risk on a project-by-project basis would also reduce this impact to a ***less-than-significant level***.		
Impact 5-3: Odor Impacts of Mixed Use Development. Development in accordance with the updated Community Plan could result in food service uses (e.g., restaurants) or other odor-generating uses in close proximity to or in the same building as residential or other odor-	S	**Mitigation 5-3.** Discretionary approvals within the Community Plan area for food service (e.g., restaurants) or other odor generating uses located in close proximity to or in the same building as residential or other odor sensitive uses shall be conditioned to implement a	County	LS

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Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
sensitive uses. This possibility represents a ***potentially significant impact.***		combination of the following measures to reduce odors and potential conflicts and complaints: ▪ for restaurant or cooking uses, use of such devices as integral grease filtration or grease removal systems, baffle filters, electrostatic precipitators, water cooling/cleaning units, disposable pleated or bag filters, activated carbon filters, oxidizing pellet beds, and catalytic conversion, as well as proper packaging and frequency of food waste disposal, and exhaust stack and vent location with adequate consideration of nearby receptors; and ▪ for new residential dwellings within 300 feet of existing paint spraying operations (e.g., auto body shops), cleaning operations (e.g., dry cleaners), or other uses with the potential to cause odors, identification and adequate disclosure of potential odor impacts in notices to prospective buyers or tenants. With implementation of this mitigation, the potential odor impacts of the updated Community Plan would be reduced to a ***less-than-significant level.***		

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Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
BIOLOGICAL RESOURCES				
Impact 6-1: Migratory Wildlife Impacts. Grading and construction activities associated with development in accordance with the updated Community Plan could temporarily reduce nesting opportunities for resident and migratory bird species that are protected by the Migratory Bird Treaty Act. This possibility represents a ***potentially significant impact.***	S	**Mitigation 6-1:** During the County's development review process for discretionary approvals for development within the Community Plan area, the County shall require tree removal and trimming, as well as ground disturbing activities, to be scheduled to take place outside of the breeding season for migratory bird species (February 15 to August 31). If construction is unavoidable during this time, a qualified biologist shall conduct a survey for nesting birds no more than three days prior to the removal or trimming of any tree and prior to the start of ground disturbing activities. If active nests are not present, project activities can proceed as scheduled. If active nests of protected species are detected, a buffer shall be established around the nest based on consultation with CDFG and based on CDFG standards, which buffer shall remain in place until the County has determined, in consultation with a qualified biologist, that the buffer is no longer necessary to avoid disturbance to the nest. With implementation of this measure, potential impacts of the updated Community Plan on nesting birds would be reduced to a ***less-than-significant level.***	County	LS

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Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
CULTURAL AND HISTORIC RESOURCES				
Impact 8-1: Impacts on Archaeological Resources. Fourteen previous cultural resource studies have surveyed approximately 10 percent of the Community Plan area. The Plan area contains three recorded archaeological resources, P-41-000086, P-41-000299, and P-41-000303, all prehistoric Native American habitation sites. Given the location of the Community Plan area within valley lands approximately ½-mile from the historic San Francisco Bay shoreline near the locations of former intermittent and perennial watercourses, there is a moderate to high potential for the presence of additional unrecorded Native American resources within the Community Plan area. There are no previously recorded historic-period archaeological resources within the Community Plan area. Based on review of historical literature and maps, there is a moderate to high potential for the presence of unrecorded historic-period archaeological resources within the Community Plan area. Development in accordance with the updated Community Plan could disrupt, alter or eliminate as-yet undiscovered prehistoric or historic-period archaeological sites, potentially	S	**Mitigation 8-1:** The County shall implement the following measures: (a) With the assistance of a professional archaeologist on the CHRIS list of consultants who meets the Secretary of the Interior's Professional Qualifications Standards, County staff shall identify and keep confidential the locations of the three recorded Native American habitation sites within the Community Plan area, P-41-000086, P-41-000299, and P-41-000303. (b) Before approval of any discretionary project that could affect any of the three recorded Native American habitation sites within the Community Plan area, P-41-000086, P-41-000299, and P-41-000303, a professional archaeologist on the CHRIS list of consultants who meets the Secretary of the Interior's Professional Qualifications Standards shall assess the resources and provide project-specific recommendations. (c) If prehistoric or historic-period archaeological resources are encountered during future construction within the Community Plan area, work shall be temporarily halted in the vicinity of the discovered materials and workers shall avoid altering the materials and their context until a	County	LS

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NA = Not applicable

Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
including Native American remains. This possibility represents a ***potentially significant impact.***		qualified professional archaeologist has evaluated, recorded and determined appropriate treatment of the resource, in consultation with the County. Project personnel shall not collect cultural resources. Cultural resources shall be recorded on DPR 523 historic resource recordation forms. Native American resources include chert or obsidian flakes, projectile points, mortars, and pestles; and dark friable soil containing shell and bone dietary debris, heat-affected rock, or human burials. Historic-period resources include stone or adobe foundations or walls; structures and remains with square nails; and refuse deposits or bottle dumps, often located in old wells or privies. If it is determined that the proposed development could damage a unique archaeological resource, mitigation shall be implemented in accordance with Public Resources Code Section 21083.2 and Section 15126.4 of the CEQA Guidelines, with a preference for preservation in place. This measure would reduce the potential impact on archaeological resources to a ***less-than-significant level.***		
Impact 8-2: Impacts on Historic Resources. There are ten previously recorded historic properties within the Community Plan area: eight recorded buildings which have been determined ineligible for the National Register of Historic Places but have not been evaluated	S	**Mitigation 8-2.** For any individual discretionary project within the Community Plan area that the County determines may involve a property that contains a potentially significant historic resource (i.e., a recorded historic resource or an unrecorded building or structure 45 years or	County	LS/SU

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Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
for potential eligibility for the California Register of Historical Resources or for local listing; and two recorded structures, the Peninsula Commute Service (also known as the San Francisco & San Jose Railway) and the Hetch Hetchy Bay Division Pipeline. There may also be additional unrecorded buildings, structures or objects 45 years or older within the Community Plan area that are of potential historical value. Future development on properties within the Community Plan area that contain a potentially significant historic resource (i.e., a recorded historic resource or an unrecorded building or structure 45 years or older) may cause the demolition, destruction or alteration of a significant historic resource such that the significance of the resource is "materially impaired." This possibility represents a ***potentially significant impact.***		older), the resource shall be evaluated by County Planning Department staff, and if warranted, shall be assessed by a qualified professional on the CHRIS list of consultants who meet the Secretary of the Interior's Professional Qualifications Standards to determine whether the property is a significant historical resource and whether or not the project may have a potentially significant adverse effect on the historical resource. If, based on the recommendation of the qualified professional, the County determines that the project may have a potentially significant effect, the County shall require the applicant to implement the following mitigation measures: (a) Adhere to one or both of the following "Secretary Standards": ▪ Secretary of Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings; or ▪ Secretary of Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (1995), Weeks and Grimmer.		

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Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
		The qualified professional shall make a recommendation to the County as to whether the project fully adheres to the Standards for Rehabilitation, and any specific modifications necessary to do so. The final determination as to a project's adherence to the Standards for Rehabilitation shall be made by the County body with final decision-making authority over the project. Such a determination of individual project adherence to the Secretary Standards will constitute mitigation of the project historic resource impacts to a ***less than significant level*** (CEQA Guidelines section 15064.5). (b) If measure (a) is not feasible, the historic resource shall be moved to a new location compatible with the original character and use of the historical resource, and its historic features and compatibility in orientation, setting, and general environment shall be retained, such that the resource retains its eligibility for listing on the California Register. If neither measure (a) nor measure (b) is feasible, the County shall, as applicable and to the extent feasible, implement the following measures in the following order: (c) Document the historic resource before any changes that would cause a loss of integrity and loss of continued eligibility. The documentation		

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Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
		shall adhere to the Secretary of the Interior's Standards for Architectural and Engineering Documentation. The level of documentation shall be proportionate with the level of significance of the resource. The documentation shall be made available for inclusion in the Historic American Building Survey (HABS) or the Historic American Engineering Record (HAER) Collections in the Library of Congress, the California Historical Resources Information System and the Bancroft Library, as well as local libraries and historical societies, such as the North Fair Oaks Community Library. (d) Retain and reuse the historic resource to the maximum feasible extent and continue to apply the Secretary of the Interior's Standards for Rehabilitation to the maximum feasible extent in all alterations, additions and new construction. (e) Through careful methods of planned deconstruction to avoid damage and loss, salvage character-defining features and materials for educational and interpretive use on-site, or for reuse in new construction on the site in a way that commemorates their original use and significance. (f) Interpret the historical significance of the resource through a permanent exhibit or program in a publicly accessible location on the		

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Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
		site or elsewhere within the Community Plan area. Implementation of measures (b), (c), (d), (e) and/or (f) would reduce the potentially significant impact on historic resources. However, without knowing the characteristics of the potentially affected historic resource or the subject future individual development proposal, the County cannot determine with certainty that these measures would reduce the potential impacts of the individual project on historic resources to a less-than-significant level. Consequently, this impact may remain ***significant and unavoidable.***		
Impact 8-3: Disturbance of Paleontological Resources. Development in accordance with the updated Community Plan could potentially disrupt, alter or eliminate as-yet undiscovered paleontological resources. This possibility represents a ***potentially significant impact.***	S	**Mitigation 8-3:** If paleontological resources are encountered during future grading or excavation in the Community Plan area, work shall avoid altering the resource and its stratigraphic context until a qualified paleontologist has evaluated, recorded and determined appropriate treatment of the resource, in consultation with the County. Project personnel shall not collect cultural resources. Appropriate treatment may include collection and processing of "standard" samples by a qualified paleontologist to recover micro vertebrate fossils; preparation of significant fossils to a reasonable point of identification; and depositing significant fossils in a museum repository for permanent curation and storage,	County	LS

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Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
		together with an itemized inventory of the specimens. This measure would reduce the potential impact on paleontological resources to a ***less-than-significant level.***		
Impact 8-4: Cumulative Cultural Resources Impacts. The loss of significant archaeological, historical and paleontological resources due to a development activity facilitated by the updated Community Plan would represent a cumulatively considerable contribution to a loss of cultural resources throughout San Mateo County and the surrounding region, and thus a ***significant cumulative impact.***	S	**Mitigation 8-4:** Implementation of Mitigations 8-1 and 8-3 would reduce the impacts of the updated Community Plan, and thus the project contribution to significant cumulative impacts on archaeological resources and paleontological resources, to a less-than-significant level. However, it cannot be determined at this time, without consideration of a specific development proposal, whether it would be feasible under Mitigation 8-2 to mitigate to a less-than-significant level the impacts on historic resources of any given subsequent individual development project within the Community Plan area that involves a potentially significant historic resource, and so the contribution of the updated Community Plan to cumulative impacts on cultural resources would remain cumulatively considerable and thus ***significant and unavoidable.***	County	SU
HYDROLOGY AND WATER QUALITY				
Impact 11-1: Flooding Impacts Related to Sea Level Rise. A limited number of parcels located on Bay Road, Spring Street, Willow	S	**Mitigation 11-1.** Future individual development projects on properties within the Plan area subject to flooding as a result of predicted sea	County	LS

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Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
Street and Charter Street in the northwestern portion of the Plan area could be subject to flooding due to predicted sea level rise associated with global climate change. With increased flooding potential in the future, development in accordance with the updated Community Plan could place people, structures and other improvements in these areas at an increased risk of injury or loss from flooding. This possibility represents a ***potentially significant impact.***		level rise shall be required to comply with specific flood damage avoidance requirements commonly required for development within 100-year flood hazard areas under the National Flood Insurance Program and Chapter 35.5, Flood Hazard Areas, of the San Mateo County Code of Ordinances, even if such projects do not lie within an Area of Special Flood Hazard as identified by FEMA. These requirements may include, but are not limited to, raising the elevation of habitable space above anticipated flood heights, creating 'freely communicating' structures that allow flood waters to pass through lower levels of buildings, and ensuring that site design does not result in a reduction of floodplain areas which could result in increasing flooding conditions downstream. Implementation of this measure would reduce flooding impacts related to predicted sea level rise associated with global climate change to a ***less-than-significant level.***		
NOISE AND VIBRATION				
Impact 13-1: Demolition and Construction Period Noise. Demolition and construction activities associated with the updated Community Plan could temporarily increase noise levels at nearby residential and commercial sensitive receptors. Noise levels at 50 feet from the demolition or construction	S	**Mitigation 13-1.** Reduce demolition- and construction-period noise impacts on nearby residences in the Community Plan area by incorporating conditions in project demolition and construction contract agreements that stipulate the following conventional construction-period noise abatement measures:	County	LS

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Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
equipment source could reach approximately 105 dBA, resulting in intermittent interference with typical existing residential and business activities, and exceeding the County's noise ordinance limits. This possibility represents a ***potentially significant impact.***		▪ *Construction Plan.* Prepare a detailed construction plan identifying the schedule for major noise-generating construction activities. The construction plan shall identify a procedure for coordination with nearby noise-sensitive facilities so that construction activities can be scheduled to minimize noise disturbance. ▪ *Construction Scheduling.* Ensure that noise-generating construction activity is limited to between the hours of 7:00 a.m. and 6:00 p.m. weekdays, 9:00 a.m. and 5:00 p.m. on Saturdays, and does not occur at any time on Sundays, Thanksgiving or Christmas. ▪ *Construction Equipment Mufflers and Maintenance.* Equip all internal combustion engine-driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment. ▪ *Equipment Locations.* Locate stationary noise-generating equipment as far as possible from sensitive receptors when sensitive receptors adjoin or are near a construction project site. ▪ *Construction Traffic.* Route all construction traffic to and from the construction sites via		

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Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
		designated truck routes where possible. Prohibit construction-related heavy truck traffic in residential areas where feasible. ▪ *Quiet Equipment Selection.* Use quiet construction equipment, particularly air compressors, wherever possible. ▪ *Temporary Barriers.* Construct solid plywood fences around construction sites adjacent to residences, operational businesses, or noise-sensitive land uses. ▪ *Temporary Noise Blankets.* Temporary noise control blanket barriers should be erected, if necessary, along building facades adjoining construction sites. This mitigation would only be necessary if conflicts occurred which were not able to be resolved by scheduling. (Noise control blanket barriers can be rented and quickly erected.) ▪ *Noise Disturbance Coordinator.* For larger construction projects, the County may choose to require project designation of a "Noise Disturbance Coordinator" who would be responsible for responding to any local complaints about construction noise. The Disturbance Coordinator would determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and		

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Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
		institute reasonable measures to correct the problem. Conspicuously post a telephone number for the Disturbance Coordinator at the construction site and include it in the notice sent to neighbors regarding the construction schedule. (The project sponsor should be responsible for designating a Noise Disturbance Coordinator, posting the phone number, and providing construction schedule notices. The Noise Disturbance Coordinator would work directly with an assigned County staff member.) Implementation of these measures would reduce this intermittent, short-term, project construction-period noise impact to a ***less-than-significant level.***		
Impact 13-2: Exposure to Temporary Construction Ground-Borne Vibration. Demolition and construction activities associated with Plan Update-facilitated development activity could generate substantial temporary ground-borne vibration (e.g., from pile driving) exceeding standard vibration thresholds, which could interfere with normal activities or cause a nuisance for or damage to adjacent properties. Temporary excessive ground-borne vibration would represent a ***potentially significant impact.***	S	**Mitigation 13-2.** Reduce ground-borne vibration levels during individual, site-specific future project demolition and construction periods in the Plan area by incorporating conditions in individual project demolition and construction contractor agreements that stipulate the following ground-borne vibration abatement measures: ▪ Ensure that vibration-generating activity is limited to between the hours of 7:00 a.m. and 6:00 p.m. weekdays, 9:00 a.m. and 5:00	County	LS

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Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
		p.m. on Saturdays, and does not occur at any time on Sundays, Thanksgiving or Christmas. ▪ Notify occupants of land uses located within 200 feet of pile-driving activities of the project construction schedule in writing. ▪ Investigate in consultation with County staff possible pre-drilling of pile holes as a means of minimizing the number of pile driving blows required to seat the pile. ▪ Conduct a pre-construction site survey documenting the condition of any historic structure located within 200 feet of proposed pile driving activities. ▪ Monitor pile driving vibration levels to ensure that vibration does not exceed appropriate thresholds for the potentially affected building (5mm/sec or 0.2 inches/sec ppv for structurally sound buildings). Implementation of these measures would reduce this potential intermittent and short-term Plan Update-related vibration impact to a ***less-than-significant level.***		

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Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
Impact 13-3: Permanent Ground-Borne Vibration Impacts. Development facilitated by the updated Community Plan would not be expected to introduce any permanent new sources of significant groundborne vibration. However, the Plan Update would permit new multifamily and single-family residential development within 100 feet of the Caltrain tracks or the Dumbarton Rail Corridor. Groundborne vibration levels are typically less than the FTA criteria for frequent events (72 VdB) at a distance of approximately 100 feet or more from the centerline of the Caltrain tracks or the Dumbarton Rail Corridor. Therefore, where new residential or other vibration sensitive uses are proposed within 100 feet or less of the Caltrain tracks or the Dumbarton Rail Corridor, a ***potentially significant vibration impact*** could occur.	S	**Mitigation 13-3:** Before the development of new habitable buildings in the Plan area within 100 feet of the centerline of the Caltrain tracks or Dumbarton Rail Corridor, completion of a detailed site-specific vibration study shall be required demonstrating that groundborne vibrations associated with rail operations either (1) would not exceed applicable FTA groundborne vibration impact assessment criteria (see Table 13.4), or (2) can be reduced to below the applicable FTA criteria thresholds through building design and construction measures (e.g., stiffened floors, modified foundations). Implementation of this measure would reduce this potential intermittent vibration impact to a ***less-than-significant level.***	County	LS
Impact 13-4: Exposure to Noise Levels Exceeding Standards. The occupants of new residential and other noise-sensitive development facilitated in the Plan area by the Community Plan Update could be exposed to noise levels in excess of County noise standards and California Building Code standards, which would represent a ***potentially significant impact.***	S	**Mitigation 13-4.** All proposed new multifamily residential or other noise-sensitive uses within 300 feet of the existing Caltrain line and proposed Dumbarton Rail Corridors, and within 120 feet of El Camino Real and other arterial roadways, shall submit for County approval a noise study, consistent with the requirements of the California Building Code, to identify noise reduction measures necessary to achieve compatibility with County noise standards and California Building Code noise compatibility	County	LS

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Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
		standards. The noise study shall be approved by the County's Planning and Building Department prior to issuance of a building permit. Identified noise reduction measures, in order of preference so that windows can be opened, may include: ▪ Site and building design so as to minimize noise in shared residential outdoor activity areas by locating such areas behind the buildings, in courtyards, or orienting the terraces toward the interior of lots rather than streets; ▪ Site and building design so as to minimize noise in the most intensively occupied and noise-sensitive interior spaces of units, such as bedrooms, by placing such interior spaces and their windows and other openings in locations with less noise exposure; ▪ Design of windows, doors, and other sound transmission paths such as ventilation openings, walls, and roofs to achieve a high Sound Transmission Class (STC) rating and/or other noise-attenuating characteristics. ▪ Installation of forced air mechanical ventilation systems in all units exposed to		

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Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
		noise levels exceeding Title 24 standards to allow residents the option of reducing noise by keeping the windows closed. Implementation of these measures to the satisfaction of the County's Planning and Building Department would reduce this impact to a ***less-than-significant level.***		
Impact 13-5: Cumulative Plus Project Noise Impacts. Cumulative plus project traffic noise levels are expected to increase by 3 dBA, and traffic resulting from the updated Community Plan would contribute at least 1 decibel to the cumulative traffic noise level increase, along the following two street segments: ▪ Bay Avenue between Woodside Road and Fifth Avenue, and ▪ Middlefield Road between Fifth Avenue and Eighth Avenue. Noise-sensitive receptors along these street segments would be exposed to a substantial cumulative increase in traffic noise levels. The updated Community Plan would result in a cumulatively considerable contribution to this cumulative noise impact, representing a ***significant cumulative impact.***	S	**Mitigation 13-5.** Implementation of some combination of the following traffic noise reduction measures on Bay Avenue from Woodside Road to Fifth Avenue and on Middlefield Road from Fifth Avenue to Eighth Avenue would mitigate this impact: ▪ *Pave streets with reduced-noise pavement types such as rubberized or open grade asphalt.* Reduced-noise pavement types would reduce noise levels by 2 to 3 dBA depending on the existing pavement type, traffic speed, traffic volumes, and other factors. Case studies have shown that the replacement of standard dense grade asphalt with open grade or rubberized asphalt can reduce traffic noise levels along residential streets by 2 to 3 dBA. A possible noise reduction of 2 dBA would be expected using conservative engineering assumptions. Project-generated traffic noise	County	SU

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Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
		increases could be reduced to a less-than-significant level along Bay Avenue from Woodside Road to Fifth Avenue and Middlefield Road from Fifth Avenue to Eighth Avenue. In order to provide permanent mitigation, all future repaving would needed to consist of "quieter" pavements. ▪ *Construct new or larger noise barriers.* New or larger noise barriers could reduce noise levels by 5 dBA L_{dn}. The final design of such barriers, including an assessment of their feasibility and cost-effectiveness, should be completed during final design. ▪ *Install traffic calming measures to slow traffic along Bay Avenue and Middlefield Road.* Traffic calming measures could provide a qualitative (i.e., perceived if not measurable) improvement by smoothing out the rise and fall in noise levels caused by speeding vehicles. ▪ *Provide sound insulation treatments to affected buildings.* Sound-rated windows and doors, mechanical ventilation systems, noise insulation, and other noise-attenuating building materials could reduce noise levels in interior spaces.		

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Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
		Measures such as repaving with reduced-noise pavement types, the replacement or construction of noise barriers, traffic calming, and sound insulation could reduce the project contribution to cumulative traffic noise at affected sensitive receptors on Bay Avenue from Woodside Road to Fifth Avenue and on Middlefield Road from Fifth Avenue to Eighth Avenue to a less-than-significant level. However, each of these measures involves other non-acoustical considerations. For example, other engineering considerations may require continued use of dense grade asphalt. Installation of noise barriers may be inconsistent with desired community character and local aesthetic goals. Installation of noise barriers and sound insulation treatments on private property would require agreements with each affected property owner. These measures therefore may not be feasible to reduce the project contribution to cumulative traffic noise at every affected sensitive receptor, or such measures may not be desired by the County or by affected individual property owners. Therefore, the contribution of the updated Community Plan to cumulative noise impacts is considered to represent an unavoidable, cumulatively considerable, effect--i.e., a ***significant and unavoidable Impact.***		

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Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
TRANSPORTATION AND TRAFFIC				
Impact 16-1: El Camino Real/Fifth Avenue Intersection Impacts. Under Existing Plus Project conditions, intersection operations would deteriorate from acceptable LOS C (existing) to unacceptable LOS D during the AM peak hour, which would represent a ***potentially significant impact*** under Caltrans criteria.	S	**Mitigation 16-1.** Restripe the southbound approach to one dedicated left turn lane, one dedicated right turn lane, and one shared left turn/right turn lane. This mitigation would improve the intersection to LOS C during the AM peak hour and therefore would reduce the project impact to a ***less-than-significant level***.	County	LS
Impact 16-2: Middlefield Road/Woodside Road Intersection Impacts. Under Existing Plus Project conditions, intersection operations would deteriorate from acceptable LOS D (existing) to unacceptable LOS F during the PM peak hour, which would represent a ***potentially significant impact*** under C/CAG criteria.	S	**Mitigation 16-2.** Modify traffic signal operations to include a westbound right turn overlap phase and a northbound right turn overlap phase. This mitigation would improve the intersection to LOS E during the PM peak hour and therefore would reduce the project impact to a ***less-than-significant level***.	County	LS
Impact 16-3: Middlefield Road/Fifth Avenue Intersection Impacts. Under Existing Plus Project conditions, intersection operations would deteriorate from acceptable LOS C (existing) to unacceptable LOS F during the AM peak hour, and from unacceptable LOS E (existing) to unacceptable LOS F during the PM peak hour, which would represent a ***potentially significant impact*** under San Mateo County criteria.	S	**Mitigation 16-3.** In the northbound and southbound directions, prohibit on-street parking within the vicinity of the intersection, shift the through/right turn lane and stripe a dedicated left turn lane; modify traffic signal operations from split phase to concurrent northbound and southbound travel with protected left turn phasing; prohibit parking in the eastbound direction within the vicinity of the intersection and stripe a dedicated eastbound right turn lane.	County	LS

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Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
		This mitigation would improve the intersection to LOS C during the AM peak hour, and therefore would reduce the project impact to a ***less-than-significant level***.		
Impact 16-4: Middlefield Road/Semicircular Road Intersection Impacts. Under Existing Plus Project conditions, intersection operations would deteriorate from unacceptable LOS E (existing) to unacceptable LOS F during the AM peak hour, and from unacceptable LOS D (existing) to unacceptable LOS F during the PM peak hour, which would represent a ***potentially significant impact*** under San Mateo County criteria.	S	**Mitigation 16-4.** In the eastbound direction, prohibit on-street parking within the vicinity of the intersection, and stripe a dedicated left turn lane, resulting in one left turn lane, one through lane, and one shared through/right turn lane; modify traffic signal operations to the following phases: ▪ Phase 1: NE Semicircular Rd through movement and WB Middlefield Rd through and unprotected left (as exists currently) ▪ Phase 2: EB Middlefield Rd through phase and WB Middlefield Rd through and unprotected left turn ▪ Phase 3: EB Middlefield Rd through and protected left turn ▪ Phase 4: Pedestrian only phase for Semicircular Rd crossing (as exists currently) ▪ Phase 5: NB and SB phases with unprotected left turns (as exists currently)	County	LS

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Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
		This mitigation would improve the intersection to LOS D during the AM and PM peak hours, and therefore would reduce the project impact to a ***less-than-significant level***.		
Impact 16-5: Fifth Avenue/Bay Road Intersection Impacts. Under Existing Plus Project conditions, intersection operations would deteriorate from acceptable LOS D (existing) to unacceptable LOS F during the AM peak hour, and from acceptable LOS C (existing) to unacceptable LOS F during the PM peak hour, which would represent a ***potentially significant impact*** under City of Redwood City criteria.	S	**Mitigation 16-5.** The Redwood City Traffic Impact Mitigation Fee Program includes the installation of a traffic signal at this intersection as a planned capital improvement. As a condition of approval for future individual discretionary development projects within the Plan area, require project fair-share contribution toward the installation of this traffic signal. This mitigation would improve the intersection to LOS C during the AM peak hour, and therefore would reduce the project impact to a ***less-than-significant level***.	County	LS
Impact 16-6: Bay Road/Woodside Road Intersection Impacts. Under Existing Plus Project conditions, intersection operations would deteriorate from acceptable LOS C (existing) to unacceptable LOS D during the AM peak hour, and from acceptable LOS C (existing) to unacceptable LOS E during the PM peak hour, which would represent a ***potentially significant impact*** under Caltrans criteria.	S	**Mitigation 16-6.** The MTC Transportation 2035 Plan and the Redwood City Traffic Impact Mitigation Fee Program identify the widening of Woodside Road to six travel lanes between El Camino Real and US 101 as a planned capital improvement. As a condition of approval for future individual discretionary development projects within the Plan area, require project fair-share contribution toward the addition of a southbound through lane and optimization of cycle length. This mitigation would improve the intersection to LOS C during the AM and PM	County	LS

S = Significant
LS = Less than significant
SU = Significant unavoidable impact
NA = Not applicable

Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
		peak hours, and therefore would reduce the project impact to a ***less-than-significant level***.		
Impact 16-7: Transit Facilities Impacts. The Existing Plus Project scenario would generate additional transit trips, which would place substantial additional demands on the existing and planned SamTrans, Caltrain and High Speed Rail Authority transit network in the Plan area. This would represent a ***potentially significant impact.***	S	**Mitigation 16-7.** The County shall coordinate with SamTrans, Caltrain, the High Speed Rail Authority, and other appropriate transit authorities to ensure that existing and future transit services within the vicinity of North Fair Oaks are capable of accommodating potential Plan Update-related increases in transit demand. Given the anticipated long-term Plan area buildout period and the uncertainty of the existing and proposed transit facilities, equipment, and services beyond the County's jurisdiction, it cannot be determined at this time whether service improvements would be implemented concurrently with increase demand such that acceptable service levels would be maintained. Therefore, the impacts of the Community Plan on transit service are currently deemed to be ***significant and unavoidable***.	County	SU
Impact 16-8: Safety Impacts at At-Grade Railroad Crossings. Development facilitated by the Plan Update may result in substantial additional automobile, bicycle, and/or pedestrian traffic at existing at-grade railroad crossings in the Plan area vicinity and potentially contribute to safety issues at these	S	**Mitigation 16-8.** As a condition of approval for future individual discretionary development projects within the Plan area that would generate substantial additional multi-modal trip (i.e., motor vehicles or pedestrians) crossing volume at at-grade railroad crossings in the project vicinity, require project implementation of the following:	County	SU

S = Significant
LS = Less than significant
SU = Significant unavoidable impact
NA = Not applicable

Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
railroad crossings. This would represent a ***potentially significant impact.***		▪ Transportation Impact Studies (TIS) for At-Grade Railroad Crossings. The TIS, otherwise required to be prepared for proposed developments under the Community Plan Update, in accordance with standard City policies and practices, will evaluate potential impacts to at-grade railroad crossings resulting from project-related traffic. The TIS shall examine whether the proposed development would generate substantial multi-modal trips crossing at-grade railroad crossings which could substantially increase hazards between incompatible uses (e.g., motor vehicles and trains, pedestrians and trains). Such analysis may include a Diagnostic Review for each railroad crossing. ▪ If required, the Diagnostic Review must be completed with all affected properties and stakeholders, in coordination with the California Public Utilities Commission (CPUC). It will include: roadway and rail descriptions; collision history; traffic volumes for all modes; train volumes; vehicular speeds; train speeds; and existing rail and traffic controls. Based on the Diagnostic Review and the number of projected trips, the TIS will evaluate if the proposed development increases hazards at the crossing. For example, vehicle traffic		

S = Significant
LS = Less than significant
SU = Significant unavoidable impact
NA = Not applicable

Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
		generated by a proposed development may cause vehicle queuing at intersections resulting in traffic spilling back onto at-grade railroad crossings. ▪ Where the TIS identifies substantially hazardous crossing conditions caused by the proposed development, mitigations relative to the development's contribution to the crossing, as necessary, shall be applied through project redesign and/or incorporation of improvements to reduce potential adverse impacts. Proposed improvements must be coordinated with CPUC and affected railroads and all necessary permits/approvals obtained, including a GO 88-B Request (Authorization to Alter Highway Rail Crossings). These improvements may include: – installation of additional warning signage; – improvements to warning devices at existing rail crossings; – installation or improvement to automobiles and/or pedestrian control gates; – installation of concrete panels to provide a smooth crossing surface; – reduction in the flangeway gap to improve pedestrian and bicyclist safety;		

S = Significant
LS = Less than significant
SU = Significant unavoidable impact
NA = Not applicable

Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
		– installation of median separation to prevent vehicles from driving around railroad crossings; – improvements to traffic signaling at intersections adjacent to crossings (e.g., signal preemption); – prohibition of parking within 100 feet of the crossings to improve the visibility of warning devices and approaching trains; – where soundwalls, landscaping, buildings, etc., would be installed near crossings, maintain the visibility of warning devices and approaching trains; – elimination of driveways near crossings; – installation of vandal-resistant fencing or walls to limit the access of pedestrians onto the railroad right-of-way; and/or – installation of grade separations at crossings. This mitigation measure shall be applied by the County on individual development projects (case-by-case), as appropriate. The incorporation of improvements identified in this mitigation measure could reduce the development's impact to the at-grade railroad crossing to a less-than-significant level. However, to the extent that installation of safety mechanisms is not feasible (physically, financially or otherwise), impacts would remain		

S = Significant
LS = Less than significant
SU = Significant unavoidable impact
NA = Not applicable

Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
		significant and unavoidable. More detailed individual project-specific analysis of this impact and effectiveness of the mitigation measure at specific at-grade railroad crossings is not feasible in this programmatic EIR; therefore, it is conservatively concluded that this mitigation measure may not mitigate the identified significant impact to a less-than-significant level, and the impact remains potentially significant and unavoidable. Therefore, this EIR conservatively identifies the Plan Update impact on railroad crossing safety as ***significant and unavoidable***.		
Impact 16-9: Cumulative Plus Project Impact on El Camino Real/Fifth Avenue Intersection. Under Cumulative Plus Project conditions, intersection operations would deteriorate from an unacceptable LOS D (No Project, 37.0 seconds average delay) to unacceptable LOS D (50.1 seconds average delay) during the AM peak hour, and from acceptable LOS C (No Project) to unacceptable LOS D delay during the PM peak hour, which would represent a ***potentially significant impact*** under Caltrans criteria.	S	**Mitigation 16-9.** Implement Mitigation 16-1: restripe the southbound approach to one dedicated left turn lane, one dedicated right turn lane, and one shared left turn/right turn lane. Under the Cumulative Plus Project condition during the AM peak hour, this mitigation would result in a projected LOS C; however, during the PM peak hour, the intersection would still operate at LOS D. Additional capacity would be needed at this intersection to mitigate the Cumulative Plus Project impact. Constructing additional lanes would require obtaining additional right-of-way and relocation of utilities, and would contradict the purpose of the Plan Update to create a pedestrian, bicycle, and transit-friendly	County	SU

S = Significant
LS = Less than significant
SU = Significant unavoidable impact
NA = Not applicable

Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
		environment. Achievement of an "acceptable" vehicular LOS standard at this intersection would not encourage development of the pedestrian-friendly, mixed-use, transit-oriented environment. Typically, construction of additional intersection lanes can worsen conditions for pedestrian and bicycle travel by increasing exposure to conflicts with vehicles and deteriorating the non-motorized environment. Also, since this intersection is controlled by Caltrans, this improvement would exceed the County's authority to implement. This impact is therefore considered ***significant and unavoidable***.		
Impact 16-10: Cumulative Plus Project Impact on Middlefield Road/Woodside Road Intersection. Under Cumulative Plus Project conditions, intersection operations would deteriorate from an acceptable LOS E (No Project) to unacceptable LOS F during both the AM and PM peak hour, which would represent a ***potentially significant impact*** under C/CAG criteria.	S	**Mitigation 16-10.** Implement Mitigation 16-2: modify traffic signal operations to include a westbound right turn overlap phase and a northbound right turn overlap phase. This mitigation would improve the intersection to LOS E during the AM and PM peak hours and would therefore reduce the project impact to a ***less-than-significant level***.	County	LS
Impact 16-11: Cumulative Plus Project Impact on Middlefield Road/Fifth Avenue Intersection. Under Cumulative Plus Project conditions, intersection operations would deteriorate from an acceptable LOS C (No Project) to unacceptable LOS E during the AM peak hour, and from unacceptable LOS F (No	S	**Mitigation 16-11.** Implement Mitigation 16-3: in the northbound and southbound directions, prohibit on-street parking within the vicinity of the intersection, shift the through/right turn lane and stripe a dedicated left turn lane; modify traffic signal operations from split phase to concurrent northbound and southbound travel with	County	LS

S = Significant
LS = Less than significant
SU = Significant unavoidable impact
NA = Not applicable

Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
Project, 83.9 seconds average delay) to unacceptable LOS F (254.5 seconds average delay) during the PM peak hour, which would represent a ***potentially significant impact*** under San Mateo County criteria.		protected left turn phasing; prohibit parking in the eastbound direction within the vicinity of the intersection; and stripe a dedicated eastbound right turn lane. This mitigation would improve the intersection to LOS C during the AM peak hour and LOS E during the PM peak hour. While the PM peak hour would still not meet the LOS standard, the mitigation would decrease average delay to a level that is lower than under Cumulative No Project conditions. Therefore, the project's contribution to this cumulative impact would be reduced to a ***less-than-significant level***.		
Impact 16-12: Cumulative Plus Project Impact on Middlefield Road/Semicircular Road Intersection. Under Cumulative Plus Project conditions, intersection operations would deteriorate from an acceptable LOS D (No Project) to unacceptable LOS E and LOS F during the AM and PM peak hour, respectively, which would represent a ***potentially significant impact*** under San Mateo County criteria.	S	**Mitigation 16-12.** Implement Mitigation 16-4: in the eastbound direction, prohibit on-street parking within the vicinity of the intersection, and stripe a dedicated left turn lane, resulting in one left turn lane, one through lane, and one shared through/right turn lane; modify traffic signal operations to the following phases: ▪ Phase 1: NE Semicircular Rd through movement and WB Middlefield Rd through and unprotected left (as exists currently) ▪ Phase 2: EB Middlefield Rd through phase and WB Middlefield Rd through and unprotected left turn	County	LS

S = Significant
LS = Less than significant
SU = Significant unavoidable impact
NA = Not applicable

Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
		▪ Phase 3: EB Middlefield Rd through and protected left turn ▪ Phase 4: Pedestrian only phase for Semicircular crossing (as exists currently) ▪ Phase 5: NB and SB phases with unprotected left turns (as exists currently) This intersection is projected to operate at LOS D during the AM and PM peak hours. With the addition of project generated trips, the intersection is projected to operate at LOS E during the AM peak hour and LOS F during the PM peak hour under the Cumulative plus Project scenario. The mitigation measure would mitigate the project's impact at this intersection. The proposed mitigation would improve the intersection to LOS D during the AM and PM peak hours and therefore would reduce the project impact to a ***less-than-significant level***.		
Impact 16-13: Cumulative Plus Project Impact on Middlefield Road/Marsh Road Intersection. Under Cumulative Plus Project conditions, intersection operations would deteriorate from an acceptable LOS C (No Project) to unacceptable LOS E during the PM peak hour, which would represent a ***potentially significant impact*** under Town of Atherton criteria.	S	**Mitigation 16-13.** As identified in the Menlo Gateway Project Draft EIR, construction of a southbound left turn lane from Middlefield Road onto Marsh Road, or similar traffic mitigations, could improve intersection operation to acceptable LOS D during the PM peak hour. However, this mitigation measure may require obtaining additional right-of-way from adjacent developed properties, and is therefore potentially	County	SU

S = Significant
LS = Less than significant
SU = Significant unavoidable impact
NA = Not applicable

Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
		infeasible. Additionally, since the intersection is in the jurisdiction of the Town of Atherton, this improvement would exceed the County's authority to implement. It is recommended that the County coordinate with the Town of Atherton to consider implementation of the mitigation. Until such time as this mitigation is considered feasible, the impact is considered ***significant and unavoidable***.		
Impact 16-14: Cumulative Plus Project Impact on Bay Road/Woodside Road Intersection. Under Cumulative Plus Project conditions, intersection operations would deteriorate from an unacceptable LOS C (No Project) to unacceptable LOS E and LOS F during the AM and PM peak hour, respectively, which would represent a ***potentially significant impact*** under Caltrans criteria.	S	**Mitigation 16-14.** Construction of an additional northbound through lane, an additional southbound through lane, and a dedicated westbound right turn lane, plus addition of an overlap signal phase to coincide with the existing southbound left turn phase, would improve operation at this intersection to acceptable LOS C during the AM and PM peak hours. However, this mitigation measure may require obtaining additional right-of-way from adjacent developed properties, and is therefore potentially infeasible. Constructing additional lanes would also require relocation of utilities, and would contradict the purpose of the Plan Update to create a pedestrian, bicycle, and transit-friendly environment. Typically, such intersection improvements can worsen conditions for pedestrian and bicycle travel by increasing exposure to conflicts with vehicles and deteriorating the non-motorized environment. Additionally, this intersection is controlled by	County	SU

S = Significant
LS = Less than significant
SU = Significant unavoidable impact
NA = Not applicable

Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
		Caltrans, this improvement would exceed the County's authority to implement. This impact is therefore considered ***significant and unavoidable***.		
Impact 16-15: Cumulative Plus Project Safety Impacts at At-Grade Railroad Crossings. Development facilitated under Cumulative Plus Project conditions may result in additional automobile, bicycle, and/or pedestrian traffic at the existing at-grade railroad crossings and potentially contribute to safety issues along the railroad crossings. This would represent a ***potentially significant cumulative impact.***	S	**Mitigation 16-15.** Implement Mitigation 16-8. As discussed under that mitigation, it is conservatively concluded that the mitigation would not mitigate the identified significant impact to a less-than-significant level, and the impact would remain ***significant and unavoidable***.	County	SU

S = Significant
LS = Less than significant
SU = Significant unavoidable impact
NA = Not applicable

2.4 SUMMARY OF ALTERNATIVES

To provide a basis for further understanding of the environmental effects of a proposed project and possible approaches to reducing its identified significant impacts, the CEQA Guidelines require an EIR to also "...describe a range of reasonable alternatives to the project, or to the location of the project, which 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 evaluate the comparative merits of the alternatives." Pursuant to these CEQA sections, Chapter 18 identifies and evaluates the following three alternatives to the project:

- **Alternative 1: No Project--Existing Conditions.** Pursuant to CEQA Guidelines section 15126.6(e)(1), Alternative 1 compares the effects of the project to existing conditions. Alternative 1 would maintain the existing conditions as described in the "Setting" sections of each environmental topic chapter in this EIR. With Alternative 1, there would be no new development within the Community Plan area and existing conditions would remain.

- **Alternative 2: No Project--Existing Community Plan.** Alternative 2 consists of buildout of the Community Plan area in accordance with the existing Community Plan, within approximately 25 years, or by 2035. Alternative 2 would result in lower densities, a more auto-oriented development character, and a reduction in the number of housing units and the amount of non-residential development as compared to the project.

- **Alternative 3: Updated Community Plan--Lower Development Density and Intensity.** Alternative 3 assumes adoption of a similar North Fair Oaks Community Plan Update, but with a lower density and intensity of development—i.e., less change in land use, density and building height as compared to the project. Alternative 3 would provide for the development of up to an additional 2,008 housing units, 85,000 square feet of retail uses, 110,000 square feet of office uses, 50,000 square feet of institutional uses, and 2.0 acres of parks within the Community Plan area within approximately 25 years, or by 2035. There would be no change in the amount of industrial development within the Community Plan area with Alternative 3.

- **Alternative 4: Alternative Plan Location.** The CEQA Guidelines state that an EIR shall describe and evaluate a reasonable range of alternatives to the project, "or the location of the project," which would feasibly attain most of the project objectives, but would avoid or substantially lessen one or more of the EIR identified significant effects of the project. In particular, the CEQA Guidelines indicate that EIR identification of significant unavoidable impacts warrants consideration of alternative project locations that may avoid or substantially lessen these effects. Pursuant to this requirement, EIR chapter 18 includes under Alternative 4 a discussion of the possibility of alternative sites for the proposed North Fair Oaks Community Plan Update, and an explanation of the County's determination that no alternative location for the Community Plan would be feasible.

2.4.6 Environmentally Superior Alternative

The CEQA Guidelines (section 15126[e][2]) stipulate, "If the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives." Other than the No Project Alternative, Alternative 3: Lower Development Density and Intensity, would result in the least adverse environmental impacts,

and would therefore be the "environmentally superior alternative." This conclusion is based on the comparative impact conclusions in EIR Table 18.1.

3. PROJECT DESCRIPTION

This EIR chapter describes the proposed North Fair Oaks Community Plan Update or "project" addressed in this program EIR. As stipulated by the CEQA Guidelines, this project description has been detailed to the extent needed for evaluation and review of environmental impacts. In accordance with section 15124 of the CEQA Guidelines, this chapter describes (a) the location and boundaries of the Plan Update area; (b) background information relevant to the Plan Update; (c) the basic objectives of the Plan Update; (d) the vision, development framework, development standards and guidelines, and goals and policies included in the Plan Update; (e) the development capacity assumptions of the Plan Update; and (f) the approvals required to implement the Plan Update.

3.1 PROJECT LOCATION

3.1.1 Regional and Local Setting

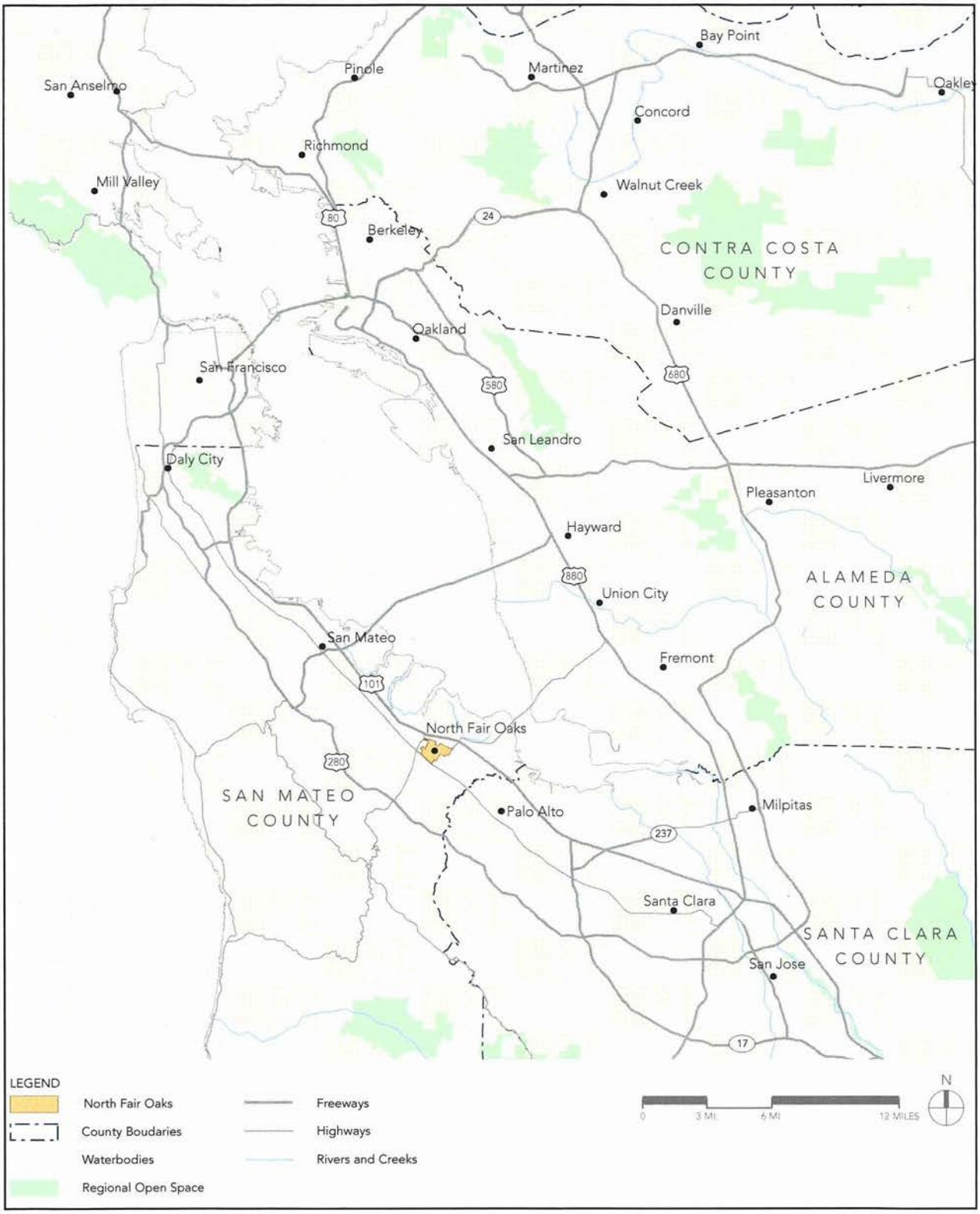
The County is proposing to adopt an updated North Fair Oaks Community Plan. Figures 3.1 and 3.2 illustrate the regional location and local boundaries of the approximately 798-acre Community Plan area. North Fair Oaks is an unincorporated part of San Mateo County in the nine-county San Francisco Bay Area. The community is bounded by the cities of Redwood City to the north, west and southwest, Atherton to the east, and Menlo Park to the northeast. The City of San Francisco is approximately 30 miles to the north, and the City of San Jose is about 20 miles to the south. North Fair Oaks is located four miles north of Stanford University. Though close to San Francisco Bay, North Fair Oaks access to the shoreline is blocked by Highway 101 to the northeast.

Highway access to North Fair Oaks is provided by Highway 82 (El Camino Real) to the southwest, Highway 84 (Woodside Road) to the west, and Highway 101 (Bayshore Freeway) to the northeast. Southern Pacific Railroad (SPR) and Caltrain tracks divide the North Fair Oaks community into three separate neighborhoods (north, central, and south neighborhoods).

Caltrain provides regional commuter rail service between San Francisco and San Jose. The closest Caltrain station, in neighboring Redwood City, is connected to North Fair Oaks by San Mateo County Transit Authority (SamTrans) bus lines. A proposed commuter rail service on the SPR alignment from the Redwood City Caltrain Station to the Union City BART Station (in the East Bay) is also currently being considered by regional agencies.

3.1.2 Plan Area Boundaries and Uses

(a) Plan Area Boundaries. Figure 3.2 shows the location and boundaries of the Plan area. As shown on Figure 3.2, the Plan area is generally bounded by Bay Street on the north and El Camino Real (Highway 82) on the south. The eastern and western Plan area boundaries are varied, including, for example, Marsh Road and Encina Avenue on the east and Douglas Avenue on the west.



SOURCE: Wagstaff/MIG

Figure 3.1

PROJECT LOCATION

SOURCE: Wagstaff/MIG

Figure 3.2

NORTH FAIR OAKS COMMUNITY PLAN AREA

(b) Existing Plan Area Land Uses. Existing land uses in the approximately 798-acre North Fair Oaks Plan area can be classified into four general categories: residential (365.2 acres), commercial (41.3 acres), industrial (117.2 acres), and institutional/public (33.5 acres). The remaining approximately 240 acres are dedicated to road and railroad rights-of-way. About two-thirds of all parcels in North Fair Oaks (excluding rights-of-way) are in residential use. Existing residential uses range from low density residential (0.3 to 6.0 dwelling units per acre [du/ac]) to high density residential (17.5 to 87.0 du/ac). Low density residential parcels are located primarily in the central neighborhood, between the Caltrain and Southern Pacific Railroad tracks. Medium density (6.1 to 17.4 du/ac) and high density residential uses are located generally beyond this central neighborhood.

Neighborhood commercial uses are located along the Plan area's commercial corridors, including portions of Middlefield Road and 5th Avenue. General commercial uses are located along El Camino Real and portions of Middlefield Road. Industrial uses are concentrated along portions of the SPR tracks and to the north of Fair Oaks Avenue/west of 2nd Avenue. Railroad tracks, and the parcels along the tracks, divide the neighborhoods. Two elementary schools and one community playground are located in North Fair Oaks. Approximately 13.8 acres in the community are vacant.

3.2 PROJECT BACKGROUND

3.2.1 Area History

North Fair Oaks is one of the oldest communities in San Mateo County, with settlement dating back to the 1850s. Prior to the 1900s, North Fair Oaks remained largely open prairie and ranch land, with numerous groves of oak trees. The first development boom began shortly after the 1906 earthquake. Oak trees and low land prices attracted many San Francisco residents looking for home sites. In 1909, subdivided lots sold for $25 each, with as little as $5 down in 1909. Much of North Fair Oaks was subdivided by 1920. The arrival of farmers from Dust Bowl states during the 1930s intensified the settlement, and by the end of World War II, development appeared on every subdivided lot.[1] Many of the street improvements in North Fair Oaks were installed during the housing booms of the 1930s and 1940s.

3.2.2 1979 North Fair Oaks Community Plan

The original North Fair Oaks Community Plan, prepared by the cooperative efforts of the San Mateo County Planning Commission, North Fair Oaks Advisory Council, and County Planning staff in 1979, and remaining in effect, addresses community goals for land use, housing, circulation, parks and recreation, economic development, and government organization. The 1979 Plan identifies specific policies formulated to implement these key goals. The 1979 Plan was prepared in response to issues identified in a 1976 North Fair Oaks Community Profile and a 1977 Options Report. The 1979 Plan was adopted as an amendment to the San Mateo County General Plan. Key goals in the 1979 Plan include:

[1] County of San Mateo, Department of Environmental Management, Planning and Development Division, Area Plans Summary, 1985, p. 4.1.

- Create a land use pattern which is compatible with the predominantly low-density, single-family residential character of the community while maintaining a strong commercial and industrial base.

- Provide a sufficient supply of safe, sanitary housing of adequate size for all North Fair Oaks residents, at an affordable cost.

- Alleviate traffic conflicts and promote the use of public transit.

- Provide park and recreation services that are convenient and fulfill the needs of a majority of North Fair Oaks residents.

- Maintain a commercial/industrial base which contributes to the economic well being of the community while controlling the external effects upon residential developments.

- Provide a governmental structure which best serves a majority of North Fair Oaks residents.

Key issues and opportunities identified in the 2011 North Fair Oaks Community Plan Update, which have become community priorities over the intervening years, include: neighborhood environmental quality, housing, community services and facilities, the local economy, transportation, and public health and safety.

3.2.3 Plan Update Process and Community Involvement

The Community Plan Update team (County staff and consultants) has been implementing a many-faceted community outreach strategy. The strategy has included stakeholder meetings, community workshops, and steering committee meetings comprised of residents, property owners, business owners, County representatives, developers, community organizations, and youth representatives. From these meetings and workshops, an updated, comprehensive community vision has been identified for the Community Plan area.

Following identification of the community vision, the Plan team developed a number of alternative plan scenarios that were then refined through further community and committee participation into a preferred Plan alternative. A project website was also developed at the outset of the planning process and has been regularly updated to provide an additional avenue for community involvement.

3.3 PROJECT OBJECTIVES

CEQA Guidelines section 15124(b) requires the EIR to describe the basic objectives and underlying purpose of the project. Directly related to this CEQA requirement, the updated Community Plan includes "Plan Objectives," as follows:

- Improve connectivity and reduce mobility barriers throughout North Fair Oaks for all types of travel, including pedestrian, bicycle, automobile, and public transit.

- Improve area health and safety by increasing walkability and bikeability within North Fair Oaks, increasing access to healthy food sources, increasing access to open space and

recreational opportunities, adding trees and other greenery, and promoting land uses and urban design patterns that mitigate health and safety issues.

- Improve travel and transit connections between North Fair Oaks and surrounding communities and the region.
- Provide sufficient, safe, and affordable housing of all types to meet the needs of current and future residents.
- Maintain and enhance a vital and viable mix of land uses, including commercial, industrial, residential, public, and other land uses to create a vibrant, livable environment for area residents, with ready access to local goods and services, recreational opportunities, employment, and transportation access.
- Provide adequate infrastructure to support current uses and facilitate future development.
- Promote development and redevelopment of unused and underutilized land with appropriate types of uses to serve the needs of the community.
- Maintain local employment opportunities and facilitate new job-generating development by preserving and encouraging a mix of uses in designated parts of North Fair Oaks, including preservation of key areas of existing industrial and commercial uses.
- Require and encourage appropriate development densities to support sufficient housing and employment-generating land uses to meet the needs of North Fair Oaks residents.
- Improve access to park and recreational facilities for all area residents.
- Support the creation of new public transit routes and stations, and promote appropriate development to facilitate creation of new transit facilities.

3.4 PROJECT PURPOSE AND DEVELOPMENT FRAMEWORK

The North Fair Oaks Community Plan Update is intended to set forth a new vision for the Plan area. The Plan would establish an updated development framework; land use goals and policies; a set of goals and policies for circulation and parking, infrastructure, health and wellness, housing, and economic development; design standards and guidelines for public and private realm improvements; and an implementation program. Much of this Plan information is directly applicable to the environmental topics discussed in this EIR (e.g., Aesthetics, Air Quality, Land Use and Planning, Hydrology and Water Quality, Utilities and Public Services, Transportation), as described below.

The proposed Community Plan Update contains eight chapters: Introduction, Land Use Designations, Circulation and Parking, Infrastructure, Health and Wellness, Housing, Design Guidelines, and Economic Development. The Plan is supported by an Implementation Program, a separate document that describes and prioritizes specific strategies to achieve the Plan's objectives.

3.4.1 Plan Purpose

The North Fair Oaks Community Plan Update is a long-range policy document that establishes goals and policies for land use, circulation and parking, infrastructure, health and wellness, housing, and economic development for North Fair Oaks. The Plan supports the community's vision of North Fair Oaks as a complete, vital community, with an appropriate mix of housing, employment, and services to meet the needs of North Fair Oaks residents; that is safe and accessible for pedestrians and bicyclists; has access to open space and recreational opportunities; that is connected by transit within the community and to the greater region; and that establishes the framework for future development and improvements to meet the needs of current and future residents and to maintain and improve the livability of North Fair Oaks. The updated Plan complements and is consistent with the goals and policies incorporated in the San Mateo County General Plan and San Mateo County Zoning Regulations, but the land uses, zoning designations, policies, and implementation programs described in the Plan are specific to North Fair Oaks, and supercede those incorporated in the existing 1979 Community Plan.

3.4.2 Plan Update Development Framework

The proposed land use pattern identified in the updated Community Plan is illustrated on Figure 3.3. The proposed updated Community Plan land use and circulation concepts are summarized below.

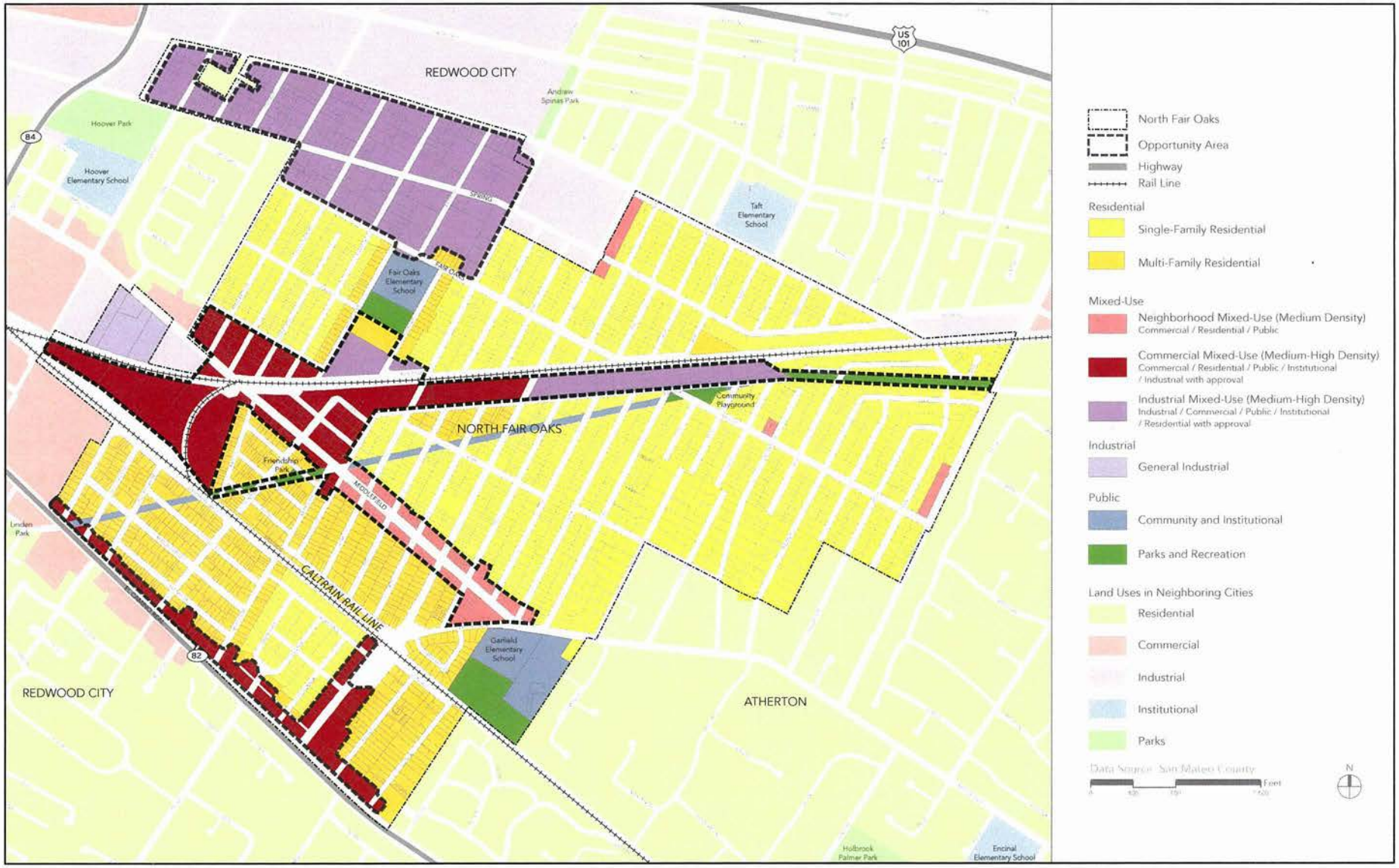
(a) Land Use. To support a vibrant pedestrian-friendly community and promote a healthy mix of locally oriented uses, a number of "Opportunity Areas" (five) have been identified throughout the community. These areas are considered to have the most potential for change in North Fair Oaks, given their location, mix and intensity of existing land uses, proximity to other land uses, and access to transportation and infrastructure. New land use designations for neighborhood business, general commercial, and industrial uses have been formulated for these Opportunity Areas, as follows:

- The land use designation along Middlefield Road from 1st Avenue to the western edge of North Fair Oaks, and along the Southern Pacific Railroad tracks from 5th Avenue to the western edge of the community, would be Commercial Mixed-Use,[1] which would allow a higher intensity mix of commercial, residential, public, and institutional uses. The designation is intended to support transit-oriented development near a proposed future multi-modal transit station and support Middlefield Road's existing character as a primary commercial destination in the community.

- The land use designation along the Southern Pacific Railroad tracks from 5th Avenue to 12th Avenue would be Industrial Mixed-Use. The designation is intended to allow a greater mix of light industrial, research and development, commercial, public, and institutional uses.

- The land use designation along the Hetch-Hetchy right-of-way from 12th Avenue to the eastern edge of the community would be Parks and Recreation.

[1] As shown on Figure 3.3, a portion of this area would be designated Industrial Mixed-Use and Multi-Family Residential.



SOURCE: Wagstaff/MIG

Figure 3.3

PROPOSED LAND USE

- The land use designation along Middlefield Road from 1st Avenue to 8th Avenue would be Neighborhood Mixed-Use. The designation is intended to allow a mix of medium-density, locally oriented uses including smaller scale commercial, residential, and public uses.

- The land use designation along El Camino Real from Loyola Avenue to the western edge of North Fair Oaks, and along 5th Avenue between El Camino Real and the Caltrain tracks, would be Commercial Mixed-Use. The designation is intended to allow a mix of higher density residential development and higher intensity locally and regionally oriented commercial uses.

- The land use designation for the existing industrial area bounded by 2nd Avenue, Willow Street, Fair Oaks Avenue, and Bay Road would be Industrial Mixed-Use. The designation is intended to allow a greater mix of employment-generating uses including industrial, commercial, institutional, and public uses. The designation would also reserve the possibility, as a conditional use, of limited low-intensity residential uses that do not conflict with light industry.

(b) Circulation. Middlefield Road is recognized in the updated Plan as the heart of North Fair Oaks, where a locally oriented mix of uses and community amenities would be concentrated. The crossing of Middlefield Road and 5th Avenue is identified as a "Neighborhood Activity Node," and is identified as an ideal location for a community gathering space such as a plaza with outdoor seating, public art or water feature, and other amenities.

(1) Primary Gateways. Six potential "Primary Gateways" into North Fair Oaks, which represent the primary points of entry into the community, are proposed. The gateways could be distinguished by a combination of design elements (e.g., signage, special building forms, street trees, special sidewalk and crosswalk/intersection treatments). The Primary Gateways would be:

- El Camino Real and 5th Avenue,
- Middlefield Road and 8th Avenue,
- Marsh Road and the Southern Pacific Railroad crossing,
- Bay Road and 5th Avenue,
- Spring Street and Charter Street, and
- Middlefield Road and the Southern Pacific Railroad crossing.

(2) Connections. In addition, to provide greater connectivity throughout the community for all modes of transportation (especially bicycle and pedestrian), the following locations have been designated for potential new or improved connections within the community:

- Marlborough Avenue at Berkshire Avenue,
- Berkshire Avenue, across the Caltrain tracks, and
- 8th Avenue and Fair Oaks Avenue, across the Southern Pacific Railroad tracks.

(3) Transit-Oriented Development Area. An area designated for potential multi-modal transit improvements and future transit-oriented development (TOD) is proposed for Middlefield Road at its crossing with the railroad tracks. The area would accommodate bus, bus rapid transit (BRT), and potentially passenger light rail service, in order to improve both local and regional transit connections and to act as a catalyst for TOD consistent with the land use designations

described in (1) above. The TOD area designation indicates the currently preferred TOD location, but the feasibility and timing, as well as design details, of an actual TOD project in the area remain to be determined. Such a project would depend on the future actions of the transit service providers, City of Redwood City, and County Board of Supervisors, as well as on future development patterns and potential.

(4) Potential Light Rail Line. A preferred North Fair Oaks area route for a potential light rail line is identified along Middlefield Road and 5th Avenue. Intended to be coordinated with a proposed City of Redwood City streetcar line, the North Fair Oaks route would run west-east along Middlefield Road from the western edge of the community to 5th Avenue, then north-south along 5th Avenue. The feasibility and timing, as well as the technical details, of an actual future light rail project remain to be determined, and would depend on actions of the City of Redwood City as well as the County Board of Supervisors.

(5) Pedestrian and Bicycle Pathways. Segments of the Hetch-Hetchy right-of-way, extending from Marsh Road west to the Southern Pacific Railroad tracks and from Middlefield Road to the Caltrain tracks, are designated in the Plan Update for community parks, open space, and/or pedestrian and bicycle pathways.

3.5 PROJECT LAND USE GOALS AND POLICIES

The Community Plan Update includes a set of land use and urban design goals and policies intended to encourage mixed-use development, promote revitalization, strengthen neighborhood and community character, encourage transit-oriented development, and create distinct gateways. These proposed new goals and policies are listed below.

Goal 2.1: ***Encourage mixed-use development along major commercial corridors and within industrial areas to support a vibrant, urban community that integrates a range of amenities in close proximity to surrounding residential neighborhoods.***

Policy 1A: Allow and promote appropriately-scaled mixed-use development along Middlefield Road, El Camino Real, and along segments of Edison Way and 5th Avenue, to encourage a range of commercial, residential, institutional, and industrial (by conditional use permit) development and community facilities.

Policy 1B: Promote mixed-use development in existing industrial areas along Edison Way to provide flexible space for a range of industrial, commercial, institutional, and live-work residential (by conditional use permit) land uses and community facilities to revitalize underutilized and vacant land.

Policy 1C: Encourage continued and expanded industrial uses in the Spring Street area, with the potential for live-work residential (by conditional use permit) land uses and community facilities. Also allow limited commercial uses in this area, fronting on Bay Street only, to support adjacent industrial and institutional uses.

Policy 1D: Ensure that the design of the public and private realm land uses along residential and commercial streets promotes safe and convenient walking, bicycling, and public transit use.

Policy 1E: Ensure that all new commercial, institutional, industrial, and mixed-use development provides space for or contributes to the creation of community-oriented facilities (i.e., pocket parks, community gardens, plazas, community gathering spaces, and other facilities).

Policy 1F: Identify key parcels with development potential, and potential barriers to such development. Address these barriers through creative solutions (rezoning, parcel consolidation, and others) to attract private developers and encourage higher intensity infill development.

Goal 2.2: Promote revitalization through redevelopment of underutilized and vacant land in North Fair Oaks to create jobs and housing and support community and economic development.

Policy 2A: Identify areas that should be preserved for current and future industrial and job-generating uses, particularly in existing industrial areas identified as appropriate for additional development. Designate and preserve these areas for activities that are consistent with industrial and job-generating uses, such as warehousing, office, research and development, and light manufacturing and assembly.

Policy 2B: Take advantage of potential demand generated by new job-rich development such as the Stanford in Redwood City campus to catalyze redevelopment and job creation in the industrial areas in the northern end of North Fair Oaks in the Spring Street area along Bay Street. Allow a range of uses in this area, including warehouse and other industrial, institutional, live-work (by conditional use permit only), and retail (along Bay Street only).

Policy 2C: Allow residential infill development on vacant and underutilized residential parcels and within areas identified as appropriate for additional mixed-use residential, commercial, and other development. Encourage multi-family residential and mixed-use residential development in these areas, and revise subdivision regulations to remove barriers to the development of multi-family attached for-sale housing in all appropriate areas in North Fair Oaks

Policy 2D: Consider the use of centrally located vacant or underutilized parcels in residential neighborhoods for parks, play lots, community gardens and/or residential parking lots.

Policy 2E: Address incompatible industrial uses in residential and mixed-use areas, particularly along Middlefield Road, through County assistance to relocate uses to more appropriate industrial areas within North Fair Oaks, through fee waivers, incentives, identification of appropriate sites, and other measures.

Goal 2.3: Amend and streamline land use categories to strengthen neighborhood and community character and to incentivize needed and appropriate development.

Policy 3A: Simplify and combine land use categories for residential uses to reduce redundancies and provide clear guidance on the type and density of development that is desired within residential areas.

Policy 3B: Implement new mixed-use land use categories to promote mixed-use development in appropriate areas.

Policy 3C: Update the County's General Plan map and zoning ordinance to be consistent with the new Community Plan land use map and land use designations for North Fair Oaks.

Goal 2.4: Encourage transit-oriented development within North Fair Oaks.

Policy 4A: Establish a higher density mixed-use district within a ¼ mile radius of the potential future multi-modal transit hub at the intersection of the Southern Pacific Railroad tracks and Middlefield Road. Higher densities in this area will support transit, reduce automobile use, and maximize development of vacant and underutilized lots while providing needed housing and other uses.

Policy 4B: Encourage transit-oriented uses through incentives such as unbundled parking and reduced parking standards, and through measures such as amendments to land use regulations to allow higher densities that will support future multi-modal transit improvements, including a potential multi-modal transit hub.

Policy 4C: Allow and encourage transit-oriented development along major corridors including El Camino Real, 5th Avenue, and Middlefield Road.

Goal 2.5: Create distinct gateways at key locations in North Fair Oaks that reflect the area's unique identity.

Policy 5A: Designate the following six locations as primary gateways: El Camino Real and 5th Avenue; Middlefield Road at the Southern Pacific Railroad crossing (at the potential site of the multi-modal transit hub); Middlefield Road and 8th Avenue; 5th Avenue and Bay Road; Spring Street and Charter Street; and Marsh Road at the Southern Pacific Railroad crossing. Apply distinctive design treatments and streetscape elements to distinguish gateways as key entry and exit points to and from North Fair Oaks. The intersection of Middlefield Road and 5th Avenue should also be designated as a neighborhood activity node where special intersection and corner treatment (such as creation of a plaza or other community space) should be considered.

Policy 5B: Provide incentives and allow flexibility to encourage creative building forms and design elements that emphasize the prominence of gateway locations.

Goal 2.6: Adopt a development incentive and exception program to encourage the creation of community benefits as part of private development projects, in exchange for specified exceptions to development standards.

Policy 6A: As part of the Implementation Program of the adopted Community Plan, create a development incentive and exception program, as described in more detail in

Section 2.5 [of the Community Plan Update], *which specifies the amount and type of contribution to the creation of community benefits required in order to be eligible for specified exceptions to normal development standards and restrictions.*

3.6 PROJECT CIRCULATION AND PARKING GOALS AND POLICIES

The Community Plan Update incorporates the set of circulation and parking goals and policies, listed below, which are intended to improve the following: neighborhood connectivity, pedestrian facilities, bike connectivity, local and regional transit connectivity, and parking efficiency.

Goal 3.1: Improve overall neighborhood connectivity throughout North Fair Oaks.

Policy 1A: Strengthen and improve pedestrian and bicycle safety and access across the railroad tracks at the four existing at-grade Southern Pacific Railroad crossings (Pacific Avenue, 2nd Avenue, 5th Avenue and Marsh Road).

Policy 1B: Identify optimal multi-modal railroad crossings across both railroad corridors that would ensure critical north-south connections within the community, and identify needed improvements, potentially in conjunction with potential Dumbarton Rail and High Speed Rail project improvements, to support pedestrian and bicycle safety. Potential new crossings include 8th Avenue/Fair Oaks Avenue, Pacific Avenue/Westmoreland Avenue and Berkshire Avenue.

Policy 1C: Implement the intersection capacity improvements identified in the Community Plan traffic analysis to provide acceptable traffic operations in conjunction with new development contemplated as part of the Plan. However, avoid improvements that provide additional vehicular capacity while degrading pedestrian, bicycle or transit access and mobility.

Policy 1D: Re-evaluate auto-oriented Level of Service (LOS) policies for certain roadways and intersections within North Fair Oaks, such as the Middlefield Road commercial corridor, to ensure a balance of mobility for all modes of travel. Develop a new LOS policy that includes an emphasis on pedestrian, bicycle and transit access and circulation, and maintenance of emergency vehicle response times, and does not rely on auto congestion as the only indicator of a significant traffic impact.

Goal 3.2: Improve existing pedestrian facilities (sidewalks, sidewalk furniture, trees, paths, and other facilities), and provide new facilities throughout North Fair Oaks.

Policy 2A: Improve and enhance pedestrian facilities along key streets that connect to destinations throughout North Fair Oaks to prioritize "complete streets design standards that give equal space to pedestrians, bicyclists, public transit, and cars. The design standards and guidelines in Chapter 7: Design Standards and Guidelines [of the Community Plan Update] *support this objective.*

Policy 2B: Modify road standards as presented in Chapter 7: Design Standards and Guidelines [of the Community Plan Update], *particularly along destination streets*

such as Middlefield Road and major corridors including El Camino Real and 5th Avenue, to achieve a safe and inviting pedestrian environment. Improvements should include the use of elements such as wider sidewalks, mid-block crosswalks, street trees, planting strips, and curb extensions for urban commercial corridors or residential street improvements.

Policy 2C: *In conjunction with street improvements, implement sidewalk improvements to achieve a continuous ADA* [Americans with Disabilities Act]*-accessible sidewalk that is a minimum of five feet wide along all streets. Provide eight-foot sidewalks on pedestrian-oriented commercial corridors such as Middlefield Road and El Camino Real.*

Policy 2D: *Allow and encourage pedestrian easements within the private realm to provide wider ADA-accessible sidewalks for trees, landscaping, street furniture, café space, and other amenities to the pedestrian realm.*

Policy 2E: *Provide high-visibility 10-foot wide crosswalks at all controlled intersections and ensure that crosswalks have ramps and warning strips that comply with ADA standards.*

Policy 2F: *Evaluate the feasibility of implementing a lane reduction, or "road diet" for Middlefield Road between Douglas Avenue and 8th Avenue. By reducing the number of travel lanes, the roadway width can be reallocated to provide bike lanes, widened sidewalks, crosswalk curb extensions (bulbouts), and other streetscape improvements.*[1]

Policy 2G: *Explore the use of traffic calming elements similar to those that currently exist on Edison Way and other residential streets to help slow vehicles and support a pedestrian- and bicycle-friendly environment along local neighborhood streets.*

Policy 2H: *Support the planning efforts and policies of the Grand Boulevard Initiative to transform El Camino Real from an auto-oriented commercial corridor into an attractive multi-modal boulevard with design elements that facilitate transit, pedestrian, and bicycle mobility.*

Policy 2I: *Emphasize ongoing maintenance of facilities while upgrading facilities to urban standards (e.g., ADA-compliant sidewalks and curb ramps, curb and gutter, and other improvements) over time, where appropriate.*

Policy 2J: *Use low-cost pedestrian and stormwater improvements such as swales and unpaved pedestrian paths for unimproved areas where sidewalks, curbs, and gutters are missing or inadequate.*

Policy 2K: *Allow use of mid-block crossings at locations with high pedestrian activity between intersections. Ensure that all mid-block crossings include high-visibility, 10-foot*

[1] A road diet is a term used to describe a roadway modification where by the number of travel lanes is reduced to reallocate the effective roadway width to provide features such as wider sidewalks, landscaping, medians, bicycle facilities, and two-way left turn lanes or on-street parking.

wide crosswalks, advanced warning signage, and flashing beacons or in-pavement flashers where possible.

Policy 2L: *Upgrade traffic signal equipment to ensure that all signalized pedestrian crossings have sufficient crossings times, audible indicators and countdown timers, where feasible.*

Policy 2M: *Explore the use of special paving materials for crosswalks to heighten visibility and lend identity to the area.*

Policy 2N: *Explore, as part of implementation of the Plan, whether any existing narrow residential streets in North Fair Oaks might be beneficially converted to one way streets, to improve pedestrian and bicycle safety.*

Goal 3.3: ***Improve bicycle connectivity throughout North Fair Oaks by providing additional designated bicycle facilities such as bike lanes and paths and by improving the safety of existing infrastructure.***

Policy 3A: *Complete the bicycle facility improvements identified in* [the updated Community] *Plan...as well as in the San Mateo County Bicycle Route Plan (2011) and Redwood City General Plan (2010) to create a network of well-connected primary bicycle facilities along contiguous sections of Middlefield Road and El Camino Real and secondary facilities along 5th Avenue, Fair Oaks Avenue, Douglas Avenue, Dumbarton Avenue, 2nd Avenue, and 8th Avenue. Ensure that these improvements are identified, supported, and coordinated in future local and regional plan updates.*

Policy 3B: *Provide safe, secure bicycle parking in commercial areas, along designated bike routes and transit corridors, and at parks and schools.*

Policy 3C: *Designate "bicycle boulevards" that emphasize shared-use between vehicles and bicyclists on streets that are not main streets, but that provide equivalent connectivity.*

Policy 3D: *Improve pedestrian and bicycle connectivity within North Fair Oaks by constructing new off-street pedestrian/bicycle paths along the Hetch Hetchy right-of-way.*

Policy 3E: *Upgrade traffic signal equipment to ensure that adequate bicycle detection is provided.*

Policy 3F: *Explore the implementation of way-finding signs to guide bicyclists and pedestrians to recommended travel routes and destinations throughout the community.*

Policy 3G: *Explore, as part of implementation of the Plan, whether any existing narrow residential streets might beneficially be redesigned to limit parking to one street side, with designated bicycle lanes on the opposite side.*

Goal 3.4: ***Strengthen the local and regional transit connectivity of the North Fair Oaks community.***

Policy 4A: *As described in Chapter 2: Land Use Designations* [of the Community Plan Update], *study the feasibility, potential improvements required, and necessary land use and zoning policies needed to support a future multi-modal transit hub in North Fair Oaks, potentially including bus, bus rapid transit (BRT), and train service.... Depending on future rail development, the future transit hub could include potential Dumbarton Rail service or Redwood City streetcar service, High Speed Rail, Caltrain, or other rail, in addition to various bus transit types. The hub would connect to pedestrian, bicycle, and automobile facilities and would serve as a multi-modal transit center and a catalyst for surrounding transit-oriented development.*

Policy 4B: *Explore the feasibility of various transit service types at the identified multi-modal hub location, including Dumbarton Rail, Redwood City streetcar, High Speed Rail, and Caltrain.*

Policy 4C: *Make required circulation, transportation, and access improvements to ensure that the community has as much multi-modal access to the identified transit hub location as possible.*

Policy 4D: *Prioritize the El Camino Real and Middlefield Road corridors for transit mobility, service and access improvements.*

Policy 4E: *Explore the potential to reroute existing bus service or create a new local circulator route or shuttle service to provide better north-south connectivity within North Fair Oaks. Prioritize 5th Avenue, which serves as one of the few continuous north-south connections through North Fair Oaks, as a preferred route for service improvements.*

Policy 4F: *Where appropriate, provide additional user amenities at existing and future bus stops to provide a safe and attractive environment for transit riders. All bus stops should meet ADA standards and provide standard amenities such as benches and/or shelters. Enhanced bus stops should include amenities such as lighting, trash receptacles, route maps, bicycle racks, real-time information displays, and wayfinding elements.*

Policy 4G: *Require that new development projects improve access to and accommodations for public transit.*

Policy 4H: *Support SamTrans' long-range planning goals for Bus Rapid Transit service, which would likely include high-frequency rapid service along El Camino Real (SR-82) and possibly along Middlefield Road.*

Policy 4I: *Support Redwood City's vision for future streetcar service along Middlefield Road and explore opportunities to extend streetcar service within North Fair Oaks, potentially along Fifth Avenue to connect to the proposed streetcar corridors on Middlefield Road and Broadway.*

Goal 3.5: ***Improve the efficiency of the existing parking system, provide sufficient parking to support future development without creating significant excess***

supply, and reduce overall parking demand by leveraging diverse parking management strategies.

Policy 5A: Support the use of transportation modes other than the automobile to reduce the need for additional parking.

Policy 5B: Support the use of parking supply control and pricing as a strategy to encourage use of non-automobile travel modes where feasible.

Policy 5C: Develop a parking management plan for North Fair Oaks, which could include permit parking, meters, restrictions, and other programs, and ensure enforcement of programs and policies. Designate appropriate areas in which all parking is fee-for-use or time-limited, particularly in commercial areas.

Policy 5D: Implement the reduced parking standards presented in [the updated Community] *Plan...for development within the proposed mixed-use, transit-oriented development areas concentrated along the Middlefield Road and El Camino Real corridors, as well as within the vicinity of the proposed multi-modal transit hub.*

Policy 5E: Modify parking policies to allow affordable housing developments, minor expansions of single-family homes, transit-supportive development projects, and other uses where reduced parking demand can be demonstrated to qualify for further reduced parking requirements or exemptions per approval from the County Planning Department.

Policy 5F: Allow unbundled parking in new multi-family residential developments within the proposed mixed-use districts to allow resident to pay only for the parking spaces they need.

Policy 5G: Implement new parking management techniques such as encouraged shared parking in mixed-use developments, reduced employee parking in conjunction with ridesharing programs, stacked parking, and using on-street parking to meet on-site parking requirements of nearby projects.

Policy 5H: Revise parking policies in North Fair Oaks to encourage the efficient use of existing and future parking facilities by allowing new development within the proposed higher-density mixed-use districts and within the vicinity of the potential multi-modal transit hub to provide some required parking in off-site public or joint public/private facilities.

Policy 5I: Encourage private property owners to share their underutilized parking with the general public and/or other adjacent private developments.

Policy 5J: Require on-street parking for any newly constructed streets.

Policy 5K: Identify streets appropriate for conversion from parallel to angled parking spaces, particularly streets where adequate width currently exists, or where future development/redevelopment provides opportunities to widen parking areas.

Policy 5L: Explore opportunities to expand off-street parking supply by providing County- or privately-owned public parking lots or structures near areas of concentrated parking demand. This could include new surface parking lots or structured parking in commercial districts, or small neighborhood parking lots in residential areas with high parking demand.

Policy 5M: Implement regular monitoring programs to assess parking conditions, identify areas of excess or underutilized parking supply, and help guide plans for future parking facilities.

Policy 5N: Consider implementation of in-lieu fee programs or special assessment tax districts to fund costs of new parking facilities. In-lieu parking fees are established by municipalities as an alternative to requiring on-site parking. Developers are allowed to avoid constructing parking on-site by paying a fee to the County for the use of off-site parking facilities. Special assessment tax district fees can be implemented by charging each landholder within a defined district a fee based on the value of a site or parcel in order to fund public projects, such as the construction of new municipal parking facilities.

Policy 5O: Encourage the formation of a local Transportation Management Association (TMA) in North Fair Oaks to support, monitor and implement Transportation Demand Management (TDM) programs.

Policy 5P: Require Transportation Demand Management (TDM) programs for new higher intensity development.[1]

Policy 5Q: Consider the implementation of Residential Parking Permit (RPP) districts or Residential Parking Benefit (RPB) districts to manage parking utilization and limit spillover in residential neighborhoods.

Policy 5R: Provide sufficient parking enforcement to consistently support parking regulations in residential and commercial areas. Explore funding mechanisms, subsidies, or partnerships with adjacent jurisdictions to overcome current challenges with providing sufficient parking enforcement personnel in North Fair Oaks.

3.7 PROJECT INFRASTRUCTURE GOALS AND POLICIES

The Plan includes the set of infrastructure goals and policies listed below, which are intended to improve the potable water system, improve the sanitary sewer system, improve stormwater treatment and conveyance facilities, reduce flooding, and establish recycled water infrastructure.

Goal 4.1: Improve the potable water system, which currently contains older conveyance pipes and lacks emergency storage facilities.

[1]Transportation Demand Management (TDM) is the application of strategies and policies to reduce travel demand, particularly by single-occupant vehicles during peak commute periods. Instead of increasing roadway capacity, TDM programs focus on using existing transportation systems and modes in ways that contribute less to traffic congestion.

Policy 1A: Pursue agreements with the City of Redwood City and California Water Service Company to ensure that emergency water storage is available in North Fair Oaks. The agreements should include a discussion of both the timing and funding of any future emergency water storage facilities. Any such new storage or distribution systems should be located such that cost and environmental impact to surrounding areas are minimized. A separate study should be undertaken for any future water tank locations.

Policy 1B: Pursue a new standard to ensure that any future street improvements within North Fair Oaks include replacing existing water lines with new cast iron (or non-asbestos-containing water line materials suitable for the existing soil condition) water lines. Since water service is provided by the City of Redwood City and California Water Service Company, the County should coordinate the new standard with these water purveyors.

Policy 1C: Require a Water Supply Assessment (WSA) for all future large developments that result in an increase of water usage equivalent to the water usage of 500 residential dwelling units,[1] to determine if adequate water supply is available before approving building permits.

Policy 1D: Create new landscaping and building design criteria for new developments to reduce water use. The design criteria shall include incentives for all major new developments to provide dual-plumbing for future recycled water use, use the latest water efficient technologies (e.g., low-flow fixtures, infrared detectors, waterless urinals, etc.), and plant drought tolerant landscaping.

Policy 1E: Engage in discussions with the California Water Service Company and the City of Redwood City to develop a suitable, proactive replacement plan for the existing water distribution system. This replacement plan should identify older and/or undersized water lines that need to be repaired or replaced, and ensure that such lines within North Fair Oaks are prioritized for replacement.

Goal 4.2: Improve conveyance and treatment capability of sanitary sewer system facilities within North Fair Oaks.

Policy 2A: Negotiate with adjacent sanitary sewer jurisdictions, such as the City of Redwood City and the South Bayside System Authority wastewater treatment plant, to secure additional sewer allocations at the earliest opportunity possible. Obtaining additional sewer allocations will allow larger new developments to be located in North Fair Oaks.

Policy 2B: Revise existing County water demand and sewer generation standards to reflect the latest water efficient technologies. Incentives programs should also be created for new developments that implement more stringent water demand and sewer generation standards. This will promote water reduction measures and reduce the amount of sewage generated.

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[1]This 500 residential dwelling unit threshold is based on the requirements of Senate Bill 610, which establishes standards and guidelines for urban water management planning.

Policy 2C: Perform regular inspections of sanitary sewer facilities to identify leaks within the system. Identify priority lines and structures within the sanitary sewer system, on an annual basis, that need repair and/or replacement. High priority should be given to existing facilities that receive high infiltration and inflow, to mitigate unnecessary flows downstream. In addition, continue existing routine and maintenance repairs of the collection system.

Policy 2D: Pursue new standards requiring that each new development minimize infiltration and inflow into the sewer system by contributing to replacement of existing sanitary sewer laterals and/or mains. The extent of the replacements should be based on the new development's net increase in sewage generation.

Policy 2E: Reassess sanitary sewer maintenance costs annually and update connection and usage fees accordingly, to ensure that both new and existing users of the sanitary sewer system contribute their fair share of sanitary sewer costs.

Policy 2F: Create a new program to share and gather sewage conveyance data from Redwood City and the South Bayside System Authority treatment plant on an annual basis. This information can then be used for planning and determining the basis for cost-sharing and/or fee adjustments.

Goal 4.3: Improve stormwater treatment facilities.

Policy 3A: Continue to implement all local and state mandated stormwater treatment controls (C.3 requirements), including requiring that all new developments adhere to the current thresholds for requiring stormwater treatment and that all new developments provide a Stormwater Maintenance Agreement that will be recorded with the property deed to ensure on-going maintenance of these private stormwater treatment areas is being performed. Continue to require all new developments to comply with the Countywide Stormwater Pollution Prevention Program (SWPPP) and to provide erosion and sediment control plans and Best Management Practices (BMPs) for all construction activities.

Policy 3B: Create a new program to perform regular inspections of stormwater treatment facilities at all new developments. These inspections should be performed by Public Works, and the frequency and extent of such inspections will depend on the size of new developments and potential for pollutants to enter the storm drain system.

Policy 3C: Create a new program for existing public streets to be redesigned with integrated stormwater treatment areas such as bioretention areas, vegetated swales, rain gardens, and other passive retention and filtration facilities. These stormwater treatment areas will remove pollutants from stormwater runoff that would otherwise have flowed from public street surfaces directly into the storm drain system and then the Bay. The new program should also consider adopting a regional green street program that requires stormwater treatment areas in all new developments.

Policy 3D: Pursue new Low Impact Development (LID) standards that promote both treatment and storage of stormwater runoff. These Low Impact Development standards

should require new developments to minimize impervious surfaces (for example, concrete or AC paving), use stormwater as a resource (rain water harvesting for irrigation or other select uses), and preserve/re-create natural landscape features. New developments could adhere to these standards through the use of rain gardens/bioretention areas, green roofs, cisterns, permeable pavement, or other tools.

Policy 3E: Create new incentive programs for the County's Planning, Building, and Engineering staff to continue stormwater treatment education, as technology and treatment techniques change continuously.

Goal 4.4: Improve the conveyance facilities of the current storm drain system within North Fair Oaks.

Policy 4A: Pursue new standards that require new developments in areas where there are no existing storm drain lines to install new lines and extend them to downstream connection points. The size and length of the new storm drain lines will vary based on the new development's location, size, and potential for future development at adjacent parcels. All new developments should also be required to provide on-site detention facilities (tank or oversized pipes) so that the new development does not cause an increase of flow into the storm drain system and contribute to local and regional flooding.

Policy 4B: Support increasing the capacity of the current Athlone storm drain pump/lift stations to increase conveyance capability. The increased capacity should take into account both existing conditions and potential future improvements to the storm drain system. This will allow future storm drain lines to be connected to the upgraded pump station.

Policy 4C: Discuss joint upgrades of regional storm drainage facilities with the City of Redwood City, the Town of Atherton, and other appropriate jurisdictions. These regional upgrades, such as improvements at the Bayfront Canal located downstream from North Fair Oaks, are a necessary component of any efforts to reduce local flooding in North Fair Oaks.

Policy 4D: Continue to implement all local and state mandated stormwater treatment controls (C.3 requirements), ensuring that new developments implement stormwater treatment measures to reduce peak flows in the storm drain system and maximize on-site retention and reuse of stormwater for irrigation purposes.

Goal 4.5: Reduce the impact of flooding in North Fair Oaks.

Policy 5A: Work with adjacent jurisdictions to find workable solutions to mitigate regional flooding. Since several factors outside of North Fair Oaks contribute to local and regional flooding, working closely with these adjacent jurisdictions is critical to implementing a solution to the existing flooding issues.

Policy 5B: Create a new program for existing public streets to be redesigned with integrated stormwater treatment areas such as bioretention areas, vegetated swales, rain gardens, and other features to reduce the peak storm flows. The new stormwater

treatment areas should also be designed to provide stormwater retention, which will hold back stormwater runoff for a period of time so that downstream flooding is reduced.

Policy 5C: Continue to require new developments that might result in an increase in stormwater runoff to provide on-site detention facilities to address increased flows. The on-site detention facilities (tank, oversized pipes, or other facilities) shall be sized so that the new development does not cause an increase of flow into the storm drain system.

Policy 5D: Pursue new Low Impact Development (LID) standards that require new developments to reduce stormwater runoff. LID strategies include, but are not limited to, the use of permeable pavement, green roofs, rainwater cisterns, and landscaping that is designed appropriately to capture and retain stormwater.

Goal 4.6: Establish infrastructure to enable the use of recycled and "gray" water within the North Fair Oaks community.

Policy 6A: Pursue new standards that require new developments to provide dual plumbing in anticipation of available recycled water.

Policy 6B: Negotiate with the City of Redwood City and South Bayside System Authority (SBSA) regarding the timing of improvements and proposed pipe routing to address the possibility of bringing recycled water to North Fair Oaks.

Policy 6C: Create a new program to provide funding sources to bring recycled water to North Fair Oaks.

Policy 6D: Create new incentive programs to encourage new developments to use gray water or harvested rainwater for irrigation purposes.

Policy 6E: Create a new program to identify existing users with large water demands who would benefit from the availability of recycled water. These users should be on a high priority list of recycled water users and should be considered when planning future recycled water line expansion.

3.8 PROJECT HEALTH AND WELLNESS GOALS AND POLICIES

The Community Plan Update identifies the set of health and wellness goals and policies listed below, which are intended to provide safe and accessible parks and recreation, expand access to healthy affordable foods and safe drinking water, provide health education, enhance access to public transit and paratransit, provide pedestrian and bicycle routes, foster "complete streets," provide daily goods and services within walking distance, eliminate graffiti and illegal dumping, provide pedestrian-scale street lighting, create safer environments for pedestrians and bicyclists, reduce crime, and ensure emergency preparedness community-wide.

Goal 5.1: Provide safe neighborhood parks, playgrounds or greenways within a half mile actual walking distance of all homes in North Fair Oaks.

Policy 1A: Improve pedestrian and bicycle connections from residential areas to existing parks and schools within North Fair Oaks, and to community and regional parks, open space, and trails in nearby cities.

Policy 1B: Acquire land for new park space throughout the community to meet current and future needs.

Policy 1C: Develop additional parks, open space, or greenways along the Hetch Hetchy right-of-way.

Policy 1D: Seek joint-use agreements with the Redwood City School District to expand access to playgrounds in the Fair Oaks and Garfield schools after school hours and on weekends.

Policy 1E: Partner with Redwood City to expand the joint-use agreements with the Redwood City School District and with Redwood City Parks and Recreation to improve access for North Fair Oaks residents to facilities at the nearby Taft and Hoover schools after school hours and on weekends.

Policy 1F: Improve safety at existing parks and open spaces through collaborations between County departments, interjurisdictional collaboration, and collaboration with the community and other organizations. Work with community members to establish and expand neighborhood watch programs and ensure that neighborhood watch programs address safety in area parks and open spaces.

Goal 5.2: Adequately maintain parks and playgrounds in North Fair Oaks.

Policy 2A: Improve, update and adequately maintain existing parks and recreation facilities.

Policy 2B: Establish new and expand existing partnerships with local resident groups and organizations to help maintain smaller local parks and playgrounds in North Fair Oaks.

Policy 2C: Post and adequately maintain signage to indicate park rules and hours in multiple languages.

Goal 5.3: Provide quality recreational facilities in or near North Fair Oaks to offer a diverse range of programs and activities for residents of all ages.

Policy 3A: Expand recreation programs at parks and recreation facilities to increase efficient use of existing facilities and the diversity of recreation and leisure options available for residents of all ages and abilities.

Goal 5.4: Expand resident access to affordable fresh fruits and vegetables, quality staple foods, and safe drinking water, particularly for families with children.

Policy 4A: Explore the potential for school-based farmers' markets or other farm-to-school programs in North Fair Oaks.

Policy 4B: Limit the addition of new fast food restaurants and liquor stores within North Fair Oaks.

Policy 4C: Over time, reduce the density of fast food restaurants and liquor stores within North Fair Oaks such that the per capita densities within North Fair Oaks do not exceed 120 percent of the per capita density of each of these business types in the County overall.

Policy 4D: Limit the concentration of fast food restaurants and liquor stores within a quarter mile of schools.

Policy 4E: Develop incentive programs for convenience stores to carry more healthy food options and to support existing healthy food outlets.

Policy 4F: Encourage new neighborhood-serving businesses selling healthy foods to locate near underserved residential areas

Policy 4G: Encourage all businesses selling food to place healthier products in prominent, visible, and accessible locations within the business through incentives and other programs.

Policy 4H: Provide assistance to support and maintain businesses that have demonstrated a commitment to selling healthy food to remain in the community, and prioritize retention of these businesses in any new development in North Fair Oaks.

Policy 4I: Explore the use of taxes, fees, and other policy measures to increase the cost of unhealthy foods and beverages and use revenues for health prevention programs.

Policy 4J: Ensure that all residents of North Fair Oaks live within a half mile of actual walking distance of a full-service grocery store or corner store selling fresh fruits and vegetables.

Policy 4K: Increase the percentage of eligible residents participating in the Special Supplemental Nutrition Program for Women, Infants and Children (WIC), the CalFresh Program (formerly known as Food Stamps), free and reduced price school lunch programs, and other food assistance programs.

Policy 4L: Increase the number of stores accepting WIC and CalFresh (food stamps) in North Fair Oaks.

Policy 4M: Increase healthy food options at restaurants and other food vendors in North Fair Oaks through incentive programs.

Policy 4N: Provide nutrition facts for foods served at restaurants in North Fair Oaks.

Policy 4O: Restrict the availability of unhealthy food and beverage options at neighborhood public schools, the Senior Center, the Community Center, and other public facilities.

Policy 4P: Provide incentives to encourage mobile vendors and food carts to sell fresh fruits and vegetables and other healthy foods, and limit the number of mobile food vendors selling foods other than fresh fruits, vegetables and other healthy foods within a quarter mile of schools.

Policy 4Q: Encourage local organizations and schools to provide education programs on nutrition and healthy eating habits.

Policy 4R: Encourage public and private agencies and organizations to continue centralized food distribution to North Fair Oaks families in need.

Policy 4S: Support Meals on Wheels and other services that provide food to residents who require in-home support.

Policy 4T: Collaborate with residents and community groups to build new community gardens (community gardens are defined as areas that provide space for individuals or community members to grow plants for household use, education, recreation, and community distribution) on vacant public parcels in neighborhoods, school yards, church yards, and potentially as part of private development projects.

Policy 4U: Work with local farmers in San Mateo County and adjacent agricultural areas to supply fresh fruits and vegetables to North Fair Oaks schools and organizations.

Policy 4V: Create incentives for markets and restaurants to use local, organic foods.

Policy 4W: Identify a location for and facilitate creation of a farmers' market along Middlefield Road, or at another conveniently accessible central location.

Policy 4X: Ensure that residents have access to clean drinking water in homes and throughout the community.

Goal 5.5: Expand opportunities for residents to grow food in North Fair Oaks.

Policy 5A: Collaborate with residents and community groups to build new community gardens and urban farms on vacant public parcels in neighborhoods, in schoolyards, in church yards, and potentially as part of private development projects. Explore these opportunities within the existing right-of-way of neighborhood streets as well as the Hetch Hetchy right-of-way.

Policy 5B: Consider community gardens as an interim and potentially permanent use of vacant/underutilized land.

Policy 5C: Reduce or eliminate barriers in the zoning code to creation of community gardens, and consider allowing community gardens "by right" in parts of North Fair Oaks.

Policy 5D: Encourage the Redwood City School District to develop and maintain school gardens on K-8 school campuses in North Fair Oaks. Provide educational programs for children, through Redwood City Schools or other forums, to demonstrate how the produce they grow can be used by their families, in their community, and in their school cafeterias.

Policy 5E: Include community garden components in the development of new parks or play areas in North Fair Oaks.

Policy 5F: Create an educational program to encourage backyard gardening in North Fair Oaks. Encourage and adopt appropriate policies to allow the sale and trade of specified produce from backyard gardens.

Policy 5G: Provide support for community groups to develop lease agreements with owners of vacant lots to establish short-term gardens to mitigate blight.

Goal 5.6: Expand access to affordable health services, preventive care, and medical supplies for residents of North Fair Oaks by improving health facility options and expanding the capacity of existing clinics.

Policy 6A: Partner with SamTrans to improve bus frequency and routes to neighborhood clinics and regional health facilities.

Policy 6B: Work with paratransit providers to ensure that seniors and residents with disabilities or impaired mobility have reliable access to neighborhood clinics, regional medical facilities, and adult day care.

Policy 6C: Improve bicycle and pedestrian access to clinics and other health facilities within the neighborhood to ensure that residents have safe and convenient access to these facilities.

Policy 6D: Increase funding for mobile clinics in underserved areas of North Fair Oaks at times and locations that are accessible to residents.

Policy 6E: Partner with Redwood City School District, the Fair Oaks Senior Center, the Fair Oaks Community Center, and other community organizations to provide health education and health service delivery at existing community facilities and campuses.

Policy 6F: Encourage and facilitate development of a pharmacy in North Fair Oaks.

Policy 6G: Use incentive programs, information and education, and other strategies to encourage employers in San Mateo County, including in North Fair Oaks, to provide a living wage and sick days to all employees.

Policy 6H: Promote and facilitate service providers in North Fair Oaks that reflect the diversity of the community and offer services in languages other than English.

Policy 6I: Maintain existing health facilities, and ensure that new development does not displace existing health services. Consider location of health facilities and potential impacts on existing facilities in all decisions on new development.

Policy 6J: Support in-home provision of supportive services to special needs groups, to help residents remain in independent housing.

Goal 5.7: ***Provide North Fair Oaks residents with health education, including healthy eating, preventive care, and active living to promote a healthier population.***

Policy 7A: *Work to reduce the amount of advertisements and messaging in storefronts, promotional areas, and other locations that emphasize or promote unhealthy eating and tobacco and alcohol products.*

Policy 7B: *Work with community organizations to promote health and nutrition education.*

Policy 7C: *Translate prevention and educational materials into multiple languages, including Spanish, and ensure that materials are written appropriately for the literacy levels of the target audience.*

Goal 5.8: ***Enhance access for all North Fair Oaks residents and employees, especially the most vulnerable, to local public transit, regional public transit, and active transportation modes throughout the community.***

Policy 8A: *Implement measures to enhance local and regional connectivity for all travel modes, ages, and ability levels as outlined in Chapter 3: Circulation and Parking* [of the Community Plan Update].

Policy 8B: *Partner with SamTrans and other transit and nonprofit service providers to expand service and promote public transit as a viable transportation mode in North Fair Oaks.*

Policy 8C: *Explore the potential for developing a regional, multi-modal transit center in North Fair Oaks to expand access for local residents and employers to regional destinations.*

Policy 8D: *Partner with the San Francisco Public Utilities Commission (SFPUC) to create trail segments or pocket parks along the Hetch Hetchy right-of-way.*

Policy 8E: *Create "complete streets" that balance all modes of travel and provide a safe and comfortable pedestrian environment along commercial corridors, major arterials, and appropriate residential streets.*

Policy 8F: *Adopt new level of service standards for local streets that that consider all modes of travel when assessing street performance, while still ensuring that streets and intersections meet minimum emergency response standards. Current level of service standards evaluate street performance based on automobile speed, volume and delay time, but do not consider safety or mobility of pedestrians and bicyclists.*

Policy 8G: *Address access for people with disabilities and special needs in all transportation improvements.*

Policy 8H: *Consider creation of a circular shuttle bus route through North Fair Oaks, to provide east-west transportation options and better connect residents to health care, transit, and other essential services.*

Goal 5.9: ***Ensure that all eligible North Fair Oaks residents have access to effective, convenient and affordable paratransit services.***

Policy 9A: *Work with paratransit and nonprofit service providers to expand service for seniors and residents with disabilities or impaired mobility.*

Goal 5.10: ***Provide safe, accessible, and convenient pedestrian routes throughout North Fair Oaks.***

Policy 10A: *Assess and address pedestrian barriers such as narrow or blocked sidewalks that prevent residents from walking to schools and other amenities in the neighborhood.*

Policy 10B: *Increase monitoring and enforcement in neighborhoods with rolling curbs to ensure that parked automobiles do not block sidewalks.*

Policy 10C: *Implement Safe Routes to School plans and similar programs at all area schools serving North Fair Oaks students, consistent with the County's countywide Safe Routes to School program.*

Policy 10D: *Ensure that there are safe pedestrian paths or sidewalks along all streets in North Fair Oaks, and improve crosswalks, signage, and signals at key intersections.*

Policy 10E: *Where pedestrian crossings are signalized, ensure that the crossing time is sufficient for all residents to cross safely, and install pedestrian countdown signals wherever feasible.*

Policy 10F: *Install signal loop detectors (detectors that sense the presence of vehicles at intersections and trigger appropriate signal changes) that are sensitive to bicycles at signalized intersections.*

Policy 10G: *Create and facilitate new pedestrian connections across the Southern Pacific Railroad and Caltrain tracks to expand access to community amenities and facilities throughout the neighborhood.*

Goal 5.11: ***Provide safe and convenient bicycle routes throughout North Fair Oaks, and encourage and facilitate bicycle usage by area residents.***

Policy 11A: *Expand the North Fair Oaks bicycle network through the use of bicycle lanes, signage, wide paved shoulders, "sharrows" (lanes shared by bicycles and automobiles), and bicycle paths, with prominent signage that directs bicyclists to paths and bicycle routes. Wherever possible, create protected—or physically separated—bicycle lanes.*

Policy 11B: *Support efforts of public agencies and community organizations to increase bicycle use in North Fair Oaks through programs such as bike-sharing programs, bicycle giveaways, and other efforts.*

Policy 11C: *Improve bicycle facilities such as secure storage lockers, bicycle racks, and other amenities throughout all neighborhoods.*

Policy 11D: Partner with business owners to install bicycle racks in front of businesses along major roadways including Middlefield Road, 5th Avenue, Edison Way, and Spring Street.

Policy 11E: Improve bicycle safety at major intersections and along key corridors.

Policy 11F: Work to create and facilitate safe bicycle connections across the Southern Pacific Railroad and Caltrain tracks, to expand connectivity throughout the community.

Goal 5.12: Foster "complete streets" that balance auto, transit, pedestrian, and bicycle uses on key streets in North Fair Oaks.

Policy 12A: Ensure that major corridors in North Fair Oaks, such as Middlefield Road and 5th Avenue, include sidewalks; bike lanes or wide paved shoulders; prominent signage; dedicated bus lanes if appropriate; accessible, sheltered bus stops; frequent and safe crossing opportunities; medians or islands to serve as resting points mid-crossing where needed; accessible pedestrian signals; and narrower auto travel lanes to create a balance between auto, transit, bicycle and pedestrian modes.

Goal 5.13: Encourage and provide space for public amenities and daily goods and services within walking distance of a majority of residential areas while reducing physical barriers that limit access to these uses.

Policy 13A: Allow and encourage small-scale neighborhood-serving retail and amenities such as child care centers in underserved areas that do not have convenient access to the services located along Middlefield Road and El Camino Real.

Policy 13B: Enhance local connectivity for residents by implementing the recommendations in the circulation, parking, pedestrian and bicycle strategies in Chapter 3: Circulation and Parking [of the Community Plan Update].

Policy 13C: Improve bicycle and pedestrian access to all neighborhood services, including clinics, to ensure that residents have safe and convenient access to these facilities.

Policy 13D: Partner with SamTrans and other transit and paratransit providers to improve access to neighborhood clinics and regional medical facilities for all residents including seniors, families, and people with disabilities.

Policy 13E: Attract new retail stores and service providers to existing underutilized commercial corridors such as Middlefield Road and El Camino Real.

Policy 13F: Promote mobile services for medical clinics, libraries, County services and other public amenities to ensure that all residents have access to essential services.

Goal 5.14: Encourage new housing developments in proximity to existing neighborhood goods and services, including grocery stores, clinics, the Fair Oaks Community Center, and schools.

Policy 14A: Promote higher-density mixed-use development along Middlefield Road and El Camino Real through changes to land use regulations and codes, as described in Chapter 2: Land Use Designations [of the Community Plan Update].

Policy 14B: Encourage infill development that respects the scale of surrounding homes on residential streets.

Policy 14C: Encourage affordable housing, particularly in areas that have access to public transportation within walking distance.

Goal 5.15: Provide safe and convenient pedestrian and bicycle routes to essential neighborhood destinations.

Policy 15A: Address physical barriers that prevent residents, visitors and workers from walking or bicycling safely and conveniently to public amenities and retail services in and around North Fair Oaks.

Goal 5.16: Eliminate graffiti and illegal dumping in North Fair Oaks, and improve the condition of public and private structures and spaces in North Fair Oaks.

Policy 16A: Increase monitoring and enforcement of illegal dumping.

Policy 16B: Continue to work with residents, community organizations and youth organizations to address public vandalism.

Policy 16C: Support programs that create new strategies for deterring and preventing crimes--including vandalism, illegal dumping, and graffiti--that are significant concerns affecting quality of life. Encourage community groups and other service providers to develop anti-crime strategies inclusive of residents who may not be comfortable participating in programs run by public agencies or reporting crimes to authorities.

Policy 16D: Provide monitored spaces for legal graffiti as an outlet for positive artistic expression by neighborhood youth and others.

Policy 16E: Continue and expand coordination between residents, business owners, and public agencies to implement graffiti abatement strategies.

Policy 16F: Work with community partners and public agencies in multiple jurisdictions to expand monitoring and enforcement of code compliance.

Policy 16G: Encourage property owners to maintain and upgrade their properties.

Policy 16H Support façade improvement projects.

Policy 16I: Develop strategies to address distressed properties and structures to prevent vandalism.

Goal 5.17: Provide pedestrian-scale street lighting along all streets in North Fair Oaks.

Policy 17A: Provide pedestrian-scale lighting throughout North Fair Oaks, and especially in the neighborhoods north of the Southern Pacific railroad spur.

Policy 17B: Encourage building owners along major corridors such as Middlefield Road to install and turn on outdoor lighting to light entries to their buildings.

Policy 17C: Ensure that vacant lots have adequate lighting at night to prevent these areas from attracting criminal activity.

Policy 17D: Collaborate with Southern Pacific Railroad and Caltrain to increase monitoring of rail rights-of-way and create safe, well-lit legal crossings across tracks.

Goal 5.18: Create safer environments for pedestrians and bicyclists, by clearly delineating bicycle and pedestrian routes and crossings, installing pedestrian and bicycle safety improvements, and decreasing speeds of vehicular traffic near pedestrian crossings and along residential streets.

Policy 18A: Ensure that all crosswalks are clearly visible and, where necessary, install signalized pedestrian crossings. Install pedestrian countdown signals at signalized intersections, and install bicycle-sensitive signal loop detectors where feasible.

Policy 18B: Install traffic calming devices on appropriate residential streets near schools and other locations in the community, where such measures are not already in place.

Policy 18C: Where appropriate, reduce the number of travel lanes on streets in North Fair Oaks to slow traffic speeds and allow bicyclists and pedestrians to travel more safely.

Policy 18D: Clearly designate and demarcate bicycle paths with signage and other indicators to ensure that both bicyclists and drivers are aware of the areas designated for, and most likely to be used by, bicyclists.

Policy 18E: Ensure that adequate signage is posted near railroad corridors to promote crossing safety.

Goal 5.19: Reduce personal and property crime throughout North Fair Oaks.

Policy 19A: Encourage design and programming of private and public spaces that will increase the level of activity and the number of residents using spaces as a strategy to deter crime by increasing "eyes on the street."

Policy 19B: Continue to invest in and maintain joint-use agreements for public facilities, such as neighborhood parks, playgrounds, and the Fair Oaks Community and Senior Centers, to ensure that North Fair Oaks residents have access to social, economic, and community programs to support their well-being.

Policy 19C: Collaborate with the Redwood City School District and community organizations to provide after-school and out-of-school activities and programs for neighborhood children and youth to ensure that they have safe places to gather and socialize.

Policy 19D: Work with community partners and agencies and departments in relevant jurisdictions to develop new and expand existing anti-gang programs for children, youth, and young adults in North Fair Oaks.

Policy 19E: Develop and expand business associations for merchants along major retail corridors to promote communication and collaboration and to improve the physical condition of North Fair Oaks business districts.

Policy 19F: Work with businesses and residents to increase security and surveillance in high-crime areas.

Policy 19G Encourage and expand neighborhood block watch programs.

Policy 19H Increase police foot patrols along major retail corridors.

Policy 19I Educate residents about Crime Prevention Through Environmental Design (CPTED) principles—strategies to reduce crime by ensuring that the physical design of communities does not support criminal activity—that they can implement in their neighborhoods to reduce crime.

Policy 19J Promote active use of public spaces in commercial areas in North Fair Oaks at all times of day to provide "eyes on the street."

Policy 19K Along major retail corridors, encourage business owners to actively use windows that face the street to allow passersby to see in and employees to see out.

Policy 19L Continue and expand employment programs to support the re-entry, transition and integration of prison inmates into the community, with special attention to youth offenders.

Policy 19M Expand youth engagement programs to deter gang activity.

Policy 19N: Collaborate with the Sheriff's Office, Redwood City and Menlo Park fire departments, and community and faith-based organizations and leaders to promote crime prevention and public safety.

Policy 19O: Increase the economic security of residents by increasing local employment opportunities and wages for local residents.

Policy 19P: Promote workforce development opportunities throughout North Fair Oaks.

Goal 5.20: Ensure that North Fair Oaks residents are prepared for emergencies such as earthquakes, floods, fires, or other disasters.

Policy 20A: Coordinate with neighboring jurisdictions, local employers and industries, and residents to ensure that emergency preparedness and disaster response programs are in place, and that evacuation routes are clearly designated and do not conflict with the evacuation plans of nearby cities and counties that may be relying on the same freeways or bridges.

Policy 20B: Ensure that all neighborhood schools and community centers have disaster response plans in place, and that these facilities are prepared to serve as shelters as appropriate.

Goal 5.21: Ensure that North Fair Oaks has clean, healthy air and water.

Policy 21A: Reduce the impact of direct, indirect and cumulative impacts of stationary and non-stationary sources of pollution such as heavy industry, railroads, diesel trucks and nearby roadways.

Policy 21B: Ensure that sensitive uses such as schools, childcare centers, parks and playgrounds, housing and community gathering places are protected from adverse impacts of emissions wherever and to the greatest extent possible.

Policy 21C: Protect residents and employees in the neighborhood from the harmful effects of second-hand smoke in indoor and outdoor areas.

Policy 21D: Reduce storm water runoff and seasonal flooding in North Fair Oaks to protect water quality in nearby bodies of water through the use of sustainable and green infrastructure design, construction and maintenance techniques.

Policy 21E: Improve the tree canopy coverage through street tree programs.

Policy 21F: Support regional, state and national initiatives and programs to reduce greenhouse gas emissions and air quality impacts locally.

Policy 21G: Collaborate with the Redwood City School District, the Fair Oaks Senior Center, the Fair Oaks Community Center, and other community organizations to promote recycling and composting.

Policy 21H: Ensure that any new developments or redevelopments include "green" features such as rainwater collection, green roofs, bicycle storage, alternative energy systems, and others. Specifically encourage features that reduce reliance on non-renewable sources of energy.

Goal 5.22: Identify and mitigate toxic or contaminated sites within North Fair Oaks.

Policy 22A: Promote the clean-up and reuse of contaminated and toxic sites to protect both resident health and the local environment. Where the source of the contamination is known, require appropriate mitigation measures and clean-up of sites by the parties responsible.

Policy 22B: Prevent soil and water contamination from industrial operations and other activities that use, produce or dispose of hazardous or toxic substances.

Policy 22C: Require regional and state agencies to provide adequate mitigation and community benefits as part of any railroad and other infrastructure improvements to address current and future impacts.

Policy 22D: Require strict assessment and adequate mitigation that meet state and national standards for site clean-up when redeveloping existing industrial and contaminated sites.

Goal 5.23: Maintain acceptable noise levels in North Fair Oaks.

Policy 23A: Reduce or eliminate existing objectionable noise sources and require new noise sources to comply with noise standards.

Policy 23B: Consider both indoor and outdoor noise levels to protect health and safety.

Policy 23C: Mitigate new noise impacts from traffic along Middlefield Road, El Camino Real, 5th Avenue, the rail corridor, and industrial uses within the neighborhood by buffering development sites or using other strategies to reduce or absorb sound. Where there are existing impacts, coordinate with nearby jurisdictions and agencies to advocate for design improvements that will reduce noise impacts.

3.9 PROJECT HOUSING GOALS AND POLICIES

The Community Plan Update incorporates the set of housing goals and policies listed below, which are intended to supplement and reinforce, rather than replace, the County's other housing policies and programs as described in the County Housing Element and other policy documents. The following Plan Update goals and policies are intended to increase affordable housing options, accommodate future housing demand, improve and preserve existing housing, address overcrowding and demand for large-family units, increase housing accessibility for households of all types, and provide housing and services for residents experiencing homelessness.

Goal 6.1: Increase affordable housing options in North Fair Oaks.

Policy 1A: Identify developable and redevelopable sites with the potential to accommodate affordable housing.

- *1A.1: Work with housing developers to identify sites with the potential to accommodate affordable housing.*
- *1A.2: Identify and map all sites that are potentially appropriate for housing development and make parcel-specific information publicly available to developers and other members of the public on request.*

Policy 1B: Provide technical and financial support to affordable housing developers, including funding, information on available housing sites, information on regulatory requirements, information on other resources available, and other support needed to facilitate successful development of affordable housing.

Policy 1C: Require and promote affordable housing as a community benefit provided in exchange for development bonuses and exemptions, such as building height in excess of normally permitted maximum height, development density in excess of

maximum density, lot coverage in excess of allowed coverage, or other exceptions or bonuses.

Policy 1D: Adopt and enhance supportive land use and zoning policies.

- *1D.1: Continue to implement the County's Inclusionary Housing Ordinance and continue to refine its implementation to address changing legal and market conditions.*
- *1D.2: Implement parking reductions appropriate for the actual parking needs of new projects, and encourage "unbundling" of parking spaces in new rental developments, allowing tenants to pay for parking only if they need it.*
- *1D.3: Modify minimum lot size requirements for multi-family attached ownership housing projects, and/or adopt waivers or exceptions to minimum lot size requirements for these projects separate from the Planned Unit Development (PUD) process.*
- *1D.4: Establish allowed or required densities of housing in designated areas that ensure that housing is built to sufficient densities to significantly increase overall housing supply, provide for a variety of housing options, and provide inclusionary affordable housing.*
- *1D.5: Encourage legal accessory dwelling units ("second units" or "in-law units") by streamlining approvals, adopting appropriate parking requirements, creating and making available pre-approved, neighborhood-specific architectural designs for accessory units, by promoting accessory dwelling units as an encouraged and facilitated form of residential development in North Fair Oaks, and by promoting the fact that the County will assist, facilitate, and streamline approval of accessory units to the maximum possible extent.*

Policy 1E: Promote affordable homeownership opportunities for low- and moderate-income households in North Fair Oaks.

- *1E.1: Provide funding assistance to housing projects that create long-term affordable homeownership housing.*
- *1E.2: Continue to work with appropriate agencies to provide low-cost loans, grants and other resources to low- and moderate-income homebuyers in North Fair Oaks.*

Policy 1F: In the case of conflicting or unclear regulations or policies, and in the course of discretionary approvals, interpret zoning, land use, and other policies and regulations in a manner that prioritizes creation of new residential uses, particularly affordable and special needs housing, and that discourages reduction of affordable housing stock, including demolition or conversion of residential uses.

Goal 6.2: Plan to accommodate future housing demand.

Policy 2A: Promote additional multi-family housing by permitting and encouraging multi-family rental and ownership housing in appropriate areas; encouraging and permitting

increased densities in mixed-use developments in selected areas; removing constraints to multi-family development, including attached homeownership development, in appropriate areas; and by revising residential parking standards as described in Chapter 3: Circulation and Parking [of the Community Plan Update].

- *2A.1: Implement the land use and zoning regulations incorporated in Chapter 2: Land Use Designations* [of the Community Plan Update], *increasing permitted residential densities in appropriate areas, encouraging and facilitating mixed-use development, and expanding areas in which residential uses are allowed.*

- *2A.2: Permit "by-right" residential or residential mixed-use development in Multi-family Residential and Neighborhood Mixed-Use zones, as indicated in Chapter 2: Land Use Designations* [of the Community Plan Update], *and establish minimum densities of 30 dwelling units/acre for residential-only developments in the Commercial Mixed-Use zone.*

- *2A.3: In designated areas, as described in the Chapter 2: Land Use Designations* [of the Community Plan Update], *offer development incentives, bonuses and/or exemptions such as building height in excess of maximum baseline permitted height, allowed density in excess of maximum baseline density, and other exemptions in exchange for provision of community benefits such as provision of affordable units in excess of units required by the Inclusionary Ordinance, provision of large family units, public amenities such as recreational and open space, or other community benefits.*

- *2A.4: Implement parking reductions appropriate for the actual parking needs of new projects, and encourage "unbundling" of parking spaces in new rental developments, allowing tenants to pay for parking only if they need it.*

- *2A.5: Modify minimum lot size requirements for multi-family attached ownership housing projects, and/or adopt waivers or exceptions to minimum lot size requirements for these projects separate from the Planned Unit Development (PUD) process.*

Policy 2B: Promote additional housing units in existing residential areas by encouraging and facilitating legal accessory dwelling units.

- *2B.1: Encourage legal accessory dwelling units ("second units" or "in-law units") by streamlining approvals, adopting appropriate parking requirements, creating and making available pre-approved, neighborhood-specific architectural designs for accessory units, by promoting accessory dwelling units as an encouraged and facilitated form of residential development in North Fair Oaks, and by promoting the fact that the County will assist, facilitate, and streamline approval of accessory units to the maximum possible extent.*

Goal 6.3: Improve the quality of housing in North Fair Oaks.

Policy 3A: Promote the maintenance and rehabilitation of affordable rental housing.

- *3A.1: Provide owners of rental property that serves low-income residents with assistance in code compliance, to help preserve the area's stock of existing unregulated affordable housing.*

- *3A.2: Publicize the Department of Housing's rehabilitation loan programs for multi-family units serving low-income tenants and single-family homes occupied by low-income owners, and provide targeted publicity and outreach in English and Spanish to North Fair Oaks.*

- *3A.3: Pursue funding to: conduct a focused inventory of apartment buildings in North Fair Oaks that are at seismic risk, and to create a strategy to assist at-risk structures with seismic upgrades.*

Policy 3B: Expand building code monitoring and enforcement efforts in North Fair Oaks.

- *3B.1: Adopt a program to undertake periodic external and internal residential building code inspections for multi-family rental properties.*

- *3B.2: Provide the North Fair Oaks community with readily available information on ways to pursue code compliance, code enforcement, and health and safety complaints, and ensure that complaints are investigated and resolved expeditiously.*

Policy 3C: Expand the provision of energy efficiency retrofitting assistance to low- and moderate-income homeowners in North Fair Oaks.

- *3C.1: Expand and target County efforts to encourage North Fair Oaks residential property owners to use various residential energy efficiency retrofitting and weatherization programs provided by the County and other sources.*

Goal 6.4: Preserve existing housing and prevent and mitigate displacement of low-income homeowners and renters.

Policy 4A: Provide assistance to help residents maintain existing housing, and provide assistance to residents in cases where existing housing cannot be maintained.

- *4A.1: Work with government and nonprofit agencies to promote foreclosure prevention measures such as expanded homeowner education and consumer credit counseling for individuals and families.*

- *4A.2: Expand outreach and information to local residents and community groups about available local, state or federal homeownership assistance programs. These resources should be provided in English, Spanish, and other languages as needed to meet the needs of local residents.*

- *4A.3: Provide residents with information and resources on ways to obtain assistance in preventing evictions, including information on fair housing organizations, tenant assistance organizations, and other resources.*

- *4A.4: Provide information to residents who have been displaced from housing, or are at immediate risk of displacement, on available services and resources to assist with provision of temporary housing, alternative permanent housing, affordable housing resources, financial resources, relocation assistance, and other options for displaced residents.*

Policy 4B: Preserve dedicated affordable housing stock that is at risk of conversion to market-rate housing.

- *4B.1: Inventory all affordable housing stock in North Fair Oaks that is required to remain affordable on a long-term basis due to deed restrictions or other agreements.*

- *4B.2: Monitor the inventory of long-term restricted affordable housing on an ongoing basis, and ensure that all such housing continues to meet the terms of affordability agreements.*

- *4B.3: Monitor the risk of conversion of long-term restricted affordable housing to market-rate housing, and if units are at risk of conversion, help preserve the units by providing resources and assistance, including partnership with nonprofit organizations, assistance to existing tenants, financial assistance, and other appropriate strategies.*

Policy 4C: Promote shared housing or co-housing as a strategy to provide additional housing for lower income renters, while also helping existing homeowners remain in their homes.

- *4C.1: Work with nonprofit partners to implement a shared housing program in North Fair Oaks targeted to senior homeowners and other homeowners at-risk of losing their homes, to help match at-risk homeowners with appropriate lower-income renters in need of affordable housing options.*

Policy 4D: Discourage conversions of residential property to other uses, and ensure that any residential conversions provide adequate replacement of converted housing.

- *4D.1: Encourage, at minimum, one-for-one replacement of residential uses in cases of demolition or redevelopment of existing uses.*

- *4D.2: Disallow stand-alone parking lots and structures in high-density and multifamily residential neighborhoods. Prohibit conversion of residential uses to parking, and make stand-alone parking a conditional use in higher density and multifamily residential neighborhoods.*

- *4D.3: For new uses that result in reduction of overall housing in the community, require mitigation in the form of one-for-one replacement on-site or off-site in other parts of the community.*

- *4D.4: Prohibit conversion of single-family residential districts to non-residential zoning, except in limited cases where such conversion provides overriding community benefit such as projects to develop parks, recreational uses, community*

centers, job training centers, and other entirely nonprofit, wholly community benefiting uses, to be determined and approved only on a discretionary, project-by-project basis.

- *4D.5: Discourage rezoning of residential districts to non-residential uses, except in cases of mixed-use projects or mixed-use zoning that will provide sufficient replacement of existing residential use; projects that will provide one-for-one replacement of residential uses in other appropriate areas of the community; or, in limited cases, projects that exclusively provide public and community benefit, such as community centers, job training centers, health clinics, and similar nonprofit uses.*

- *4D.6: Prohibit and/or discourage residential demolitions, particularly multifamily residential demolitions, except in cases where the applicant/developer has committed to full replacement of residential uses on-site or in other parts of the community or the applicant/developer has committed to provision of another acceptable community benefit, as described above.*

- *4D.7: Disallow rezoning of residential properties that formerly contained active residential uses that have been demolished or that are unoccupied. In reviewing applications for rezoning, consider these properties as though they contain active residential uses, and only allow rezoning consistent with ongoing residential uses, or in cases of overriding community benefit, as described above.*

Goal 6.5: Address overcrowding and demand for large family units.

Policy 5A: Encourage and/or require large housing units in multifamily residential development.

- *5A.1: Encourage developers to include large family units in multifamily rental and ownership housing projects.*

- *5A.2: Promote or, where appropriate, require a minimum percentage of larger units (two or more bedrooms) in new rental and ownership housing created with County assistance or created under the County Density Bonus ordinance, Inclusionary Housing ordinance, or other County regulations that require provision of affordable or special needs housing.*

- *5A.3: Prioritize County assistance to proposed affordable housing projects that include large units and special needs units.*

Policy 5B: Encourage accessory dwelling units (also called "second units" or "in-law units") as a means of accommodating large and extended families.

- *5B.1: Encourage construction of new accessory dwelling units by streamlining approvals, adopting parking requirements appropriate for second units, preparing and providing pre-approved architectural designs, and by publicizing accessory dwelling units as a type of housing that is encouraged and facilitated in North Fair Oaks.*

- *5B.2: Provide rehabilitation assistance for accessory dwelling units in need of repair and upgrade.*

- *5B.3: Explore a code compliance amnesty program for illegally constructed and non-code-compliant accessory dwelling units, coupled with provision of rehabilitation assistance, to legalize illegal and non-compliant accessory dwelling units.*

Policy 5C: *Reduce parking requirements for expansions of existing single-family residential uses, consistent with the parking standards incorporated in Chapter 3: Circulation and Parking* [of the Community Plan Update]*, in order to facilitate additional residential capacity in existing residential properties.*

Goal 6.6: Increase availability and accessibility of housing for households of all types.

Policy 6A: *Increase accessibility of housing by encouraging the provision of a variety of affordable and supportive housing for special needs populations.*

- *6A.1: In provision of funding and other assistance, continue to give high priority to affordable and supportive housing that serves special needs populations.*

- *6A.2: Explore allowing various kinds of special needs housing, including transitional housing, by right on sites with appropriate densities in North Fair Oaks.*

Policy 6B: *Increase accessibility of the housing stock by promoting universal design standards and accessibility modifications in all homes in North Fair Oaks.*

- *6B.1: Promote and/or require universal design (design that is accessible to a wide range of users with different levels of ability) standards in all new construction projects in North Fair Oaks.*

- *6B.2: Promote programs that provide accessibility modifications (such as ramps, grab-bars in tubs/showers, and other modifications) for seniors and others needing such modifications in their home.*

Goal 6.7: Promote transit-accessible housing.

Policy 7A: *Promote affordable and other housing near transit by identifying appropriate locations and providing supportive land use and zoning policies.*

- *7A.1: Modify permitted development densities appropriately to facilitate additional housing near transit in designated areas, as described in the Chapter 2: Land Use Designations* [of the Community Plan Update].

- *7A.2: Reduce parking requirements for all types of development that demonstrate sufficient access to public transit.*

Goal 6.8: Provide housing and services for residents experiencing homelessness.

Policy 8A: Encourage the development of transitional and permanent supportive housing in North Fair Oaks.

- *8A.1: Explore permitting transitional and/or permanent supportive housing by right on sites identified for multifamily housing in North Fair Oaks.*
- *8A.2: Work with affordable housing developers to identify sites near transit that would be suitable for transitional and/or permanent supportive housing.*
- *8A.3: Continue to provide financial and other assistance to homeless service providers in North Fair Oaks.*

3.10 PROJECT DESIGN STANDARDS AND GUIDELINES

The Community Plan Update includes design standards and guidelines intended to promote high-quality context-sensitive development in the North Fair Oaks community. The design standards and guidelines would provide a method for guiding the physical environment and character of the streets, buildings, and open spaces in the Plan area. Standards and guidelines are not intended to be prescriptive, but rather to provide sufficient flexibility for creativity and variety in new developments and public space designs.

The design standards and guidelines are organized under the following topics:

- Design of the Public Realm
  - Overarching Standards and Guidelines for Streetscape Design (roadways, sidewalks and landscaping, crosswalks and bulbouts, street furniture and lighting, art);
  - Standards and Guidelines for Specific Streets (Middlefield Road, 5th Avenue); and
  - Open Space Guidelines (pocket parks and plazas, greenways).
- Design of the Private Realm
  - Overarching Private Realm Guidelines (layout and orientation--block level, layout and orientation--individual buildings, massing and scale, building heights and stepbacks, building setbacks, building character and façade articulation, parking, alleys and service access, building uses, stormwater management, passive cooling); and
  - Building Prototypes (row houses and townhomes, live-work units, multi-family apartments and condominiums, mixed-use buildings, commercial buildings).

As applicable to the environmental impact analysis, the design standards and guidelines are identified in appropriate chapters of this EIR.

3.11 PROJECT ECONOMIC DEVELOPMENT GOALS AND POLICIES

The Plan includes the set of economic development goals and policies listed below, which are intended to create new employment opportunities, support small and mid-sized businesses, support business expansion and retention, accommodate new industrial/office/mixed-use development, and expand retail services in North Fair Oaks.

Goal 8.1: Create new employment opportunities for North Fair Oaks residents.

Policy 1A: Expand workforce training efforts to help prepare North Fair Oaks residents to compete for quality, living-wage jobs in growing industry sectors.

- *1A.1: Collaborate with employment assistance organizations, local employers, and educational institutions to create a coordinated workforce training program targeted to North Fair Oaks residents.*
- *1A.2: Build on efforts by the County Human Services Agency (HSA), the San Mateo County Community College District, and other partners to create a green collar[1] job program tailored specifically to the educational and linguistic needs of North Fair Oaks residents.*
- *1A.3: Prioritize workforce training for local youth, including continuation and expansion of existing youth jobs-training programs. Identify opportunities to create and expand space to house youth job training and workforce development programs and other youth job assistance programs. Ensure that new development does not displace, or provides for replacement or relocation of, space for existing youth workforce training programs.*
- *1A.4: Identify opportunities to provide workforce training and re-training for unemployed, underemployed, or retired seniors needing or desiring employment. Identify opportunities to leverage seniors' work experience by involving senior residents in mentoring and job training programs for youth and others.*

Policy 1B: Increase efforts to diversify the community's job base to bring a variety of job opportunities to local residents. Key sectors in San Mateo County include high-technology, general local-serving manufacturing and distribution, green and clean-technology uses, and professional services.

- *1B.1: Enact land use and zoning policies that provide a sufficient supply of land for production, distribution, and repair uses along Spring Street in the core industrial area.*
- *1B.2: Designate a County, nonprofit, or other community-based partner lead agency responsible for business attraction efforts in North Fair Oaks.*
- *1B.3: Identify and market specific sites or underutilized properties that would be suitable for use by emerging clean or green-tech industries.*

[1] "Green collar" refers to jobs in industries involved in the production and distribution of goods and materials designed to improve the quality of the built and natural environment.

Policy 1C: Encourage pilot initiatives in commercial urban agriculture on vacant and underutilized sites. [See Health and Wellness goals and policies above that support urban agriculture and potential locations for those activities.]

- *1C.1: Identify vacant or underutilized sites for community gardens in commercial, mixed-use and residential areas of North Fair Oaks. Seek neighborhood, community, and nonprofit partners for the ongoing operation and maintenance one or more community gardens and community gathering spaces in North Fair Oaks.*
- *1C.2: Investigate the feasibility of urban farming in North Fair Oaks. Explore the initiation of a small-scale urban agriculture program by formulating a solicitation for a partner organization, which can, in turn, identify ideal sites, organize volunteers, and help to obtain grant funding.*

Policy 1D: Promote local hiring by local businesses.

- *1D.1: Expand County outreach efforts to educate local employers on the benefits of local hiring, publicize opportunities for local hiring, and encourage companies to hire local residents.*

Policy 1E: Support day laborers and day labor programs.

- *1E.1: Continue to provide space for day labor programs in County facilities, and support to organizations that serve day laborers.*

- *1E.2: Work with day labor organizations to identify day laborer needs, and to ensure that infrastructure changes, physical development and redevelopment, and other changes contemplated by the Community Plan consider day laborer needs and potential impacts on day laborers.*

Goal 8.2: Support small and mid-sized businesses.

Policy 2A: Retain and grow existing retail and service businesses by providing strategic support in marketing, building rehabilitation, and related expansion efforts.

- *2A.1: Designate a dedicated small business liaison for North Fair Oaks responsible for ongoing communication with existing businesses. This could be through the County or nonprofit partners.*

- *2A.2: Explore the creation of a commercial beautification program to enhance storefronts and make them more welcoming.*

- *2A.3: Conduct a feasibility study regarding the creation of a commercial corridor revitalization program for the primary commercial areas along Middlefield Road and 5th Avenue. Such a program would provide a comprehensive suite of technical assistance services in marketing, merchandising, and tenant improvement funding for local retail and professional service firms.*

- *2A.4: Investigate the feasibility of establishing a Business Improvement District (BID) in North Fair Oaks to support commercial revitalization and business assistance activities.*

Policy 2B: Increase efforts to provide technical and financial support to local entrepreneurs seeking to start businesses in North Fair Oaks.

- *2B.1: Partner with appropriate agencies and organizations to create a focused entrepreneurship program for North Fair Oaks.*
- *2B.2: Partner with the Small Business Administration and local financial institutions to publicize the availability of federal, State and private resources for micro-enterprise seed funding.*
- *2B.3: Create a technical advisory service for small entrepreneurs in North Fair Oaks to provide information and training on resources available to new and emerging micro-enterprises.*
- *2B.4: Provide interested parties with comprehensive information in a single, easily digestible format on requirements and opportunities for starting businesses in North Fair Oaks, including information on regulatory requirements, procedures and fees, local sources of support, available resources, potential business locations, and other information.*

Goal 8.3: Support business expansion efforts, and promote retention of existing businesses.

Policy 3A: Identify expansion needs and provide support for existing businesses to expand without relocation out of North Fair Oaks.

- *3A.1: Identify infrastructure, space, and other expansion needs for existing business to expand while remaining in current locations.*
- *3A.2: If expansion in place is infeasible, help businesses identify potential appropriate expansion sites at other locations within North Fair Oaks.*
- *3A.3: Support creation of new childcare locations in North Fair Oaks, including childcare space as part of new large-scale developments, and smaller-scale childcare in appropriate locations throughout North Fair Oaks, in order to support local workers in need of easily accessible childcare.*

Goal 8.4: Plan to accommodate new industrial, office and mixed-use development.

Policy 4A: Plan for and appropriately modify regulations to support the expansion of industrial, flex and research and development (R&D) uses in the Industrial Mixed-Use areas of North Fair Oaks.

Policy 4B: Provide opportunities for mixed-use development in the Industrial Mixed-Use areas to provide flexible space for a range of commercial, institutional and residential (by conditional use permit) activities and revitalization of underutilized and vacant land.

- *4B.1: Allow live-work and related mixed-use product types in the Industrial Mixed-Use areas with a conditional use permit.*

- *4B.2: Permit recreational and community facilities uses in the Industrial Mixed-Use areas with a conditional use permit provided that such uses are compatible with nearby production, distribution and repair activities.*

Policy 4C: Encourage intensive commercial and mixed-use development at key nodes such as the proposed multimodal transit hub on Middlefield Road at the Dumbarton railroad crossing and along El Camino Real at 5th Avenue.

- *4C.1: Identify opportunity sites (sites that are vacant or underutilized, and/or appropriate for significantly greater intensities of development) near planned transit facilities, in order to support transit usage and leverage increasing long-term demand for office, retail and residential development located near transit hubs. Promote and assist in redevelopment of appropriate identified sites.*

- *4C.2: Promote multifamily residential development and the development of new housing product types on key sites and in mixed-use areas as described in the Chapter 6: Housing and Chapter 7: Design Standards and Guidelines* [of the Community Plan Update].

- *Identify remediation needs for potential opportunity sites that may require clean-up, as described in Chapter 5: Health and Wellness* [of the Community Plan Update], *and identify responsible parties and potential sources for remediation assistance.*

GOAL 8.5: Expand retail services in North Fair Oaks.

Policy 5A: Concentrate new retail development at key nodes and along Middlefield Road, 5th Avenue, and El Camino Real that already have existing concentrations of local-serving retailers.

- *5A.1: Provide regulatory and financial incentives for the commercial redevelopment of vacant and underutilized parcels along El Camino Real and Middlefield Road to build on the synergy of these well-established retail corridors.*

Policy 5B: Attract new retail businesses that will complement the existing mix of local businesses and fill gaps in local retail services.

- *5B.1: Actively recruit a new full-service pharmacy to capture retail sales that are currently leaking from North Fair Oaks in this category. Identify one or more potential sites for a new pharmacy or for a mixed-use development with a ground floor pharmacy use. Potentially partner with an experienced commercial brokerage or nonprofit economic development agency to develop a targeted outreach effort for a new pharmacy.*

Policy 5C: Remove barriers to new retail development, including parking constraints and barriers to mixed-use development, by exploring innovative parking strategies described in the Chapter 3: Circulation and Parking [of the Community Plan

Update] *and amending land use regulations to allow for higher densities and zoning to encourage retail and a mix of uses in designated areas within North Fair Oaks.*

- *5C.1: Conduct and implement a commercial parking utilization study and parking program for North Fair Oaks commercial areas based on the* [Circulation and Parking] *policies* [described above].

3.12 PROJECT DEVELOPMENT CAPACITY ASSUMPTIONS

Table 3.1 identifies the Community Plan Update development capacity assumptions used in this EIR. The updated Plan would provide for up to approximately 3,024 additional dwelling units, 155,000 additional square feet of office uses, 180,000 additional square feet of retail uses, 210,000 additional square feet of industrial (R&D and general) uses, 110,000 additional square feet of institutional (community and school) uses, and 3.8 additional acres of public (parks and recreation) uses. This development capacity includes development within the five Opportunity Areas described in subsection 3.4.2 (Plan Update Development Framework) above, as well as anticipated infill development and redevelopment throughout the Community Plan area under the Plan land use provisions.

3.13 REQUIRED JURISDICTIONAL APPROVALS

Implementation of the updated Community Plan would require the following County actions:

(1) certification of the Final Environmental Impact Report (Final EIR) for the proposed updated Community Plan;

(2) adoption of the updated Community Plan itself as an amendment to the San Mateo County General Plan; and

(3) approval of associated zoning amendments and associated amendments to subdivision regulations to reflect and implement the land uses, policies, development standards, programs, and strategies specified by the updated Community Plan.

3.14 INTENDED USES OF THE EIR

This program EIR is an informational document designed to inform the County of San Mateo Planning Commission and Board of Supervisors and the public of the environmental consequences of the proposed North Fair Oaks Community Plan Update. The County is the Lead Agency for environmental review of the project under CEQA. This EIR has been prepared to serve as the CEQA-required environmental documentation for use by the County in its consideration of the project, including all of the associated project approvals described in section 3.13 above, and the various other associated County actions that may be necessary to implement the Community Plan Update.

Table 3.1
COMMUNITY PLAN UPDATE DEVELOPMENT CAPACITY ASSUMPTIONS

	Residential (dwelling units)		Commercial (s.f.)		Industrial (s.f.)		Institutional (s.f.)	Public (ac.)
	Single-Family	Multi-Family	Office	Retail	R&D	General	(Community/Schools)	(Parks/Recreation)
Existing	**2,700**	**1,550**	**180,000**	**500,000**	**125,000**	**1,150,000**	**675,000**	**10.0**
Proposed Plan Land Use Designation								
Neighborhood Mixed-Use (14 acres)		336	20,000	30,000			15,000	0.5
Commercial Mixed-Use (51 acres)		2,040	65,000	75,000			35,000	1.5
Industrial Mixed-Use (81 acres)		648	70,000	75,000	90,000	120,000	60,000	1.8
Subtotal (Net New Development)		**3,024**	**155,000**	**180,000**	**90,000**	**120,000**	**110,000**	**3.8**
Total Development Capacity	***2,700***	***4,574***	***335,000***	***680,000***	***215,000***	***1,270,000***	***785,000***	***13.8***

SOURCE: MIG and County of San Mateo, May 2011.

This CEQA document is also intended to be used as the baseline (or "first-tier") CEQA document for subsequent public and private development and improvement actions in the Plan area that are consistent with the Plan. The County would examine these subsequent future individual, site-specific activities in the context of the information contained in this program EIR to determine whether and what additional, more focused environmental review would be required.

As the Lead Agency, the County also intends this EIR to serve as the CEQA-required environmental documentation for consideration of the proposed Community Plan Update by other Responsible Agencies and Trustee Agencies that may have limited discretionary authority over future site-specific development proposals facilitated by and consistent with the Community Plan Update.

4. AESTHETICS

This EIR chapter describes existing aesthetic conditions in and around North Fair Oaks, the regulatory setting related to aesthetics, and the impacts and mitigation needs of the updated Community Plan related to visual character and quality; scenic vistas; scenic highways; light, glare, and sky glow; and shade and shadow.

4.1 ENVIRONMENTAL SETTING

4.1.1 Visual Character

(a) Land Use and Development Character. North Fair Oaks is a diverse neighborhood with a distinct visual character. Residential neighborhoods define the visual character of the community. Commercial corridors along Middlefield Road and 5th Avenue, south of the Caltrain railroad tracks and north of Spring Street, and along El Camino Real are similar in terms of form and character. Industrial areas, largely underutilized (i.e., the land is worth more than the existing structures on it), are concentrated along the Southern Pacific Railroad tracks, and to the north of Fair Oaks Avenue and west of 2nd Avenue.

The visual character of North Fair Oaks is also characterized by a significant amount of underutilized and vacant land, including 16 percent of all residential parcels evenly distributed throughout the community, and vacant industrial parcels.

(b) Residential Visual Character. About two-thirds of all parcels in North Fair Oaks are in residential use, of which the vast majority is single-family homes. The central neighborhood contains low density single family homes. Single-family homes are generally single-story units with a range of architectural styles. High density residential uses are clustered in three locations: east of 5th Avenue between Middlefield Road and Semicircular Avenue; on 9th Avenue north of the Southern Pacific Railroad tracks; and adjacent to Fair Oaks Elementary School. Multi-family units are generally two-story structures, except for new housing development along Dumbarton Road in the south neighborhood, which is three stories high. North Fair Oaks residential neighborhoods lack basic community amenities and services such as parks, sidewalks and street lights.

(c) Block Pattern and Connectivity. Block sizes and street orientation vary throughout North Fair Oaks. The block pattern is shown in Figure 4.1. Block sizes vary from 200 feet to 1,600 feet. A typical urban block that promotes walkability and connectivity is 200 feet or less. Streets in North Fair Oaks follow a rectilinear grid pattern. Multiple, intersecting grids form the street and block pattern. In the northern neighborhood, residential blocks are 200 feet wide by 400 feet long and are oriented in the north-south direction. In the central neighborhood, blocks are 200 feet wide but up to 1,600 feet long, aligned north-south.

SOURCE: Wagstaff/MIG

Figure 4.1

BLOCK PATTERN

The Southern Pacific Railroad and Caltrain tracks divide North Fair Oaks into three separate neighborhoods (the north, central and south neighborhoods). The Hetch Hetchy right-of-way also cuts through North Fair Oaks in an east-west alignment. The railroad tracks act as barriers that cut off access between many parts of North Fair Oaks. Many north-south streets dead-end into the Southern Pacific Railroad tracks. The industrial parcels along the Southern Pacific Railroad tracks also divide the north and central neighborhoods.

(d) Key Corridors, Nodes and Gateways. Of the routes that provide primary regional access to North Fair Oaks, US 101, Woodside Road and El Camino Real, only El Camino Real directly connects with the Plan area, along its southern boundary. The El Camino Real/5th Avenue intersection is a community node and a key gateway into North Fair Oaks, although parcels surrounding this intersection are largely underutilized. Key corridors, intersections and gateways are shown in Figure 4.2.

Key corridors within the community include Middlefield Road, Marsh Road, 5th Avenue and Spring Street. 5th Avenue is currently the only street that links all three of North Fair Oaks' neighborhoods. The intersections of Middlefield Road with Northside Street (at the Southern Pacific Railroad tracks), 2nd Avenue, 5th Avenue, and 8th Avenue are neighborhood nodes. The intersections of Middlefield Road with Northside Street and 8th Avenue are key gateways into North Fair Oaks. The intersections of Spring Street with Charter Street, Burlingame Street, 2nd Avenue and 5th Avenue are neighborhood nodes (i.e., centers of activity). The intersections of Spring Street with Charter Street and 5th Avenue are key gateways into the community.

(e) Quality of the Public Realm. The public realm in North Fair Oaks can be classified as parks and playgrounds, and streets and sidewalks. There are two small County-owned parks and playgrounds: Friendship Park and a community playground at the intersections of Fair Oaks Street and 10th Avenue. Other parks include Fair Oaks and Garfield Charter elementary schools. There are no defined outdoor public gathering places and plazas in North Fair Oaks.

There are a wide range of street types in North Fair Oaks. El Camino Real and Middlefield Road are the primary commercial corridors. Both of these corridors lack streetscape improvements that create a safe and comfortable pedestrian environment, and that safely balance multiple modes of travel, including public transit and bicycles. Streets in North Fair Oaks would benefit from traffic calming, pedestrian safety, landscaping, curbs and sidewalks, signage, lighting and bicycle improvements that can collectively improve the quality of the public realm by making it safer and more comfortable to walk and bicycle.

There are a number of areas in North Fair Oaks that lack street lighting, including the entire north neighborhood as well as many neighborhood streets. Many of the streets that lack adequate street lighting also experience illegal dumping and graffiti.

North Fair Oaks has a lower tree canopy coverage compared to adjacent neighborhoods. Although residential parcels in North Fair Oaks often have trees and other landscaping, many streets in the community lack adequate street trees, and many commercial and industrial parcels have little landscaping. Tree canopy coverage is higher in the neighborhoods adjacent to the City of Atherton.

SOURCE: Wagstaff/MIG

Figure 4.2

KEY CORRIDORS, INTERSECTIONS AND GATEWAYS

4.1.2 Scenic Vistas

There are no officially designated scenic vistas within the Plan area. Hills to the west provide a prominent visual backdrop and orienting feature for North Fair Oaks. Scenic vistas from within the Plan area are limited by the flat terrain. Portions of the hills to the west are visible from various vantage points within the Plan area. The hills to the west have views over the Plan area to San Francisco Bay and its associated baylands, sloughs, and marshes, and the East Bay hills.

4.1.3 Light, Glare and Sky Glow

Existing sources of nighttime light in and around the Plan area include those common to urban areas, including street and freeway lights, parking lot lighting, building lighting, illuminated signs, vehicle headlamps and interior lighting visible through windows. Existing sources of glare include reflection of sunlight and artificial light off of windows, buildings and other surfaces in the day, and glare from inadequately shielded and improperly directed light sources at night.

4.1.4 Shade and Shadow Conditions

(a) Shade and Shadow Issues. The issue of shade and shadow as it pertains to the Plan area involves the blockage of direct sunlight by existing or proposed structures, and associated effects on adjacent properties. The effects of shading by one structure upon another structure or space can be either positive or negative depending upon the site-specific circumstances. Potential beneficial effects of shading may include a desirable cooling effect during hot weather. Perceived adverse effects of shading may include loss of natural light, including natural light for passive or active solar energy applications, or loss of desired warming influences during cool weather. Factors influencing the perceived impact of shadow are site-specific and can include building placement; the height, bulk and setback of structures; the time of year; the duration of shading in a day; weather; landscaping; and the sensitivity of adjacent land uses to loss of sunlight.

(b) Shade and Shadow Characteristics. Shadows cast by structures vary in length and direction throughout the day and from season to season. The longest shadows are cast during the winter months, when the sun is lowest on the horizon; the shortest shadows are cast during the summer months. Shadows are longer in the early morning and late afternoon. Shadow lengths increase during the low sun or winter season and are longest on December 21-22, the winter solstice. The winter solstice, therefore, represents the "worst-case" shadow condition and the time when the potential for loss of access to sunlight due to an adjacent structure is greatest. Shadow lengths are shortest on June 21-22, the summer solstice. Shadow lengths fall midway between the summer and winter extremes on March 20-21 and September 22-23, the spring and fall equinoxes, respectively.

Shadows are cast to the west by objects during the morning hours when the sun is coming up on the horizon in the east. During late morning and early afternoon, the shadows of objects move northerly and by late afternoon they are cast easterly as the sun moves across the sky from east to west.

(c) Shade and Shadow Sensitivities. Land uses are generally considered shadow-sensitive when sunlight is important to function, physical comfort, or the conduct of commerce. Facilities and operations identified as potentially sensitive to the loss of sunlight may include public parks,

plazas and open space areas; routinely usable outdoor areas of residential properties; commercial uses such as pedestrian-oriented outdoor spaces or restaurants with outdoor eating areas; and existing solar energy collectors.

Shadow-sensitive land uses and features of concern in the Plan area, as identified by County staff and members of the community, include public open space areas, parcels with a lower maximum permitted height adjacent to parcels with a higher maximum permitted height, and solar-sensitive portions (e.g., private and common yards and balconies) of residential parcels.

4.2 REGULATORY SETTING

4.2.1 State of California

(a) Title 24 Outdoor Lighting Zones. In 2001, the California Legislature passed a bill requiring the California Energy Commission (CEC) to adopt energy-efficient standards for outdoor lighting for both the public and private sector. In November 2003, the CEC adopted changes to the Building Energy Efficiency Standards within Title 24. The standards specify outdoor lighting requirements for residential and non-residential development. The intent of these standards is to improve the quality of outdoor lighting and reduce the impacts of light pollution, light trespass and glare. The standards regulate lighting characteristics, such as maximum power and brightness, shielding, and use of sensor controls to turn lighting on and off. Different State lighting standards have been established for four "lighting zone" classifications. Based on population figures in the 2000 Census, areas can be designated by this State specification system as LZ1 (dark), LZ2 (low), LZ3 (medium), or LZ4 (high). State lighting standards for rural areas are stricter for example, to provide appropriate protection from new sources of light pollution and light trespass. North Fair Oaks falls within the State LZ3 classification--i.e., an urban environment.[1]

4.2.2 County of San Mateo

(a) San Mateo County General Plan. The following San Mateo County General Plan policies are relevant to consideration of the potential aesthetic impacts of the updated Community Plan.

(1) Visual Quality Element

4.3 Protection of Vegetation. Minimize the removal of visually significant trees and vegetation to accommodate structural development.

4.14 Appearance of New Development.

a. Regulate development to promote and enhance good design, site relationships and other aesthetic considerations.

b. Regulate land divisions to promote visually attractive development.

4.15 Supplemental Design Guidelines for Communities. Encourage the preparation of supplemental site and architectural design guidelines for communities that include, but are not limited to, criteria that reflect local conditions, characteristics and design objectives and are flexible enough to allow individual creativity.

[1] http://www.energy.ca.gov/title24/2008standards/outdoor_lighting/

4.20 Utility Structures. Minimize the adverse visual quality of utility structures, including roads, roadway and building signs, overhead wires, utility poles, T.V. antennae, windmills and satellite dishes.

4.24 Location of Structures.

a. Locate, site and design all structures and paved areas to carefully conform with the natural vegetation, landforms and topography of the site so that their presence is compatible with the pre-existing character of the site.

b. Locate and design future structures to minimize the impacts of noise, light, glare and odors on adjacent properties and roads.

4.25 Earthwork Operations.

a. Keep grading or earth-moving operations to a minimum.

b. Where grading is necessary, make graded areas blend with adjacent landforms through the use of contour grading rather than harsh cutting or terracing of the site.

4.28 Trees and Vegetation.

a. Preserve trees and natural vegetation except where removal is required for approved development or safety.

b. Replace vegetation and trees removed during construction wherever possible. Use native plant materials or vegetation compatible with the surrounding vegetation, climate, soil, ecological characteristics of the region and acceptable to the California Department of Forestry.

c. Provide special protection to large and native trees.

4.30 Public Utilities. Encourage the placement of new and existing public utility lines underground.

4.35 Urban Area Design Concept.

a. Maintain and, where possible, improve upon the appearance and visual character of development in urban areas.

b. Ensure that new development in urban areas is designed and constructed to contribute to the orderly and harmonious development of the locality.

4.36 Improving Visual Quality in Urban Areas. Conduct special studies in unincorporated urban areas to identify and mitigate design problems in commercial and mixed density residential areas.

4.38 Commercial Signs and Outdoor Advertisements.
Regulate commercial signs and outdoor advertising by using a consolidated set of standards.

4.39 Scenic Roads. Give special recognition and protection to travel routes in rural and unincorporated urban areas which provide outstanding views of scenic vistas, natural landscape features, historical sites and attractive urban development.

4.40 Coordination of Scenic Roadway Standards and Design. Coordinate standards of roadway and right-of-way design, improvements, and maintenance with cities in order to maintain a consistent approach in applying scenic conservation standards.

4.48 Scale. Design structures which are compatible in size and scale with their building site and surrounding environment, including adjacent man-made or natural features.

4.50 Stack, Vents and Antennae. Group stacks, vents, antennae, satellite dishes and other equipment together, to the extent feasible, and place them in the least viewable location. Where appropriate, screen antennae and satellite dishes from view.

4.51 Colors and Materials. Depending on the design problems of the site, use colors and materials which: (1) blend with or complement the surrounding natural environment, (2) do not dominate or overpower the site, (3) are compatible with the size, scale, and architectural style of the structure, and (4) with the exception of greenhouses, are not highly reflective.

4.54 Commercial Signs.

a. Limit on- and off-site outdoor commercial advertising, including billboards, in order to protect visual quality.

b. Design signs to harmonize in color and materials with:

(1) the architectural character of the structure it identifies; and

(2) the visual qualities of the natural surroundings.

c. Integrate signs with the architectural design of the building and do not extend them above the roof line of the structure.

d. Prohibit bright or self-illuminated, rotating, moving, reflective, blinking or flashing signs.

e. Discourage permanent use of pennants or streamers.

4.57 Tree and Vegetation Removal.

a. Allow the removal of trees and natural vegetation when done in accordance with existing regulations.

b. Prohibit the removal of more than 50% of the tree coverage except as allowed by permit.

4.62 Storage Areas. Screen areas used for the storage of equipment, supplies or debris by fencing, landscaping or other means so they are not visible from scenic roadways, trails, parks, and neighborhoods.

4.63 Utilities in State Scenic Corridors.

a. Install new distribution lines underground.

b. Install existing overhead distribution lines underground where they are required to be relocated in conjunction with street improvements, new utility construction, etc.

c. Consider exceptions where it is not physically practical due to topographic features; however, utilities should not be substantially visible from any public road or developed public trail.

4.64 Utilities in County Scenic Corridors.

a. Install new distribution lines underground.

b. Consider exceptions for certain circumstances including, but not limited to, financial hardship, topographic conditions or land use conflicts.

4.66 Fences. Encourage fences which minimize visual impact.

(2) Urban Land Use Element

8.38 Height, Bulk, and Setbacks. Regulate height, bulk, and setback requirements in zoning districts in order to: (1) ensure that the size and scale of development is compatible with parcel size, (2) provide sufficient light and air in and around structures, (3) ensure that development of permitted densities is feasible, and (4) ensure public health and safety.

8.41 Solar Access. Minimize the obstruction of solar access by: (1) protecting structures from encroachment, (2) landscaping with appropriate plant materials, and (3) clustering structures where beneficial.

(b) San Mateo County Zoning Regulations. The San Mateo County Zoning Regulations contain specific provisions pertaining to lighting, signage, building height, setbacks, and other design elements specific to the zoning designations within the Plan area. There are 15 different residential, commercial, industrial, institutional, and other zoning districts within the Plan area, including a Design Review (DR) district (Section 6565.1 of the San Mateo County Zoning Regulations). The DR district designates areas that have specific design guidelines for new buildings. Projects in DR districts must be reviewed and approved by the Design Review Committee.

The base zoning districts are typically combined with overlay or "Combining" zoning designations, which further define the types of development allowed in each area. The combining districts in North Fair Oaks include: S-1, S-3, S-5, S-7, S-10, S-50 (North Fair Oaks), S-73 (North Fair Oaks), and S-93 (North Fair Oaks). Development standards related to building height, placement and lot coverage for these districts are listed in Table 4.1 below.

(c) San Mateo County Community Design Manual. The San Mateo County Community Design Manual applies to Design Review (DR) overlay zoning district in urbanized areas of the county to regulate the siting of structures, protect natural features, and provide for design compatibility with surrounding development.

4.3 IMPACTS AND MITIGATION MEASURES

4.3.1 Significance Criteria

Based on the CEQA Guidelines[1], the updated Community Plan would be considered to have a significant impact related to aesthetics if it would:

(a) Substantially degrade the existing visual character or quality of the site and its surroundings;

(b) Have a substantial, adverse effect on a scenic vista;

(c) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;

[1]CEQA Guidelines, Appendix G, Items I(a) through (d).

Table 4.1
DEVELOPMENT STANDARDS FOR COMBINING DISTRICTS

District	Minimum Yards Required			Maximum Height Permitted		Maximum Coverage Permitted (%)
	Front (Ft.)	Side (Ft.)	Rear (Ft.)	Stories	Ft.	
S-1	20	5	20	3	36	50
S-3	20	5	20	3	36	50
S-5	20	5	20	3	36	50
S-7	20	5	20	3	36	50
S-10	20	10	20	3	36	25
S-50*	20	5	20	2	28	50
S-73*	20	5	20	2	28	50
S-93*	20	10	20	2	30	30

SOURCE: MIG, Inc., North Fair Oaks Community Plan Update Existing Conditions Analysis Land Use and Urban Design, June 2010, p. 8.

Notes:

*S-50 The total floor area of all stories of all buildings on a parcel shall not exceed 45% of the total parcel area. When the side property line fronts a public or private street, the minimum setback shall be 10 feet. The daylight plane shall be established by measuring along all setback lines a vertical distance of 20 feet from the existing grade and then inward at an angle of 45 degrees until a maximum height of 28 feet is reached.

*S-73 The total floor area of all stories of all buildings on a parcel shall not exceed 2,600 sq. ft. if the building site area is less or equal to 5,000 sq. ft and should be {.26(building site area - 5000) + 2,600 sq. ft} if greater than 5,000 sq. ft. When the side property line fronts a public or private street, the minimum setback shall be 10 feet. The daylight planes shall be established by measuring along the side setback lines a vertical distance of 16 feet from the existing grade and then inward at an angle of 45 degrees until a maximum height of 28 feet is reached.

*S-93 The total floor area of all stories of all buildings on a parcel should be {.26(building site area - 5000) + 2,600 sq. ft} if greater than 5,000 sq. ft. The daylight planes shall be established by measuring along the side setback lines a vertical distance of 20 feet from the existing grade and then inward at an angle of 45 degrees until a maximum height of 30 feet is reached.

(d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area; or

(e) Cast shadow that substantially impairs the beneficial use, important values, or livability of any shadow-sensitive use, including public parks, plazas or open space areas, or shadow-sensitive portions of residential parcels.

Although neither the CEQA Guidelines nor San Mateo County have a significance criterion for shade and shadow impacts, criterion (e) was added and this issue is evaluated qualitatively in this EIR chapter to address concerns identified by County staff and the public.

Impacts related to significance criterion (c) was found not to be significant during the EIR scoping process and is not discussed in this EIR. Please see Section 17.5 Effects Found Not to Be Significant in Chapter 17, CEQA-Required Assessment Considerations, as well as Appendix 21.2, Notice of Preparation and Initial Study.

4.3.2 Relevant Community Plan Provisions

The updated Community Plan's Land Use and Community Design Framework is shown in Figure 4.3.

(a) Opportunity Areas. The updated Community Plan would focus change in several "Opportunity Areas," which due to their location, mix and intensity of existing land uses, and access to transportation and infrastructure, have the most potential for change:

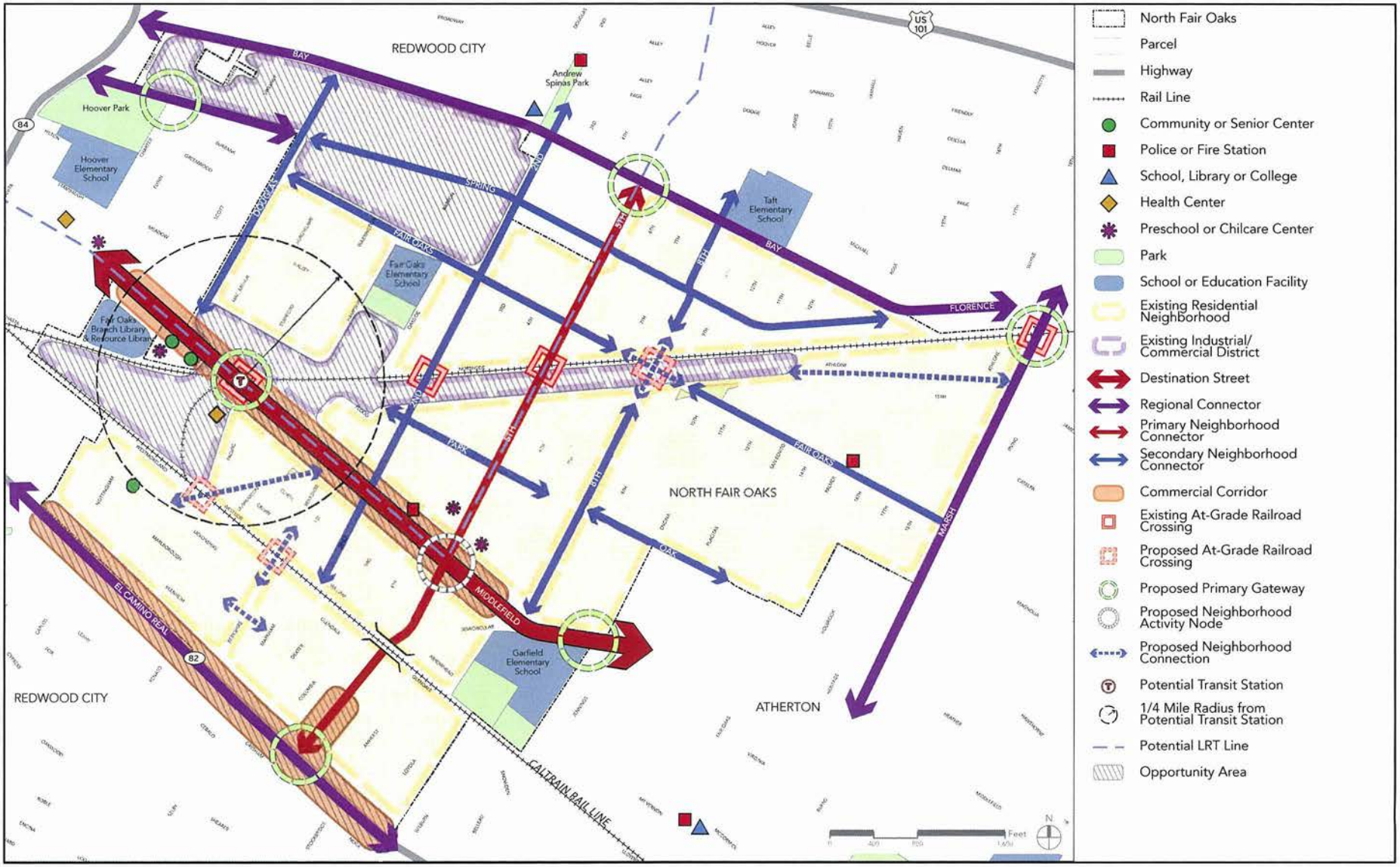
- Middlefield Road between the western edge of the Community Plan area and 1st Avenue, where a higher density mix of commercial, residential, institutional and public uses, would support transit-oriented development in the area around a potential future multi-modal transit station, and would support Middlefield Road as the main commercial destination in North Fair Oaks;

- Middlefield Road between 1st Avenue and 8th Avenue, with a mix of medium-density, locally-oriented, smaller-scale commercial, residential and public uses;

- Existing industrial areas in the area bounded by 2nd Avenue, Willow Street, Fair Oaks Avenue and Bay Road, and the area along the Southern Pacific Railroad tracks between 5th Avenue and 12th Avenue, where underutilized and vacant industrial land would be revitalized with development of flexible space for a range of employment-generating industrial, commercial, institutional and public uses, and possibly limited low-density residential uses,; and

- El Camino Real between the western edge of the Community Plan area and Loyola Avenue, and along 5th Avenue between El Camino Real and the Caltrain tracks, with local and regional commercial uses and higher-density residential uses.

- The Hetch Hetchy Bay Division Pipeline right-of-way between 12th Avenue and the eastern edge of the Community Plan area, which would be developed as park land.



SOURCE: Wagstaff/MIG

Figure 4.3
LAND USE AND COMMUNITY DESIGN FRAMEWORK

(b) Transit-Oriented Development. The updated Community Plan identifies Middlefield Road at the crossing of the Caltrain and Southern Pacific Railroad tracks as a location for a possible future multi-modal transit station to accommodate bus, bus rapid transit (BRT), and potential passenger rail service if the opportunity arises; to improve local and regional transit connections; and to stimulate transit-oriented development (TOD). The Plan Update identifies properties within a roughly ¼-mile radius as appropriate for higher-intensity, mixed-use, transit-oriented development.

(c) Connectivity. The updated Community Plan identifies three locations for new or improved roadway connections to enhance neighborhood connectivity for vehicles, bicycles and pedestrians: Marlborough Avenue at Berkshire Avenue, Berkshire Avenue across the Caltrain tracks, and 8th Avenue and Fair Oaks Avenue across the Southern Pacific Railroad tracks. Also, the updated Plan designates Middlefield Road and 5th Avenue as a preferred route for potential extension of a future streetcar line from Redwood City; the feasibility and timing, as well as the technical details, of any actual rail project are still to be determined and would require action by Redwood City and the County Board of Supervisors.

(d) Gateways and Nodes. The updated Community Plan identifies six potential gateways which would mark entries into North Fair Oaks with special signage, building form, street trees, and sidewalk and crossing treatments that reflect the area's unique identity and celebrates its diversity: El Camino Real/ 5th Avenue, Middlefield Road/8th Avenue, Marsh Road/Southern Pacific Railroad crossing, Bay Road/5th Avenue, Spring Street/Charter Street, and Middlefield Road/Southern Pacific Railroad crossing. The Middlefield Road/5th Avenue intersection is identified as a Neighborhood Activity Node. This crossroads would be an ideal location for a plaza or other community gathering space that could offer outdoor seating, landmark elements such as a statue or water feature, and other amenities.

(e) Building Heights, Stepbacks, and Setbacks. The Plan Update private realm design provisions include overarching guidelines for building layout and orientation; massing and scale; heights, stepbacks, and setbacks; character and façade articulation; parking; and alleys and service access; as well as guidelines for specific building prototypes. The guidelines for building heights and stepbacks contain the following provisions which orient higher intensities toward non-residential corridors and away from public spaces and existing smaller scale residential development on side streets:

D4-1 Require a 2-story minimum for all buildings within Neighborhood and Commercial Mixed-Use areas.

D4-2 Encourage 2- to 3-story buildings in Neighborhood Mixed-Use areas along Middlefield Road.

D4-3 Encourage 2- to 5-story buildings in the Commercial Mixed-Use land use designation along El Camino Real and Edison Way.

D4-4 Encourage 2- to 4-story buildings in the Industrial Mixed-Use areas to encourage a range of industrial and institutional uses that are supported by commercial uses.

D4-5 Allow building heights up to 6 stories in close proximity (approximately ¼ mile) of the potential multi-modal transit hub in the Commercial Mixed-Use area.

D4-6 Provide transitions between large-scale buildings along mixed-use corridors and existing small-scale buildings along adjoining local streets by stepping down building heights or providing building stepbacks.

D4-7 Encourage floor-to-floor heights of 15 to 20 for commercial uses.

D4-8 Step back upper stories of buildings to minimize shadows cast on public spaces.

D5-1 Provide setbacks of up to 10 feet from the property line for commercial and mixed-use buildings and up to 15 feet for residential uses along the mixed-use streets of Middlefield Road, El Camino Real, 5th Avenue and Edison Way.

D5-2 Encourage minimum 15-foot front setbacks for buildings with residential uses on the ground floor to provide space for front yards, gardens and other private open spaces.

D5-3 Ensure a minimum 10-foot side setback from the property line for corner buildings.

D5-4 Allow pedestrian-friendly elements, such as balconies, front porches and stoops, within front setbacks of residential and mixed-use buildings.

D5-5 Allow commercial signage and awnings to extend up to 5 feet into setbacks.

4.3.3 Impacts and Mitigations

Impacts on Visual Character and Quality. Implementation of the updated Community Plan would be expected to promote a more appealing and coherent visual character in the Plan area. Community revitalization and development in accordance with the updated Community Plan would occur as infill development on vacant land and intensification of underutilized parcels, primarily along commercial corridors and within industrial areas. The updated Community Plan would harmonize existing incompatible industrial uses within residential and mixed-use areas. Infill development would result in more compatible land use patterns and a more unified visual character.

The updated Community Plan's design standards and incentives would create distinct gateways at key entries into the community (El Camino Real/ 5th Avenue, Middlefield Road/10th Avenue, Marsh Road/ Florence Street, Bay Road/5th Avenue, Spring Street/Charter Street, and Middlefield Road/Northside Avenue), which would enhance community character and identity. The Plan proposal for a Neighborhood Activity Node at the Middlefield Road/5th Avenue intersection, including a plaza or other community gathering space with outdoor seating and landmark elements such as a statue or water feature, would also reinforce North Fair Oaks' unique identity and celebrate its diversity.

Modified road standards along destination streets like Middlefield Road and major corridors like El Camino Real; "complete street" standards that give equal space to pedestrians, bicycles, transit and cars; street design guidelines for residential and commercial streets; and improved pedestrian facilities (wider sidewalks, mid-block crosswalks, street trees, planting strips, curb extensions, and street furniture) would promote an more inviting pedestrian-friendly character. The updated Community Plan includes policies and proposals that address vandalism, illegal dumping and graffiti; upgrading existing substandard facilities to urban standards over time; expansion of the street tree canopy; and new park spaces, including opportunities for small play

lots, plazas and parks on vacant and underutilized parcels and use of the Hetch Hetchy right-of-way. These Community Plan policies and proposals would enhance the visual character and quality of the community.

The updated Community Plan would facilitate a slight "mounding" of buildings concentrated toward the possible multi-modal transit station, and thus promote a more discernable and distinctive community form and skyline, which would reinforce community identity.

Infill development on vacant land, and intensification and redevelopment of underutilized properties, would be expected to result in a more unified and coherent development character, thereby improving the quality of both internal and external views of the Plan area. The proposed building heights, design regulations and guidelines, and streetscape improvements would ultimately improve the visual quality and character of the Plan area and thereby enhance views from adjacent residential neighborhoods, travel corridors, and other nearby vantage points.

The updated Community Plan's building height and stepback guidelines would orient higher intensities toward non-residential corridors and away from public spaces and existing smaller scale residential development. The Plan Update would harmonize large scale buildings along mixed-use corridors with existing smaller scale buildings along adjoining local streets by stepping down building heights or providing stepbacks. The updated Community Plan would allow taller buildings within the Plan area, increasing allowed heights by up to four stories to a maximum of seven stories in the highest intensity areas near the potential transit station if it is developed, five stories in commercial areas along El Camino Real and Edison Way and in industrial areas in the northwestern portion of the Plan area, and three stories (same as existing) in neighborhood commercial areas along Middlefield Road.

In summary, the updated Community Plan would result in an overall more coherent and compatible land use pattern and a more unified visual character in the Plan area. The guidelines for building layout and orientation, setbacks and stepbacks, massing and scale, character and façade articulation, service areas and access entry, and parking, and specific building prototypes would provide for sensitive transitions to existing development. The impact of the updated Community Plan on visual character and quality would therefore be ***less-than-significant.***

Mitigation. No significant impact has been identified; no mitigation is required.

Impacts on Scenic Vistas. There are no officially designated scenic vistas within North Fair Oaks. No scenic vistas or view corridors would be substantially obstructed or degraded by future development in accordance with the updated Community Plan. Scenic vistas are available primarily in the hills to the west. The hills to the west have views over the Plan area to San Francisco Bay and the East Bay hills. The updated Community Plan would allow taller buildings within the Plan area, increasing allowed heights by up to four stories in the highest intensity areas near the potential transit station if it is developed. Given the elevation of the Plan area relative to these vantage points, as well as the expansiveness of views from these locations, this change would not substantially obstruct or degrade scenic vistas. The impacts of the updated Community Plan on scenic vistas would therefore be ***less-than-significant.***

Mitigation. No significant impact has been identified; no mitigation is required.

Light, Glare, and Sky Glow Impacts. Future development within the Plan area would result in additional lighting and increased light emanating from the development area. New sources of light would be installed as part of new buildings and site improvements to illuminate entries, parking areas, sidewalks and open spaces, for safety and security, and to highlight architectural features. New development within the Plan area would be subject to lighting standards set forth in the updated Community Plan and would be required to meet the lighting power allowances for the applicable lighting zone for newly installed outdoor lighting equipment contained in Title 24, Parts 1 and 6, Building Energy Efficiency Standards. Compliance with these Transit Corridors Plan lighting standards and Title 24 lighting power allowances would be expected to adequately control unnecessary brightness of lighting, debilitating glare, and sky glow. Therefore, the potential for light and glare impacts of the updated Community Plan would be ***less than significant.***

Mitigation. No significant impact has been identified; no mitigation is required.

Shade and Shadow Impacts. The updated Community Plan would allow taller buildings within the Plan area, increasing allowed heights by up to four stories in the highest intensity areas near the potential transit station if it is developed. The potential development of new, taller buildings would result in an increase in shadows cast by development. At some locations, the increased building height limits could result in increased shadows on neighboring properties and public spaces within and immediately adjacent to the Plan area. At the proposed heights and adjacencies, resulting shadows would not be expected to impair the livability and beneficial uses of light-sensitive uses and spaces, including public open space areas, parcels with a lower maximum permitted height adjacent to parcels with a higher maximum permitted height, or solar sensitive portions (e.g., private and common yards and balconies) of residential parcels. The Plan's design guidelines encourage upper story (second story and above) stepbacks to minimize shadows cast on public parks and greenways (A5-7), and building massing with greater intensities on major streets and lower intensities adjacent to existing residential development (B4-7). Therefore, shade and shadow under the updated Community Plan would not substantially degrade the quality of the environment nor cause substantial adverse effects on human beings. The shadow impacts of development under the updated Community Plan would be a ***less than significant.***

Mitigation. No significant impact has been identified; no mitigation is required

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Cumulative Aesthetics Impacts. New development stimulated by the updated Community Plan, together with other reasonably foreseeable development, would cause a slight incremental change in the character of scenic vistas of urban areas and San Francisco Bay from the hills to the west toward a more developed character. However, given the expansiveness of these views and the small amount of additional development relative to the existing amount of urban development in these views, this change would not have a substantial effect on scenic vistas. In addition, cumulative development would occur in low-lying areas. Cumulative development would result in a change in the visual character of already developed areas toward a more intensive and urban character of development, which in and of itself is neither beneficial nor adverse. The policies of the updated Community Plan and other existing plans, regulations and

guidelines would adequately address localized visual quality and compatibility. The updated Community Plan would be expected to result in beneficial impacts or less-than-significant impacts with respect to visual character and quality, scenic vistas, scenic highways, light, glare and sky glow, and shade and shadow. Cumulative aesthetics impacts would be ***less than significant.***

Mitigation. No significant cumulative impact has been identified; no mitigation is required.

5. AIR QUALITY

This EIR chapter describes the impacts of the North Fair Oaks Community Plan Update on local and regional air quality. The chapter was prepared using methodologies and assumptions recommended within the latest (June 2010) air quality impact assessment guidelines of the Bay Area Air Quality Management District (BAAQMD), the regional air quality regulatory agency.[1] The project has been evaluated with respect to BAAQMD guidelines for plans. In keeping with these guidelines, the chapter describes existing air quality, short-term construction-related emissions, potential direct and indirect long-term emissions, the impacts of these emissions at both the local and regional scale, and mitigation measures to avoid or reduce significant impacts. Impacts associated with the potential release of asbestos during demolition and construction activities are discussed in Chapter 8, Hazards and Hazardous Materials.

5.1 ENVIRONMENTAL SETTING

5.1.1 Air Basin Topographic and Meteorological Characteristics

The Bay Area's climate, as with all California coastal areas, is dominated by the strength and position of the semi-permanent high-pressure center over the Pacific Ocean. It creates cool summers, mild winters, and infrequent rainfall; it drives the cool daytime sea breeze and maintains comfortable humidity levels and ample sunshine. The climate is Mediterranean in character, with mild, rainy winter weather from November through March, and warm, dry weather from June through September.

During the summer, dry and subsiding air, associated with high-pressure off the California coast, acts as a cap over the cooler marine air near the surface. These subsidence inversions often persist for several days due to their thickness and strength. During the winter, when the Pacific high-pressure system has retreated southward, subsidence inversions are less common and less persistent than during the summer. During the winter, however, surface inversions caused by radiant cooling of land surface rather than subsiding air are much more frequent than during the rest of the year. Surface inversions typically develop overnight and, while severely restricting vertical dispersion of emissions released at ground level, generally dissipate by afternoon.

The amount of a given pollutant in the atmosphere is determined by the amount of pollutant released and the atmosphere's ability to transport and dilute the pollutant. The major determinants of transport and dilution are wind, atmospheric stability, terrain and, for photochemical pollutants, sunshine.

The Community Plan area lies in the southern portion of the Bay Area's peninsula climatological subregion. The peninsula subregion extends from northwest San Jose to the Golden Gate.

[1]Bay Area Air Quality Management District, CEQA Air Quality Guidelines, June 2010.

The Santa Cruz Mountains extend up the center of the peninsula, with elevations ranging from 1,000 feet to 2,500 feet.

The Community Plan area's location near San Francisco Bay strongly influences the climate and air quality of the area. Bay breezes from the north dominate the area during the spring and summer months. The dominance of the Bay or sea breeze results in a mild climate. Low clouds during the late night and early morning are common in spring and summer.

The prevailing wind direction is from the southwest. Average wind speed (measured in nearby Palo Alto) is 11.1 miles per hour annually, with June having the highest average wind speed and December having the lowest.[1] The project vicinity often experiences persistent afternoon winds in the spring and summer months.

Temperatures are strongly influenced by the Pacific Ocean, San Francisco Bay, and the Santa Cruz Mountains. Temperatures are mild. January is the coolest month with an average maximum temperature of 58 degrees Fahrenheit (F), while July and August are the warmest with an average maximum of 81 degrees F. Precipitation is about 20 inches per year.

The pollution potential of the Community Plan area is moderate compared to other portions of the Bay Area. Ventilation is relatively good; however, pollutant transport from upwind urban areas is common. During periods of light or calm winds, which typically occur in the fall and winter months, the entire Bay Area air basin is subject to stagnation and poor air quality where particulate levels become elevated. Ozone levels are elevated during late spring, summer and early fall months when light winds, abundant sunshine and warm conditions occur. The highest ozone levels occur in the eastern and southern portions of the Bay Area, downwind of urban areas. While the Redwood City area does not usually experience unhealthy ozone levels, emissions from the Community Plan area can contribute to unhealthy levels downwind.

5.1.2 Air Pollutants and Air Quality Standards

Air pollutant levels are typically described in terms of "concentrations," which refers to the amount of pollutant material per volumetric unit of air. Concentrations are measured in parts per million (ppm) or micrograms per cubic meter ($\mu g/m^3$). The federal and California Clean Air Acts have established ambient air quality standards for different pollutants. The National Ambient Air Quality Standards (NAAQS) were established by the federal Clean Air Act for six criteria pollutants, including ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulates (PM_{10} and $PM_{2.5}$), and lead (Pb). Pollutants regulated under the California Clean Air Act are similar to those regulated under the federal Clean Air Act. The California Ambient Air Quality Standards (CAAQS) are generally more stringent than the corresponding federal standards and incorporate additional standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. Both the U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (ARB) review ambient air quality standards on a regular basis and make necessary adjustments in response to updated scientific information. A summary description of these six criteria pollutants and their potential health effects is presented in Table 5.1. The federal and State ambient air quality standards are presented in Table 5.2.

[1]Western Regional Climate Center, http://www.wrcc.dri.edu/htmlfiles/westwind.final.html

Table 5.1
MAJOR CRITERIA AIR POLLUTANTS AND HEALTH EFFECTS

Pollutant	Characteristics	Health Effects	Major Sources
Ozone (O_3)	A highly reactive photochemical pollutant created by the action of sunshine on ozone precursors (primarily reactive organic gases and oxides of nitrogen). Often called photochemical smog.	▪ Eye Irritation ▪ Respiratory function impairment	The major sources of ozone precursors are combustion sources such as factories and automobiles, and evaporation of solvents and fuels.
Carbon Monoxide (CO)	Carbon monoxide is an odorless, colorless gas that is highly toxic. It is formed by the incomplete combustion of fuels.	▪ Impairment of oxygen transport in the bloodstream ▪ Aggravation of cardiovascular disease ▪ Fatigue, headache, confusion, dizziness ▪ Can be fatal in the case of very high concentrations	Automobile exhaust, combustion of fuels, combustion of wood in woodstoves and fireplaces
Nitrogen Dioxide (NO_x)	Reddish-brown gas that discolors the air, formed during combustion	▪ Increased risk of acute and chronic respiratory disease	Automobile and diesel truck exhaust, industrial processes, fossil-fueled power plants
Sulfur Dioxide (SO_2)	Sulfur dioxide is a colorless gas with a pungent, irritating odor.	▪ Aggravation of chronic obstruction lung disease ▪ Increased risk of acute and chronic respiratory disease	Diesel vehicle exhaust, oil-powered power plants, industrial processes
Particulate Matter (PM_{10} and $PM_{2.5}$)	Solid and liquid particles of dust, soot, aerosols and other matter which are small enough to remain suspended in the air for a long period of time.	▪ Aggravation of chronic disease and heart/lung disease symptoms	Combustion, automobiles, field burning, factories and unpaved roads. Also a result of photochemical processes.
Lead (Pb)	Component of particulate matter. Levels have dropped 98 percent in last 30 years due to elimination of lead from gasoline.	▪ Learning disabilities ▪ Brain and kidney damage ▪ Children particularly susceptible	Leaded gasoline (no longer allowed), smelters, resource recovery

SOURCE: Wagstaff/MIG 2010.

Table 5.2
FEDERAL AND STATE AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	Federal Primary Standard[a]	State Standard[b]
Ozone (O_3)	8-Hour	0.075 ppm	0.070 ppm
	1-Hour	---	0.09 ppm
Carbon Monoxide (CO)	8-Hour	9.0 ppm	9.0 ppm
	1-Hour	35.0 ppm	20.0 ppm
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	0.053 ppm	0.030 ppm
	1-Hour	0.100 ppm	0.180 ppm
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	0.03 ppm	---
	24-Hour	0.14 ppm	0.04 ppm
	1-Hour	---	0.25 ppm
Respirable Particulate Matter (PM_{10})	Annual Arithmetic Mean	---	20 $\mu g/m^3$
	24-Hour	150 $\mu g/m^3$	50 $\mu g/m^3$
Fine Particulate Matter ($PM_{2.5}$)	Annual Arithmetic Mean	15 $\mu g/m^3$	12 $\mu g/m^3$
	24-Hour	35 $\mu g/m^3$	--
Lead (Pb)	Calendar quarter	1.5 $\mu g/m^3$	--
	30-day	--	1.5 $\mu g/m^3$

SOURCE: California Air Resources Board, Ambient Air Quality Standards (2/16/10) and http://www.arb.ca.gov.aqs/aaqs2.pdf, viewed June 23, 2010.

ppm = Parts Per Million; $\mu g/m^3$ = Micrograms Per Cubic Meter.

[a]National standards other than for ozone and those based on annual averages or annual arithmetic means are not to be exceeded more than once a year.

[b]California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1-hour and 24-hour), nitrogen dioxide, and PM_{10} are values that are not to be exceeded. The standards for lead are not to be equaled or exceeded. If the standard is for a 1-hour, 8-hour or 24-hour average, then some measurements may be excluded. In particular, measurements are excluded that the ARB determines would occur less than once per year on the average.

(a) Ozone (O_3). Ground-level ozone is the principal component of smog. Ozone is not directly emitted into the atmosphere, but instead forms through a photochemical reaction of reactive organic gases (ROG) and nitrogen oxides (NO_X), which are known as ozone precursors. Ozone levels are highest from late spring through autumn when precursor emissions are high and meteorological conditions are warm and stagnant. Motor vehicles create the majority of ROG and NO_X emissions in the Bay Area.

Exposure to levels of ozone above current ambient air quality standards can lead to human health effects such as lung inflammation and tissue damage and impaired lung functioning. Ozone exposure is also associated with symptoms such as coughing, chest tightness, shortness of breath, and the worsening of asthma symptoms. The greatest risk for harmful health effects belongs to outdoor workers, athletes, children, and others who spend greater amounts of time outdoors during smoggy periods. Elevated ozone levels can reduce crop and timber yields, as well as damage native plants. Ozone can also damage materials such as rubber, fabrics, and plastics.

(b) Carbon Monoxide (CO). CO is a non-reactive pollutant that is highly toxic, invisible, and odorless. It is formed by the incomplete combustion of fuels. The largest sources of CO emissions are motor vehicles, wood stoves, and fireplaces. Unlike ozone, CO is directly emitted to the atmosphere. The highest CO concentrations occur during the nighttime and early mornings in late fall and winter. CO levels are strongly influenced by meteorological factors such as wind speed and atmospheric stability.

The health threat from elevated ambient levels of CO is most serious for those who suffer from heart disease, such as angina, clogged arteries, or congestive heart failure. For a person with heart disease, a single exposure to CO at relatively low levels may cause chest pain and reduce that person's ability to exercise; repeated exposure may contribute to other cardiovascular effects. High levels of CO can affect even healthy people. People who breathe high levels of CO can develop vision problems, reduced ability to work or learn, reduced manual dexterity, and difficulty performing complex tasks. At extremely high levels, CO is poisonous and can cause death. CO levels measured in the Bay Area are well below the health-based standards.

(c) Nitrogen Dioxide (NO_2). NO_2 is a combustion by-product, but it can also form in the atmosphere by chemical reaction. NO_2 is a reddish-brown colored gas often observed during the same conditions that produce high levels of O_3 and can affect regional visibility. NO_2 is one compound in a group of compounds consisting of oxides of nitrogen (NO_x). As described above, NO_x is an ozone precursor compound. Home heaters and stoves using natural gas produce NO_2 in indoor settings.

The major health effect from exposure to high levels of NO_2 is the risk of acute and chronic respiratory disease. Besides causing adverse health effects, NO_2 is responsible for the visibility-reducing reddish-brown tinge seen in smoggy air in California. NO_2 is a reactive, oxidizing gas capable of damaging cells lining the respiratory tract. Studies suggest that NO_2 exposure to levels near the current standard may worsen the effect of allergens in allergic asthmatics, especially in children. Levels measured in the Bay Area are well below current air quality standards.

(d) Sulfur Dioxide (SO_2). SO_2 is a colorless gas with a pungent, irritating odor. Its major sources are diesel vehicle exhaust, oil-powered power plants, and various industrial processes.

SO_2 can aggravate "chronic obstruction" lung disease and increase the risk of acute and chronic respiratory disease.

(e) Particulate Matter (PM_{10} and $PM_{2.5}$). Particulate matter (PM) is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size, and chemical composition, and can be made up of many different materials such as metals (including lead), soot, soil, and dust. Particles 10 microns or less in diameter are defined as "respirable particulate matter" or "PM_{10} ". Particles that are 2.5 microns or less in diameter are defined as "fine particulate matter" or "$PM_{2.5}$". Both PM_{10} and $PM_{2.5}$ can contribute significantly to regional haze and reduction of visibility. Inhalable particulates come from smoke, dust, aerosols, and metallic oxides. Although particulates are found naturally in the air, most particulate matter found in the Bay Area are emitted either directly or indirectly by motor vehicles, industry, construction, agricultural activities, and wind erosion of disturbed areas. Most $PM_{2.5}$ is comprised of combustion products such as smoke.

Extensive research reviewed by the ARB indicates that exposure to outdoor PM_{10} and $PM_{2.5}$ levels exceeding current ambient air quality standards is associated with increased risk of hospitalization for lung and heart-related respiratory illness, including emergency room visits for asthma. PM exposure is also associated with increased risk of premature deaths, especially in the elderly and people with pre-existing cardiopulmonary disease. In children, studies have shown associations between PM exposure and reduced lung function and increased respiratory symptoms and illnesses. Besides reducing visibility, the acidic portion of PM (nitrates, sulfates) can harm crops, forests, and aquatic and other ecosystems.

In 1983, the ARB replaced the standard for "suspended particulate matter" with a standard for suspended PM_{10}. This standard was set at 50 $\mu g/m^3$ for a 24-hour average and 30 $\mu g/m^3$ for an annual average. The ARB revised the annual PM_{10} standard in 2002, pursuant to the Children's Environmental Health Protection Act. The revised PM_{10} standard is 20 $\mu g/m^3$ for an annual average. $PM_{2.5}$ standards were first promulgated by the EPA in 1997 and were revised in 2006 to lower the 24-hour $PM_{2.5}$ standard to 35 $\mu g/m^3$. That same action by EPA revoked the annual PM_{10} standard due to lack of scientific evidence correlating long-term exposures of ambient PM_{10} with health effects. The ARB has only adopted an annual average $PM_{2.5}$ standard, which is set at 12 $\mu g/m^3$. This is more stringent than the NAAQS of 15 $\mu g/m^3$.

(f) Toxic Air Contaminants (TACs). TACs are a broad class of compounds known to cause morbidity or mortality (usually because they cause cancer or serious illness) and include, but are not limited to, the criteria air pollutants listed above. TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations, even near their source (e.g., benzene near a freeway). Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, state, and federal level. The identification, regulation, and monitoring of TACs is relatively new compared to that for criteria air pollutants that have established ambient air quality standards. TACs are regulated or evaluated on the basis of risk to human health rather than comparison to an ambient air quality standard or emission-based threshold.

Diesel particulate matter is the predominant TAC in urban air, with the potential to cause cancer. It is estimated to represent about two-thirds of the cancer risk from TACs (based on the statewide average). According to the ARB, diesel exhaust is a complex mixture of gases,

vapors, and fine particles. This complexity makes the evaluation of health effects of diesel exhaust a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by the ARB, and are listed as carcinogens either under California's Proposition 65 or under the federal Hazardous Air Pollutants programs. California has adopted a comprehensive diesel risk reduction program, and the ARB has adopted many of the rules to implement this plan, including recent rules that require replacement or retrofitting of construction equipment and truck fleets.

(g) Odors and Nuisances. While offensive odors rarely cause any physical harm, they still can be very unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and the BAAQMD. Any project with potential to frequently expose members of the public to objectionable odors would be deemed to have a significant impact. Odor sources in the Bay Area are also subject to BAAQMD Regulation 7, which establishes general limitations on odorous substances and specific emission limits on certain odorous compounds, in addition to the requirements of local nuisance ordinances. BAAQMD receives citizen complaints regarding air pollutant emissions and maintains a record of these complaints.

5.1.3 Existing Air Quality

The BAAQMD operates a network of monitoring sites throughout the Bay Area; the nearest site to the Community Plan area is located in Redwood City at 897 Barron Avenue. Table 5.3 summarizes the most recent air quality data available from this monitoring site, for the five-year period 2005 through 2009. Table 5.4 shows the number of days that the State or federal standards was exceeded for several major pollutants, at this monitoring site and throughout the Bay Area.

(a) Redwood City. As shown in Tables 5.3 and 5.4, the ambient air quality standards are met in Redwood City almost every day. Attainment of air quality standards is usually evaluated based on the most recent three-year set of data. From 2007 through 2009, the CAAQS and NAAQS ozone standard was not exceeded in Redwood City. PM_{10} and $PM_{2.5}$ are measured every sixth day; however, PM_{10} monitoring was discontinued in Redwood City on June 30, 2008. From 2007 through 2009, the federal and state PM_{10} standards were exceeded on 1 to 2 measurement days per year (equating to 2 to 12 days per year) in Redwood City. $PM_{2.5}$ levels exceeded the NAAQS on 1 measurement day per year (equating to about 6 days per year).

(b) San Francisco Bay Air Basin. As shown in Table 5.4, throughout the Bay Area from 2006 through 2008, the 8-hour ozone NAAQS was exceeded from 2 to 17 days annually, while the more stringent 8-hour CAAQS was exceeded on 9 to 22 days. The 1-hour ozone CAAQS was exceeded on 4 to 18 days over the past three years. Most exceedances of the ozone standard in the Bay Area occur in downwind portions of the basin, such as Livermore, Concord, and Gilroy. The NAAQS for PM_{10} is not exceeded anywhere in the Bay Area, but the more stringent CAAQS is sometimes exceeded in the Bay Area and most other parts of the state. The NAAQS for $PM_{2.5}$ is exceeded at about half of the monitoring stations in the Bay Area, with most exceedances occurring in Vallejo and San Jose. Some monitoring stations in the Bay Area exceed the State annual $PM_{2.5}$ standard. No other air quality standards are exceeded in the Bay Area.

Table 5.3
SUMMARY OF AIR QUALITY MONITORING DATA, 2005-2009--REDWOOD CITY

Pollutant	Average Time	Measured Air Pollutant Levels 2005	2006	2007	2008	2009
Ozone (O_3)	1-Hour	0.084 ppm	0.085 ppm	0.077 ppm	0.082 ppm	0.087 ppm
	8-Hour	0.061 ppm	0.063 ppm	0.069 ppm	0.069 ppm	0.063 ppm
Carbon Monoxide (CO)	8-Hour	2.3 ppm	2.4 ppm	2.3 ppm	1.9 ppm	1.8 ppm
Nitrogen Dioxide (NO_2)	1-Hour	0.06 ppm	0.07 ppm	0.06 ppm	0.07 ppm	0.06 ppm
	Annual	0.015ppm	0.014ppm	0.013ppm	0.014ppm	0.012ppm
Respirable Particulate Matter (PM_{10})	24-Hour	**81 µg/m^3**	**70 µg/m^3**	**56 µg/m^3**	41 µg/m^3	--[1]
	Annual	**21 µg/m^3**	20 µg/m^3	20 µg/m^3	--[1]	--[1]
Fine Particulate Matter ($PM_{2.5}$)	24-Hour	31 µg/m^3	**75 µg/m^3**	**45 µg/m^3**	28 µg/m^3	32 µg/m^3
	Annual	9 µg/m^3	10 µg/m^3	10 µg/m^3	9 µg/m^3	9 µg/m^3

SOURCE: BAAQMD, 2011.
Notes: Values reported in bold exceed State or federal ambient air quality standard.
[1] PM_{10} monitoring in Redwood City was discontinued on June 30, 2008.

Table 5.4
SUMMARY OF MEASURED AIR QUALITY EXCEEDANCES, 2004-2008--
REDWOOD CITY

Pollutant	Standard[a]	Monitoring Station	Days Exceeding Standard 2005	2006	2007	2008	2009
Ozone (O_3)	NAAQS[b] 1-hr	Redwood City	--	--	--	--	--
		Bay Area	--	--	--	--	--
	NAAQS 8-hr	Redwood City	0	0	0	0	0
		Bay Area	0	0	0	0	0
			1	12	1	12	8
	CAAQS 1-hr	Redwood City	0	0	0	0	0
		Bay Area	9	18	4	9	11
	CAAQS 8-hr	Redwood City	0	0	0	0	0
		Bay Area	9	22	9	20	13
Respirable Particulate Matter (PM_{10})	NAAQS 24-hr	Redwood City	0	0	0	--[c]	--[c]
		Bay Area	0	0	0	0	0
	CAAQS 24-hr	Redwood City	2	2	1	--[c]	--[c]
		Bay Area	6	15	4	5	1
Fine Particulate Matter ($PM_{2.5}$)	NAAQS 24-hr	Redwood City	0	1	1	0	0
		Bay Area	0	10	14	12	11
All Other (CO, NO_2, Pb, SO_2)	All Other	Redwood City	0	0	0	0	0
		Bay Area	0	0	0	0	0

SOURCE: BAAQMD Air Pollutant Summaries for 2005, 2006, 2007, 2008, and 2009; viewed January 30, 2011.

[a]NAAQS = National Ambient Air Quality Standard; CAAQS = California Ambient Air Quality Standard.
[b]The EPA revoked the 1-hour NAAQS for ozone in June 2005.
[c]PM_{10} monitoring in Redwood City was discontinued on June 30, 2008.

(c) Toxic Air Contaminants. The BAAQMD estimates that diesel particulate matter comprises approximately 80 percent of TAC emissions that contribute to the inhalation cancer risk in the Bay Area. The BAAQMD has also been monitoring TAC inhalation cancer risk levels in potential cases per million at selected locations throughout the region as part of the BAAQMD's Community Air Risk Evaluation (CARE) program.[1] Areas along portions of certain Bay Area freeways typically have higher measured risks. Based on the latest BAAQMD modeling, the modeled inhalation cancer risk in the nearby Redwood City area ranged from 300 to 400 cases per million. More densely urbanized portions of the Bay Area, such as eastern San Francisco and western Oakland, had higher risks of nearly 1,000 in a million. With all CARE program diesel risk reduction measures implemented, the BAAQMD predicts that the overall inhalation health risk in the Bay Area will decrease substantially.

5.1.4 Regional Air Basin Ambient Air Quality Standards Attainment Status

The federal Clean Air Act and California Clean Air Act require that the ARB, based on air quality monitoring data, designate portions of the state where the federal or State ambient air quality standards are not met as "nonattainment areas." Due to the differences between the national and State standards, the designation of nonattainment areas is different at the federal and State levels.

(a) Federal. The EPA has classified the Bay Area air basin as a "marginal nonattainment" area for the 8-hour ozone standard. In 2008, the EPA adopted a more stringent 8-hour ozone NAAQS. In 2009, the EPA began the process of new rulemaking to reconsider the 2008 ozone NAAQS based on government scientific advisory committee recommendations used to establish the 2008 NAAQS. On January 19, 2010, the EPA announced delay of the final designations for the 2008 NAAQS until March 2011 to allow adequate time for reconsideration and possible revision of the 2008 NAAQS. The range of standards under consideration could result in a "nonattainment" designation for the Bay Area and much of California.

The EPA also recently designated the Bay Area air basin as "nonattainment" for the 2006 24-hour $PM_{2.5}$ standard, as recent monitoring data indicate levels slightly above the standard (from measurements conducted in San Jose and Vallejo). Most $PM_{2.5}$ nonattainment areas would have until 2015 to attain the standards, with some extensions to 2020 if necessary.

The Bay Area has met the CO standards for over a decade and is classified "attainment" (with a maintenance plan) by the EPA. The EPA designates the air basin as "unclassified" for all other air pollutants, including PM_{10}.

(b) State. At the State level, the Bay Area air basin is considered "serious nonattainment" for ground-level ozone and "nonattainment" for PM_{10} and $PM_{2.5}$, because CAAQS are more stringent that the NAAQs. The BAAQMD is required to adopt air quality attainment plans on a triennial basis that show progress toward meeting the State ozone standard. The Community Plan area is considered "attainment" or "unclassified" under State standards for all other pollutants.

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[1] BAAQMD, Workshop Draft Options Report--California Environmental Quality Act Threshold of Significance, April 2009, Figure 3, page 32.

5.1.5 Existing Pollutant Sources and Sensitive Receptors in the Project Vicinity

The largest existing sources of pollutants in the Community Plan area are vehicles on the local roadway network. In addition, commercial businesses, houses, and industry in the vicinity contribute air pollutants through fume-producing operations and the combustion of fuels for space heating and water heating.

Some groups of people are more affected by air pollution than others. The ARB has identified the following people who are most likely to be affected by air pollution: children under 14, people over 65, athletes, and people with cardiovascular and chronic respiratory diseases. These groups are classified as "sensitive receptors." Locations in and near the Community Plan area that may contain a high concentration of sensitive receptors include residential areas, hospitals, daycare facilities, elder care facilities, elementary and middle schools, and parks.

5.2 REGULATORY SETTING

The federal Clean Air Act governs air quality in the United States. In addition to being subject to federal requirements, air quality in California is also governed by more stringent regulations under the California Clean Air Act. At the federal level, the United States Environmental Protection Agency (EPA) administers the Clean Air Act. The California Clean Air Act is administered by the California Air Resources Board (ARB) and by the air quality management districts at the regional and local levels. The BAAQMD regulates air quality at the regional level in the nine-county Bay Area.

5.2.1 Federal

(a) United States Environmental Protection Agency. The United States Environmental Protection Agency (EPA) is responsible for enforcing the federal Clean Air Act. The EPA is also responsible for establishing the National Ambient Air Quality Standards (NAAQS). The NAAQS are required under the 1977 Clean Air Act and subsequent amendments. The EPA regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain types of locomotives. The agency has jurisdiction over emission sources outside state waters (e.g., beyond the outer continental shelf) and establishes various emission standards, including those for vehicles sold in states other than California. Automobiles sold in California must meet the stricter emission standards established by the ARB (see below).

(b) Clean Air Act. The federal Clean Air Act, as amended, establishes air quality standards for several pollutants. These standards are divided into primary standards and secondary standards. Primary standards are designed to protect public health, and secondary standards are intended to protect public welfare from effects such as visibility reduction, soiling, nuisance, and other forms of damage. The federal Clean Air Act requires that regional plans be prepared for non-attainment areas illustrating how the federal air quality standards could be met.

The 1990 federal Clean Air Act Amendments also offer a comprehensive plan for achieving significant reduction in both mobile and stationary source emissions of certain designated Hazardous Air Pollutants (HAP), or TACs. All major stationary sources of designated HAP's are required to obtain an operating permit under Title V of the federal Clean Air Act Amendments.

5.2.2 State

(a) California Air Resources Board. In California, the California Air Resources Board (ARB), which is part of the California Environmental Protection Agency, is responsible for meeting the state requirements of the federal Clean Air Act, administering the California Clean Air Act, and establishing the California Ambient Air Quality Standards (CAAQS). The California Clean Air Act, as amended in 1992, requires all air districts in the state to endeavor to achieve and maintain the CAAQS. The ARB regulates mobile air pollution sources, such as motor vehicles. The agency is responsible for setting emission standards for vehicles sold in California and for other emission sources, such as consumer products and certain off-road equipment. The ARB has established passenger vehicle fuel specifications and regulations that reduce emissions from construction equipment and trucks. The ARB oversees the functions of local air pollution control districts and air quality management districts, which in turn administer air quality activities at the regional and county level.

(b) California Clean Air Act. The California Clean Air Act (CCAA) requires nonattainment areas to achieve and maintain the State ambient air quality standards by the earliest practicable date and local air districts to develop plans for attaining the state ozone, CO, SO_2, and NO_2 standards. The CCAA also requires that once every three years the districts assess their progress toward attaining the air quality standards.

(c) Toxic Air Contaminants. Regulation of TACs is achieved through federal and State controls on individual sources.

(1) Air Toxics Hot Spots. The Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588), California Health and Safety Code Section 44300 et seq., provides for the regulation of over 200 air toxics and is the primary air contaminant legislation in the state. Under the Act, local air districts may request that a facility account for its TAC emissions. Local air districts then prioritize facilities on the basis of emissions, and high priority designated facilities are required to submit a health risk assessment and communicate the results to the affected public. The TAC control strategy involves reviewing new sources to ensure compliance with required emission controls and limits, maintaining an inventory of existing sources of TACs, and developing new rules and regulations to reduce TAC emissions. The purpose of AB 2588 is to identify and inventory toxic air emissions and to communicate the potential for adverse health effects to the public.

(2) Assembly Bill 1807. Assembly Bill 1807 (AB 1807), enacted in 1983, sets forth a procedure for the identification and control of TACs in California. The ARB is responsible for the identification and control of TACs, except pesticide use. AB 1807 defines a TAC as an air pollutant that may cause or contribute to an increase in mortality or an increase in serious illness, or which may pose a present or potential hazard to human health. The ARB prepares identification reports on candidate substances under consideration for listing as TACs. The reports and summaries describe emissions in California resulting in public exposure, together with their potential health effects.

(3) Diesel Particulate Matter. In 1998, the ARB identified diesel particulate matter as a toxic air contaminant under the AB 1807 program. Diesel particulate matter is emitted into the air via heavy-duty diesel trucks, construction equipment, passenger cars and watercraft. In October 2000, the ARB released the report entitled *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles.* This plan identifies diesel particulate

matter as the predominant TAC in California and proposes methods for reducing diesel emissions.

5.2.3 Bay Area Air Quality Management District

(a) Bay Area Air Quality Management District. The BAAQMD's role is to achieve clean air to protect public health and the environment, with a primary responsibility of attaining and maintaining the NAAQS and CAAQS. The BAAQMD is also responsible for adopting and enforcing rules and regulations concerning air pollutant sources, issuing permits for stationary sources of air pollutants, inspecting stationary sources of air pollutants, responding to citizen complaints, monitoring ambient air quality and meteorological conditions, awarding grants to reduce motor vehicle emissions, and conducting public education campaigns, as well as many other activities. The BAAQMD has jurisdiction over most of the nine-county Bay Area, including San Mateo County.

(b) Bay Area 2010 Clean Air Plan. Air quality plans addressing the California Clean Air Act are developed about every three years. BAAQMD recently adopted the 2010 Bay Area Clean Air Plan that is the latest update to the 1991Clean Air Plan addressing progress toward attaining the California ozone standard. The plan was prepared to address the more stringent requirements of the California Clean Air Act with respect to ozone, including a comprehensive strategy to reduce emissions from stationary, area, and mobile sources. The plan objective is to indicate how the region would make progress toward attaining the stricter state air quality standards, as mandated by the California Clean Air Act. The plan includes the following:

- Update the recent Bay Area 2005 Ozone Strategy in accordance with the requirements of the California Clean Air Act to implement "all feasible measures" to reduce ozone levels;
- Provide a control strategy to reduce ozone, particulate matter (PM), toxic air contaminants (TACs), and greenhouse gases (GHGs) in a single, integrated plan;
- Review progress in improving air quality in recent years; and
- Establish emission control measures to be adopted or implemented in the 2010-2012 time frame.

While the Draft CAP addresses State requirements, it will also provide the basis for developing future control plans to meet federal requirements (NAAQS) for ozone and $PM_{2.5}$. The region is required to prepare (by December 2012) a federally enforceable plan to meet the NAAQS for $PM_{2.5}$. In addition, U.S. EPA is likely to adopt a more stringent NAAQS for ozone. These new standards will likely trigger new planning requirements for the Bay Area.

While previous CAPs have relied upon a combination of stationary, mobile and transportation control measures, the Draft 2010 CAP adds two new types of control measures: (1) Land Use and Local Impact Measures and (2) Energy and Climate measures. In addition, the plan includes Further Study Measures, which will be evaluated as potential control measures.

(c) BAAQMD California Environmental Quality Act (CEQA) Guidelines. The BAAQMD has prepared CEQA Guidelines to assist lead agencies, analysts, project proponents, and other interested parties in evaluating potential air quality impacts of projects and plans proposed in the Bay Area. The guidelines recommend procedures for evaluating projects or plans and thresholds to determine whether the impacts are significant; the guidelines are used in this EIR analysis (see section 5.3 below) to establish thresholds of significance for environmental impacts. These guidelines also provide direction for identifying measures to mitigate impacts related to air quality.

The BAAQMD adopted updated CEQA guidelines on June 2, 2010.[1] The updated BAAQMD CEQA Guidelines include new emissions-based thresholds for project-level analysis, new procedures and thresholds for evaluating community risk, and greenhouse gas emissions thresholds. The new guidelines recommend that plans identify special overlay zones around existing and planned sources of TACs and special overlay zones on each side of freeways and other high-volume roads. The new Guidelines also include a recommendation that affected communities adopt Community Risk Reduction Plans intended to reduce exposure to and health risks from TACs and $PM_{2.5}$.

(d) BAAQMD CARE Program. The BAAQMD's Community Air Risk Evaluation (CARE) program was initiated in 2004 to evaluate and reduce inhalation health risks associated with exposures to TACs in the Bay Area. The program examines TAC emissions from point sources, area sources, and on-road (i.e., cars and trucks) and off-road (i.e., construction equipment, trains, and aircraft) mobile sources with an emphasis on diesel particulate matter. The goal of the CARE program is to identify sensitive populations that are exposed to high emissions of TACs and use that information to guide policies, regulations, incentive funding, and other programs to reduce exposure.

In Phase 1 of the CARE program, a 2-kilometer by 2-kilometer gridded inventory of TAC emissions was developed for the year 2000. The data were analyzed and then updated to include the 2005 emissions data. The emissions inventory was risk-weighted to reflect differences in potency of the various TACs. The Phase 1 report documents results and presents the emissions inventory along with demographics regarding sensitive populations and asthma hospitalization rates for children.[2] The Phase I study identifies diesel emissions from heavy-duty trucks as a major source of TAC emissions and identifies programs available to reduce these emissions. New (i.e., model 2007 or newer) trucks have much lower emission rates. Turnover of the fleet will reduce emissions but slowly, since diesel trucks tend to be in service on roadways for many years.

In Phase II of the CARE program, BAAQMD performed regional and local-scale modeling to determine the significant sources of diesel particulate matter and other TAC emissions locally in those communities identified as the most at-risk (i.e., "priority communities") as well as for the entire Bay Area. The CARE program has included the development of the *Mitigation Action Plan*, which focuses BAAQMD reduction activities on the identified six "priority communities"

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[1]Bay Area Air Quality Management District, California Environmental Quality Act Air Quality Guidelines, June 2010.

[2]Bay Area Air Quality Management District. Community Air Risk Evaluation Program--Phase I Findings and Policy Recommendations Related to Toxic Air Contaminants in the San Francisco Bay Area, September 2006.

that, based on TAC emissions levels and the presence of sensitive receptor groups, the Plan determined would benefit most from targeted mitigation.

The Mitigation Action Plan calls for the following actions for these "priority communities":

- Allocating grant and incentives to the priority communities;
- Conducting outreach efforts in these communities to solicit and gain feedback from each community on how to most effectively address and reduce TAC emissions;
- Working with local city and county health departments to reduce TAC emissions in these communities;
- Developing local land use guidance to assist city and county planners, community members, and developers in assessing risks from land use projects and exposure to mobile and stationary sources of TAC emissions (note that this guidance is included in the 2010 BAAQMD CEQA Guidelines); and
- Developing rules and regulations that would require reduction of TAC emissions from significant sources.

In Phase III of the CARE program, the BAAQMD plans to also conduct an extensive exposure assessment to identify and rank the communities as to their potential TAC exposures and determine the types of activities that places them at highest risk. The BAAQMD also intends to pursue additional mitigations and develop a metric to measure the effectiveness of these measures.

The BAAQMD strongly encourages the development and adoption of a Community Risk Reduction Plan (CRRP) for communities identified under BAAQMD's CARE program. These plans should include the following elements:

- A defined planning area (typically the entire community);
- Base and future year emission inventories for TACs and $PM_{2.5}$;
- BAAQMD-approved risk modeling (current and future);
- Risk and exposure reduction targets for the community;
- Feasible, quantifiable, and verifiable measures to reduce emissions and exposures;
- Procedures for monitoring and updating TAC/$PM_{2.5}$ inventories, modeling, and reduction measures in coordination with the BAAQMD; and
- Environmental review in a public process.

The concept of the CRRP is new; the BAAQMD continues to develop procedures, data, and tools that communities may use in developing such plans. The BAAQMD has been meeting with lead agencies and conducting workshops to assist with the development of the plans. The

BAAQMD has proposed, but not adopted CEQA thresholds regarding community risk impacts with respect to siting new receptors.

5.2.4 County of San Mateo

A number of policies contained in the San Mateo County General Plan affect the quality of the County's air resources. These policies call for measures that either indirectly reduce air pollution emission or limit public and natural resource exposure to air pollution. The Urban Land Use Element and Transportation Element policies generally reduce mobile source emissions by calling for coordinated development of land use and public transit facilities to reduce vehicle trips and vehicle miles traveled. Specifically, Urban Land Use Element policies (8.22, 8.29, and 8.30) indirectly reduce mobile source emissions by calling for the location of industrial land uses near transportation facilities and urban infill development and mixed use development along major transportation corridors. Transportation Element policies (12.15, 12.21-12.33, 12.34-12.40) indirectly reduce mobile source emissions by supporting the development and use of public transit, bicycle, and pedestrian facilities.

A number of the General Plan policies limit public exposure to air pollution by either minimizing development of stationary sources near residential areas or by controlling emissions from stationary sources. Mineral Resource Element and Solid Waste Element policies (3.12, 3.13, 3.15, 3.16, 13.28) require that quarries and solid waste facilities be located in areas where their emissions would not adversely affect adjacent land uses. These policies also require that the facilities mitigate any air quality impact that they may create.

Listed below are the San Mateo County General Plan policies noted above that are most applicable to the Community Plan Update.

(1) Urban Land Use Element.

8.22 Concentration of Uses. Concentrate the location of industrial land uses in order to achieve an efficient use of transportation facilities and energy supplies.

8.29 Infilling. Encourage the infilling of urban areas where infrastructure and services are available.

8.30 Mixed Use. Encourage development which contains a combination of land uses (mixed-use development), particularly commercial and residential developments along major transportation corridors.

(2) Transportation Element.

12.15 Local Circulation Policies. In unincorporated communities, plan for providing:

a. Maximum freedom of movement and adequate access to various land uses;
b. Improved streets, sidewalks, and bikeways in developed areas;
c. Minimal through traffic in residential areas;
d. Routes for truck traffic which avoid residential areas and are structurally designed to accommodate trucks;
e. Access for emergency vehicles;
f. Bicycle and pedestrian travel;

g. Access by physically handicapped persons to public buildings, shopping areas, hospitals, offices, and schools;

h. Routes and turnouts for public transit;

i. Parking areas for ridesharing;

j. Coordination of transportation improvement with adjacent jurisdictions.

12.25 Caltrain Service. Support the continued upgrading of the Peninsula Train Service by CalTrans, including relocation of the station in San Francisco to a more central location, more frequent service, acquisition of new rolling stock, refurbishing of stations, and track rehabilitation.

12.27 BART Extension. Cooperate with BART, SamTrans, and MTC in any planning involving an extension of BART service into San Mateo County.

12.30 Population Groups with Special Needs. Encourage and support SamTrans and the Paratransit Coordinating Council to work toward meeting the transportation needs of the mobility-impaired, the young, and the elderly.

12.36 Bicycle Storage Facilities. Promote the provision of bicycle lockers and other storage facilities at transit stops, schools, shopping areas, and other activity centers.

12.38 Facilities for Bicyclists. Encourage large employers to provide shower and locker facilities for their employees who bike to work as part of a commute alternative program.

12.39 Pedestrian Paths. Encourage the provision of safe and adequate pedestrian paths in new development connecting to activity centers, schools, transit stops, and shopping centers.

5.3 IMPACTS AND MITIGATION MEASURES

5.3.1 Significance Criteria

Based on the CEQA Guidelines,[1] BAAQMD CEQA thresholds of significance,[2] and current State and federal ambient air quality standards,[3] the Community Plan Update would have a significant impact related to air quality if it would:

(1) Conflict with or obstruct implementation of the applicable air quality plan;

(2) Violate any air quality standard or contribute substantially to an existing or projected air quality violation;

(3) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality

[1]CEQA Guidelines, Appendix G, item III(a-e).

[2]Bay Area Air Quality Management District, California Environmental Quality Act Air Quality Guidelines, June 2010.

[3]See Table 12.1 above.

standard, including releasing emissions which exceed quantitative thresholds for ozone precursors;

(4) Expose sensitive receptors to substantial pollutant concentrations, including, but not limited to, substantial levels of toxic air contaminants; or

(5) Create objectionable odors affecting a substantial number of people.

In addition, for construction period air emissions impacts, the BAAQMD significance threshold for construction dust (fugitive dust) impact is based on the appropriateness of construction dust controls. The BAAQMD Guidelines provide feasible control measures for construction emission of PM_{10}. If the appropriate construction controls are to be implemented, then air pollutant emissions for construction activities would be considered less than significant.

5.3.1 Impacts and Mitigation Measures

Impact 5-1: Short-Term Construction Emissions. Demolition or construction activities facilitated by the updated Community Plan may generate temporary emissions of ROG, NO_X and PM_{10} that exceed BAAQMD thresholds of significance. In addition, related construction dust could cause localized health and nuisance impacts on adjacent residential sensitive receptors. These possible effects represent a ***potentially significant impact*** (see criteria 2 through 4 in subsection 5.3.1, "Significance Criteria," above).

Future development within the Community Plan area could generate short-term temporary emissions of dust, fuel combustion exhaust, and gases from architectural coatings and other building materials. The most substantial air pollutant emissions would be fugitive dust generated from demolition of buildings and other site improvements, loading debris into trucks for disposal, grading and earth-moving, and wind erosion of exposed ground areas. Construction activities could also generate exhaust emissions from vehicles, equipment and worker commute trips, primarily in the form of particulate matter (PM_{10} and $PM_{2.5}$) and nitrogen oxides. Solvents in adhesives, non-water-based paints, thinners, some insulating materials, and caulking materials can evaporate into the atmosphere and participate in the photochemical reaction that creates urban ozone. Asphalt used in paving is also a source of organic gases for a short time after its application.

BAAQMD has adopted emission-based thresholds that would apply to exhaust and evaporative emissions from construction activities. Development in accordance with the Community Plan Update would occur over a period of many years, where some years may have considerable construction and other years may have little or no construction. Exhaust construction emissions would be dependent on the year that construction occurs and the age of the construction fleet used, especially for large construction equipment. Recent State law requires retrofit or replacement of construction equipment, which will result in substantial decreases in future nitrogen oxides (NO_X) and particulate matter (including diesel particulate matter) emissions from construction equipment. In addition, State law would also require retrofitting or replacement of large trucks that are typically used in construction.

Mitigation 5-1. Grading, demolition, or construction activity for future discretionary development projects within the Community Plan area shall be conditioned to implement the following or similar best management practices:

(a) The following dust control measures by construction contractors, where applicable:

During *demolition* of existing structures:

- Water active demolition areas to control dust generation during demolition of structures and break-up of pavement.
- Cover all trucks hauling demolition debris from the site.
- Use dust-proof chutes to load debris into trucks whenever feasible.

During all *construction phases*:

- Water all active construction areas at least twice daily.
- Water or cover stockpiles of debris, soil, sand, or other materials that can be blown by the wind.
- Cover all trucks hauling soil, sand, and other loose materials, or require all trucks to maintain at least two feet of freeboard.
- Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites.
- Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at construction sites.
- Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets.
- Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more).

(continued)

Mitigation 5-1 (continued):

- Enclose, cover, water twice daily, or apply (non-toxic) soil binders to exposed stockpiles (dirt, sand, etc.).
- Limit traffic speeds on unpaved roads to 15 miles per hour.
- Install sandbags or other erosion control measures to prevent silt runoff to public roadways.
- Replant vegetation in disturbed areas as quickly as possible.
- Consult with the BAAQMD prior to demolition of structures suspected to contain asbestos to ensure that demolition/construction work is conducted in accordance with BAAQMD rules and regulations.

(b) The following best management controls on emissions by diesel-powered construction equipment used by construction contractors, where applicable:

- When total construction projects at any one time would involve greater than 270,000 square feet of development or demolition, a mitigation program to ensure that only equipment that would have reduced NO_X and particulate matter exhaust emissions shall be implemented. This program shall meet BAAQMD performance standards for NO_x standards--e.g., should demonstrate that diesel-powered construction equipment would achieve fleet-average 20 percent NO_X reductions and 45 percent particulate matter reductions compared to the year 2010 ARB statewide fleet average.
- Ensure that visible emissions from all on-site diesel-powered construction equipment do not exceed 40 percent opacity for more than three minutes in any one hour. Any equipment found to exceed 40 percent opacity (or Ringelmann 2.0) shall be repaired or replaced immediately.
- The contractor shall install temporary electrical service whenever possible to avoid the need for independently powered equipment (e.g., compressors).
- Diesel equipment standing idle for more than three minutes shall be turned off. This would include trucks waiting to deliver or receive soil, aggregate, or other bulk materials. Rotating drum concrete trucks could keep their engines running continuously as long as they were on-site and away from residences.

(continued)

Mitigation 5-1 (continued):

- Signs shall be posted to alert workers that diesel equipment standing idle for more than five minutes shall be turned off. This would include trucks waiting to deliver or receive soil, aggregate, or other bulk materials. Rotating drum concrete trucks could keep their engines running continuously as long as they were on-site and away from residences.

- Properly tune and maintain equipment for low emissions.

Implementation of these BAAQMD-identified "feasible control measures" for construction emissions would reduce the short-term construction-related air quality impact of the updated Community Plan to a ***less-than-significant level***.

Consistency with the Bay Area 2010 Clean Air Plan. According to the BAAQMD CEQA Guidelines, in order to meet the threshold of significance for operational-related criteria air pollutant and precursor emissions impacts for plans, a proposed plan must: (1) be consistent with current air quality plan control measures; and (2) result in a projected rate of increase in vehicle use less than or equal to its projected rate of increase in population. Consistency of the updated Community Plan with these two Clean Air Plan objectives is described below:

(a) Consistency with Control Measures. The Bay Area 2005 Ozone Strategy included the following seven transportation control measures that require participation at the local level:

1. Support voluntary employer-based trip reduction programs,
9. Improve bicycle access and facilities,
12. Improve arterial traffic management,
15. Local land use planning and development,
17. Conduct demonstration projects,
19. Improve pedestrian access and facilities, and
20. Promote traffic calming measures.

The Bay Area 2010 Clean Air Plan, adopted September 15, 2010 and currently in effect, updated the Bay Area 2005 Ozone Strategy transportation control measures. The updated Community Plan would be consistent with and would further implementation of the applicable Clean Air Plan transportation control measures. The updated Community Plan would not disrupt or hinder the implementation of any control measures. The land use, transportation, bicycle, pedestrian and vehicle trip reduction characteristics of the updated Community Plan supports the primary goals of the 2010 Clean Air Plan. The goals of the updated Community Plan that would assist in implementing the 2010 Clean Air Plan transportation control measures include the following:

- *Goal LU1: Encourage mixed-use development along major commercial corridors and within industrial areas to support a vibrant, urban community that integrates a range of amenities in close proximity to surrounding residential neighborhoods.*

- *Goal LU2: Promote revitalization through redevelopment of underutilized and vacant land in North Fair Oaks to serve local and regional needs, and to support community and economic development.*

- *Goal LU3: Amend and streamline land use categories to strengthen neighborhood and community character and to incentivize needed and appropriate development.*

- *Goal LU4: Encourage transit-oriented development around a future multi-modal transit center.*

(b) Increase in Vehicle Use. According to the BAAQMD CEQA Air Quality Guidelines, in order for the updated Community Plan to be consistent with the Clean Air Plan, the projected rate of increase in vehicle use (i.e., vehicle trips or vehicle miles traveled) under the updated Community Plan must be less than or equal to its projected population rate of increase.

The change in vehicle trips with the updated Community Plan is described in Chapter 16, Transportation. Population projections for the Community Plan area are described in Chapter 14, Population, Housing and Employment. Existing land uses within the Community Plan area generate an estimated 51,020 daily vehicle trips. Land uses at buildout of the updated Community Plan in 2035 would generate an estimated 81,248 daily vehicle trips, which would represent a 59 percent increase in vehicle use. The 2010 population within the Community Plan area was estimated at 15,477 persons. The development of an additional 3,024 housing units under the updated Community Plan would result in a projected increase in population of 11,794 persons, an increase of 76 percent. Therefore, the projected increase in vehicle use under the updated Community Plan would be less than the projected increase in population.

In summary, the updated Community Plan would not interfere with implementation of Clean Air Plan control measures and the projected increase in vehicle use under the updated Community Plan would be less than the projected increase in population. Therefore, the updated Community Plan would be consistent with the Clean Air Plan and the regional criteria pollutant and precursor impacts of the updated Community Plan would be ***less than significant.***

Mitigation: No significant impact has been identified; no mitigation is required.

Localized Carbon Monoxide Concentrations Impacts. Development facilitated by the updated Community Plan would generate new vehicle trips and change traffic patterns. At the local level, the resultant pollutant of greatest concern is CO. Concentrations of CO are greatest near intersections and roadways with congested traffic. CO emissions are typically highest in wintertime when stagnant meteorological conditions occur (i.e., very little vertical or horizontal mixing of air in the lower atmosphere).

Monitoring data from all ambient air quality monitoring stations in the Bay Area indicate that existing carbon monoxide levels are currently below national and California ambient air quality standards. Monitored CO levels have decreased substantially since 1990 due to newer vehicles with greatly improved exhaust emission control systems replacing older vehicles. The Bay Area has been designated as attainment for the CO standards. The highest measured levels in Redwood City (i.e., the closest monitoring station to the Community Plan area) during the past three years are 5.5 ppm for 1-hour averaging periods and 2.3 ppm for 8-hour averaging periods.

Even though current CO levels in the Bay Area are well below ambient air quality standards and there have been no exceedances of CO standards in the Bay Area since 1991, elevated levels of CO still warrant analysis since CO hotspots (occurrences of localized high CO concentrations) could occur near busy congested intersections. Recognizing the relatively low CO concentrations experienced in the Bay Area, the BAAQMD revised the screening methodology in its CEQA Air Quality Guidelines. According to the BAAQMD, a project would have a less-than-significant impact if the project would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour. Since intersections affected by the project would have volumes less than the threshold of 44,000 vehicles per hour, the impact of the project related to localized CO concentrations would therefore be ***less than significant***.

Mitigation. No significant impact has been identified; no mitigation is required.

Impact 5-2: Community Risk and Hazard Impacts. Future development in accordance with the updated Community Plan could expose sensitive receptors to levels of toxic air contaminants (TACs) or $PM_{2.5}$ that cause an unacceptable cancer risk or hazard, which represents a ***potentially significant impact*** (see criterion 4 in subsection 5.3.3, "Significance Criteria," above).

According to the BAAQMD CEQA Air Quality Guidelines, for a plan to have a less-than-significant impact with respect to TACs, buffer zones must be established around existing and proposed land uses that would emit these air pollutants. Buffer zones to avoid TAC impacts must be reflected in local plan policies, land use maps, or implementing ordinances. The proposed updated Community Plan and the San Mateo County General Plan do not contain such buffer zones.

The BAAQMD CEQA Air Quality Guidelines consider exposure of sensitive receptors to air pollutant levels that result in an unacceptable cancer risk or hazard to be significant. For cancer risk, which is a concern with diesel particulate matter and other mobile-source TACs, the BAAQMD considers an increased risk of contracting cancer that is 10 in one million chances or greater to be significant for a single source. The BAAQMD CEQA Guidelines also consider exposure to annual $PM_{2.5}$ concentrations that exceed 0.3 micrograms per cubic meter (µg/m3) to be significant.

The updated Community Plan would permit and facilitate the development of new sensitive receptors (e.g., new homes) in locations near arterial roadways and the Caltrain line. Screening modeling indicates that sensitive receptors within the Community Plan area would be exposed to levels of TACs and or $PM_{2.5}$ that could cause an unacceptable cancer risk or hazard near the following roadways and train lines. Table 5.5 identifies the screening level exposures for these sources.

- *El Camino Real.* The traffic analysis indicates that there are currently approximately 36,500 average daily vehicle trips on the segment of El Camino Real within the Community Plan area. According to the BAAQMD Risk and Hazard Screening Tables for San Mateo County (October 2010 version), significant cancer risks extend out less than 100 feet from the roadway. (These are screening levels, so actual exposures would be

Table 5.5
SCREENING SETBACK DISTANCES FOR SOURCES OF TACs AND $PM_{2.5}$

Source	Distance in Feet[1]	Notes
El Camino Real	<100 feet	Due to TAC cancer risk
Arterial roadways	<10 feet	Due to TAC cancer risk
Caltrain	100 feet	No impact if Caltrain electrified.
Dumbarton Rail Corridor	<100 feet	Impact only if train service developed using diesel-powered locomotives
Stationary sources (e.g., dry cleaners)	<300 feet	Based on ARB guidance and planned phase-out of perchloroethylene by 2023
Stationary sources (other)	<100 feet	

SOURCE: Illingworth & Rodkin, 2011; BAAQMD, 2011; MIG, 2011.

[1] As measured from the edge of the nearest through travel lane or rail track.

less.) Therefore, new residential uses or other sensitive receptors located within 100 feet of El Camino Real could be exposed to a significant cancer risk. $PM_{2.5}$ concentrations along the segment of El Camino Real within the Community Plan area would be less than significant.

- *Marsh Road.* There are currently approximately 20,500 daily vehicle trips on Marsh Road within the Community Plan area. BAAQMD screening tables for north-south San Mateo County roadways with average daily traffic volumes lower than 30,000 trips indicate less-than-significant cancer risks and $PM_{2.5}$ exposures at distances greater than 10 feet from the roadway.

- *Middlefield Road.* There are currently approximately 16,000 daily vehicle trips on Middlefield Road within the Community Plan area. BAAQMD screening tables for north-south San Mateo County roadways with average daily traffic volumes lower than 20,000 trips indicate less-than-significant cancer risks and $PM_{2.5}$ exposures at distances greater than 10 feet from the roadway.

- *Other Arterial Streets.* All other arterial streets within the Community Plan area have fewer than 16,000 daily vehicle trips. BAAQMD screening tables for north-south San Mateo County roadways with average daily traffic volumes lower than 20,000 trips indicate less-than-significant cancer risks and $PM_{2.5}$ exposures at distances greater than 10 feet from the roadway.

- *Caltrain Line.* Caltrain currently operates diesel-powered locomotives that are a source of diesel particulate matter, which is a TAC. Approximately 100 trains pass through North Fair Oaks on weekdays with fewer trains on weekends. The ARB and BAAQMD have not developed recommended buffers for sensitive receptors or methods to evaluate impacts

from emissions associated with railroads. The necessary setback is expected to be relatively small due to the limited size of the trains and the limited frequency of events. Significant exposure to diesel particulate matter is not expected at locations closer than 100 feet to the railroad. Caltrain plans to modernize the system, expand capacity, improve safety, and electrify the system by 2025,[1] which would eliminate diesel particulate matter emissions from Caltrain and greatly reduce TAC exposure. In the interim, until the system is electrified, significant exposures would extend out 100 feet from the rail line.

- *Dumbarton Rail Corridor.* The existing Southern Pacific Railroad (now owned by the Union Pacific Railroad) traverses the Community Plan area east-west. The proposed Dumbarton Rail Corridor Project would extend commuter rail service across the southern portion of San Francisco Bay between the Peninsula and the East Bay by connecting the Redwood City Caltrain Station with the Union City BART station. The Dumbarton Rail alignment would pass through North Fair Oaks along the existing Southern Pacific Railroad right-of-way. Six round-trip trains would travel the corridor during peak commute hours. Currently, the line has very little activity (i.e., less than two trains per day).

There are no existing major stationary sources of TACs or $PM_{2.5}$ within the Community Plan Area. However, BAAQMD lists dry cleaners and emergency generators within or near the Community Plan area, for which specific emissions or exposure information is not available. These stationary sources are shown in Figure 5.1. There are two dry cleaners within or near the Community Plan area. According to the ARB, dry cleaners may pose a significant cancer risk at distances of up to 300 feet.[2] ARB regulations will phase out the use of perchloroethylene by 2023, which would avoid future exposure. There are a number of emergency generators within or near the Community Plan area. BAAQMD and ARB regulations restrict operation of emergency generator engines to 50 hours or less per year for testing or routine maintenance. Emergency generators are estimated to pose a potentially significant cancer risk at distances of up to100 feet.

Potential new stationary sources of TACs within the Community Plan area would be subject to the new BAAQMD rules and regulations. BAAQMD Regulation 2, Rule 5 requires that new stationary sources meet applicable BAAQMD risk evaluation requirements to ensure that health risks associated with TAC emissions would be acceptable.[3] Sources of air pollutant emissions complying with applicable BAAQMD permit requirements generally would not be considered to have an individual significant air quality impact. Stationary sources that are exempt from BAAQMD permit requirements due to low emissions would also be considered to not have a significant air quality impact.

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[1]Caltrain 2025 Service and Electrification Plan.

[2]California Air Resources Board, *Air Quality and Land Use Handbook*, April 2005.

[3]BAAQMD risk policy requires that these sources have a cancer risk of less than 10 in one million, which is the same as the BAAQMD recommended CEQA threshold.

SOURCE: Wagstaff/MIG; Illingworth & Rodkin, Inc.

Figure 5.1

STATIONARY SOURCES OF AIR POLLUTANT EMISSIONS

Mitigation 5-2. For future discretionary development intended for occupancy by sensitive receptors located within the following specified distances from the identified sources of TACs and $PM_{2.5}$ within the Community Plan area, the County shall implement one of the mitigation measure options listed below:

- El Camino Real – 100 feet,
- Caltrain and Dumbarton Rail Corridor – 100 feet,
- Dry cleaning operations – 300 feet (see Figure 5.1), and
- Other stationary sources – 100 feet (see Figure 5.1).

(Site-specific modeling for future development projects proposed within these distances may provide a data basis upon which this buffer distance may be reconsidered and reduced.)

(1) Change the updated Community Plan proposed land use map to avoid the siting of new sensitive receptors (e.g., residential uses) within these setback areas.

(This mitigation option may be considered by the County to be inconsistent with the basic objectives of the updated Community Plan to provide additional housing along these corridors in order to generate additional vitality and foot traffic, ridership for transit, and social and business activity.)

(2) Alternatively, require future individual discretionary development projects within the Community Plan area that would place air quality sensitive receptors within these specified distances from identified sources, to either:

(a) For projects within the specified distances from identified sources, conduct a site-specific health risk assessment using air quality dispersion modeling methodologies and screening thresholds recommended by the BAAQMD to demonstrate that, despite a location within the screening setback distances, modeled site-specific exposures would be less-than-significant.

or

(b) Mitigate anticipated community risks and hazards through implementation of the following mitigations:

- Where residential uses or other sensitive receptors are proposed to be located within the setback distances specified above or identified through site-specific health risk assessment using air quality dispersion modeling to indicate potentially significant exposure, air filtration units shall be installed and maintained. The air filtration systems shall be installed to achieve

(continued)

Mitigation 5-2 (continued):

BAAQMD effectiveness performance standards in removing $PM_{2.5}$ from indoor air. The system effectiveness requirement shall be determined during final design, when the exact level of exposure is known, based on proximity to these sources;

- Locate ventilation air intakes and operable windows away from these sources;
- Where appropriate, install passive (drop-in) electrostatic filtering systems, especially those with low air velocities (i.e., 1 mph);
- Consider tiered plantings of trees, such as redwood, deodar cedar, live oak and oleander, between sensitive uses and these sources;
- Consider plan implementation phasing that delays occupancy of units with highest exposure so that source emissions regulations and vehicle fleet turnover that would result in lower emissions may take more effect and lower exposure levels (since emission rates will decrease in the future, projects developed later in the updated Community Plan buildout timeframe would have less exposure);
- Avoid locating truck loading zones near sensitive units;
- Require rerouting of nearby heavy-duty truck routes;
- Enforce illegal parking and/or idling restrictions on heavy-duty trucks in the vicinity; and
- Install indoor air quality monitoring units in buildings.

With implementation of either one of these mitigation options, the potential TAC and $PM_{2.5}$ exposure impacts of the updated Community Plan would be reduced to a ***less-than-significant level.***

Potential future preparation and implementation by the County of a Community Risk Reduction Plan (CRRP) to bring TAC and $PM_{2.5}$ concentrations for the entire community down below BAAQMD thresholds of significance as an alternative to addressing associated community health risk on a project-by-project basis would also reduce this impact to a ***less-than-significant level***.

Impact 5-3: Odor Impacts of Mixed Use Development. Development in accordance with the updated Community Plan could result in food service uses (e.g., restaurants) or other odor-generating uses in close proximity to or in the same building as residential or other odor-sensitive uses. This possibility represents a ***potentially significant impact*** (see criterion 5 in subsection 5.3.3, "Significance Criteria," above).

Mixed use development in accordance with the updated Community Plan could result in food service uses (e.g., restaurants), painting facilities, or dry cleaning facilities in close proximity or in the same building as residential or other odor-sensitive uses. Food service uses can generate odors as a result of cooking processes and waste disposal. Char broilers, deep-fryers, and ovens tend to produce food odors that can be considered offensive to some people, and food waste can putrefy if not properly managed.

The Community Plan area contains numerous auto service uses, including auto body shops with paint spraying operations. Although controlled by BAAQMD permits and regulations, these types of uses can produce solvent type odors that may be objectionable. Without proper controls or setbacks, there is a potential for land use conflicts that could result in odor complaints.

Mitigation 5-3. Discretionary approvals within the Community Plan area for food service (e.g., restaurants) or other odor generating uses located in close proximity to or in the same building as residential or other odor sensitive uses shall be conditioned to implement a combination of the following measures to reduce odors and potential conflicts and complaints:

- for restaurant or cooking uses, use of such devices as integral grease filtration or grease removal systems, baffle filters, electrostatic precipitators, water cooling/cleaning units, disposable pleated or bag filters, activated carbon filters, oxidizing pellet beds, and catalytic conversion, as well as proper packaging and frequency of food waste disposal, and exhaust stack and vent location with adequate consideration of nearby receptors; and

- for new residential dwellings within 300 feet of existing paint spraying operations (e.g., auto body shops), cleaning operations (e.g., dry cleaners), or other uses with the potential to cause odors, identification and adequate disclosure of potential odor impacts in notices to prospective buyers or tenants.

With implementation of this mitigation, the potential odor impacts of the updated Community Plan would be reduced to a ***less-than-significant level.***

Cumulative Air Quality Impacts. As previously described, the Bay Area is considered non-attainment for both State and federal ambient air quality standards for ozone and particulate matter, which represents a significant cumulative air quality impact. Past and present projects have contributed to these cumulative air quality conditions. According to the BAAQMD CEQA

Air Quality Guidelines, "no single project is sufficient in size to, by itself, result in non-attainment of ambient air quality standards." BAAQMD impact assessment methodologies and thresholds of significance determine whether the air pollutant emissions of a project or plan would be cumulatively considerable.

Potentially significant impacts related to short-term construction emissions (Impact 5-1) and exposure to TACs (Impact 5-2) were identified, but could be mitigated to a less-than-significant level by identified mitigation measures. Since, with mitigation measures, the updated Community Plan would not have a significant impact according to the latest BAAQMD CEQA Air Quality Guidelines, the updated Community Plan would also not result in cumulatively considerable contribution to a significant cumulative impact on regional air quality.

Mitigation. No cumulatively considerable contribution to a significant cumulative impact has been identified; no mitigation is required.

6. BIOLOGICAL RESOURCES

This chapter describes the existing conditions and regulatory framework related to biological resources in and around North Fair Oaks, potential impacts of the updated Community Plan on those resources, and measures to mitigate identified significant impacts.

6.1 ENVIRONMENTAL SETTING

6.1.1 Urban Landscape Habitat

Urban landscape is the primary habitat type found within the Community Plan area. This habitat type is dominated by the following introduced, opportunistic plant and wildlife species adapted to high levels of disturbance:

(a) Vegetation. Existing private and public properties, public rights-of-way and parks within the Community Plan area have been landscaped with introduced exotic species, including trees, shrubs and groundcover, for erosion control, screening, and ornamental value. Ruderal vegetation, a mixture of both native and non-native weed species, occurs within vacant lots, the Hetch Hetchy Bay Division Pipeline, Caltrain and railroad rights-of-way, and similar disturbed sites. Common plant species found in ruderal areas include bristly ox-tongue (*Picris echioides*), fennel (*Foeniculum vulgare*), poison hemlock (*Conium maculatum*), red-stemmed filaree (*Erodium cicutarium*), and non-native grass species including ripgut brome, wild oats, and hare barley.

(b) Wildlife. Wildlife abundance and diversity in the urban landscape habitat within the Community Plan area depend on the amount of vegetation and degree of ongoing disturbance. Existing vegetation, including landscaping of building sites and parking lots, provides existing cover and food resources for animals that have adapted to this urban environment. Small mammals such as house mice (*Mus musculus*), Norway rats (*Rattus norvegicus*), California ground squirrels (*Spermophilus beecheyi*), raccoons (*Procyon lotor*), and striped skunks (*Mephitis mephitis*) may also be found in such urban locations. Reptiles and amphibians expected in such Peninsula urbanized areas include the western fence lizard (*Sceloporus occidentalis*) and Pacific treefrog (*Hyla regilla*). Bridges and other structures in the Community Plan area provide potentially suitable habitat for several bat species.

The urban landscape within and surrounding the Community Plan area also provides suitable habitat for many birds, including mourning dove (*Zenaida macroura*), rock dove (*Columba livia*), Anna's hummingbird (*Calypte anna*), black phoebe (*Sayornis nigricans*), western scrub-jay (*Aphelocoma californica*), American crow (*Corvus brachyrhynchos*), common raven (*Corvus corax*), American robin (*Turdus migratorius*), European starling (*Sturnus vulgaris*), northern mockingbird (*Mimus polyglottos*), California towhee (*Pipilo crissalis*), yellow-rumped warbler (*Dendroica coronata*), song sparrow (*Melospiza melodia*), white-crowned sparrow (*Zonotrichia leucophrys*), golden-crowned sparrow (*Zonotrichia atricapilla*), savannah sparrow (*Passerculus sandwichensis*), western meadowlark (*Sturnella neglecta*), brown-headed cowbird (*Molothrus*

ater), Brewer's blackbird (*Euphagus cyanocephalus*), house finch (*Carpodacus mexicanus*), American goldfinch (*Carduelis tristis*), house sparrow (*Passer domesticus*), barn (*Hirundo rustica*) and cliff swallows (*Petrochelidon pyrrhonota*), red-tailed hawk (*Buteo jamaicensis*), white-tailed kite (*Elanus leucurus*), and American kestrel (*Falco sparverius*).

6.1.2 Special-Status Species

For purposes of this EIR, and following common practice, "special-status species" are defined as those plants and animals that are legally protected under the State and Federal Endangered Species Acts or other regulations, and species that are considered rare by the scientific community. Rare, endangered, or threatened species are protected by the Federal Endangered Species Act of 1973 (as updated in 50 CFR 17.11 and 17.12, January 1992), the California Native Plant Protection Act of 1997, and the California Endangered Species Act of 1970 (California Administrative Code Title 14, sections 670.2 and 670.51). The California Environmental Quality Act (CEQA) provides additional protection for unlisted species that meet the "rare" or "endangered" criteria defined in CEQA Guidelines section 15380.

The suitability of the Community Plan area to support special-status species was determined from information presented in the Redwood City New General Plan Draft EIR. North Fair Oaks is located within the Planning Area for the Redwood City New General Plan and was evaluated in the Redwood City New General Plan Draft EIR. The New General Plan Draft EIR identified all special-status plant and wildlife species known to occur within the area defined by the four United States Geological Survey (USGS) 7-½ minute Quadrangles that contain the Redwood City Planning Area (San Mateo, Redwood Point, Woodside, and Palo Alto) and the twelve adjacent USGS 7-½ minute Quads (Cupertino, Half Moon Bay, Hayward, Hunters Point, La Honda, Mindego Hill, Montara Mountain, Mountain View, Newark, San Francisco South, San Gregorio, and San Leandro). Appendix E of the Redwood City New General Plan Draft EIR presents special status plant species with the potential to occur within the Redwood City Planning Area. The New General Plan Draft EIR summarized the status, habitat affinities, flowering phenology, habitat suitability and local distribution, and potential for occurrence for each of the special-status species. The Redwood City New General Plan Draft EIR evaluated habitat suitability for special-status species and made determinations regarding the potential for occurrence of special-status species within the Redwood City Planning Area, including the Community Plan area. The New General Plan Draft EIR is available for review at the City of Redwood City, 1017 Middlefield Road, Redwood City, California and is hereby incorporated by reference.[1]

Based on the information regarding habitat requirements, habitat suitability, local distribution and potential for occurrence presented in the Redwood City New General Plan Draft EIR, special-status plant or wildlife species are not expected to occur within the Community Plan area due to a lack of suitable habitat, the smaller size and fragmented nature of remaining habitat, prior disturbance, and the current level of human activity. Additionally, the San Mateo County General Plan Sensitive Habitats Map does not identify any sensitive habitats within the Community Plan area.[2]

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[1]City of Redwood City, A New General Plan for Redwood City, Draft Environmental Impact Report, May 2010, pp. 4.4-17 through 4.4-19 and Appendix E.

[2]County of San Mateo, Department of Environmental Management, Planning and Development Division, San Mateo County General Plan Sensitive Habitats Map.

6.2 REGULATORY SETTING

6.2.1 Federal Regulations

(a) Federal Endangered Species Act. The Federal Endangered Species Act of 1973 (as updated in 50 CFR 17.11 and 17.12, January 1992) (FESA) protects plants and wildlife that are listed as endangered or threatened by the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS). Section 9 of the FESA prohibits the taking of endangered wildlife, where taking is defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct" (50CFR 17.3). For plants, this statute governs removing, possessing, maliciously damaging, or destroying any endangered plant on federal land and removing, cutting, digging-up, damaging, or destroying any endangered plant on non-federal land in knowing violation of state law (16 USC 1538). Under Section 7 of the FESA, federal agencies are required to consult with the USFWS if their actions, including permit approvals or funding, could adversely affect an endangered species (including plants) or its critical habitat. Through consultation and the issuance of a biological opinion, the USFWS may issue an incidental take statement allowing take of the species that is incidental to another authorized activity provided the action will not jeopardize the continued existence of the species. Section 10 of FESA provides for issuance of incidental take permits to private parties provided a habitat conservation plan is developed.

(b) Migratory Bird Treaty Act. The Migratory Bird Treaty Act (MBTA) implements international treaties between the U.S. and other nations devised to protect migratory birds, any of their parts, eggs and nests from activities such as hunting, pursuing, capturing, killing, selling and shipping, unless expressly authorized in the regulations or by permit. As authorized by the MBTA, the USFWS issues permits to qualified applicants for the following types of activities: falconry, raptor propagation, scientific collecting, special purposes (rehabilitation, education, migratory game bird propagation and salvage), take of depredating birds, taxidermy, and waterfowl sale and disposal. The regulations governing migratory bird permits can be found in 50 CFR part 13 General Permit Procedures and 50 CFR part 21 Migratory Bird Permits. The state of California has incorporated the protection of birds of prey in Sections 3800, 3513 and 3503.5 of the CDFG Code.

(c) Federal Clean Water Act. The Clean Water Act's (CWA) purpose is to "restore and maintain the chemical, physical, and biological integrity of the nation's waters." Section 404 of the CWA prohibits the discharge of dredged or fill material into "waters of the United States" without a permit from the USACE. The definition of waters of the U.S. includes rivers, streams, estuaries, the territorial seas, ponds, lakes and wetlands. Wetlands are defined as those areas "that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR 328.3 7b). The U.S. Environmental Protection Agency (U.S. EPA) also has authority over wetlands and may override a USACE permit. Substantial impacts on wetlands may require an individual permit. Projects that only minimally affect wetlands may meet the conditions of one of the existing Nationwide Permits. A Water Quality Certification or waiver pursuant to Section 401 of the CWA is required for Section 404 permit actions; this certification or waiver is issued by the Regional Water Quality Control Board (RWQCB).

6.2.2 State Regulations

(a) California Endangered Species Act. The California Endangered Species Act of 1970 (California Administrative Code Title 14, sections 670.2 and 670.51) (CESA) generally parallels the main provisions of the federal ESA, but unlike its federal counterpart, the CESA applies the take prohibitions to species proposed for listing (called "candidates" by the state). Section 2080 of the CDFG Code prohibits the taking, possession, purchase, sale, and import or export of endangered, threatened, or candidate species, unless otherwise authorized by permit or in the regulations. Take is defined in Section 86 of the CDFG Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill". The CESA allows for take incidental to otherwise lawful development projects. State lead agencies are required to consult with the CDFG to ensure that any action they undertake is not likely to jeopardize the continued existence of any endangered or threatened species or result in destruction or adverse modification of essential habitat.

(b) Fully Protected Species. The state of California first began to designate species as "Fully Protected" prior to the creation of the CESA and the FESA. Lists of fully protected species were initially developed to provide protection to those animals that were rare or faced possible extinction, and included fish, mammals, amphibians, reptiles, birds and mammals. Most fully protected species have since been listed as threatened or endangered under the CESA and/or FESA. The regulations that implement the Fully Protected Species Statute (CDFG Code Section 4700) provide that fully protected species may not be taken or possessed at any time. Furthermore, the CDFG prohibits any state agency from issuing incidental take permits for fully protected species, except for necessary scientific research.

(c) Native Plant Protection Act. The Native Plant Protection Act (NPPA) of 1977 (CDFG Code Sections 1900-1913) was created with the intent to "preserve, protect and enhance rare and endangered plants in this state." The NPPA is administered by the CDFG. The Fish and Game Commission has the authority to designate native plants as "endangered" or "rare" and to protect endangered and rare plants from take. The CESA provides further protection for rare and endangered plant species, but the NPPA remains part of the CDFG Code.

(d) California Streambed Alteration Notification/Agreement. Section 1602 of the California CDFG Code requires that a Streambed Alteration Application be submitted to the CDFG for "any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake." The CDFG reviews the proposed actions and, if necessary, submits a proposal for measures to protect affected fish and wildlife resources to the applicant. The final proposal that is mutually agreed upon by the CDFG and the applicant is the Streambed Alteration Agreement. Often, projects that require a Streambed Alteration Agreement also require a permit from the Corps under Section 404 of the Clean Water Act. In these instances, the conditions of the Section 404 permit and the Streambed Alteration Agreement may overlap.

(e) Porter-Cologne Water Quality Control Act. The Porter-Cologne Water Quality Control Act (Porter-Cologne) imposes stringent controls on any discharges into the "waters of the state" (California Water Code § 13000, et seq.). Waters of the state are defined as any surface water or groundwater, including saline waters, within the boundaries of the state (California Water Code § 13050(e)). Pursuant to Porter-Cologne, the State Water Resources Control Board (SWRCB) has the ultimate authority over state water rights and water quality policy. However, Porter-Cologne also establishes nine RWQCBs to oversee water quality at the local/regional

level. Under Porter-Cologne, the state retains authority to regulate discharges of waste into any waters of the state, regardless of whether the USACE has concurrent jurisdiction under Section 404 of the CWA. This applies specifically to isolated wetlands considered non-jurisdictional by the Corps in accordance with the Solid Waste Agency of Northern Cook County (SWANCC) v. Corps decision, which limited the Corps jurisdiction over isolated wetlands.

Required RWQCB certification would be under the jurisdiction of the San Francisco Bay RWQCB in Oakland, California, and would include consultation with the CDFG under the provisions of the California Fish and Game Code section 5650F, which gives CDFG jurisdiction over the input of any deleterious substances, such as silt, into the waters of the State, resulting from construction activities.

(f) California Fish and Game Code Sections 3503, 3503.5, and 3800. These sections of the California Fish and Game Code prohibit the "take, possession, or destruction of birds, their nests or eggs." Disturbance that causes nest abandonment and/or loss of reproductive effort (killing or abandonment of eggs or young) is considered a "take." Such a take would violate the Migratory Bird Treaty Act. The act is implemented as part of the review process for any required State agency authorization, agreement, or permit.

6.2.3 County of San Mateo

(a) San Mateo County General Plan. The following San Mateo County General Plan policies are relevant to consideration of the biological resources impacts of the updated Community Plan:

(1) Vegetative, Water, Fish and Wildlife Resources Element

1.1 Conserve, Enhance, Protect, Maintain and Manage Vegetative, Water, Fish and Wildlife Resources. Promote the conservation, enhancement, protection, maintenance and managed use of the County's Vegetative, Water, Fish and Wildlife Resources.

1.2 Protect Sensitive Habitats. Protect sensitive habitats from reduction in size or degradation of the conditions necessary for their maintenance.

1.22 Regulate Development to Protect Vegetative, Water, Fish and Wildlife Resources.
a. Regulate land uses and development activities to prevent, and if infeasible mitigate to the extent possible, significant adverse impacts on vegetative, water, fish and wildlife resources.
b. Place a priority on the managed use and protection of vegetative, water, fish and wildlife resources in rural areas of the County.

1.23 Regulate Location, Density and Design of Development to Protect Vegetative, Water, Fish and Wildlife Resources. Regulate the location, density and design of development to minimize significant adverse impacts and encourage enhancement of vegetative, water, fish and wildlife resources.

1.24 Protect Vegetative Resources. Ensure that development will: (1) minimize the removal of vegetative resources and/or; (2) protect vegetation which enhances microclimate, stabilizes slopes or reduces surface water runoff, erosion or sedimentation; and/or (3) protect historic and scenic trees.

1.25 Protect Water Resources. Ensure that development will: (1) minimize the alteration of natural water bodies, (2) maintain adequate stream flows and water quality for vegetative, fish and wildlife habitats; (3) maintain and improve, if possible, the quality of groundwater basins and recharge areas; and (4) prevent to the greatest extent possible the depletion of groundwater resources.

1.26 Protect Fish and Wildlife Resources. Ensure that development will minimize the disruption of fish and wildlife and their habitats.

1.27 Regulate Development to Protect Sensitive Habitats. Regulate land uses and development activities within and adjacent to sensitive habitats in order to protect critical vegetative, water, fish and wildlife resources; protect rare, endangered, and unique plants and animals from reduction in their range or degradation of their environment; and protect and maintain the biological productivity of important plant and animal habitats.

1.32 Performance Criteria and Development Standards. Establish performance criteria and development standards for development permitted within sensitive habitats and buffer zones, to prevent and if infeasible mitigate to the extent possible significant negative impacts, and to enhance positive impacts.

1.38 Control Incompatible Vegetation, Fish and Wildlife. Encourage and support the control of vegetation, fish and wildlife resources which are harmful to the surrounding environment or pose a threat to public health, safety and welfare.

1.39 Minimize Adverse Impacts of Programs Controlling Incompatible Vegetation, and Fish and Wildlife. Minimize the negative impacts and risks of programs controlling incompatible vegetation, fish and wildlife.

(2) Visual Quality Element

4.28 Trees and Vegetation.

a. Preserve trees and natural vegetation except where removal is required for approved development or safety.

b. Replace vegetation and trees removed during construction wherever possible. Use native plant materials or vegetation compatible with the surrounding vegetation, climate, soil, ecological characteristics of the region and acceptable to the California Department of Forestry.

c. Provide special protection to large and native trees.

4.57 Tree and Vegetation Removal.

a. Allow the removal of trees and natural vegetation when done in accordance with existing regulations.

b. Prohibit the removal of more than 50% of the tree coverage except as allowed by permit.

(b) Significant Trees Ordinance and Heritage Tree Ordinance. The County of San Mateo has two ordinances related to tree protection, a Significant Trees Ordinance (San Mateo County

Ordinance Code, Division VIII, 12,000-12,032.5)[1] and a Heritage Tree Ordinance (San Mateo County Ordinance Code, Division VIII, 11,000-11,050).[2]

(1) Significant Tree Ordinance. Under the Significant Tree Ordinance, a permit is required for the removal of any indigenous or exotic tree with a circumference of at least 38 inches when measured at 4½ feet vertically above the ground or immediately below the lowest branch, whichever is lower. A permit is also required for the removal of a portion of a community of trees, which refers to a group of tees of any size which are ecologically or aesthetically related to each other such that loss of several of them would cause a significant ecological, aesthetic, or environmental impact in the immediate area.

(2) Heritage Tree Ordinance. The Heritage Tree Ordinance prohibits the removal of any heritage tree without first obtaining a permit from the San Mateo County Planning Department. A Heritage tree is a tree specially listed as endangered by either the California Native Plant Society or the Federal Register or any tree species designated protected by the Board of Supervisors. Depending upon their size and location, all of the following native trees may be heritage trees: Bigleaf Maple, Madrone, Golden Chinquapin, Oregon Ash, Tan Oak, Douglas Fir, Coast Live Oak, Canyon Live Oak, Black Oak, Interior Live Oak, Valley Oak, Blue Oak, California Bay or Laurel, California Nutmeg, and Redwood. The Board of Supervisors may designate other trees and groves as heritage trees.

6.3 IMPACTS AND MITIGATION MEASURES

6.3.1 Significance Criteria

Based on Appendix G of the CEQA Guidelines,[3] the updated Community Plan would have a significant impact on biological resources if it would:

(a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;

(b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;

(c) Have a substantial adverse effect on federally protected wetlands as defined by section 404 of the Clean Water Act (including but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;

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[1]San Mateo, County of, 2010. *The Significant Tree Ordinance of San Mateo County (Part Three of Division VIII of the San Mateo County Ordinance Code).*

[2]San Mateo, County of, 1977. *Regulation of the Removal and Trimming of Heritage Trees on Public and Private Property, (Excerpt from the San Mateo County Ordinance Code).* Planning and Building Division, San Mateo County, California.

[3]CEQA Guidelines, Appendix G, Items IV(a) through (f).

(d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;

(e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or

(f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved, local, regional, or state habitat conservation plan. (There is no conservation plan in effect in the project area, so this criterion does not apply.)

Impacts related to significance criteria (b), (c) and (f) were found not to be significant during the EIR scoping process and are not discussed in this EIR. Please see Section 17.5 (Effects Found Not to Be Significant) in Chapter 17 (CEQA-Required Assessment Considerations), as well as Appendix 21.2 (Notice of Preparation and Initial Study).

6.3.2 Impacts and Mitigation Measures

Impacts on Special-Status Species. As described in Section 6.1.2 above, special-status species are not expected to occur within the Community Plan area because of a lack of suitable habitat, the smaller size and fragmented nature of remaining habitat, prior disturbance, and the current level of human activity. Therefore, the impacts of the updated Community Plan on special-status species would be ***less than significant.***

Mitigation. No significant impact has been identified; no mitigation is required.

Impact 6-1: Migratory Wildlife Impacts. Grading and construction activities associated with development in accordance with the updated Community Plan could temporarily reduce nesting opportunities for resident and migratory bird species that are protected by the Migratory Bird Treaty Act. This possibility represents a ***potentially significant impact*** (see criterion (d) in subsection 6.3.1, "Significance Criteria," above).

Wildlife use within the Community Plan area is expected to be relatively low due to the absence of natural habitat, the proximity of streets and development, and the lack of protective cover. Birds (e.g., house sparrow, starling, crow, etc.) and wildlife such as opossums and small rodents typically associated with developed properties would be expected to occur. The Community Plan area is limited in its function for wildlife movement due to its extensively developed nature.

Proximity to the Don Edwards National Wildlife Refuge on Bair Island and San Francisco Bay makes the area accessible to migratory birds. Nesting birds, including raptors, are protected by the CDFG Code Section 3503, which states "It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto." Passerines (songbirds) and non-passerine landbirds are further protected under the Federal Migratory Bird Treaty Act. Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or

otherwise lead to nest abandonment. Therefore, the CDFG typically recommends pre-construction surveys for nesting birds that could potentially be directly (actual removal of trees/vegetation) or indirectly (noise disturbance) impacted by construction-related activities.

Mitigation 6-1: During the County's development review process for discretionary approvals for development within the Community Plan area, the County shall require tree removal and trimming, as well as ground disturbing activities, to be scheduled to take place outside of the breeding season for migratory bird species (February 15 to August 31). If construction is unavoidable during this time, a qualified biologist shall conduct a survey for nesting birds no more than three days prior to the removal or trimming of any tree and prior to the start of ground disturbing activities. If active nests are not present, project activities can proceed as scheduled. If active nests of protected species are detected, a buffer shall be established around the nest based on consultation with CDFG and based on CDFG standards, which buffer shall remain in place until the County has determined, in consultation with a qualified biologist, that the buffer is no longer necessary to avoid disturbance to the nest.

With implementation of this measure, potential impacts of the updated Community Plan on nesting birds would be reduced to a ***less-than-significant level.***

Potential Loss of Heritage Trees or Significant Trees. Development in accordance with the updated Community Plan would be subject to the County's Heritage Tree Ordinance and Significant Trees Ordinance. Any project that would involve the removal of any tree or community of trees protected by the Heritage Tree Ordinance or Significant Trees Ordinance would be required to first obtain a permit from the County and comply with any conditions of the permit, including replacement plantings and protection of remaining trees during construction. As a result, the potential impacts of the updated Community Plan on Heritage Trees or Significant Trees would be ***less than significant.***

Mitigation. No significant impact has been identified; no mitigation is required.

Cumulative Biological Resources Impacts. Development in accordance with the updated Community Plan, together with other projected areawide growth in neighboring communities, would result in additional residential and non-residential development by the year 2035. This cumulative development could result in potentially significant cumulative impacts related to wildlife movement or migratory wildlife. However, with implementation of Mitigation Measure 6-1, the contribution of the updated Community Plan to potentially significant biological resources impacts would be less than considerable and thus ***less than significant.***

Mitigation. No cumulatively considerable contribution to a significant cumulative impact has been identified; no mitigation is required.

7. CLIMATE CHANGE

This EIR chapter addresses the climate change impacts that could occur from land use and transportation changes proposed by the updated Community Plan. The chapter describes the current climate change science and regulatory framework, and the anticipated greenhouse gas emissions impacts of the Community Plan Update. Potential increases in flooding within the Plan area resulting from predicted sea level rise due to global climate change are addressed in Chapter 11, Hydrology and Water Quality.

7.1 ENVIRONMENTAL SETTING

7.1.1 Background

The term *climate change* is often used interchangeably with the term *global warming*. *Climate change* refers to any significant change in measures of climate (such as temperature, precipitation, or wind) lasting for an extended period (decades or longer). Climate change may result from a variety of causes, both natural and human induced. *Global warming* refers to an average increase in the temperature of the atmosphere near the Earth's surface and in the troposphere, which can contribute to changes in global climate patterns. Global warming can occur from a variety of causes, both natural and human induced. In common usage, "global warming" often refers to the warming that can occur as a result of increased emissions of greenhouse gases from human activities.[1]

Gases that trap heat in the atmosphere are referred to as "greenhouse gases" (GHGs) because they capture heat radiated from the sun as it is reflected back into the atmosphere, much like a greenhouse does. Over the past 200 years, GHG emissions and deforestation have caused the concentrations of heat-trapping GHGs to increase significantly in our atmosphere. These gases prevent heat from escaping to space. Since the early 1990s, scientific consensus has held that the world's population is releasing GHGs faster than the earth's natural systems can absorb them. These GHGs are released as by-products of fossil fuel combustion, waste disposal, energy use, land-use changes, and other human activities.

This release of GHGs creates a blanket around the earth that allows light to pass through but traps heat at the surface preventing its escape into space. Models show that this greenhouse effect phenomenon will lead to a two- to ten-degree Fahrenheit (F) temperature increase over the next 100 years. The Intergovernmental Panel on Climate Change (IPCC), an international group of scientists and representatives, warns that most of the warming observed over the last 50 years is attributable to human activities. The accumulation of GHGs has been implicated as a driving force for global climate change.

[1]U.S. Environmental Protection Agency (EPA) website, Climate Change, Basic Information, September 30, 2008.

There is international scientific consensus that human-caused increases in GHGs have and will continue to contribute to global warming, although there is uncertainty concerning the magnitude and rate of the warming.

Carbon dioxide (CO_2) accounts for approximately 85 percent of total human activity-generated GHG emissions. Emissions of other GHGs, such as methane (CH_4) and nitrous oxide (N_2O), have also increased due to human activities. Methane and nitrous oxide emissions account for almost 14 percent of total greenhouse gas emissions. Each of these gases, however, contributes to global warming at a different relative rate. Methane has a global warming potential 23 times that of carbon dioxide, while the global warming potential of nitrous oxide is 296 times that of the same amount of carbon monoxide. To account for these differences, estimates of greenhouse gas emissions are often described in terms of *carbon dioxide equivalents* (CO_2e).

7.1.2 Existing Conditions

The existing environmental conditions or setting, without the project, constitutes the baseline physical condition for determining whether a project's impacts are significant.

(a) Global GHG Emissions. A report of the Intergovernmental Panel on Climate Change (IPCC) predicts a global temperature increase of between 2.0 and 11.5 degrees Fahrenheit (F) (1.1 and 6.4 degrees Celsius) by the end of the 21st century under six different scenarios of emissions and carbon dioxide equivalent concentrations.[1] Sea levels are predicted to rise by 0.18 to 0.59 meters (7 to 23 inches) during this time, with an additional 3.9 to 7.8 inches possible depending upon the rate of polar ice sheets melting from increased warming. The IPCC reports that the increase in hurricane and tropical cyclone strength since 1970 can also likely be attributed to human-generated greenhouse gases.

Global GHG inventory data published in 2007 by the United Nations[2] indicated that worldwide GHG emissions of in 2004 totaled 27 billion metric tons.[3]

(b) U.S. GHG Emissions. In the U.S., energy-related activities account for three-quarters of human-generated GHG, mostly in the form of carbon dioxide emissions from burning fossil fuels. More than half the energy-related emissions come from large stationary sources such as power plants, while about a third comes from transportation. Industrial processes (such as the production of cement, steel, and aluminum), agriculture, forestry, other land use, and waste management are also important U.S. sources of GHG emissions.[4]

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[1]IPCC, 2007: Summary for Policymakers. In: Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change.

[2]Combined total of Annex I and Non-Annex I Country CO_2eq emissions. United Nations Framework Convention on Climate Change (UNFCCC), 2007, *Greenhouse Gas Inventory Data*. Information available at http://unfcc.int/ghg_data/ghg_data_unfccc/time_series_annex_i/items/3814.php and http://maindb.unfccc.int/library/view_pdf.pl?url=http://unfccc.int/resource/docs/2005/sbi/eng/18a02.pdf.

[3]A metric ton is equivalent to approximately 1.1 tons.

[4]EPA website.

The latest EPA-published national inventory of U.S. GHG emissions shows that in 2005 the U.S. emitted over 7.2 billon metric tons of GHG. (A million metric tons of CO_2e is roughly equal to the annual GHG emissions of an average U.S. power plant.)

(c) State GHG Emissions. According to the California Air Resources Board (ARB) emissions inventory estimates, California emitted approximately 480 million metric tons of GHGs in 2004.[1] This large number is due primarily to the sheer size of California compared to other States. By contrast, California has the fourth lowest per-capita GHG emission rate from fossil fuel combustion in the country, due to the success of its energy efficiency and renewable energy programs and commitments that have lowered the State's GHG emissions rate of growth by more than half of what it would have been otherwise.[2]

The California EPA Climate Action Team stated in its March 2006 report that the composition of gross climate change pollutant emissions in California in 2002 (expressed in terms of CO_2e) was as follows:

- Carbon dioxide (CO_2) accounted for 83.3 percent;
- Methane (CH_4) accounted for 6.4 percent;
- Nitrous oxide (N_2O) accounted for 6.8 percent; and
- Fluorinated gases (HFCs, PFC, and SF_6) accounted for 3.5 percent.[3]

The ARB is responsible for developing the California Greenhouse Gas Emission Inventory. This inventory estimates the amount of GHGs emitted to and removed from the atmosphere by human activities within the State of California and supports the AB 32 Climate Change Program. ARB's current GHG emission inventory covers the year 1990-2004 and is based on fuel use, equipment activity, industrial processes, and other relevant data (e.g., housing, landfill activity, agricultural lands, etc.). The emission inventory estimates are based on the actual amount of all fuels combusted in the State, which accounts for over 85 percent of the GHG emissions within California.

The ARB estimates that transportation was the source of approximately 38 percent of the State's GHG emissions in 2004, followed by electricity generation (both in-State and out-of-State) at 23 percent, and industrial sources at 20 percent. The remaining sources of GHG emissions in 2004 were residential and commercial activities at 9 percent, agriculture at 6

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[1]California Air Resources Board (ARB), Greenhouse Gas Inventory Data - 1990 to 2004. http://www.arb.ca.gov/cc/inventory/data/data.htm. Viewed November 2008.

[2]California Energy Commission (CEC). Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004 - Final Staff Report, publication # CEC-600-2006-013-SF, Sacramento, CA, December 22, 2006; and January 23, 2007 update to that report.

[3]California Environmental Protection Agency. *Climate Action Team Report to Governor Schwarzenegger and the Legislature*. March 2006.

percent, high global warming potential gases at 3 percent, and recycling and waste at 1 percent.[1]

Potential Future Emissions. ARB staff has also projected anticipated 2020 unregulated GHG emissions--i.e., the emissions that would be expected to occur statewide in the absence of any GHG reduction actions. ARB staff estimates the statewide 2020 unregulated GHG emissions would be 596 million metric tons (of CO_2e).

GHG emissions in 2020 from the transportation and electricity sectors as a whole are expected by ARB staff to increase, but remain at approximately 38 percent and 23 percent of total GHG (CO_2e) emissions, respectively. The industrial sector consists of large stationary sources of GHG emissions and the percentage of the total 2020 emissions from that sector is projected by ARB staff to be 17 percent of total GHG emissions. The remaining sources of GHG emissions anticipated in 2020 are high global warming potential gases at 8 percent, residential and commercial activities at 8 percent, agriculture at 5 percent, and recycling and waste at 1 percent.[2]

Potential Statewide Impacts. Potential impacts of global warming in California include loss in snowpack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years.[3] The Sierra snowpack, an important source of water supply for the state, has shrunk 10 percent in the last 100 years. It is expected to continue to decrease by up to 25 percent by 2050. Secondary effects are likely to include impacts to agriculture, changes in disease vectors, changes in habitat and biodiversity, and contribution to global rise in sea level.

(d) Bay Area Emissions. The Bay Area Air Quality Management District (BAAQMD), the regional air quality regulatory agency, established a climate protection program in 2005 to acknowledge the link between climate change and air quality. The BAAQMD regularly prepares inventories of criteria and toxic air pollutants to support planning, regulatory and other programs. The most recent GHG emissions inventory estimates reported by the BAAQMD for the San Francisco Bay Area are for base year 2007.[4]

In 2007, an estimated 102.6 million metric tons of GHGs were emitted by the San Francisco Bay Area. Fossil fuel consumption in the transportation sector was the single largest source of these estimated GHG emissions. The transportation sector, including on-road motor vehicles, locomotives, shops and boats, and aircraft, contributed over 40 percent of the estimated GHG emissions. The industrial and commercial sector (excluding electricity and agriculture) was the

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[1]California Air Resources Board (ARB), http://www.climatechange.ca.gov/inventory/indesx.html. September 2008.

[2]California Air Resources Board (ARB). http://www.arb.ca.gov/cc/inventory/data/forecast.htm. September 2008.

[3]California Air Resources Board (ARB), 2006. Climate Change website (http://www.arb.ca.gov/cc/120106workshop/intropres12106.pdf), viewed December 4, 2007; and http://www.arb.ca.gov/cc/factsheets/ccbackground.pdf, viewed February 17, 2009.

[4]Bay Area Air Quality Management District. *Source Inventory of Bay Area Greenhouse Gas Emissions.* December 2008.

second largest contributor with 34 percent of total GHG emissions. Energy production activities such as electricity generation and co-generation were the third largest contributor accounting for approximately 15 percent of total GHG emissions. Off-road equipment such as construction, industrial, commercial, and lawn and garden equipment contributed 3 percent of GHG emissions.

7.2 REGULATORY SETTING

CEQA requires an EIR to identify the plan and policy setting within which the project is proposed and discuss any inconsistencies between the proposed project and these applicable plans and policies (CEQA Guidelines section 15125[d]). CEQA also indicates that this plan and policy consistency discussion should be limited to the context of evaluation and review of environmental impacts (CEQA Guidelines section 15124[b]).

Agencies at the international, national, statewide, and local levels are considering or have adopted strategies to control emissions of gases that contribute to global climate change. Adopted and anticipated plans, policies, regulations and programs pertinent to consideration of the climate change impacts of the updated Community Plan are described below.

7.2.1 International Greenhouse Gas Regulations

In 1988, the United Nations established the Intergovernmental Panel on Climate Change to evaluate the impacts to global warming and to develop strategies that nations could implement to curtail global climate change. The U.S. joined several countries around the world to sign the United Nation's Framework Convention on Climate Change (UNFCCC) agreement (Kyoto Protocol) in November 1998. However, the U.S.'s signing of the Kyoto Protocol was never ratified by the United States Congress. In 2001, the Bush Administration disengaged from the Kyoto Protocol in favor of studying potential domestic actions that might be made towards the reduction of GHG in the U.S. The Kyoto Protocol is set to expire in 2012.

In December 2009, representatives from 170 countries convened to prepare an updated international treaty for GHG emission reductions, known as the Copenhagen Protocol. The Copenhagen Protocol seeks to establish a two degree limit (Celsius) on global warming by 2050. However, this agreement is not considered legally binding on the nations that have executed it and therefore has no effect on any state or local regulations.

7.2.2 Federal Greenhouse Gas Regulations

(a) Supreme Court Ruling. The U.S. Environmental Protection Agency (EPA) is the Federal agency responsible for implementing the Clean Air Act (CAA). The U.S. Supreme Court ruled in its decision in Massachusetts et al. v. Environmental Protection Agency et al. ([2007] 549 U.S. 05-1120), issued on April 2, 2007, that carbon dioxide (CO_2) is an air pollutant as defined under the CAA, and that EPA has the authority to regulate emissions of GHGs.

(b) Mandatory Greenhouse Gas Reporting Rule. In response to the mounting issue of climate change, EPA has taken actions to regulate, monitor, and potentially reduce GHG emissions. On September 22, 2009, EPA issued a final rule for mandatory reporting of GHGs from large GHG emissions sources in the United States. In general, this national reporting requirement will provide EPA with accurate and timely GHG emissions data from facilities that emit 25,000

metric tons or more of CO_2 per year. An estimated 85 percent of the total U.S. GHG emissions, from approximately 10,000 facilities, are covered by this final rule. This publically available data will allow the reporters to track their own emissions, compare them to similar facilities, and aid in identifying cost effective opportunities to reduce emissions in the future. Reporting is at the facility level, except that certain suppliers of fossil fuels and industrial greenhouse gases along with vehicle and engine manufacturers will report at the corporate level.

(c) Endangerment Finding. On April 23, 2009, EPA published their "Proposed Endangerment and Cause or Contribute Findings for Greenhouse Gases under the CCA" (Endangerment Finding) in the Federal Register. The Endangerment Finding is based on Section 202(a) of the CAA, which states that the Administrator (of EPA) should regulate and develop standards for "emission[s] of air pollution from any class of classes of new motor vehicles or new motor vehicle engines, which in [its] judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare." The proposed rule addresses Section 202(a) in two distinct findings. The first addresses whether or not the concentrations of the six key GHGs (i.e., carbon dioxide [CO_2], methane [CH_4], nitrous oxide [N_2O], hydrofluorocarbons [HFCs], perflurorocarbons [PFCs], and sulfur hexafluoride [SF_6]) in the atmosphere threaten the public health and welfare of current and future generations. The second addresses whether or not the combined emissions of GHGs from new motor vehicles and motor vehicle engines contribute to atmospheric concentrations of GHGs and therefore the threat of climate change.

The Administrator proposed the finding that atmospheric concentrations of GHGs endanger the public health and welfare within the meaning of Section 202(a) of the CCA. The evidence supporting this finding consists of human activity resulting in "high atmospheric levels" of GHG emissions, which are very likely responsible for increases in average temperatures and other climatic changes. Furthermore, the observed and projected results of climate change (e.g., higher likelihood of heat waves, wild fires, droughts, sea level rise, higher intensity storms) are a threat to the public health and welfare. Therefore, GHGs were found to endanger the public health and welfare of current and future generations.

The Administrator also proposed the finding that GHG emissions from new motor vehicles and motor vehicle engines are contributing to air pollution, which is endangering public health and welfare. The proposed finding cites that in 2006, motor vehicles were the second largest contributor to domestic GHG emissions (24 percent of total) behind electricity generation. Furthermore, in 2005, the U.S. was responsible for 18 percent of global GHG emissions. Therefore, GHG emissions from motor vehicles and motor vehicle engines were found to contribute to air pollution that endangers public health and welfare.

7.2.3 State Greenhouse Gas Regulations

(a) Assembly Bill 1493 (2002). In 2002, then-Governor Gray Davis signed Assembly Bill (AB) 1493. AB 1493 required that ARB develop and adopt, by January 1, 2005, regulations that achieve "the maximum feasible reduction of greenhouse gases emitted by passenger vehicles and light-duty trucks and other vehicles determined by ARB to be vehicles whose primary use is noncommercial personal transportation in the state."

To meet the requirements of AB 1493, in 2004 ARB approved amendments to the California Code of Regulations (CCR) adding GHG emissions standards to California's existing standards for motor vehicle emissions. Amendments to CCR Title 13, Sections 1900 and 1961 (13 CCR

1900, 1961), and adoption of Section 1961.1 (13 CCR 1961.1) require automobile manufacturers to meet fleet-average GHG emissions limits for all passenger cars, light-duty trucks within various weight criteria, and medium-duty passenger vehicle weight classes (i.e., any medium-duty vehicle with a gross vehicle weight rating less than 10,000 pounds that is designed primarily for the transportation of persons), beginning with the 2009 model year. For passenger cars and light-duty trucks with a loaded vehicle weight (LVW) of 3,750 pounds or less, the GHG emission limits for the 2016 model year are approximately 37 percent lower than the limits for the first year of the regulations, the 2009 model year. For light-duty trucks with LVW of 3,751 pounds to gross vehicle weight (GVW) of 8,500 pounds, as well as medium-duty passenger vehicles, GHG emissions would be reduced approximately 24 percent between 2009 and 2016.

(b) Senate Bills 1078 and 107 and Executive Order S-14-08. SB 1078 (Chapter 516, Statutes of 2002) requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. SB 107 (Chapter 464, Statutes of 2006) changed the target date to 2010. In November 2008 Governor Schwarzenegger signed Executive Order S-14-08, which expands the state's Renewable Energy Standard to 33 percent renewable power by 2020. Governor Schwarzenegger plans to propose legislative language that will codify the new higher standard.

(c) Assembly Bill 32 (2006), California Global Warming Solutions Act. In September 2006, the governor of California signed AB 32 (Chapter 488, Statutes of 2006), the California Global Warming Solutions Act of 2006, which enacted Sections 38500–38599 of the California Health and Safety Code. AB 32 requires the reduction of statewide GHG emissions to 1990 levels by 2020. This equates to an approximate 15 percent reduction compared to existing statewide GHG emission levels or a 30 percent reduction from projected 2020 "business as usual" emission levels. The required reduction will be accomplished through an enforceable statewide cap on GHG emissions beginning in 2012.

To effectively implement the statewide cap on GHG emissions, AB 32 directs ARB to develop and implement regulations that reduce statewide GHG emissions generated by stationary sources. Specific actions required of ARB under AB 32 include adoption of a quantified cap on GHG emissions that represent 1990 emissions levels along with disclosing how the cap was quantified, institution of a schedule to meet the emissions cap, and development of tracking, reporting, and enforcement mechanisms to ensure that the state achieves the reductions in GHG emissions needed to meet the cap.

In addition, AB 32 states that if any regulations established under AB 1493 (2002) cannot be implemented then ARB is required to develop additional, new regulations to control GHG emissions from vehicles as part of AB 32.

(d) Senate Bill 1368 (2006). SB 1368 is the companion bill of AB 32 and was signed by then-Governor Schwarzenegger in September 2006. SB 1368 required the California Public Utilities Commission (PUC) to establish a GHG emissions performance standard for baseload generation from investor owned utilities by February 1, 2007. The California Energy Commission (CEC) was required to establish a similar standard for local publicly owned utilities by June 30, 2007. These standards cannot exceed the GHG emission rate from a baseload combined-cycle natural gas fired plant. The legislation further requires that all electricity provided to California, including imported electricity, must be generated from plants that meet the standards set by the PUC and CEC.

(e) Senate Bill 97 (2007). SB 97, signed by governor of California in August 2007 (Chapter 185, Statutes of 2007; Public Resources Code, Sections 21083.05 and 21097), acknowledges climate change is a prominent environmental issue that requires analysis under CEQA. This bill directed the Governor's Office of Planning and Research (OPR) to prepare, develop, and transmit to the California Resources Agency by July 1, 2009 guidelines for mitigating GHG emissions or the effects of GHG emissions, as required by CEQA. The California Resources Agency was required to certify and adopt these guidelines by January 1, 2010. Amendments to the CEQA Guidelines pursuant to SB 97 were adopted in March 2010.

(f) Executive Order S-1-07. Then-Governor Schwarzenegger signed Executive Order S-1-07 in 2007 which proclaimed the transportation sector as the main source of GHG emissions in California. The executive order proclaims the transportation sector accounts for over 40 percent of statewide GHG emissions. The executive order also establishes a goal to reduce the carbon intensity of transportation fuels sold in California by a minimum of 10 percent by 2020. In particular, the executive order established a Low-Carbon Fuel Standard (LCFS) and directed the Secretary for Environmental Protection to coordinate the actions of the CEC, the ARB, the University of California, and other agencies to develop and propose protocols for measuring the "life-cycle carbon intensity" of transportation fuels. This analysis supporting development of the protocols was included in the State Implementation Plan for alternative fuels (State Alternative Fuels Plan adopted by CEC on December 24, 2007) and was submitted to ARB for consideration as an "early action" item under AB 32. The ARB adopted the LCFS on April 23, 2009.

(g) California Climate Action Team Report Standards. Per Executive Order S-05-05, signed in June 2005, the State of California mandates the preparation of biennial science assessment reports on climate change impacts and adaptation options for the state. The first California Climate Action Team (CCAT) Assessment Report was produced in March 2006, followed by an updated report in 2008. A Draft 2009 Climate Action Team Report has been prepared and includes a host of implementation strategies to reduce GHG emissions. The strategies relate to water use efficiency, solid waste, transportation emissions, and green building initiatives.

(h) Senate Bill 375 (2008). SB 375, signed in September 2008, aligns regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocation. As part of the alignment, SB 375 requires Metropolitan Planning Organizations (MPOs) to adopt a Sustainable Communities Strategy (SCS) or Alternative Planning Strategy (APS) which prescribes land use allocation in that MPO's Regional Transportation Plan (RTP). The ARB, in consultation with MPOs, is required to provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every 8 years but can be updated every 4 years if advancements in emissions technologies affect the reduction strategies to achieve the targets. The ARB is also charged with reviewing each MPO's SCS or APS for consistency with its assigned GHG emission reduction targets. If MPOs do not meet the GHG reduction targets, transportation projects located in the MPO boundaries would not be eligible for funding programmed after January 1, 2012.

This bill also extends the minimum time period for the Regional Housing Needs Allocation (RNHA) cycle from 5 years to 8 years for local governments located in an MPO that meets certain requirements. City or County land use policies (e.g., General Plans) are not required to be consistent with the RTP including associated SCSs or APSs. Qualified projects consistent

with an approved SCS or APS and categorized as "transit priority projects" would receive incentives under new provisions of CEQA.

(i) AB 32 Climate Change Scoping Plan. In December 2008, the ARB adopted its Climate Change Scoping Plan, which contains the main strategies California will implement to achieve reduction of approximately 169 million metric tons (MMT) of CO_2e, or approximately 30% from the state's projected 2020 emission level of 596 MMT of CO_2e under a business-as-usual scenario (this is a reduction of 42 MMT CO_2e, or almost 10 percent, from 2002-2004 average emissions). The Scoping Plan also includes ARB-recommended GHG reductions for each emissions sector of the state's GHG inventory. The Scoping Plan calls for the largest reductions in GHG emissions to be achieved by implementing the following measures and standards:

- improved emissions standards for light-duty vehicles (estimated reductions of 31.7 MMT CO_2e);
- the Low-Carbon Fuel Standard (15.0 MMT CO_2e);
- energy efficiency measures in buildings and appliances and the widespread development of combined heat and power systems (26.3 MMT CO_2e); and
- a renewable portfolio standard for electricity production (21.3 MMT CO_2e).

The ARB has not yet determined what amount of GHG reductions it recommends from local government operations; however, the Scoping Plan does state that land use planning and urban growth decisions will play an important role in the state's GHG reductions because local governments have primary authority to plan, zone, approve, and permit how land is developed to accommodate population growth and the changing needs of their jurisdictions(meanwhile, ARB is also developing an additional protocol for community emissions). ARB further acknowledges that decisions on how land is used will have large impacts on the GHG emissions that will result from the transportation, housing, industry, forestry, water, agriculture, electricity, and natural gas emission sectors. The Scoping Plan states that the ultimate GHG reduction assignment to local government operations is to be determined (ARB 2008). With regard to land use planning, the Scoping Plan expects approximately 5.0 MMT CO_2e will be achieved associated with implementation of SB 375.

(j) California Attorney General's Office Strategies. The California Attorney General's Office developed a set of strategies and mitigation measures with the intent of reducing GHG emissions per the direction of AB 32. This list was last updated in January 2010. The Attorney General's Office also provides guidance to local jurisdictions in determining climate change impacts as part of the public review process.

(k) State Green Building Standards Code (CALGreen). The State Green Building Standards Code (CALGreen) supplements the California Building Standards Code (Title 24) and requires all new buildings in the state to incorporate energy saving features. New standards include the following:

- Water efficiency: New buildings must demonstrate at least a 20 percent reduction in water use over typical baseline conditions.

- Construction waste: At least 50 percent of construction waste must be recycled, reused, or otherwise diverted from landfilling.

- Interior finishes: Interior finishes such as paints, carpet, vinyl flooring, particle board, and other similar materials must be low-pollutant emitting.

- Landscape irrigation: In nonresidential buildings, separate water meters must be provided for a building's indoor and outdoor water use. Large landscape projects must use moisture-sensing irrigation systems to limit unnecessary watering.

(l) CEQA Guidelines. Amendments to the CEQA Guidelines, effective March 2010 and pursuant to SB 97 include a new section 15064.4 designed to assist lead agencies in determining the significance of the impacts of GHG emissions. Section 15064.4 encourages lead agencies to quantify the greenhouse gas emissions of proposed projects where possible and recommends lead agencies consider several factors in determining significance: (1) the extent to which the project may increase or reduce GHG emissions compared with the existing environment, (2) whether the emissions exceed a threshold of significance that applies to the project, and (3) the extent to which the project complies with requirements adopted to implement a statewide, regional, or local plan for reduction of GHG emissions. The amendments (section 15126.4, Consideration and Discussion of Mitigation Measures Proposed to Minimize Significant Effects) also suggest that mitigation measures include (1) measures contained in an existing plan to reduce GHG emissions; (2) reductions in GHG emissions through project design, such as those contained in Appendix F to the CEQA Guidelines (Energy Conservation); (3) off-site measures, including offsets; (4) measures that sequester GHG emissions (i.e., capture at the source); and (5) in the case of the adoption of a plan--such as a general plan, long-range development plan, or plans for the reduction of greenhouse gas emissions--mitigation may include the identification of specific measures that may be implemented on a project-by-project basis. Mitigation may also include the incorporation of specific measures or policies found in an adopted ordinance or regulation that reduces the cumulative effect of emissions.

7.2.4 Regional Greenhouse Gas Regulations

The BAAQMD established a climate protection program to reduce pollutants that contribute to global climate change and affect air quality in the San Francisco Bay Area Air Basin. The climate protection program includes measures that promote energy efficiency, reduce vehicle miles traveled, and develop alternative sources of energy all of which assist in reducing emissions of GHG and in reducing air pollutants that affect the health of residents. BAAQMD also seeks to support current climate protection programs in the region and to stimulate additional efforts through public education and outreach, technical assistance to local governments and other interested parties, and promotion of collaborative efforts among stakeholders.

7.2.5 County of San Mateo

(a) San Mateo County General Plan. At this time, the San Mateo County General Plan, which was adopted in 1986, does not contain goals, policies, and programs that pertain specifically to impacts on global climate change or reduce the threats associated with global climate change on the county. The following San Mateo County General Plan policies are relevant to consideration of the climate change impacts of the updated Community Plan:

(1) Historical and Archaeological Resources Element

5.12 Rehabilitation of Historic Structures. Encourage the rehabilitation and recycling of historic structures.

(2) General Land Use Element

7.5 Energy. Distribute land use designations in order to minimize the demand for energy consumption and maximize the effectiveness of energy consumed.

7.16 Land Use Objectives for Urban Areas. Locate land use designations in urban areas (urban unincorporated areas) in order to: (1) maximize the efficiency of public facilities, services and utilities, (2) minimize energy consumption, (3) encourage the orderly formation and development of local government agencies, (4) protect and enhance the natural environment, (5) revitalize existing developed areas, and (6) discourage urban sprawl.

(3) Urban Land Use Element

8.22 Concentration of Uses. Concentrate the location of industrial land uses in order to achieve an efficient use of transportation facilities and energy supplies.

8.40 Land Divisions. When creating new land divisions, align streets and parcels to maximize solar access.

8.41 Solar Access. Minimize the obstruction of solar access by: (1) protecting structures from encroachment, (2) landscaping with appropriate plant materials, and (3) clustering structures where beneficial.

8.42 Buildings. Encourage the construction of energy efficient buildings which use renewable resources to the maximum extent possible.

(4) Transportation Element

12.4 Plan for increasing the proportion of trips using public transit or ridesharing.

12.6 Promote the development of energy-conserving transportation systems in the County.

12.25 Caltrain Service. Support the continued upgrading of the Peninsula Train Service by CalTrans, including relocation of the station in San Francisco to a more central location, more frequent service, acquisition of new rolling stock, refurbishing of stations, and track rehabilitation.

12.36 Bicycle Storage Facilities. Promote the provision of bicycle lockers and other storage facilities at transit stops, schools, shopping areas and other activity centers.

12.38 Facilities for Bicyclists. Encourage large employers to provide shower and locker facilities for their employees who bike to work as part of a commute alternative program.

12.51 County Bikeways Plan. Review, adopt, and maintain the Bikeway Plan map as the County's policy regarding a future bikeways system in San Mateo County.

12.52 Staff Bikeways Coordinator. The County staff Bikeways Coordinator shall: (1) plan and develop bikeway facilities in the unincorporated areas; (2) develop requirements for bike facilities in new developments in unincorporated areas; (3) provide staff services to the County Bikeways Advisory Committee; (4) work with the cities and monitor progress toward implementation of the County Bikeways Plan; (5) assist cities without active bikeways programs to develop and implement programs for their cities; and (6) coordinate with bicycle organizations.

12.59 Role of RIDES for Bay Area Commuters, Inc. Support the efforts of RIDES to expand ridesharing by San Mateo County commuters and encourage employers in the County to provide ridesharing among their employees.

(5) Housing Element

14.11 Promote Energy Conservation in Existing Housing. Support the installation of energy conservation features in existing housing units and promote educational and financial programs that focus on improving the energy efficiency of existing housing.

14.33 Improve the Energy Efficiency of New Housing. Improve the energy efficiency of newly constructed housing by enforcing State energy codes and encouraging the use of on-site renewable energy sources by assisting applicants in meeting the County's guidelines for passive solar design and solar access.

14.34 Promote Sustainable Building Practices. Promote sustainable or "green" building design, construction and operation by: (a) continuing community outreach and education efforts to encourage local builders to adopt green building practices; (b) considering offering incentives, such as reduced permit fees, to further encourage green building practices; and (c) continuing to implement the County's Construction and Demolition Debris Recycling Ordinance.

(b) Draft Housing Element. The County is currently in the process of updating the Housing Element of its General Plan. Chapter 6, Energy, of the Draft Housing Element contains the following policies that, while not in effect at this time, will be relevant to reducing greenhouse gas emissions within the county and the Community Plan area once the Draft Housing Element is adopted:

- Promotion of energy efficiency measures in all housing rehabilitation efforts supported by the County's Housing Rehabilitation and Repair Loan Program.

- Promotion of infill development and high-density development near transit corridors through General Plan policies, Area Plans and Zoning Regulations, participation in the Grand Boulevard Initiative, and other efforts.

- Promotion of use of natural heating and cooling opportunities in the design of new residential subdivisions and new buildings, through provisions in the Subdivision Regulations and Residential Design Review Standards. Design that maximizes natural heating and cooling reduces future heating and cooling costs.

- Efforts to publicize and promote green building and energy efficiency practices throughout the County through outreach efforts by the County's Recycle Works Division and other departments, including a "brown-bag" lecture series, information on programs and policies made available via website and brochures, and other outreach efforts.

(c) Countywide Landscaping Regulations. The countywide landscaping regulations, adopted in 2010, ensure countywide compliance with new statewide landscaping policy requiring sustainable landscaping practices, including water-efficient and drought-tolerant landscaping.

(d) Green Building Ordinance. The County's Green Building Ordinance, adopted in 2007, requires all new residential development and all substantial residential rehabilitation projects in the unincorporated County to achieve LEED (Leadership in Energy and Environmental Design) Certification, or at least 50 or more GreenPoints on the appropriate GreenPoint Rated Checklist. The ordinance is consistent with the State Building Energy Efficiency Standards.

(e) Climate Action Plans. The County is in the process of developing a Climate Action Plan (CAP) for the unincorporated County that will include performance standards or a GHG efficiency metric. The County of San Mateo has conducted a greenhouse gas emissions inventory, but the inventory addresses the county as a whole and not the North Fair Oaks community. The County is also in the process of developing a CAP pertaining specifically to County operations, including construction of County buildings and other projects undertaken by County government. This CAP will also include performance standards applicable to all County-built structures.

(f) Construction and Debris Ordinance. The County's Construction and Demolition Debris Ordinance requires contractors to submit a "Waste Management Plan" as part of the building or demolition permit application process, and to ensure recycling and other diversion of all feasible construction-related waste.

(g) Sustainable Building Policy. The County's Sustainable Building Policy requires that all new County buildings larger than 5,000 square feet be built to the highest practicable LEED standards.

7.3 IMPACTS AND MITIGATION MEASURES

The GHG emissions from any individual project, even a very large development project, would not individually generate GHG emissions sufficient to measurably influence global climate change. However, the GHG emissions from individual projects contribute to cumulative GHG emissions on a global, national, and regional scale. Consideration of the impact of a project or plan on global climate change involves, therefore, analysis of its contribution to a cumulatively significant global impact through its GHG emissions.

7.3.1 Significance Criteria

CEQA Guidelines Section 15064.4 provides direction to lead agencies in determining the significance of impacts from GHG emissions. Section 15064.4(a) calls on lead agencies to make a good faith effort, based on available information, to "describe, calculate, or estimate" the amount of GHG emissions resulting from a project. The lead agency has the discretion to determine, in the context of a particular project, how to quantify GHG emissions.

The following climate change impact analysis uses the significance criteria contained in the CEQA Guidelines and the thresholds of significance for GHG emissions impacts suggested by the BAAQMD CEQA Air Quality Guidelines.

(a) Significance Criteria. The project would be considered to have a significant climate change impact if it would:

(1) Substantially impede the attainment of the State's GHG emissions reduction goal of reducing state GHG emissions to 1990 levels by the year 2020, or 80 percent below 1990 levels by 2050; or

(2) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

(b) BAAQMD Thresholds of Significance. Neither the CEQA statute nor the CEQA Guidelines prescribe specific thresholds of significance for determining climate change impacts for individual projects. This is left to lead agency judgment and discretion, based upon factual data and guidance from regulatory agencies and expert sources. This analysis uses the thresholds of significance suggested by the BAAQMD CEQA Air Quality Guidelines, which have been formulated to be consistent with and not impede attainment of the State's GHG emissions reduction goal of reducing GHG emissions to 1990 levels by 2020, or 80 percent below 1990 levels by 2050, as set forth in AB 32.

According to the BAAQMD CEQA Air Quality Guidelines, the threshold of significance for operational-related GHG emissions of plans, other than General Plans, is a GHG efficiency-based metric of 4.6 metric tons (MT) per service population per year.[1] If annual emissions would exceed this level, the proposed plan would result in a cumulatively considerable contribution to global climate change and a significant impact.

The BAAQMD does not have an adopted threshold of significance for construction-related GHG emissions. However, the lead agency is encouraged to incorporate best management practices (BMPs) to reduce GHG emissions during construction, as applicable. Best management practices may include, but are not limited to: using alternative fueled (e.g., biodiesel, electric) construction vehicles/equipment of at least 15 percent of the fleet; using local building materials of at least 10 percent; and recycling or reusing at least 50 percent of construction waste or demolition materials.

7.3.2 Impacts and Mitigation Measures

GHG Emissions Impacts. Ongoing occupancy and operation of development under the Community Plan Update would result in a net increase in CO_2 and other greenhouse gas emissions due primarily to transportation, energy use and solid waste disposal:

- *Transportation.* The project would increase GHG emissions by facilitating development and thereby increasing vehicle miles traveled (VMT) associated with transporting people and goods to, from and within the Community Plan area. Transportation is a major contributor to

[1] Service population is defined as the number of residents plus the number of jobs.

greenhouse gas emissions. Transportation is the direct result of population and employment growth, which generates vehicle trips to move goods, provide public services, and connect people with work, school, shopping, and other activities.

Growth in travel (especially vehicle travel) is due in large part to urban development patterns (i.e., the built environment). Over the last half century, homes have been built further from workplaces, schools have been located further from neighborhoods they serve, and other destinations, including shopping, have been isolated from where people live and work. A significant portion of development has been planned and built in a pattern that is dependent on the use of cars as the primary mode of travel. As a larger share of the built environment has become automobile dependent, vehicle trips and distances have increased, and walking and public transit use have declined. Population growth has been responsible for only a quarter of the increase in vehicle travel over the last couple of decades. A larger share of the increase can be traced to the effects of a changing built environment, namely to longer trips and people driving alone.[1]

By encouraging higher intensity infill development within an existing urban area at corridor locations with good local and regional transit access, including convenient San Mateo County Transit District (SamTrans) bus service and Caltrain commuter rail service, as well as possible new Dumbarton Rail Corridor rail transit service, the number of vehicle trips may be reduced, and the project's transportation-related greenhouse gas (GHG) emissions may be less than rates produced by the same amount of population and employment growth elsewhere in the Bay region where transit service is less available.

- *Energy Use.* Energy use includes building space heating and cooling, and water heating, and energy associated with water use and wastewater treatment. Energy use includes natural gas consumption by development within the Community Plan area as well as emissions outside the area from the generation of electricity.

- *Consumer Products and Solid Waste Disposal.* Consumption in homes, businesses and public facilities creates demand for products that require upstream, energy intensive production processes, which result in associated GHG emissions. Efforts to recycle and reduce consumption will help keep waste out of landfills, where it releases methane, a particularly powerful greenhouse gas.

The URBEMIS2007 model and the BAAQMD Greenhouse Gas Model (BGM) were used to predict GHG emissions. Daily trip generation rates developed by Kimley-Horn and Associates, Inc., which are described in Chapter 16, Transportation, were used in the model in place of the default values. These trip generation rates more accurately account for the trip reduction benefits of mixed-use development and include reductions for transit use, walking and biking, internal trips that begin and end within the Community Plan area, and retail pass-by reductions. Electricity emissions reported by the BGM were adjusted to reflect lower actual emission rates reported by Pacific Gas and Electric Company (PG&E).[2] Energy use in new construction was

[1] "Growing Cooler: The Evidence on Urban Development and Climate Change" published by the Urban Land Institute, 2008.

[2] The BGM default statewide GHG emissions rate for electricity generation is 804 pounds per megawatt, whereas the average PG&E GHG emissions rate over the period 2004-2007 was 537 pounds per megawatt. In addition, PG&E is mandated by State regulations to increase the renewable portion of its electricity generation portfolio from 13 percent to 20 percent.

further reduced by 20 percent to account for new State building codes that increase energy efficiency.

As suggested by the BAAQMD CEQA Guidelines, GHG emissions for the updated Community Plan were estimated for the years 2020 (the AB 32 benchmark year) and 2030 (assumed updated Community Plan build out year). For this analysis, full buildout of the updated Community Plan was assumed for both 2020 and 2030. In 2030, emissions were forecasted to decrease slightly due to California motor vehicle fleet emissions reductions. While there would also be substantial decreases in other emissions sources, in particular electricity generation, these were not accounted for in the URBEMIS2007 and BGM modeling. Modeling was also conducted for existing conditions (2010). Table 7.1 presents estimated annual CO_2e emissions, service population, and emissions per service population under existing conditions (2010) and buildout of the updated Community Plan in 2020 and 2030.

As shown in Table 7.1, buildout of the Community Plan area under the updated Community Plan would result in annual GHG emissions of 115,122 metric tons of CO_2e in 2020 and 107,159 metric tons of CO_2e in 2030. Based on a service population of 36,703 at buildout, the update Community Plan would result in CO_2e emissions of 3.1 metric tons per year per service population in 2020 and 2.9 metric tons per year per service population in 2030, which in both years would be below the BAAQMD significance threshold of 4.6 metric tons per year per service population.[1]

The GHG emissions from ongoing occupancy and operation of development within the Community Plan Area would represent a less-than-considerable contribution to the significant cumulative impact of global climate change, and thus a ***less-than-significant impact*** (see criteria (a) and (b) in subsection 7.3.1, "Significance Criteria, above).

Mitigation: No significant impact has been identified; no mitigation is required.

[1]The BAAQMD significance threshold of 4.6 metric tons per year per service population applies to 2020 emissions.

Table 7.1
ESTIMATED ANNUAL CO_2e EMISSIONS WITH THE UPDATED COMMUNITY PLAN

Emissions	Units	Existing 2010	Updated Community Plan 2020	Updated Community Plan 2030
Transportation	Metric tons/yr	53,211	84,504	76,565
Area Sources	Metric tons/yr	45	61	61
Electricity	Metric tons/yr	9,805	12,069	12,069
Natural Gas	Metric tons/yr	9,625	11,728	11,728
Water/Wastewater Conveyance	Metric tons/yr	531	784	760
Solid Waste	Metric tons/yr	3,991	5,976	5,977
TOTAL EMISSIONS	Metric tons/yr	77,208	115,122	107,159
Estimated Population	Residents	15,477	27,271	27,271
Estimated Employment	Employees	7,527	9,432	9,432
SERVICE POPULATION		23,004	36,703	36,703
EMISSIONS PER SERVICE POPULATION	Metric tons/ year/service population	3.4	3.1	2.9

SOURCE: Wagstaff/MIG and Illingworth & Rodkin, Inc., May 2011.

8. CULTURAL AND HISTORIC RESOURCES

This chapter describes the existing conditions and regulatory setting related to cultural and historical resources in and around North Fair Oaks, and the potential impacts of the updated Community Plan on those resources. Under CEQA, cultural and historic resources may include historic-period buildings or structures, prehistoric or historic-period archaeological resources, or paleontological resources.

8.1 ENVIRONMENTAL SETTING

8.1.1 History of North Fair Oaks

At the time of Euroamerican contact, the Native Americans that lived in the North Fair Oaks area were speakers of Ramaytush, a Costanoan language. The presence of fresh water, fire wood, protection from the wind and easy access to food sources encouraged the Costanoans to settle primarily on the Bay shoreline, and inland near intermittent and perennial watercourses.

In the mid-19th century, the North Fair Oaks settlement received its name to distinguish it from the adjacent community of Fair Oaks, now known as Atherton. North Fair Oaks is one of the oldest communities in San Mateo County, with settlement dating back to the 1850s.

Prior to the 1900s, North Fair Oaks remained largely open prairie and ranch land, with numerous groves of oak trees. The first development boom began shortly after the 1906 earthquake. Oak trees and low land prices attracted many San Francisco residents looking for home sites. In 1909, subdivided lots sold for $25 each, with as little as $5 down in 1909. Much of North Fair Oaks was subdivided by 1920. The arrival of farmers from Dust Bowl states during the 1930s intensified the settlement, and by the end of World War II, development appeared on every subdivided lot.[1] Many of the street improvements in North Fair Oaks were installed during the housing booms of the 1930s and 1940s.

8.1.2 Records Search

For the purposes of this EIR, a records search was conducted for the Community Plan area by the California Historical Resources Information System (CHRIS) Northwest Information Center (NWIC) at Sonoma State University, which maintains official archaeological and historical records for the region that includes North Fair Oaks. The NWIC records search reviewed pertinent NWIC base maps that reference cultural resources records and reports, as well as the

[1] County of San Mateo, Department of Environmental Management, Planning and Development Division, Area Plans Summary, 1985, p. 4.1.

State Office of Historic Preservation's Historic Property Directory[1], historic-period maps, and other literature for San Mateo County. The NWIC records search also included review of the historical and archaeological resources inventory contained in the San Mateo County General Plan, the State Department of Parks and Recreation 1976 California Inventory of Historical Resources, and archaeological survey reports for the Dumbarton Rail Corridor Project and the Caltrain Electrification Program, among other resources.[2]

8.1.3 Local and Tribal Intergovernmental Consultation

In compliance with the local and tribal intergovernmental consultation requirements of California State Senate Bill 18 (SB 18) (Government Code Section 65352.3), the County sent a letter to the Native American Heritage Commission (NAHC) requesting the NAHC's list of Native American tribal representatives for the area that includes North Fair Oaks (SB 18 is further described in Section 8.2.2(f) below.) The NAHC responded with a tribal contact list of official SB 18 tribal representatives and, on June 14, 2011, the County contacted the listed representatives. Following SB 18 requirements, the recipients were given 90 days from the date of the County letter to initiate any desired further consultation. As of the publication date of this Draft EIR, the County had not received any comments or information from the tribal representatives contacted.

8.1.4 Archaeological Resources

Native American resources in this part of San Mateo County have been typically found in areas marginal to the San Francisco Bay shoreline, and inland near intermittent and perennial watercourses. No existing, and no known previous, intermittent or perennial watercourses have been identified in the Plan area; however, the Plan area contains fine-grained and medium-grained alluvial soils typical of valley floor lands within approximately ½-mile from the historic San Francisco Bay shoreline. Given these conditions and the ethnographic sensitivity of the area, there is a moderate to high potential for the presence of additional unrecorded Native American resources within the Community Plan area.

The NWIC records search described in subsection 8.1.2 above revealed 14 previous cultural resource studies that, in total, covered approximately 10 percent of the Community Plan area.[3] According to the NWIC, the Community Plan area contains three recorded archaeological resources, P-41-000086, P-41-000299, and P-41-000303, all prehistoric Native American

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[1]The State Office of Historic Preservation's Historic Property Directory includes properties listed in the National Register of Historic Places, State Registered Landmarks, California Points of Historical Interest, and the California Register of Historical Resources, as well as Certified Local Government surveys that have undergone Section 106 review, including the City of Redwood City's historic properties survey.

[2]Jilian Guldenbrein, Researcher, California Historical Resources Information System, Northwest Information Center, May 4, 2011, Personal communication with Ricardo Bressanutti, Senior Planner, MIG, Inc., Re: Rapid response record search results for the proposed North Fair Oaks Community Plan Update EIR, San Mateo County, California. Project No. 1816.01. NWIC File No.: 10-1071.

[3]BioSystem Analysis, Inc. 1989: S-11396, Archaeological Resource Management 1995: S-17308, Hatoff et al. 1995: S-17993, Holman 1997: S-20693, Cartier 1999: S-22169, Sawyer et al. 2000: S-22657, Chandler 1999: S-23227, Peak and Peak 2000: S-23631, Holson et al. 2002: S-25174, Goodrich 2000: S-29573, Nelson et al. 2002: S-29657, Sikes et al. 2006: S-33061, National Park Service 1994: S-33545, and Whitaker et al. 2009: S-36481.

habitation sites. The site locations have not been identified by the NWIC to ensure their protection.

8.1.5 Historical Resources

The NWIC review of historical literature and maps indicates the possibility of historic-period archaeological resources within the Community Plan area. The 1899 and 1943 United States Geological Survey (USGS) Palo Alto 15-minute topographic quadrangles show railroads, roads, and buildings of this period within the Plan area, indicating a moderate to high potential for the presence of unrecorded historic-period archaeological resources within the Plan area.

Recorded historic properties within the Plan area are shown in Table 8.1. As shown, the State Office of Historic Preservation's Historic Properties Directory indicates eight recorded buildings within the Community Plan area. Each of these recorded buildings has a status code of 6Y, meaning they have been determined to be ineligible for listing in the National Register of Historic Places by consensus through a process pursuant to Section 106 of the National Historic Preservation Act, but have not been evaluated for potential eligibility for the California Register of Historical Resources or for local listing.

In addition, the NWIC base maps show two recorded structures 45 years or older within the area: P-41-000422, the Peninsula Commute Service, also known as the San Francisco and San Jose Railway; and P-41-000425, the Hetch Hetchy Bay Division Pipeline.

Unrecorded buildings, structures or objects within the Community Plan area that are 45 years or older may also be of historical value. According to the State Office of Historic Preservation, buildings, structures and objects 45 years or older may be of historical value. The 1961 USGS Palo Alto 7.5-minute topographic quadrangle indicates numerous buildings or structures within the Community Plan area.

8.1.6 Paleontological Resources

Paleontological resources include fossil remains, as well as fossil localities and rock or soil formations that have produced fossil material. Fossils are the remains or traces of prehistoric animals and plants. Fossils are important scientific and educational resources because of their use in: (1) documenting the presence and evolutionary history of particular groups of now extinct organisms, (2) reconstructing the environments in which these organisms lived, and (3) determining the relative ages of the strata in which they occur and of the geologic events that resulted in the deposition of the sediments that formed these strata and in their subsequent deformation. The age and abundance of fossils depend on the location, topographic setting, and particular geologic formation in which they are found. Paleontological resources discovered in San Mateo County include molluscan fossils from the Pleistocene Period discovered in exposed bluffs above the ocean bench along the coast.[1] No specific paleontological resource sites have been recorded in the Community Plan area.

[1] San Mateo County General Plan Background and Issues, Chapter 5 Historical and Archaeological Resources, p. 5.5.

Table 8.1
RECORDED HISTORIC PROPERTIES WITHIN THE COMMUNITY PLAN AREA

Primary Number	Street Address	Year Built	National Register Status Code[1]
	721 3rd Street	1940	6Y
	96 Buckingham Avenue	1924	6Y
	20 Dexter Street	1929	6Y
	2829 Marlborough Avenue	1908	6Y
	723 Marsh Road	1963	6Y
	2600 Middlefield Road	1972	6Y
	3600 Middlefield Road	1926	6Y
	500 Warrington Avenue	1950	6Y
P-41-000422	Peninsula Commute Service (San Francisco & San Jose Railway)		
P-41-000425	Hetch-Hetchy Bay Division Pipeline		

SOURCE: Office of Historic Preservation, Directory of Properties in the Historic Property Data File for San Mateo County, March 15, 2011.

[1]The appropriate code that best describes a potential resource's relationship to the national Register of Historic Places is entered on standard historical inventory forms DPR 523A. Each of the recorded buildings listed above has a status code of 6Y, meaning they have been determined ineligible for the National Register by consensus through a process pursuant to Section 106 of the National Historic Preservation Act, but have not been evaluated for the California Register or Local Listing.

8.2 REGULATORY SETTING

The treatment of cultural and historic resources is governed by federal, State, and local laws, policies, and guidelines including the California Environmental Quality Act. These provisions set forth specific criteria for determining whether prehistoric and historic sites or objects are significant and/or protected by law. Federal and State criteria generally focus on the resource's integrity and uniqueness, its relationship to similar resources, and its potential to contribute important information to scholarly research. Some resources that do not meet federal criteria may be considered significant under State or local criteria.

8.2.1 Federal Laws, Regulations, Standards and Guidelines

(a) National Historic Preservation Act. The National Historic Preservation Act of 1966 established the National Register of Historic Places (National Register) as the official designation of historical resources, including districts, sites, buildings, structures and objects. Sites less than 50 years in age, unless of exceptional importance, are not eligible for the National Register. Listing in the National Register does not entail specific protection for a property, but project effects on properties listed or eligible for listing in the National Register must be evaluated under CEQA.

For a property to be eligible for listing in the National Register, it must be significant and possess integrity. According to the National Register criteria for evaluation,[1] a property is significant in American history, architecture, archaeology, engineering or culture if it is:

A. associated with events that have made a significant contribution to the broad patterns of our history; or

B. associated with the lives of significant persons in or past; or

C. embodies the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

D. has yielded or may be likely to yield, information important in history or prehistory.

(b) Secretary of the Interior's Standards for the Treatment of Historic Properties. The U.S. Secretary of the Interior's Standards for the Treatment of Historic Properties (Secretary Standards) promote responsible practices that help protect our Nation's irreplaceable cultural resources. The Standards are neither technical nor prescriptive, and cannot, in and of themselves, be used to make essential decisions about which features of a historic property should be saved and which can be changed. But once a treatment is selected, the Standards provide philosophical consistency in the work. A set of Standards has been developed for each of four treatment approaches: Preservation, Rehabilitation, Restoration, and Reconstruction. The four approaches are defined below:

[1]Code of Federal Regulations, 36 CFR Part 60.4.

- *Preservation* requires retention of the greatest amount of historic fabric, along with the building's historic form, features, and detailing as they have evolved over time.

- *Rehabilitation* acknowledges the need to alter or add to a historic building to meet continuing or new uses while retaining the building's historic character.

- *Restoration* allows for the depiction of a building at a particular time in its history by preserving materials from the period of significance and removing materials from other periods.

- *Reconstruction* establishes a limited framework for re-creating a vanished or non-surviving building with new materials, primarily for interpretive purposes.

Of the four treatment approaches, only the Standards for Rehabilitation allow alterations or additions to a historic resource to allow new uses while retaining the resource's historic character. The Standards for Rehabilitation consist of the following standards:

1. A property will be used as it was historically or be given new use that requires minimal changes to its distinctive materials, features, spaces and spatial relationships.

2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alterations of features, spaces and spatial relationships that characterize a property will be avoided.

3. Each property shall be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.

4. Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.

5. Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.

6. Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.

7. Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.

8. Significant archeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.

9. New addition, exterior alterations, or related new construction will not destroy historic materials, features and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.

10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

(c) Secretary of the Interior's Standards for Architectural and Engineering Documentation. The U.S. Secretary of the Interior Standards for Architectural and Engineering Documentation address the development of documentation for historic buildings, sites, structures and objects. This documentation, which usually consists of measured drawings, photographs and written data, provides important information on a property's significance for use by researchers, preservationists, architects and others interested in preserving and understanding historic properties. Documentation permits accurate repair or reconstruction of parts of a property, or may present information about a property that is to be demolished. These Standards are intended for use in developing documentation to be included in the Historic American Building Survey (HABS) and the Historic American Engineering Record (HAER) Collections in the Library of Congress. The requirements for content, quality, materials and presentation may also be applied to documentation for other purposes such as State or local archives.

(d) Secretary of the Interior's Professional Qualifications Standards. The Secretary of the Interior's Professional Qualifications Standards define minimum education and experience required to perform historic resources identification, evaluation, registration, and treatment activities.[1]

(e) Paleontological Resources Preservation Act. Paleontological resources are classified as non-renewable scientific resources and are protected by federal and state statutes, most notably the 1906 federal Antiquities Act. The federal Paleontological Resources Preservation Act of 2002 codifies the generally accepted practice of limited vertebrate fossil collection and limited collection of other rare and scientifically significant fossils by qualified researchers. Researchers must obtain a permit from the appropriate state or federal agency and agree to donate any materials recovered to recognized public institutions, where they will remain accessible to the public and to other researchers. Professional standards for assessment and mitigation of adverse impacts on paleontological resources have been established by the Society for Vertebrate Paleontology.

8.2.2 State Laws and Regulations

(a) CEQA Guidelines. State Public Resources Code and CEQA Guidelines provisions for cultural and historic (archaeological) resources are summarized below:

(1) Cultural (Archaeological) Resources: Public Resources Code Section 21083.2 and Section 15126.4 of the CEQA Guidelines specify lead agency responsibilities to determine whether a project may have a significant effect on archaeological resources. If it can be demonstrated that a project will damage a unique archaeological resource, the lead agency may require reasonable efforts for the resources to be preserved in place or left in an undisturbed state. Preservation in place is the preferred approach to mitigation. The Code also details required mitigation if unique archaeological resources are not preserved in place.

[1]Code of Federal Regulations, 36 CFR Part 61.

Section 15064.5 of the CEQA Guidelines also specifies procedures to be used in the event of an unexpected discovery of Native American human remains on non-federal land. This CEQA Guidelines section and related Public Resources Code sections protect such remains from disturbance, vandalism and inadvertent destruction, establish procedures to be implemented if Native American skeletal remains are discovered during construction of a project, and establish the Native American Heritage Commission (NAHC) as the authority to resolve disputes regarding disposition of such remains.

(2) Historical Resources: Section 15064.5 of the State CEQA Guidelines states that a project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant impact on the environment. The CEQA Guidelines define the following four ways that a property can qualify as a significant historical resource for purposes of CEQA compliance:

- The resource is listed in or determined eligible for listing in the California Register of Historical Resources, as determined by the State Historical Resources Commission.

- The resource is included in a local register of historical resources, as defined in Section 5020.1(k) of the Public Resources Code, or identified as significant in a historical resource survey meeting the requirements of Section 5024.1(g) of the Public Resources Code, unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

- The lead agency determines the resource to be significant as supported by substantial evidence in light of the whole record.

- The lead agency determines that the resource may be a historical resource as defined in Public Resources Code Sections 5020.1(j) or 5024.1 (CEQA Guidelines section 15064.5) which means, in part, that it may be eligible for the California Register.

For historic resources, CEQA Guidelines section 15064.5 (b) (3) indicates that a project that follows the U.S. Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings, or the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (1995), shall mitigate impacts to a less than significant level.

(b) California Register of Historic Resources. The California Register of Historic Resources establishes a list of properties to be protected from substantial adverse change (Public Resources Code section 5024.1). A historical resource may be listed in the California Register if it is determined to be historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political or cultural annals of California, and meets any of the following criteria:

- is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.

- is associated with the lives of persons important in California's past.

- embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic value.

- has yielded or is likely to yield information important in prehistory or history.

The California Register includes properties that are listed or have been formally determined eligible for listing in the National Register, State Historical Landmarks and eligible Points of Historical Interest. Other potential resources require nomination for inclusion in the California Register.

(c) Health and Safety Code Section 7052 and 7050.5. Section 7052 of the Health and Safety Code states that the disturbance of Native American cemeteries is a felony. Section 7050.5 requires that construction or excavation be stopped in the vicinity of discovered human remains until the county coroner can determine whether the remains are those of a Native American. If determined to be Native American, the coroner must contact the California Native American Heritage Commission (NAHC).

(d) California Native American Historical, Cultural and Sacred Sites Act. The California Native American Historical, Cultural and Sacred Sites Act applies to both State and private lands. The Act requires that upon discovery of human remains, construction or excavation activity cease and the county coroner notified. If the remains are of a Native American, the coroner must notify the NAHC. The NAHC then notifies those persons most likely to be descended from the Native American remains. The Act stipulates the procedures the descendants may follow for treating or disposing of the remains and associated grave goods.

(e) Public Resources Code Section 5097. Public Resources Code Section 5097 specifies the procedures to be followed in the event of the unexpected discovery of human remains on non-Federal public lands. The disposition of Native American burials fall within the jurisdiction of the NAHC, which prohibits willfully damaging any historic, archaeological or vertebrate paleontological site or feature on public lands.

(f) California State Senate Bill 18 (SB 18). California State Senate Bill 18 (SB 18) Government Code, Section 65352.3) signed into law in September 2004 and implemented March 1, 2005, requires cities and counties to notify and consult with California Native American Tribes prior to amending or adopting a general plan or specific plan, or designating land as open space. The intent of SB 18 is to provide California Native American tribes an opportunity to participate in local land use decisions at an early planning stage for the purpose of protecting or mitigating impacts on cultural places.

8.2.3 County of San Mateo

(a) San Mateo County General Plan. The following policies of the San Mateo County General Plan are relevant to consideration of the cultural resources impacts of the updated Community Plan:

(1) Historical and Archaeological Resources Element

5.1 Historic Resource Protection. Protect historic resources for their historic, cultural, social and educational values and the enjoyment of future generations.

5.2 Rehabilitation of Historic Structures. Encourage the rehabilitation, preservation and use of historically significant structures.

5.3 Protection of Archaeological/Paleontological Sites. Protect archaeological/ paleontological sites from destruction in order to preserve and interpret them for future scientific research, and public educational programs.

5.5 Planning and Historic Preservation. Integrate historical preservation into the planning process of the County.

5.11 Recognition of Historic Resources.

a. Identify high priority resources in the comprehensive inventory and apply for their designation as State Point of Historic Interest, State Historical Landmark, or inclusion in the National Register of Historic Places.

b. Establish historic districts for areas which include concentrations of historic resources found in the comprehensive inventory.

5.12 Rehabilitation of Historic Structures. Encourage the rehabilitation and recycling of historic structures.

5.13 Use of Innovative Techniques. Encourage the use of innovative techniques such as density transfer, facade easements, etc., to protect historic structures.

5.14 Registration of Significant Archaeological/Paleontological Sites. Recommend State and/or national register status for significant archaeological/ paleontological sites.

5.15 Character of New Development.

a. Encourage the preservation and protection of historic resources, districts and landmarks on sites which are proposed for new development.

b. Ensure that new development in historic districts is compatible in bulk, height, material and design with that of the historic character and qualities of the district.

c. Encourage the use of the Secretary of the Interior's guidelines and standards for rehabilitation of historic structures by: (1) those undertaking the rehabilitation of historic structures, and (2) those responsible for the architectural review and permit approval.

5.16 Demolition of Resources. Discourage the demolition of any designated historic district or landmark.

5.17 Designation of Historic Resources. Establish criteria and procedures for the designation of County landmarks and districts. Include a provision requiring approval to alter, demolish or relocate designated landmarks or districts.

5.18 Development of County Historic Sites. Develop County-owned historic sites in park and recreation areas in accordance with the performance criteria and development standards [contained in Appendix D of the Historical and Archaeological Resources Element].

5.19 Economic Use.

a. Encourage compatible and adaptive residential, commercial or public uses of historic structures as a means for their protection.

b. Permit commercial uses such as crafts, stores, bookshops and art shops if they preserve and enhance the resource.

5.20 Site Survey. Determine if sites proposed for new development contain archaeological/ paleontological resources. Prior to approval of development for these sites, require that a mitigation plan, adequate to protect the resource and prepared by a qualified professional, be reviewed and implemented as a part of the project.

5.21 Site Treatment.

a. Encourage the protection and preservation of archaeological sites.

b. Temporarily suspend construction work when archaeological/paleontological sites are discovered. Establish procedures which allow for the timely investigation and/or excavation of such sites by qualified professionals as may be appropriate.

c. Cooperate with institutions of higher learning and interested organizations to record, preserve, and excavate sites.

5.23 Acquisition of Structures. Encourage and coordinate efforts with groups to acquire structures of historic merit in order to prevent their loss and/or promote their adaptation for other uses.

5.25 Archaeological/Paleontological Resource Data Base. Maintain and update a comprehensive archaeological/paleontological data base.

5.26 Discovering Unrecorded Archaeological/Paleontological Sites. Support comprehensive studies to discover unrecorded archaeological and paleontological sites, particularly in areas under pressure for development.

(b) Historic Preservation Ordinance. A Historic Preservation Ordinance has been prepared to provide the County with the authority to protect eligible resources. The ordinance: (1) provides criteria and procedures for the designation of County historic landmarks and historic districts; (2) requires permits to be obtained to demolish, alter, or relocate designated landmarks or districts, and to construct, place, alter or relocate signs, exterior lighting, fences or other features within historic districts or on landmarks or landmark sites; and (3) when approved by the Secretary of the Interior, allows owners of structures or buildings within designated historic districts to qualify for favorable tax treatments for approved rehabilitation work.

(c) Historic Resources Advisory Board. A County Historical Resources Advisory Board advises the Planning Commission, Parks and Recreation Commission, and the Board of Supervisors on matters relating to the protection and preservation of man-made resources of historical, cultural and architectural significance.

8.3 IMPACTS AND MITIGATION MEASURES

8.3.1 Significance Criteria

Based on Appendix G of the CEQA Guidelines,[1] the North Fair Oaks Community Plan Update would be considered to have a significant adverse impact on cultural resources if it would:

[1]CEQA Guidelines, Appendix G, Items V(a) through (d).

(a) Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines section 15064.5;

(b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines section 15064.5;

(c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or

(d) Disturb any human remains, including those interred outside of formal cemeteries.

8.3.2 Impacts and Mitigation Measures

Impact 8-1: Impacts on Archaeological Resources. Fourteen previous cultural resource studies have surveyed approximately 10 percent of the Community Plan area. The Plan area contains three recorded archaeological resources, P-41-000086, P-41-000299, and P-41-000303, all prehistoric Native American habitation sites. Given the location of the Community Plan area within valley lands approximately ½-mile from the historic San Francisco Bay shoreline near the locations of former intermittent and perennial watercourses, there is a moderate to high potential for the presence of additional unrecorded Native American resources within the Community Plan area.

There are no previously recorded historic-period archaeological resources within the Community Plan area. Based on review of historical literature and maps, there is a moderate to high potential for the presence of unrecorded historic-period archaeological resources within the Community Plan area.

Development in accordance with the updated Community Plan could disrupt, alter or eliminate as-yet undiscovered prehistoric or historic-period archaeological sites, potentially including Native American remains. This possibility represents a ***potentially significant impact*** (see criteria (b) and (d) under subsection 8.3.1, "Significance Criteria," above).

Mitigation 8-1: The County shall implement the following measures:

(a) With the assistance of a professional archaeologist on the CHRIS list of consultants who meets the Secretary of the Interior's Professional Qualifications Standards, County staff shall identify and keep confidential the locations of the three recorded Native American habitation sites within the Community Plan area, P-41-000086, P-41-000299, and P-41-000303.

(b) Before approval of any discretionary project that could affect any of the three recorded Native American habitation sites within the Community Plan area, P-41-000086, P-41-000299, and P-41-000303, a professional archaeologist on the CHRIS list of consultants who meets the Secretary of the Interior's Professional Qualifications Standards shall assess the resources and provide project-specific recommendations.

(c) If prehistoric or historic-period archaeological resources are encountered during future construction within the Community Plan area, work shall be temporarily halted in the vicinity of the discovered materials and workers shall avoid altering the materials and their context until a qualified professional archaeologist has evaluated, recorded and determined appropriate treatment of the resource, in consultation with the County. Project personnel shall not collect cultural resources. Cultural resources shall be recorded on DPR 523 historic resource recordation forms. Native American resources include chert or obsidian flakes, projectile points, mortars, and pestles; and dark friable soil containing shell and bone dietary debris, heat-affected rock, or human burials. Historic-period resources include stone or adobe foundations or walls; structures and remains with square nails; and refuse deposits or bottle dumps, often located in old wells or privies. If it is determined that the proposed development could damage a unique archaeological resource, mitigation shall be implemented in accordance with Public Resources Code Section 21083.2 and Section 15126.4 of the CEQA Guidelines, with a preference for preservation in place. This measure would reduce the potential impact on archaeological resources to a ***less-than-significant level.***

Impact 8-2: Impacts on Historic Resources. There are ten previously recorded historic properties within the Community Plan area: eight recorded buildings which have been determined ineligible for the National Register of Historic Places but have not been evaluated for potential eligibility for the California Register of Historical Resources or for local listing; and two recorded structures, the Peninsula Commute Service (also known as the San Francisco & San Jose Railway) and the Hetch Hetchy Bay Division Pipeline. There may also be additional unrecorded buildings, structures or objects 45 years or older within the Community Plan area that are of potential historical value.

Future development on properties within the Community Plan area that contain a potentially significant historic resource (i.e., a recorded historic resource or an unrecorded building or structure 45 years or older) may cause the demolition, destruction or alteration of a significant historic resource such that the significance of the resource is "materially impaired." This possibility represents a ***potentially significant impact*** (see criteria (a) in subsection 8.3.1, "Significance Criteria," above).

Future development on properties within the Community Plan area that contain a potentially historic resource (i.e., a recorded historic resource or an unrecorded building or structure 45 years or older) may cause the demolition, destruction or alteration of the historic resource such that the significance of the resource is "materially impaired," which would constitute a significant impact under CEQA.

Generally, under the CEQA Guidelines, a project involving modification to or effects on a historic resource that follows the Secretary of the Interior's Standards for the Treatment of Historic Properties would mitigate impacts on the historic resources to a less than significant level. Of the four treatment approaches set forth in the Secretary of the Interior's Standards for the Treatment of Historic Properties, only the Standards for Rehabilitation allow alterations or additions to a historic resource to allow new uses. Under the Standards for Rehabilitation, new additions, alterations, or adjacent new construction must not destroy character-defining features, spaces and spatial relationships. New work must be differentiated from the old and must be compatible with the historic materials, features, size, scale, proportion, and massing. New additions, alterations and new construction must be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

In some cases, it can be very challenging to accommodate the needs of new uses while fully adhering to the Standards for Rehabilitation and, in many situations, it can be altogether infeasible. As a result, it cannot be determined at this time, without consideration of a specific development proposal, whether it would be feasible to mitigate to a less than significant level the impacts of any given subsequent redevelopment-facilitated development project involving properties that contain historic resources. Although the following mitigation measures are intended to mitigate impacts on historic resources to the extent feasible, the impacts to historic resources may nonetheless remain significant and unavoidable.

Mitigation 8-2. For any individual discretionary project within the Community Plan area that the County determines may involve a property that contains a potentially significant historic resource (i.e., a recorded historic resource or an unrecorded building or structure 45 years or older), the resource shall be evaluated by County Planning Department staff, and if warranted, shall be assessed by a qualified professional on the CHRIS list of consultants who meet the Secretary of the Interior's Professional Qualifications Standards to determine whether the property is a significant historical resource and whether or not the project may have a potentially significant adverse effect on the historical resource. If, based on the recommendation of the qualified professional, the County determines that the project may have a potentially significant effect, the County shall require the applicant to implement the following mitigation measures:

(a) Adhere to one or both of the following "Secretary Standards":[1]

- Secretary of Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings; or

- Secretary of Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (1995), Weeks and Grimmer.

The qualified professional shall make a recommendation to the County as to whether the project fully adheres to the Standards for Rehabilitation, and any specific modifications necessary to do so. The final determination as to a project's adherence to the Standards for Rehabilitation shall be made by the County body with final decision-making authority over the project. Such a determination of individual project adherence to the Secretary Standards will constitute mitigation of the project historic resource impacts to a ***less than significant level*** (CEQA Guidelines section 15064.5).

(b) If measure (a) is not feasible, the historic resource shall be moved to a new location compatible with the original character and use of the historical resource, and its historic features and compatibility in orientation, setting, and general environment

(continued)

[1]Under the CEQA Guidelines (section 15064.5(b)(3)), a project's adverse impact on a historic resource can be mitigated to a less-than-significant level by following either of these standards.

Mitigation 8-2 (continued):

shall be retained, such that the resource retains its eligibility for listing on the California Register.[1]

If neither measure (a) nor measure (b) is feasible, the County shall, as applicable and to the extent feasible, implement the following measures in the following order:

(c) Document the historic resource before any changes that would cause a loss of integrity and loss of continued eligibility. The documentation shall adhere to the Secretary of the Interior's Standards for Architectural and Engineering Documentation. The level of documentation shall be proportionate with the level of significance of the resource.[2] The documentation shall be made available for inclusion in the Historic American Building Survey (HABS) or the Historic American Engineering Record (HAER) Collections in the Library of Congress, the California Historical Resources Information System and the Bancroft Library, as well as local libraries and historical societies, such as the North Fair Oaks Community Library.

(d) Retain and reuse the historic resource to the maximum feasible extent and continue to apply the Secretary of the Interior's Standards for Rehabilitation to the maximum feasible extent in all alterations, additions and new construction.

(e) Through careful methods of planned deconstruction to avoid damage and loss, salvage character-defining features and materials for educational and interpretive use on-site, or for reuse in new construction on the site in a way that commemorates their original use and significance.

(f) Interpret the historical significance of the resource through a permanent exhibit or program in a publicly accessible location on the site or elsewhere within the Community Plan area.

(continued)

[1]The State Historical Resources Code encourages the retention of historical resources on site and discourages the non-historic grouping of historic buildings into parks or districts. However, it is recognized that moving an historic building, structure, or object is sometimes necessary to prevent its destruction. Therefore, a moved building, structure, or object that is otherwise eligible may be listed in the California Register if it was moved to prevent its demolition at its former location and if the new location is compatible with the original character and use of the historical resource. An historical resource should retain its historic features and compatibility in orientation, setting, and general environment. California Office of Historic Preservation, *California Register and National Register: A Comparison,* Technical Assistance Series 6; Sacramento, CA: California Department of Parks and Recreation, 2001.

[2]California Office of Historic Preservation, viewed June 9, 2010, http://ohp.parks.ca.govf?page_id =21727

Mitigation 8-2 (continued):

Implementation of measures (b), (c), (d), (e) and/or (f) would reduce the potentially significant impact on historic resources. However, without knowing the characteristics of the potentially affected historic resource or the subject future individual development proposal, the County cannot determine with certainty that these measures would reduce the potential impacts of the individual project on historic resources to a less-than-significant level. Consequently, this impact may remain ***significant and unavoidable.***

Impact 8-3: Disturbance of Paleontological Resources. Development in accordance with the updated Community Plan could potentially disrupt, alter or eliminate as-yet undiscovered paleontological resources. This possibility represents a ***potentially significant impact*** (see criterion (c) under subsection 8.3.1, "Significance Criteria," above).

Paleontological resources include fossil remains, as well as fossil localities and rock or soil formations that have produced fossil material. Fossils are the remains or traces of prehistoric animals and plants. Fossils are important scientific and educational resources because of their use in: (1) documenting the presence and evolutionary history of particular groups of now extinct organisms, (2) reconstructing the environments in which these organisms lived, and (3) determining the relative ages of the strata in which they occur and of the geologic events that resulted in the deposition of the sediments that formed these strata and in their subsequent deformation. The age and abundance of fossils depend on the location, topographic setting, and particular geologic formation in which they are found.

Ground-disturbing activities during previous development of the area would likely have disturbed, altered or eliminated paleontological resources that may have existed within the area. Despite the history of disturbance, the project could potentially disrupt, alter or eliminate as-yet undiscovered paleontological resources within or immediately adjacent to the Community Plan area.

Mitigation 8-3: If paleontological resources are encountered during future grading or excavation in the Community Plan area, work shall avoid altering the resource and its stratigraphic context until a qualified paleontologist has evaluated, recorded and determined appropriate treatment of the resource, in consultation with the County. Project personnel shall not collect cultural resources. Appropriate treatment may include collection and processing of "standard" samples by a qualified paleontologist to recover micro vertebrate fossils; preparation of significant fossils to a reasonable point of identification; and depositing significant fossils in a museum repository for permanent curation and storage, together with an itemized inventory of the specimens. This measure would reduce the potential impact on paleontological resources to a ***less-than-significant level.***

Impact 8-4: Cumulative Cultural Resources Impacts. The loss of significant archaeological, historical and paleontological resources due to a development activity facilitated by the updated Community Plan would represent a cumulatively considerable contribution to a loss of cultural resources throughout San Mateo County and the surrounding region, and thus a ***significant cumulative impact*** (see criteria (a) through (d) under subsection 8.3.1, "Significance Criteria," above).

New development in accordance with the updated Community Plan, together with other reasonably foreseeable development in the County has the potential to cause a substantial adverse change in significant historic or archaeological resources and to destroy significant paleontological resources. The loss of significant archaeological, historical and paleontological resources caused by development facilitated by the updated Community Plan (see Impacts 8-1, 8-2, and 8-3) would represent a cumulatively considerable contribution to a loss of cultural resources throughout San Mateo County and the surrounding region, and thus a significant cumulative impact.

Mitigation measures 8-1 and 8-3 above would reduce the impacts of the updated Community Plan, and thus the project contribution to significant cumulative impacts on archaeological resources and paleontological resources, to a less-than-significant level.

However, as explained under Impact 8-2 above, it cannot be determined at this time, without consideration of a specific development proposal, whether it would be feasible to mitigate to a less-than-significant level the impacts on historic resources of any given subsequent individual development project within the Community Plan area that involves a potentially significant historic resource, and so the contribution of the updated Community Plan to possible cumulative impacts on cultural resources would remain considerable and thus significant and unavoidable.

Mitigation 8-4: Implementation of Mitigations 8-1 and 8-3 would reduce the impacts of the updated Community Plan, and thus the project contribution to significant cumulative impacts on archaeological resources and paleontological resources, to a less-than-significant level. However, it cannot be determined at this time, without consideration of a specific development proposal, whether it would be feasible under Mitigation 8-2 to mitigate to a less-than-significant level the impacts on historic resources of any given subsequent individual development project within the Community Plan area that involves a potentially significant historic resource, and so the contribution of the updated Community Plan to cumulative impacts on cultural resources would remain cumulatively considerable and thus ***significant and unavoidable.***

9. GEOLOGY AND SOILS

This chapter describes the existing conditions and regulatory framework related to geology, seismicity and soils in and around North Fair Oaks, and potential geology, seismicity and soils impacts related to development in accordance with the updated Community Plan.

9.1 ENVIRONMENTAL SETTING

9.1.1 Topography

North Fair Oaks is located within California's Coast Ranges Geomorphic Province, a geologically young and seismically active region characterized by northwest-southeast trending ranges of low mountains and intervening valleys. The Community Plan area is located on a gently sloping alluvial plain, with elevations up to approximately 20 feet National Geodetic Vertical Datum of 1929 (NGVD), draining northeast to the tidal marshes at the margins of San Francisco Bay.[1]

9.1.2 Geology

The San Francisco Peninsula is traversed by three large faults of the San Andreas Fault System: the San Andreas Fault, the Pilarcitos Fault, and the San Gregorio Fault. These faults have divided the peninsula into geologic units. The Community Plan area is located east of the San Andreas Fault in the San Francisco Bay Block geologic unit. This Block is characterized by Franciscan basement rocks and rocks sheared by fault movement. Geologic units underlying the Community Plan area consist of coarse-grained older Quaternary alluvial fan and stream terrace deposits, and younger Quaternary finer-grained alluvial fan deposits and basin deposits of silt and clay closer to San Francisco Bay.[2]

9.1.3 Seismicity

(a) Earthquake Faults. An earthquake fault is defined as "a planar or gently curving fracture in the earth's crust across which there has been relative displacement." When movement occurs along a fault, the energy generated is released as waves, which causes ground shaking. Ground shaking intensity varies with the magnitude of the earthquake, the distance from the epicenter, and the type of rock or sediment through which seismic waves move.

North Fair Oaks is located in the seismically active San Francisco Bay Area. The main feature generating the seismic activity in the region is the tectonic plate boundary between the North

[1]City of Redwood City, A New General Plan for Redwood City, Draft Environmental Impact Report, May 2010, p. 4.6-1.

[2]City of Redwood City, A New General Plan for Redwood City, Draft Environmental Impact Report, May 2010, pp. 4.6-1 and 4.6-2.

American and Pacific plates. Locally, this boundary is referred to as the San Andreas Fault Zone, which includes the San Andreas Fault and numerous other active faults.

The San Andreas Fault Zone includes faults considered by the California Geological Survey to be "active" faults under the Alquist-Priolo Earthquake Fault Zoning Act (i.e., faults with evidence of fault rupture within the past 11,000 years). Major regional active faults within the San Andreas Fault Zone include the San Andreas, Hayward, Rodgers Creek, Calaveras, San Gregorio-Seal Cove, Maacama, West Napa, Green Valley, Concord, Greenville, and Calaveras faults. The closest active fault to the Community Plan area is the San Andreas Fault, located four miles southwest of the Community Plan area. The inactive Pilarcitos Fault generally parallels the San Andreas Fault approximately five miles west of the Community Plan area. The active San Gregorio-Seal Cove fault is located approximately 12 miles west of the Community Plan area.[1]

In addition to these active faults, there are also concealed or buried "potentially active" Quaternary faults (i.e., faults with evidence of activity between 11,000 years and 1.6 million years ago) located approximately 1,000 feet northeast and 2,000 feet southwest of the Community Plan area.[2]

In 2003, the U.S. Geological Survey estimated that there was a 62 percent probability that a 6.7 or greater magnitude earthquake will occur in the San Francisco Bay Region between 2003 and 2032. The probability of a 6.7 magnitude or greater earthquake occurring along individual faults was estimated to be 21 percent along the San Andreas Fault, 10 percent along the San Gregorio Fault, 27 percent along the Hayward-Rodgers Creek Fault, and 11 percent along the Calaveras Fault.[3]

(b) Seismic Hazards. Potential earthquake hazards can include surface rupture, ground shaking, liquefaction and landslides.

(1) Surface Rupture. Surface rupture is the actual breaking apart of the ground during an earthquake and generally occurs in the area directly above an active fault trace. Areas within a designated Alquist-Priolo Earthquake Fault Zone require special studies to evaluate the potential for surface rupture to ensure that no structures intended for human occupancy are constructed across an active fault. The active San Andreas Fault is oriented roughly parallel to the hills located southwest of the Community Plan area, with a local splay, known as the Cañada Fault. The easternmost edge of the Alquist-Priolo Earthquake Fault Zone for the Cañada Fault is located approximately three miles southwest of the Community Plan area, near Cañada College and Interstate 280.[4] Therefore, the potential for surface fault rupture within the Community Plan area is low.

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[1]City of Redwood City, A New General Plan for Redwood City, Draft Environmental Impact Report, May 2010, p. 4.6-3 and Figures 4.6-1 and 4.6-2.

[2]City of Redwood City, A New General Plan for Redwood City, Draft Environmental Impact Report, May 2010, Figure 4.6-2.

[3]City of Redwood City, A New General Plan for Redwood City, Draft Environmental Impact Report, May 2010, p. 4.6-6.

[4]City of Redwood City, A New General Plan for Redwood City, Draft Environmental Impact Report, May 2010, p. 4.6-3 and Figure 4.6-2.

(2) Ground Shaking. Ground shaking is the most widespread cause of earthquake damage. Most loss of life and injuries during an earthquake are related to the collapse of buildings and structures, with older buildings constructed of unreinforced masonry being among the most vulnerable. The intensity of the ground shaking at a particular site depends on characteristics of the earthquake source (magnitude, location and area of causative fault surface), distance from the fault, and amplification effect of local geologic deposits. Magnitude is a measure of the energy released by an earthquake; it is assessed by seismographs. Intensity is a subjective measure of the perceptible effects of seismic energy at a given point and varies with distance from the epicenter and local geologic conditions. The Modified Mercalli Intensity Scale (MMI) is the most commonly used scale for measurement of the subjective effects of earthquake intensity. Intensity can also be quantitatively measured using accelerometers (strong motion seismographs) that record ground acceleration at a specific location, a measure of force applied to a structure under seismic shaking. Acceleration is measured as a fraction or percentage of the acceleration under gravity.

The San Andreas Fault is considered capable of generating a magnitude 7.9 (MW) earthquake, which is similar to the 1906 San Francisco earthquake. A 7.2 (MW) magnitude earthquake on the Peninsula portion of the San Andreas Fault or a 7.9 (MW) magnitude earthquake on the entire San Andreas Fault could be capable of generating violent (MMI IX) to very strong (MMI VIII) ground shaking in the Community Plan area. The Hayward Fault could produce a magnitude 6.5 (MW) earthquake that could result in very strong (MMI VIII) to moderate (MMI VI) ground shaking in the Community Plan area. The expected peak horizontal acceleration (with a ten percent chance of being exceeded in the next 50 years) generated by any of the earthquake faults potentially affecting the Redwood City area was estimated by the California Geological Survey[1] at 60 percent to 80 percent of the acceleration of gravity, with greater acceleration closer to the San Andreas Fault.[2]

(3) Liquefaction. Liquefaction is the temporary transformation of loose, saturated granular sediments from a solid state to a liquefied state as a result of seismic ground shaking. In the process, the soil undergoes temporary loss of strength, which commonly causes ground displacement or ground failure to occur. Since saturated soils are a necessary condition for liquefaction, soil layers in areas where the groundwater table is near the surface have higher liquefaction potential than those in which the water table is located at greater depths.

County Hazards Mitigation maps, prepared using data from the Association of Bay Area Governments, indicate that the Community Plan area has a moderate to high potential for liquefaction. A 7.2 (MW) magnitude earthquake on the Peninsula portion of the San Andreas Fault could result in moderate to high liquefaction hazard within the Community Plan area. A 7.9 (MW) magnitude earthquake on the entire San Andreas Fault could result in a high liquefaction hazard throughout the majority of the Community Plan area.[3]

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[1]Estimates of the peak ground acceleration based on probabilistic models that account for multiple seismic sources. Under these models, consideration of the probability of expected seismic events is incorporated into the calculated prediction of the level of ground shaking at a particular location.

[2]City of Redwood City, A New General Plan for Redwood City, Draft Environmental Impact Report, May 2010, p. 4.6-8.

[3] City of Redwood City, A New General Plan for Redwood City, Draft Environmental Impact Report, May 2010, p. 4.6-8.

The Seismic Hazards Mapping Act requires site-specific geotechnical investigations within designated Zones of Required Investigation to accurately characterize site-specific seismic hazards and formulate mitigation measures prior to permitting development designed for human occupancy. A Zone of Required Investigation related to liquefaction[1] encompasses portions of the Community Plan area generally north of 5th Avenue and areas east of Edison Way and 15th Avenue.[2]

(4) Lateral Spreading. Lateral spreading is a form of horizontal displacement of soil toward an open channel or other "free" face, such as an excavation boundary. Lateral spreading can result from either the slump of low cohesion and unconsolidated material or more commonly by liquefaction of either the soil layer or a subsurface layer underlying soil material on a slope, resulting in gravitationally driven movement. Earthquake shaking leading to liquefaction of saturated soil can result in lateral spreading where the soil undergoes a temporary loss of strength. Portions of the Community Plan area that are highly susceptible to liquefaction hazards would also be considered susceptible to lateral spreading.[3]

9.1.4 Soils

(a) Soil Types. Soils within the Community Plan area are classified as Urban Land Orthents on nearly level to gently sloping land. These soils can be poorly drained to well-drained, and are present on alluvial fans, flood plains, and stream terraces.[4]

(b) Soil Constraints. Soil characteristics affect suitability for buildings, structures, infrastructure, paving and landscaping. Soil-related limitations can include expansive soils, erosion, subsidence, slope instability and lateral spreading.

(1) Expansive Soils. Expansive soils are composed largely of clays, and can undergo significant volume change with changes in moisture content. They shrink and harden when dried, and expand and soften when wetted. If not properly engineered, this expansive nature can damage building foundations and other construction, such as sidewalks and concrete flatwork. Soils within the Community Plan area are predominately clays and silty clays, which are expansive soils with high shrink-swell potential.[5]

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[1]"Areas where historic occurrence of liquefaction, or local geological, geotechnical and groundwater conditions indicate a potential for permanent ground displacement such that mitigation as defined in Public Resources Code Section 2593(c) would be required."

[2]City of Redwood City, A New General Plan for Redwood City, Draft Environmental Impact Report, May 2010, p. 4.6-9.

[3]City of Redwood City, A New General Plan for Redwood City, Draft Environmental Impact Report, May 2010, p. 4.6-9.

[4]City of Redwood City, A New General Plan for Redwood City, Draft Environmental Impact Report, May 2010, p. 4.6-2.

[5]City of Redwood City, A New General Plan for Redwood City, Draft Environmental Impact Report, May 2010, p. 4.6-10.

(2) Soil Erosion. Soil erosion is the process by which soil particles are removed from a land surface by wind, water, or gravity. Most natural erosion occurs at slow rates; however, excavation or grading may increase the rate of erosion during construction activities, even where buildings and pavement previously existed at the construction site, because bare soils are exposed and could be eroded by wind or water. Eroded soils can be entrained in storm water runoff and be discharged to surface waters, thereby affecting the water quality of receiving waters. The flat topography within the Community Plan area results in a low potential for soil erosion.

(3) Settlement and Differential Settlement. Differential settlement or subsidence could occur if buildings or other improvements were built on low-strength foundation materials (including imported fill) or if improvements straddle the boundary between different types of subsurface materials (e.g., a boundary between native material and fill). Although differential settlement generally occurs slowly enough that its effects are not dangerous to inhabitants, it can cause significant building damage over time. Portions of the Community Plan area that contain loose or uncontrolled (non-engineered) fill may be susceptible to differential settlement. Portions of the Community Plan area located within former tidal flats would be expected to be susceptible to settlement due to low strength native soils and potential unconsolidated fill, and to differential settlement where fill abuts native soil.

(4) Subsidence. Subsidence can occur where the subsurface materials such as limestone rock or salt deposits are dissolved by fluid flow, creating subsurface voids that can collapse. Subsidence can also occur where groundwater is extracted and soil grains compact. Decomposition of highly organic soils and seasonal drying of expansive clay soils can also result in subsidence. The organic and expansive soils within the Community Plan area are subject to subsidence.[1]

9.2 REGULATORY SETTING

9.2.1 State Laws and Regulations

Important State laws that pertain to seismic hazards and hazardous soil conditions are outlined below, including the Alquist-Priolo Earthquake Fault Zoning Act, the Seismic Hazards Mapping Act and the California Building Code.

(a) Alquist-Priolo Earthquake Fault Zoning Act. The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the potential hazard of surface faults to structures for human occupancy. The main purpose of the Act is to prevent the construction of buildings used for human occupancy over active faults. The Act only addresses the hazard of surface fault rupture and is not directed toward other earthquake hazards.

The Act requires the State Geologist to establish regulatory zones (known as Earthquake Fault Zones or Alquist-Priolo Zones) around the surface traces of active faults and to issue maps to all affected Cities, Counties and State agencies for their use in planning and controlling

[1]City of Redwood City, A New General Plan for Redwood City, Draft Environmental Impact Report, May 2010, p. 4.6-11.

development. Local agencies must regulate most development projects within the zones and there can generally be no construction within 50 feet of an active fault zone.[1]

(b) Seismic Hazards Mapping Act. The Seismic Hazards Mapping Act addresses earthquake hazards other than fault rupture, including liquefaction and seismically-induced landslides. Seismic hazard zones are mapped by the State Geologist to assist local governments in land use planning. The Act states that "It is necessary to identify and map seismic hazard zones in order for cities and counties to adequately prepare the safety element of their general plans and to encourage land use management policies and regulations to reduce and mitigate those hazards to protect public health and safety." The Seismic Hazards Mapping Act requires site-specific geotechnical investigations within designated Zones of Required Investigation to accurately characterize site-specific seismic hazards and formulate mitigation measures prior to permitting development designed for human occupancy.

(c) California Building Code. The California Building Code (CBC) is contained in California Code of Regulations (CCR), Title 24, Part 2. Title 24 is assigned to the California Building Standards Commission, which is responsible for coordinating building standards. The purpose of the CBC is to establish minimum standards to safeguard the public health, safety and general welfare through structural strength, means of egress facilities, and general stability by controlling the design, construction, quality of materials, use and occupancy, location and maintenance of building and structures. The 2007 CBC is based on the 2006 International Building Code (IBC) published by the International Code Conference. The CBC also contains amendments specific to California which are based on the American Society of Civil Engineers (ASCE) Minimum Design Standards 7-05. ASCE 7-05 specifies requirements for general structural design and includes methods of determining earthquake loads as well as other loads (flood, snow, wind, etc.) in building codes. The CBC contains specific requirements for seismic safety, excavation, foundations, retaining walls and site demolition. It also regulates grading activities, including drainage and erosion control.

9.2.2 San Mateo County General Plan

The following San Mateo County General Plan policies are relevant to consideration of the geology, seismicity and soils impacts of the updated Community Plan:

(a) Soil Resources Element

2.2 Minimize Soil Erosion. Minimize soil erosion through application of appropriate conservation practices.

2.3 Prevention of Soil Contamination. Prevent soil contamination through the appropriate use, storage, and disposal of toxic substances.

2.17 Regulate Development to Minimize Soil Erosion and Sedimentation. Regulate development to minimize soil erosion and sedimentation; including, but not limited to, measures which consider the effects of slope, minimize removal of vegetative cover, ensure stabilization of

[1]California Geological Survey, Alquist-Priolo Earthquake Fault Zones, http://www.consrv.ca.gov/CGS/rghm/ap/, retrieved August 31, 2006.

disturbed areas and protect and enhance natural plant communities and nesting and feeding areas of fish and wildlife.

2.23 Regulate Excavation, Grading, Filling, and Land Clearing Activities Against Accelerated Soil Erosion. Regulate excavation, grading, filling, and land clearing activities to protect against accelerated soil erosion and sedimentation.

2.27 Regulate Development and Agriculture Against Soil Contamination. Regulate development and agriculture to protect against soil contamination through measures which ensure proper use, storage, and disposal of toxic chemicals and pesticides.

2.29 Promote and Support Soil Erosion Stabilization and Repair Efforts. Promote and support efforts aimed at stabilization of ongoing soil erosion and repair of erosion caused land scars.

(b) Natural Hazards Element

15.18 Determination of Existence of a Geotechnical Hazard.

a. When reviewing development proposals, use the Natural Hazards map to determine general areas where geotechnical hazards may be present.

b. When the Natural Hazards map does not clearly illustrate the presence or extent of geotechnical hazards, use more detailed maps, including but not limited to the Geotechnical Hazards Synthesis Maps prepared by Leighton and Associates for San Mateo County, geotechnical information maps prepared by the United States Geological Survey, or any other geotechnical investigation or source of information considered to be valid by the County Department of Public Works.

15.19 Appropriate Land Uses and Densities in Geotechnical Hazard Areas. ...

b. In urban areas, consider higher density land uses that are compatible with the surrounding pattern of development to be appropriate if adequate site-specific review of geotechnical hazards has been undertaken and appropriate mitigation measures can feasibly be incorporated into development projects.

15.20 Review Criteria for Locating Development in Geotechnical Hazard Areas.

a. Avoid the siting of structures in areas where they are jeopardized by geotechnical hazards, where their location could potentially increase the geotechnical hazard, or where they could increase the geotechnical hazard to neighboring properties.

b. Wherever possible, avoid construction in steeply sloping areas (generally above 30%).

c. Avoid unnecessary construction of roads, trails, and other means of public access into or through geotechnical hazard areas.

d. In extraordinary circumstances when there are no alternative building sites available, allow development in geotechnically hazardous and/or steeply sloping areas when appropriate structural design measures to ensure safety and reduce hazardous conditions to an acceptable level are incorporated into the project.

15.21 Requirement for Detailed Geotechnical Investigations.

a. In order to more precisely define the scope of the geotechnical hazards, the appropriate locations for structures on a specific site and suitable mitigation measures, require an adequate geotechnical investigation for public or private development proposals located: (1)

in an Alquist-Priolo Special Studies Zone, or (2) in any other area of the County where an investigation is deemed necessary by the County Department of Public Works.

b. In order to minimize economic impacts on applicants for development and avoid duplication of information, use the existing information base when the Department of Public Works or appropriate County agency determines that it is adequate.

15.23 Disclosure of Hazards in Alquist-Priolo Special Studies Zones. Support the mandatory disclosure requirements for parcels located within Alquist-Priolo Special Studies Zones that is required by State law during property transactions.

15.24 Incorporate Geotechnical Concerns During Review of Proposals for New Development. Incorporate geotechnical concerns into the review of proposals for new development through measures including but not limited to: (1) regulation of land use and limitation of density; (2) siting and design of roads, grading, utilities, improvements and structures; (3) requiring site specific geotechnical investigations where appropriate and conformance to the recommendations of those investigations; (4) conformance to defined hazardous areas design criteria; and (5) conformance with established building code requirements.

9.3 IMPACTS AND MITIGATION MEASURES

9.3.1 Significance Criteria

Based on the CEQA Guidelines[1], the updated Community Plan would have a significant impact related to geology and soils if it would:

(a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

  (1) 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 (Division of Mines and Geology Special Publication 42);

  (2) Strong seismic ground shaking;

  (3) Seismic-related ground failure, including liquefaction; or

  (4) Landslides;

(b) Result in substantial soil erosion or the loss of topsoil;

(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, liquefaction, or collapse;

[1]CEQA Guidelines, Appendix G, items VI(a-e) and IX(b).

(d) Be located on expansive soil, as defined by Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property; or

(e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of waste water.

Impacts related to significance criteria (a)(4) and (e) were found not to be significant during the EIR scoping process and are not discussed in this EIR. Please see Section 17.5 Effects Found Not to Be Significant in Chapter 17, CEQA-Required Assessment Considerations, of this EIR, as well as Appendix 21.2, Notice of Preparation and Initial Study.

9.3.2 Impacts and Mitigation Measures

Seismic Hazards Impacts. Development and its occupants within the Community Plan area could be exposed to seismic hazards, including risk of loss, injury or death. As explained in Section 9.1.3(b) above, the potential for ground rupture and earthquake-induced landslides or mudslides, within the Community Plan area are considered low. However, the Community Plan area could be subject to very strong (MMI VIII) to violent (MMI IX) ground shaking in the event of an earthquake on one of the active faults in the region, a Seismic Hazards Mapping Act Zone of Required Investigation related to liquefaction encompasses the majority of the Community Plan area, and the Plan area is susceptible to earthquake-induced lateral spreading. Potential risks to life and property from seismic hazards would be adequately mitigated by existing laws, regulations and policies, including the California Building Code, site-specific geotechnical investigations required by the Seismic Hazards Mapping Act due to liquefaction hazards, and the County's development review procedures (see Section 9.2, Regulatory Setting, above). Therefore, the impact of the updated Community Plan related to seismic hazards would be ***less than significant.***

Mitigation. No significant impact has been identified; no mitigation is required.

Soils-Related Hazards Impacts. New development in accordance with the updated Community Plan could be exposed to soil conditions that could create risks to life or property. However, the County's established development review and permitting procedures for individual development projects involve characterization and consideration of site-specific geologic and soils conditions, and required implementation of Best Management Practices (BMPs) and individual project mitigations, where needed. State and County planning, building and engineering regulations have been specifically formulated to address soil and geotechnical factors as they apply to structures, excavation, foundations, retaining walls and grading activities. Development within the Community Plan area would be required to comply with established State and County code regulations for excavation, foundation design and building construction, including the California Building Code and San Mateo County General Plan Soil Resources Element and Natural Hazards Element policies, including completion of site-specific, design-level geotechnical investigations where necessary (see Section 9.2, Regulatory Setting, above).

There is substantial, reasonable, historic information to support the conclusion that established State and County project-specific geotechnical investigation requirements and design-level specification requirements would adequately address potential soils-related hazards. These

established common practice standards and techniques for geotechnical mitigation are widely known and accepted. The specific design and construction measures necessary for any particular project are typically and most effectively identified during the design and permitting of individual projects.

With existing State and local laws, regulations, standards and practices currently in place, the potential impact of Community Plan-facilitated development to life and property from local soil conditions within the Community Plan area would be ***less than significant.***

Mitigation. No significant impact has been identified; no mitigation is required.

Cumulative Seismic and Soils-Related Hazards Impacts. New development in accordance with the updated Community Plan, together with other projected areawide growth in neighboring communities, would result in additional residential and non-residential development by the year 2035. This cumulative development would continue to expose people and property to seismic hazards and adverse soil conditions. The policies contained in the San Mateo County General Plan Soil Resources Element and Natural Hazards Element, along with mandated individual project compliance with federal, State and local regulations addressing building construction, would reduce the contribution of the updated Community Plan to cumulative, countywide geology and soils impacts to a less-than-significant level. Other development projects in the County would be subject to the same County and State laws and regulations, County General Plan policies, and County planning, building and engineering regulations. Review and permitting of specific development projects would be expected to involve characterization and consideration of site-specific geologic and soils conditions, and implementation of individual project mitigations where needed. As a result, cumulative impacts related to seismic and soils hazards would be ***less than significant.***

Mitigation. No significant cumulative impact has been identified; no mitigation is required.

10. HAZARDS AND HAZARDOUS MATERIALS

This chapter discusses the existing conditions, regulatory setting and potential impacts of the updated Community Plan related to hazardous materials and emergency response.

10.1 ENVIRONMENTAL SETTING

10.1.1 Hazardous Materials

Within North Fair Oaks, industrial and commercial facilities that use, store or dispose of hazardous materials present the greatest potential hazards. Many North Fair Oaks residents live near active industrial uses. When these parcels are redeveloped, there may be a need for site remediation or other interventions to ensure that toxins are properly remediated. The locations of known hazardous materials release sites, in and near the Plan area, including leaking underground storage tank (LUST) cleanup sites, State Response sites (confirmed release sites where the DTSC is involved in remediation), other DTSC cleanup sites, or other spill or leak investigation and cleanup sites, are illustrated in Figure 10.1.

As shown on Figure 10.1, there are no California Department of Toxic Substances Control (DTSC) Cleanup Sites within the Plan area boundary, and only one State Response Site, located on an industrial property at the western edge of the Plan area.[1] Although Figure 10.1 indicates that North Fair Oaks has few contaminated sites that are monitored or regulated under state and federal programs, these sites are nonetheless a safety concern for the community.[2]

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[1]MIG, Inc., North Fair Oaks Community Plan Update Existing Conditions Analysis Health and Wellness, June 2010, p. 24.

[2]Contaminated sites in North Fair Oaks are classified as one of the following four categories which represent the Hazardous Waste Substances Sites (Cortese) List. The Cortese List is a planning document used by the State, local agencies and developers to comply with CEQA requirements in providing information about the location of hazardous materials release sites. Government Code section 65962.5 requires CalEPA to develop at least annually an updated Cortese List.

A. California State Waterboard Leaking Underground Storage Tank (LUST) - The California State Waterboard regulates Leaking Underground Storage Tank cleanup sites. Data is obtained from GeoTracker (http://www.geotracker.waterboards.ca.gov/). A LUST site is undergoing cleanup due to an unauthorized release from an UST system. An underground storage tank system (UST) is a tank and any underground piping connected to the tank that has at least 10 percent of its combined volume underground. UST regulations apply only to underground tanks and piping storing either petroleum or certain hazardous substances.

B. State Response Sites - State response sites identify confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

10.1.3 Emergency Response

The San Mateo County Sheriff's Office, Office of Emergency Services provides disaster planning for all types of natural and technological disasters. The Office of Emergency Services is responsible for the alert, warning, direction and control of personnel and resources during such disasters, and also provides the general public with information concerning disaster preparedness. The Office of Emergency Services has prepared emergency plans that address response to extraordinary emergency situations associated with natural disasters, man-made emergencies, weapons of mass destruction, terrorism and war in or affecting San Mateo County. These emergency plans seek to reduce or eliminate long-term risk to people and property from natural and human caused hazards, save lives, protect and restore property, restore public services, distribute vital supplies, coordinate operations and maintain continuity of government.[1]

10.2 REGULATORY SETTING

This section describes the federal, state and local regulatory setting related to consideration of Community Plan Update hazard and hazardous materials impacts. Table 10.1 summarizes hazardous materials regulatory authority.

10.2.1 Federal

Federal agencies that regulate hazardous materials include the U.S. Environmental Protection Agency (EPA), Occupational Safety and Health Administration (OSHA), the United States Department of Transportation (DOT), and the National Institute of Health (NIH). The following federal laws and guidelines govern hazardous materials storage, handling and remediation in the Plan area:

- Occupational Safety and Health Act
- Federal Insecticide, Fungicide, and Rodenticide Act
- Comprehensive Environmental Response, Compensation, and Liability Act
- Guidelines for Carcinogens and Biohazards

C. California State Waterboard Spills, Leaks, Investigation, and Cleanup (SLIC) Sites - The California State Waterboard regulates Spills, Leaks, Investigation, and Cleanups sites. Data is obtained from GeoTracker (http://www.geotracker.waterboards.ca.gov/). The SLIC program investigates and regulates non-permitted discharges.

D. California Department of Toxic Substances Control (DTSC) Cleanup Sites.

[1]San Mateo County Sheriff's Office, Office of Emergency Services, viewed January 5, 2011, http://www.co.sanmateo.ca.us/portal/site/sheriffs/menuitem.cec6c78cb70d4c4374452b31d17332a0/?vgnextoid=ab81dd7c41211210VgnVCM1000001d37230aRCRD&vgnextchannel=8b81dd7c41211210VgnVCM1000001d37230a____&vgnextfmt=DivisionsLanding

SOURCE: Wagstaff/MIG

Figure 10.1

HAZARDOUS MATERIALS RELEASE SITES

Table 10.1
SUMMARY OF HAZARDOUS MATERIALS REGULATORY AUTHORITY

Regulatory Agency	Authority
Federal Agencies	
U.S. Department of Transportation (DOT)	Hazardous Materials Transport Act – Code of Federal Regulations (CFR) 49
Environmental Protection Agency (EPA)	Federal Water Pollution Control Act (Clean Water Act) Clean Air Act Resource Conservation and Recovery Act (RCRA) Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Superfund Amendments and Reauthorization Act (SARA) Federal Insecticide, Fungicide and Rodenticide Act
Occupational Safety and Health Administration (OSHA)	Occupational Safety and Health Act and CFR 29
State Agencies	
Department of Toxic Substances Control (DTSC)	California Code of Regulations (CCR)
Department of Industrial Relations (CAL-OSHA)	California Occupational Safety and Health Act, CCR Title 8
State Water Resources Control Board (SWRCB) and Regional Water Quality Control Board (RWQCB)	Porter-Cologne Water Quality Act Underground Storage Tank Law
Health and Welfare Agency	Safe Drinking Water and Toxic Enforcement Act
Air Resources Board and Air Pollution Control District	Air Resources Act
Office of Emergency Services (OES)	Hazardous Materials Release Response Plans/Inventory Law
Department of Food and Agriculture	Food and Agriculture Code
State Fire Marshall	Uniform Fire Code, CCR Title 19
Local Agencies	
San Mateo County Department of Environmental Health	County Hazardous Waste Management Plan

SOURCE: Wagstaff/MIG, April 2011.

- Superfund Amendments and Reauthorization Act Title III
- Resource Conservation and Recovery Act
- Toxic Substances Control Act

(a) U.S. Environmental Protection Agency. The EPA is responsible for researching and setting national standards for a variety of environmental programs, and delegates to states and local governments responsibility for issuing permits and monitoring and enforcing compliance. EPA Region IX has authority in the Bay region, regulating chemical and hazardous materials use, storage, treatment, handling, transport, and disposal practices; protects workers and the community (along with CalOSHA, see below); and integrates the federal Clean Water Act and Clean Air Act into California legislation.

(b) Federal Occupational Safety and Health Administration. The federal Occupational Health and Safety Administration (OSHA) establishes and enforces federal regulations related to health and safety of workers exposed to toxic and hazardous materials. In addition, OSHA sets health and safety guidelines for construction activities and manufacturing facility operations.

10.2.2 State

The management of hazardous materials and waste within California is under the jurisdiction of the California Environmental Protection Agency (Cal/EPA) and the Department of Toxic Substances Control (DTSC). The Cal/EPA was created to establish a cabinet level voice for the protection of human health and the environment and to assure the coordinated deployment of state resources. The DTSC regulates hazardous waste, clean-up of existing contamination, emergency planning, and identifies alternatives to reduce the hazardous waste produced in California. Additionally, the nine Regional Water Quality Control Boards (RWQCB) regulate the quality of water within the state, including contamination of state waters as a result of hazardous materials and/or waste. Local agencies e.g., fire department, environmental health services department, etc.) may also have jurisdiction over hazardous materials.

(a) California Environmental Protection Agency. The California Environmental Protection Agency (Cal EPA) establishes regulations governing the use of hazardous materials in the state. The Office of Emergency Services (OES) coordinates state and local agencies and resources for educating, planning, and warning citizens of hazardous materials and hazardous materials emergencies, including organized response efforts in case of emergencies. The California Highway Patrol (CHP) and the California Department of Transportation (Caltrans) are the enforcement agencies for hazardous materials transportation regulations.

(b) California Department of Toxic Substances Control. The California EPA, Department of Toxic Substances Control (DTSC), regulates hazardous substances and wastes, oversees remedial investigations, protects drinking water from toxic contamination, and warns public exposed to listed carcinogens.

(c) California Highway Patrol/Caltrans. The California Highway Patrol (CHP) and California Department of Transportation (Caltrans) have primary regulatory responsibility for the transportation of hazardous wastes and materials.

(d) California Occupational Safety and Health Administration. The California Occupational Safety and Health Administration (CalOSHA) is responsible for promulgating and enforcing state health and safety standards and implementing federal OSHA laws. CalOSHA's regulatory purview includes the following provisions to minimize the potential for release of asbestos and lead during construction and demolition activities.

- *Asbestos*. CalOSHA regulations prohibit emissions of asbestos from demolition and construction activities; require medical examinations and monitoring of employees engaged in activities that could disturb asbestos; specify precautions and safe work practices to minimize the potential for release of asbestos; and require notice to federal and local government agencies before beginning demolition or construction activities that could disturb asbestos.

- *Lead.* CalOSHA establishes a maximum safe exposure level for types of construction work where lead exposure may occur, including demolition activities where materials containing lead are present; removal or encapsulation of materials containing lead; and new construction, alteration, repair, or renovation of structures with materials containing lead. Inspection, testing, and removal of lead-containing building materials must be performed by state-certified contractors who comply with applicable health and safety, and hazardous materials regulations. Building materials with lead-based paint attached are not typically considered hazardous waste unless the paint is chemically or physically removed from the building debris.

(e) Regional Water Quality Control Board. One of nine regional boards in the state, the San Francisco Bay Regional Water Quality Control Board (Water Board) protects surface and groundwater quality from pollutants discharged or threatened to be discharged to the waters of the state. The Water Board issues and enforces National Pollutant Discharge Elimination System (NPDES) permits and regulates leaking underground storage tanks and other sources of groundwater contamination.

10.2.3 Bay Area Air Quality Management District

Asbestos is a fibrous mineral, which is both naturally occurring in ultramafic rock (a rock type commonly found in California) and used as a processed component of building materials. Because asbestos has been proven to cause serious adverse health effects, such as asbestosis and lung cancer, it is strictly regulated either based on its natural widespread occurrence or in its use as a building material. The Bay Area Air Quality Management District (BAAQMD) is vested with authority to regulate airborne pollutants through both inspection and law enforcement, and is to be notified 10 days in advance of any proposed demolition or abatement work. The BAAQMD regulates the demolition of buildings and structures that may contain asbestos. The provisions that cover these operations are found in BAAQMD Regulation 11, Rule 2: Hazardous Materials; Asbestos Demolition, Renovation and Manufacturing. Individual project contractors are required to implement standard state and federal procedures for asbestos containment and worker safety. The demolition or removal of asbestos-containing building materials is subject to the limitations of BAAQMD Regulation 11, Rule 2. The rule requires special handling of asbestos-containing material (e.g., by keeping materials continuously wetted). The Rule prohibits any visible emissions of asbestos-containing material to outside air. Individual project applicants are required to consult with the BAAQMD's Enforcement Division prior to commencing demolition of a building containing asbestos materials.

10.2.4 County of San Mateo

(a) San Mateo County General Plan. The following San Mateo County General Plan policies are relevant to consideration of the hazards and hazardous materials impacts of the updated Community Plan.

(1) Soil Resources Element

2.3 Prevention of Soil Contamination. Prevent soil contamination through the appropriate use, storage, and disposal of toxic substances.

2.27 Regulate Development and Agriculture Against Soil Contamination. Regulate development and agriculture to protect against soil contamination through measures which ensure proper use, storage, and disposal of toxic chemicals and pesticides.

(2) General Land Use Element

7.6 Natural and Man-Made Hazards. Designate land uses in order to minimize the danger of natural and manmade hazards to life and property.

(3) Man-Made Hazards Element

16.47 Strive to Protect Life, Property, and the Environment From Hazardous Material Exposure. Strive to protect public health and safety, environmental quality, and property from the adverse effects of hazardous materials through adequate and responsible management practices.

16.48 Strive to Ensure Responsible Hazardous Waste Management. Strive to ensure that hazardous waste generated within San Mateo County is stored, treated, transported and disposed of in a legal and environmentally safe manner so as to prevent human health hazard and/or ecological disruption.

16.49 Strive to Reduce Public Exposure to Hazardous Materials. Strive to reduce public exposure to hazardous materials through programs which: (1) promote safe transportation, (2) prevent accidental discharge, and (3) promote effective incident response, utilizing extensive inventory and monitoring techniques.

16.50 Reduce Public Exposure to Hazardous Waste. Strive to reduce public exposure to hazardous waste through programs which: (1) emphasize decreased generation of hazardous waste, (2) promote increased disposal capability for small generators of hazardous waste, including households and small businesses, (3) promote safe transportation of hazardous waste (4) promote treatment and processing techniques as alternatives to landfill disposal of hazardous waste, and (5) prevent illegal disposal of hazardous waste.

16.53 Regulate Location of Hazardous Material Uses. Regulate the location of uses involving the manufacture, storage, transportation, use, treatment, and disposal of hazardous materials to ensure community compatibility. Provide adequate siting, design, and operating standards.

16.54 Encourage Public Disclosure of Hazardous Materials. Encourage businesses utilizing or storing hazardous materials within the unincorporated area to publicly disclose the types, quantities and health risks of hazardous materials present on-site so as to effect timely and effective emergency response and community risk assessment, improved land use planning and general public awareness.

16.55 Encourage Adoption and Enforcement of Fire Code Hazardous Material Storage Permit Provisions. Encourage fire protection agencies serving the unincorporated area to adopt and enforce existing Uniform Fire Code provisions which authorize fire agency issuance of hazardous material storage permits so as to: (1) assure proper hazardous material storage, (2) prevent accidental discharge or spill, and (3) provide necessary inventory information beneficial to timely and efficient incident response and containment. Assure that relevant hazardous material inventory information is referred to the County, and made available to the public.

16.68 Strive Toward Safe Building Construction. Strive toward safe building construction and full elimination of hazardous conditions.

16.70 Regulate Building Construction. Regulate building construction practices to prevent hazardous structures and assure structural safety. Measures may include required conformance to an accepted set of construction standards, and authority to inspect suspected dangerous buildings, halt improper construction activities, and eliminate hazardous conditions.

16.71 Support Efforts to Inform Buyers of Building Inspection Services. Support efforts to inform purchasers of existing buildings and structures that the County's building inspection services are available, upon request, to inspect structures, describe their condition and existing violations and provide construction history to the extent that such information is available.

16.73 Facilitate Rehabilitation Efforts. Facilitate rehabilitation of hazardous structures through measures which offer financial as well as technical assistance.

(b) San Mateo County Department of Environmental Health. The San Mateo County Health System Division of Environmental Health (DEH) ensures a safe and healthful environment in San Mateo County's 20 cities and unincorporated areas through education, monitoring and enforcement of a variety of regulatory programs as well as ongoing services to the community. The DEH manages most hazardous materials regulation and enforcement in San Mateo County. Large cases of hazardous materials contamination or violations are referred to the RWQCB and the DTSC. The DEH maintains the County Hazardous Waste Management Plan (CHWMP), which addresses existing and projected hazardous waste generation from the residential, commercial and industrial sectors. Types of treatment and disposal for such wastes are identified and possible locations for treatment and disposal facilities are considered. The CHWMP also addresses emergency response programs, contaminated sites, and educational and administrative programs related to hazardous wastes. The CHWMP provides criteria that, when implemented, would minimize safety hazards associated with the use, transport, storage and disposal of hazardous materials in the County.

(c) San Mateo County Office of Emergency Services. The San Mateo County Sheriff's Office, Office of Emergency Services provides disaster planning for all types of natural and technological disasters. The Office of Emergency Services is responsible for the alert, warning, direction and control of personnel and resources during such disasters, and also provides the general public with information concerning disaster preparedness. The Office of Emergency

Services has prepared emergency plans that address response to extraordinary emergency situations associated with natural disasters, man-made emergencies, weapons of mass destruction, terrorism and war in or affecting San Mateo County. These emergency plans seek to reduce or eliminate long-term risk to people and property from natural and human caused hazards, save lives, protect and restore property, restore public services, distribute vital supplies, coordinate operations and maintain continuity of government.[1]

10.3 IMPACTS AND MITIGATION MEASURES

10.3.1 Significance Criteria

Based on the CEQA Guidelines,[2] the North Fair Oaks Community Plan Update would have a significant impact related to hazards and hazardous materials if it would:

(a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;

(b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;

(c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;

(d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment;

(e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area;

(f) For a project within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area;

(g) Impact implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or

(h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

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[1]San Mateo County Sheriff's Office, Office of Emergency Services, viewed January 5, 2011, http://www.co.sanmateo.ca.us/portal/site/sheriffs/menuitem.cec6c78cb70d4c4374452b31d17332a0/?vgnextoid=ab81dd7c41211210VgnVCM1000001d37230aRCRD&vgnextchannel=8b81dd7c41211210VgnVCM1000001d37230a &vgnextfmt=DivisionsLanding

[2]CEQA Guidelines, Appendix G, items VIII(a-h).

Impacts related to significance criteria (e), (f) and (h) were found not to be significant during the EIR scoping process and are not discussed in this EIR. Please see Section 17.5 (Effects Found Not to Be Significant) in Chapter 17 (CEQA-Required Assessment Considerations), as well as Appendix 21.2 (Notice of Preparation and Initial Study).

10.3.2 Impacts and Mitigations

Hazardous Materials Transport, Use or Disposal Impacts. New residential uses developed in accordance with the updated Community Plan would generally not involve the transport, use, or disposal of significant volumes of hazardous substances. Hazardous wastes associated with residential uses typically involve empty or partially filled containers of liquid chemical products, fertilizers, used motor oil, automotive or electronic batteries, unused computers, etc. Such uses of hazardous materials do not generate hazardous air emissions or involve the use of acutely hazardous materials that could pose a significant threat to the environment or human health. Residents typically dispose of such wastes through the County's Household Hazardous Waste Program that offers free collection of hazardous materials to county residents.

Future non-residential development in accordance with the updated Community Plan could involve the storage, use and disposal of potentially hazardous materials, including building maintenance supplies, paints and solvents, pesticides and herbicides for landscaping and pest control, vehicle maintenance products, and the like. The County would require all new commercial, industrial and other uses within the Community Plan area to follow applicable regulations and guidelines regarding the storage and handling of hazardous waste. Hazardous materials are required to be stored and handled according to manufacturer's directions and local, state, and federal regulations. Some of these regulations include posting of signs, Fire Department approval of Hazardous Materials Business Plans, and specialized containment facilities.

Storage of hazardous chemical materials (such as cleaning agents and lubricants) by local businesses is regulated by the San Mateo County Department of Public Works. City regulations for businesses proposing to use, handle or store hazardous materials include the required submittal of a Hazardous Materials Business Plan for Fire Department approval, showing the way in which chemical products would be stored safely, a complete list of chemical products that would be kept on site, and an accident prevention and response plan to deal with accidental events that involve some kind of release of hazardous materials in the environment.

In addition, the required standard urban storm water mitigation plan, which controls post-construction stormwater runoff through source control and treatment control best management practices (BMPs), would include BMPs to minimize the possible release of hazardous materials into the environment. The California Highway Patrol (CHP) and Caltrans have primary regulatory responsibility for the transportation of hazardous wastes and materials.

With the above existing federal, state and local hazardous materials regulation and oversight, the potential threat to public health and safety or the environment from hazardous materials transport, use or disposal would represent a ***less-than-significant impact.***

Mitigation. No significant impact has been identified; no mitigation is required.

Risk of Upset or Accidents. As noted above, hazardous substances may be generated, stored, transported, used or disposed of in association with future development and activities allowed under the updated Community Plan. Development in accordance with the updated Community Plan may involve the transport, storage, use or disposal of hazardous materials. With existing federal, State and local regulation and oversight of hazardous materials, the risk to the public or the environment from upset and accident conditions involving the release of hazardous materials would be a ***less-than-significant impact***.

Mitigation. No significant impact has been identified; no mitigation is required.

Hazardous Materials Near Schools. There are a number of schools located within the Community Plan area or within ¼-mile of the area, including:

- Fair Oaks Elementary School, 2950 Fair Oaks Avenue;
- Garfield Elementary School, 3600 Middlefield Road;
- Sequoia Adult School, 3247 Middlefield Road;
- Wherry Academy, 452 5th Avenue;
- Taft Community School, 903 10th Avenue;
- Summit Preparatory Charter High School, 890 Broadway; and
- Encinal Elementary School, 195 Encinal Avenue.

Hazardous substances may be generated, stored, transported, used or disposed of in association with future development and activities allowed under the updated Community Plan. Development within the Community Plan area could involve the transport, storage and use of common hazardous materials within ¼-mile of these schools. However, with existing federal, State and local regulation and oversight of hazardous materials, the potential threat to these schools from additional hazardous materials transport, use or disposal in the Community Plan area, or from the risk of upset and accident conditions involving the release of hazardous materials, would be a ***less-than-significant impact.***

Mitigation. No significant impact has been identified; no mitigation is required.

Asbestos and Lead-Based Paint Exposure. Existing structures within the Community Plan area may contain asbestos-containing insulation, siding, finishes and other asbestos-containing building materials, and, depending on the period when they were constructed, may contain lead-based paint. Asbestos is a fibrous mineral, which is both naturally occurring in ultramafic rock (a rock type commonly found in California) and used as a processed component of building materials. Because asbestos has been proven to cause serious adverse health effects, such as asbestosis and lung cancer, it is strictly regulated based both on its natural widespread occurrence) and its use as a building material. Asbestos or lead-based paint present within older structures could be released into the environment during demolition or construction

activities, which could result in soil contamination or pose a health risk to construction workers or future occupants if not managed in accordance with existing laws and regulations.

Any building demolition or rehabilitation activities within the Community Plan area would be required to comply with regulations pertaining to the removal and proper disposal of asbestos and lead-based paint. Section 19827.5 of the California Health and Safety Code requires that local agencies not issue demolition or alteration permits until an applicant has demonstrated compliance with notification requirements under applicable federal regulations regarding hazardous air pollutants, including asbestos.

Individual building demolition and rehabilitation contractors would be required to implement standard federal, State and BAAQMD procedures for asbestos containment and worker safety. The BAAQMD is vested with authority to regulate airborne pollutants through both inspection and law enforcement, and must be notified 10 days in advance of any proposed demolition or abatement work. The demolition or removal of asbestos-containing building materials is subject to the limitations of BAAQMD Regulation 11, Rule 2: Hazardous Materials; Asbestos Demolition, Renovation and Manufacturing, which requires special handling of asbestos-containing material (e.g., by keeping materials continuously wetted). The Rule prohibits any visible emissions of asbestos-containing material to outside air. Project applicants would be required to consult with the BAAQMD's Enforcement Division prior to commencing demolition of a building containing asbestos materials. The local office of the State Occupational Safety and Health Administration (OSHA) must also be notified of asbestos abatement to be carried out.

OSHA regulates worker exposure to lead based paint during construction through respiratory protection, protective clothing, and hygiene facilities. Lead based paint is considered hazardous if the lead content exceeds 1,000 parts per million. A CalOSHA certified asbestos and lead-based paint contractor would prepare a site-specific asbestos and lead hazard control plan with recommendations for the containment of asbestos or lead-based paint materials during demolition activities, for appropriate disposal methods and locations, and for protective clothing and gear for abatement personnel.

Given the common occurrence of asbestos and lead-based paint contamination in older buildings, the proven and routine methods of abatement, and applicable laws, regulations, standards and oversight currently in place, the potential impact of the updated Community Plan related to asbestos and lead-based paint exposure would be ***less than significant.***

Mitigation. No significant impact has been identified; no mitigation is required.

Known Hazardous Materials Release Sites. As explained in Section 8.1.1 herein, there are a number of known hazardous materials release sites within the Community Plan area. DTSC remedial investigations and actions have occurred or are ongoing on the sites. Development cannot proceed until required remediation actions have been completed to DTSC satisfaction. The DTSC may impose land use restrictions, which prevent the use of the property for residential, school, hospital, or day care purposes, on some sites, if warranted. With DTSC remedial investigations and actions, as well as other federal, State and local regulation and oversight of hazardous materials, the risk to the public or the environment from known hazardous materials release sites would be ***less than significant.***

Mitigation. No significant impact has been identified; no mitigation is required.

Emergency Response Impacts. The updated Community Plan would not interfere with emergency response or evacuation, or interfere with locally-adopted emergency response or evacuation plans. Traffic from future development in accordance with the updated Community Plan would not create unacceptable traffic congestion on evacuation routes. Emergency access would be maintained to properties in the surrounding vicinity during construction. Following established County practice, a traffic control plan would be developed and implemented by the County for each individual project affecting a major travel route in order to maintain access to properties within the project limits and emergency access to and through the area, and to minimize traffic disruption and congestion, and traffic safety hazards. Any need for traffic lane reductions or street closure due to construction would be short-term, temporary and localized, and adequately managed through standard County traffic management practices implemented in the traffic control plan.

As explained in Chapter 16, Transportation, herein, most Community Plan area intersections evaluated in this EIR would continue to operate acceptably with implementation of the updated Community Plan. The updated Community Plan identifies three locations for new or improved roadway connections: Marlborough Avenue at Berkshire Avenue, Berkshire Avenue across the railroad tracks, and 8th Avenue and Fair Oaks Avenue across the railroad tracks. These and other proposed circulation changes, and pedestrian, bicycle and transit improvements suggested by the updated Community Plan would not substantially increase hazards due to a related design feature, and would improve neighborhood connectivity, particularly across the railroad tracks. The potential impact of the updated Community Plan on emergency response would therefore be ***less than significant.***

Mitigation. No significant impact has been identified; no mitigation is required.

Cumulative Hazardous Materials Impacts. New development in accordance with the updated Community Plan, together with other projected areawide growth in neighboring communities, would result in additional residential and non-residential development by the year 2035 and may involve the storage, use and disposal of potentially hazardous materials, such as common household cleaners, paints and solvents, pesticides and herbicides for landscaping and pest control, automobile maintenance products, and the like. These materials would typically not be of a type or in sufficient quantities to pose a significant hazard to public health and safety or the environment. Construction activities could potentially reveal as-yet undiscovered contamination or could potentially occur on properties with known contamination that could pose a potential threat to public health and safety or the environment. However, with applicable federal and State laws, regulations, standards and oversight, and local policies and programs, the cumulative impact to the public or the environment from hazardous materials would be ***less than significant.***

Mitigation. No significant cumulative impact has been identified; no mitigation is required.

11. HYDROLOGY AND WATER QUALITY

This chapter describes existing conditions, the regulatory setting, and the potential impacts of the updated Community Plan related to drainage, flooding and water quality.

11.1 ENVIRONMENTAL SETTING

This section describes existing conditions related to drainage, flooding and water quality.

11.1.1 Climate

San Francisco Bay strongly influences the climate and air quality of North Fair Oaks. Bay breezes from the north dominate the area during the spring and summer months. The dominance of the Bay or sea breeze results in a mild climate. Low clouds during the late night and early morning are common in spring and summer.

The prevailing wind direction in North Fair Oaks is from the northwest. Average wind speed (measured in nearby Palo Alto) is 11.1 miles per hour annually, with June having the highest average wind speed and December having the lowest.[1] North Fair Oaks often experiences persistent afternoon winds in the spring and summer months.

Temperatures are mild. January is the coolest month with an average maximum temperature of 58 degrees Fahrenheit (F), while July and August are the warmest with an average maximum of 81 degrees F. Precipitation is about 20 inches per year.[2]

11.1.2 Stormwater Drainage[3]

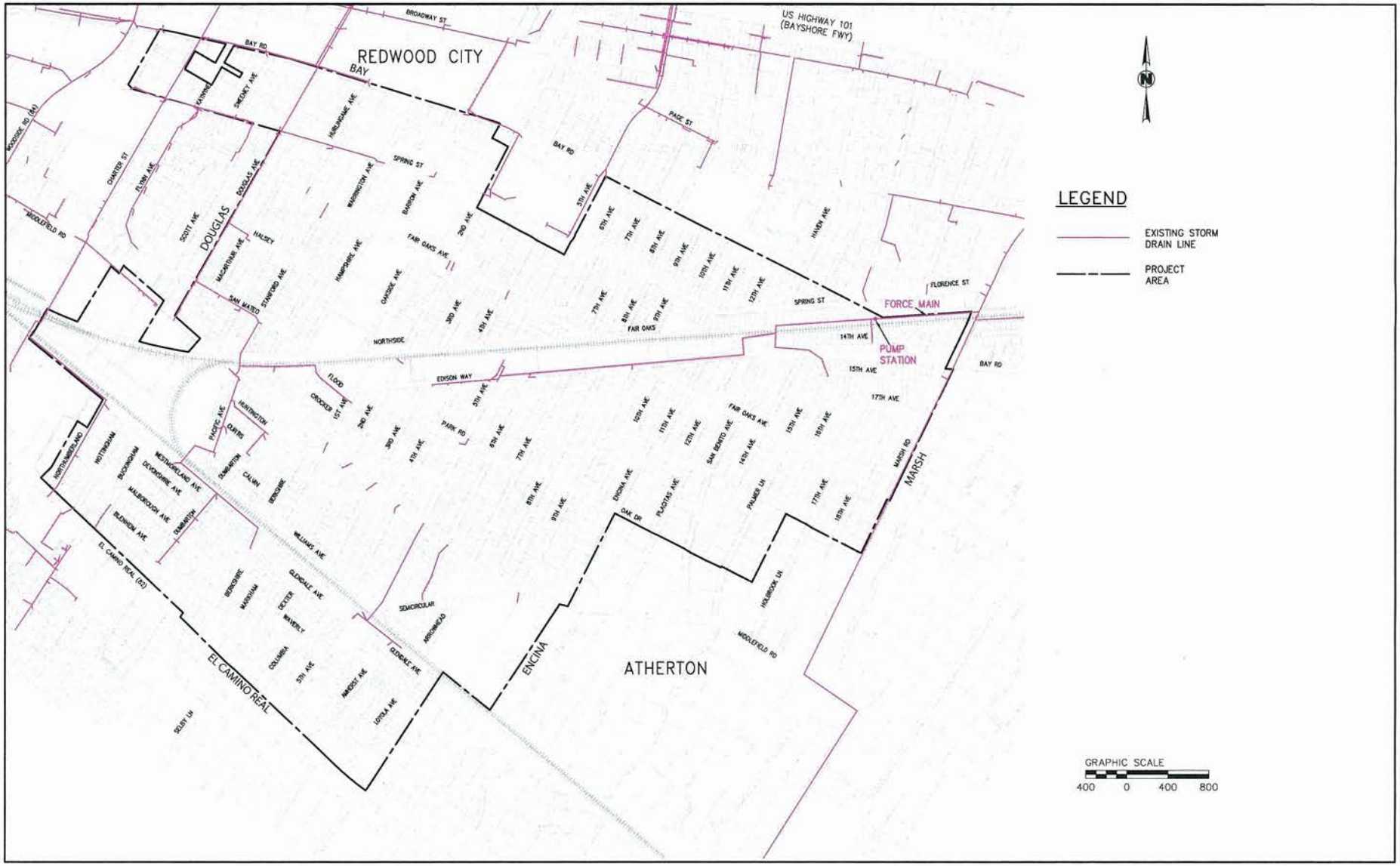
Existing stormwater drainage in North Fair Oaks is primarily by flow through streets and gutters, although underground storm drain lines exist in portions of the Community Plan area. Existing stormwater drainage facilities within and adjacent to the Community Plan area are shown in Figure 11.1.

The northern portion of the Community Plan area drains to a network of 15-inch to 33-inch diameter underground storm drain pipes in the vicinity of Douglas Avenue which convey flows to the City of Redwood City's Douglas Avenue Pump Station. The Douglas Avenue Pump Station, located on Douglas Avenue near US 101, has a pumping rate of approximately 32,200 gallons per minute. The pump station conveys flow to the Bayfront Canal through a 42-inch diameter

[1]Western Regional Climate Center, http://www.wrcc.dri.edu/htmlfiles/westwind.final.html

[2]City of Redwood City, Draft Environmental Impact Report for the Redwood City Downtown Precise Plan, August 2010, p. 12-1.

[3]MIG, Inc., North Fair Oaks Community Plan Update Existing Conditions Analysis Infrastructure, June 2010, pp. 7-9.



SOURCE: BKF

Figure 11.1

EXISTING STORMWATER DRAINAGE FACILITIES

force main that crosses underneath US 101. Low-lying portions of the Community Plan area are subject to flooding during a five-year storm event due to a lack of pumping capacity at the Douglas Avenue Pump Station. During major storm events, flows from other drainage areas adjoining North Fair Oaks significantly exceed the pumping capacity of the Douglas Avenue Pump Station and excess flows pond in the low-lying areas of North Fair Oaks, reaching water levels during a 100-year event of an approximate elevation of 10.5 NGVD88.[1]

The southern portion of the Community Plan area drains to a storm drain system which conveys flows to the County's Athlone Pump Station.[2] There is a limited network of 15-inch to 48-inch diameter underground storm drain pipes in the vicinity of the Athlone Pump Station and the Southern Pacific Railroad spur. The Athlone Pump Station, which pumps stormwater through a 24-inch diameter force main to the Atherton Channel. The Atherton Channel discharges to the Bayfront Canal at a location approximately 0.7 miles east of where the force main enters the Atherton Channel. Flooding has occurred adjacent to the Bayfront Canal on several occasions due to flow capacity limitations at the Bayfront Canal tide gates, located approximately 400 feet east of where the Atherton Channel discharges to the Bayfront Canal. The City of Redwood City is currently working to resolve the Bayfront Canal regional flooding issues. Possible Bayfront Canal improvement options include the use of Cargill salt ponds as detention basins, a new pump station at the existing tide gate, or a new floodwall on the Redwood City side of the canal. Upstream storm drain improvements that increase flows to the Bayfront Canal, including remedying deficiencies at the Douglas Avenue and Athlone Pump Stations, cannot occur until the Bayfront Canal tide gates flooding issue is resolved by Redwood City.

There are five adjacent drainage areas in the vicinity of the Community Plan area that are hydraulically separated from the North Fair Oaks drainage system but which either directly spill into or create tailwater in the Bayfront Canal that affects the Atherton Channel and Douglas Avenue drainage systems:

- *Atherton Channel*. A 6.16-square mile drainage area that discharges to the Bayfront Channel upstream of the Bayfront Canal tide gate.

- *Fifth Avenue*. A 293-acre (0.46-square mile) drainage area east of the Douglas Avenue drainage area. Runoff in excess of the capacity of the Douglas Avenue Pump Station spills to Douglas Avenue.

- *Broadway/Second Avenue*. A 794-acre (1.24-square mile) drainage area that flows by pressure flow through a 78-inch diameter line to the Bayfront Canal.

- *Broadway*. The Broadway Pump Station drains a 205-acre area that discharges to a 72-inch diameter line that becomes a 78-inch diameter line at Douglas Avenue at Broadway. The peak flow to the pump station is not reported but appears greater than the pump station capacity. Excess flow to the pump station would pond at the pump station.

- *Second Avenue*. Second Avenue has a 589-acre drainage area which flows through a 48-inch diameter gravity line that becomes a pressure line where it meets the 72-inch line from the Broadway pump station.

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[1]Based on Redwood City's adopted datum of North American Vertical Datum 1988 (NAVD88).

[2]Bohley/Maley Associates, "North Fair Oaks Drainage Study", December, 1995.

The Bayfront Canal tide gates flooding issue will need to be resolved by Redwood City before upgrades to these five adjacent drainage areas can be made to eliminate local flooding.

11.1.3 Flooding

(a) Flooding. North Fair Oaks contains no areas within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map.[1] However, the local drainage system deficiencies described in Section 11.1.2 above cause localized flooding near the railroad tracks, where the tracks act as a barrier to overland flow, as well as where garages are located below street grade, causing street flows to be conveyed through private property.[2]

(b) Sea Level Rise. World-wide climate changes are causing sea levels in California coastal areas to rise. About 8 inches of increase have been recorded at the Golden Gate Bridge over the past 100 years, threatening low coastal areas in the Bay Area region with inundation and serious damage from storms.[3] Predicted long-term climate change (increased temperatures) is expected to continue to cause rising sea levels along the California coastline, particularly in the San Francisco and the San Joaquin Delta areas, due to ocean expansion. According to a 2008 California Department of Water Resources report, recent peer-reviewed studies estimate a rise of between 7 to 55 inches by 2100 along California's coast.[4] A recent report by the Pacific Institute predicts that a 1.4-meter (55-inch) sea level rise along California's coast will put 480,000 people at risk of a 100-year flood event, given today's population. This amount of sea level rise is also expected to accelerate erosion, resulting in a loss of 41 square miles (over 26,000 acres) of California's coast by 2100.[5]

The San Francisco Bay Conservation and Development Commission (BCDC) has mapped two sea level rise scenarios: (1) a predicted mid-century sea level rise of 16 inches, and (2) sea level rise of 55 inches by the end of the century. According to BCDC maps of shoreline areas vulnerable to sea level rise, none of the Community Plan area would be vulnerable to a 16-inch sea level rise and a limited number of parcels located on Bay Road, Spring Street, Willow Street

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[1]County of San Mateo, San Mateo County Hazard Mitigation Maps, FEMA Flood Zones in San Mateo County, http://www.co.sanmateo.ca.us/vgn/images/portal/cit_609/11/14/436349076Flood.pdf, viewed May 1, 2011.

[2]MIG, Inc., North Fair Oaks Community Plan Update Existing Conditions Analysis Infrastructure, June 2010, p. 9.

[3]California Air Resources Board, Draft Climate Change Scoping Plan, p. 6.

[4]California Department of Water Resources, Managing an Uncertain Future: Climate Change Adaptation Strategies for California's Water, October 2008, page 6. (http://www.water.ca.gov/climatechange/docs/ClimateChangeWhitePaper.pdf)

[5]California Climate Change Center, The Impacts of Sea-Level Rise on the California Coast, prepared by Matthew Heberger, Heather Cooley, Pablo Herrera, Peter H. Gleick, and Eli Moore of the Pacific Institute, March 2009, page xi. (http://www.pacinst.org/reports/sea_level_rise/report.pdf)

and Charter Street in the northwestern portion of the Community Plan area may be vulnerable to a 55-inch sea level rise.[1]

The BCDC Adapting to Rising Tides (ART) project is a collaborative effort involving community officials and stakeholders to understand how sea level rise and other climate change impacts will affect the Bay Area's communities, ecosystems, infrastructure, and economy. Additionally, the project will identify strategies for community-based adaptation planning to address these challenges and manage these risks.

11.2 REGULATORY SETTING

11.2.1 Federal Regulations

(a) Clean Water Act. The major federal legislation governing surface waters and water quality is the Clean Water Act, as amended by the Water Quality Act of 1987. The objective of the Clean Water Act is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." In general, implementation of many aspects of the Clean Water Act has been delegated to individual states.

Important applicable sections of the Clean Water Act are as follows:

- Sections 303 and 304 provide for water quality standards, criteria, and guidelines.
- Section 401 requires an applicant for any federal permit that proposes an activity which may result in a discharge to "waters of the United States" to obtain certification from the state that the discharge will comply with other provisions of the Act. In California, certification is provided by the respective Water Board.
- Section 402 establishes the National Pollutant Discharge Elimination System (NPDES), a permitting program for the discharge of any pollutant (except for dredge or fill material covered under Section 404 below) into waters of the United States. The NPDES program is administered by the Water Board and is discussed further below.

The Clean Water Act places the primary responsibility for surface water pollution control and water resources development planning with the states. However, the act requires the states to follow certain guidelines in developing their programs and allows the U.S. Environmental Protection Agency (EPA) to withdraw control from states with inadequate implementation mechanisms. The Clean Water Act requires states to adopt water quality standards for receiving surface water bodies and to have those standards approved by the EPA. Water quality standards consist of designating beneficial uses for a particular receiving water body (e.g., wildlife habitat, agricultural supply and fishing), along with water quality criteria necessary to support those uses. Water quality criteria can be either prescribed concentrations or levels of constituents, such as lead, suspended sediment, and fecal coliform bacteria or narrative statements which represent the quality of water that supports a particular use.

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[1]San Francisco Bay Conservation and Development Commission, Shoreline Areas Vulnerable To Sea Level Rise: South Bay, http://www.bcdc.ca.gov/planning/climate_change/maps/16_55/south_bay.pdf, viewed April 28, 2011.

Section 402 National Pollutant Discharge Elimination System General Construction Storm Water Permit. In 1972, the Federal Water Pollution Control Act (later referred to as the Clean Water Act) was amended to require National Pollutant Discharge Elimination System (NPDES) permits for the discharge of pollutants to navigable waters of the U.S. from any point source. In 1987, the Clean Water Act was amended to require that the EPA establish regulations for the permitting of municipal and industrial stormwater discharges under the NPDES permit program. The EPA published final regulations regarding stormwater discharges on November 16, 1990. The regulations require that municipal storm sewer system discharges to surface waters be controlled by a NPDES permit. NPDES permits are issued under the Federal Clean Water Act, Title IV, Permits and Licenses, Section 402 (33 USC 466 et seq.).

(b) Floodplain Development. The Federal Emergency Management Agency (FEMA) is responsible for determining flood elevations and floodplain boundaries based on U.S. Army Corps of Engineers studies. FEMA is also responsible for distributing the Flood Insurance Rate Maps (FIRMs), which are used in the National Flood Insurance Program (NFIP). These maps identify the locations of special flood hazard areas, including the 100-year floodplain. In some identified flood hazard zones, certain types of construction and/or uses are prohibited or are required to carry flood insurance. FEMA allows non-residential development in the floodplain. However, construction activities are restricted within the flood hazard areas depending upon the potential for flooding within each area. Federal regulations governing development in a floodplain are set forth in Title 44, Part 60 of the Code of Federal Regulations (CFR). Cities and counties use FIRMs to establish zoning districts, buffers, or other regulatory requirements intended to protect people and property from flood damage and minimize the cost of physical flood control mechanisms.

11.2.2 State Regulations

(a) Porter-Cologne Water Quality Control Act. California's primary statute governing water quality and water pollution issues with respect to both surface waters and groundwater is the Porter-Cologne Water Quality Control Act of 1970 (Division 7 of the California Water Code). The Porter-Cologne Water Quality Control Act (Porter-Cologne Act) grants the State Water Resources Control Board (SWRCB) and each of the nine Regional Water Quality Control Boards (Water Boards) power to protect water quality, and is the primary vehicle for implementation of California's responsibilities under the federal Clean Water Act. The applicable Water Board for the project area is the San Francisco Bay Water Board. Under the Porter-Cologne Act, the SWRCB and Water Boards have the authority and responsibility to adopt plans and policies, regulate discharges to surface and groundwater, regulate waste disposal sites and require cleanup of discharges of hazardous materials and other pollutants. The Porter-Cologne Act also establishes reporting requirements for unintended discharges of any hazardous substances, sewage, or oil or petroleum products.

(b) Regional Water Quality Control Plan (Basin Plan). As required by the California Water Code (Section 13240) and supported by the Clean Water Act, each Water Board must formulate and adopt a water quality plan (Basin Plan) for its region. The Basin Plan includes a summary of beneficial water uses, water quality objectives needed to protect the identified beneficial uses and implementation measures. The Basin Plan establishes water quality standards for all the ground and surface waters of the region. The Basin Plan includes an implementation plan describing the actions by the Water Board and others that are necessary to achieve and maintain water quality standards. Water quality problems and their causes are listed in the

Basin Plan, as well as actions for improving water bodies with water quality below the levels needed to meet identified beneficial uses.

(c) NPDES General Permit For Stormwater Discharges Associated With Construction Activity. As described previously, NPDES permits are required for discharges of pollutants to navigable waters of the U.S. The Water Board issues NPDES permits in lieu of direct issuance by the EPA. The discharge of pollutants must be eliminated or reduced to the maximum extent practicable so as to achieve the Clean Water Act's goal of "fishable and swimmable" navigable (surface) waters. Technically, all NPDES permits issued by the Water Board are also Waste Discharge Requirements issued under the authority of the California Water Code, and which are referred to in the significance criteria in Section 9.3.1 below.

To expedite permit issuance, the Water Board has adopted several general NPDES permits, each of which regulates numerous discharges of similar types of wastes. The SWRCB issues general permits for stormwater runoff from construction sites statewide. Stormwater discharges from industrial and construction activities can be covered under these general permits, which are administered jointly by the SWRCB and Water Board.

Construction activities disturbing one acre or more of land are subject to the permit requirements of the NPDES program. The applicant must file a Notice of Intent (NOI) to seek coverage under the statewide General Construction Activity Stormwater Permit (General Permit) prior to the beginning of construction and prepare and maintain a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP must identify, construct, implement and maintain best management practices (BMPs) to reduce or eliminate pollutants in stormwater discharges from the construction site during construction. The SWPPP must also develop a maintenance schedule for BMPs installed during construction designed to reduce or eliminate pollutants after construction is completed (post-construction BMPs).

11.2.3 County of San Mateo

(a) San Mateo County General Plan. The following San Mateo County General Plan policies are relevant to consideration of the hydrology and water quality impacts of the updated Community Plan.

10.1 Coordinate Planning. Coordinate water supply planning with land use and wastewater management planning to assure that the supply and quality of water is commensurate with the level of development planned for an area.

10.3 Water Conservation. Promote the conservation and efficient use of water supplies.

10.6 Water Quality.

a. Encourage appropriate County and State agencies to monitor water supplies for pollutants.

b. Encourage the removal of foul odors and tastes from domestic water supplies.

10.7 Park and Recreation Water Supplies.

a. Encourage the provision of water supplies in park and recreation areas commensurate with the desired level of development. (Please see the Park Chapter for related information.)

b. Encourage coastal recreation and visitor serving facilities to provide drinking water.

10.9 Potential Water Sources. ...
d. Consider treated wastewater as a potential source of water. ...

10.10 Water Suppliers in Urban Areas. Consider water systems as the preferred method of water supply in urban areas. Discourage use of wells to serve urban uses. ...

10.25 Efficient Water Use.
a. Encourage the efficient use of water supplies through effective conservation methods.
b. Require the use of water conservation devices in new structural development.
c. Encourage exterior water conservation.
d. Encourage water conservation for agricultural uses by using efficient irrigation practices.

10.26 Wastewater Reuse.
a. Encourage the reuse and recycling of water whenever feasible.
b. Encourage the use of treated wastewater that meets applicable County and State health agency criteria.

10.27 Wastewater Reservoirs. Identify sites suitable for use as reservoirs for treated wastewater. Consider using this wastewater for irrigation and/or public landscaping purposes. (Please see Wastewater Chapter for related information.)

(b) San Mateo County Ordinance 3633. The Department of Public Works is responsible for review of projects for compliance with the County's Stormwater Management Plan and with the Watershed Protection Maintenance Standards. Along with the Planning Department, the Public Works Department also reviews projects for compliance with the NPDES Provision C.3. Most of the County's stormwater regulations are codified under Chapter 4, Section 100 of the San Mateo County Code,[1] which includes provisions from the County's Ordinance 3633, adopted in 1995. A major function of Ordinance 3633 and Section 4.100 of the County Code is to require projects to comply with the County's NPDES permit.

(c) San Mateo Countywide Water Pollution Prevention Program. The County of San Mateo, each of the incorporated cities and towns in San Mateo County, and the Flood Control District (collectively called San Mateo Permittees) share a common municipal NPDES permit. The San Mateo Permittees are currently subject to a host of NPDES Permits to discharge stormwater runoff from storm drains and water courses within their jurisdictions.[2] On February 11, 2009, the San Francisco Bay Water Board issued, for public comment, a revised Tentative Order to NPDES Permit No. CAS6 12008 to implement a new Municipal Regional Stormwater Permit (MRP) for all Bay Area communities, including the San Mateo Permittees. Additionally, as of

[1]Accessible at http://municipalcodes.lexisnexis.com/codes/sanmateo/.

[2]NPDES Permit No. CAS0029921 issued by Order No. 99-059 on July 21, 1999, amended by Order No. R2-2003-0023 on February 19, 2003, amended by Order Nos. R2-2004-006 and R2-2004-0062 on July 21, 2004, and amended by Order R2-2007-0027 on March 14, 2007.

July 1, 2010, the SWRCB will require that all dischargers obtain a Construction General Permit, which would also apply to San Mateo County.[1]

Each incorporated city and town in San Mateo County joined with the County of San Mateo to form the SMCWPPP in applying for a regional NPDES permit.[2] The SMCWPPP, previously referred to as San Mateo Countywide Stormwater Pollution Prevention Program (STOPPP), was established as part of the regional NPDES permit to apply for and administer the permit for the County and its cities and towns. The SMCWPPP received its first 5-year Phase I NPDES Municipal Stormwater Permits in 1995. The San Francisco Bay Water Board adopted the second NPDES permit on July 21, 1999; it was subsequently amended with Provision C.3 (New Development and Redevelopment Component) on February 19, 2003, at which time a Stormwater Management Plan was also required to be implemented. Currently, Provision C.3 requires stormwater controls during the construction and operation stages of proposed development. In addition, due to project size and type, the project would also be required to construct permanent on-site stormwater treatment systems and maintain these systems in perpetuity. On July 21, 2004, the Water Board adopted the third permit. On May 12, 2005, the SMCWPPP submitted to the Water Board its Hydromodification Management Plan (HMP) as required under the 2004 permit. On March 14, 2007, the Water Board amended the 2004 permit to include key provisions of the submitted HMP. The goal of an HMP is to manage increased peak runoff flows and volumes (hydromodification) to avoid erosion of stream channels and degradation of water quality both on and off the project site.

The series of permit amendments issued by the Water Board imposed new requirements on the San Mateo Permittees, including new policies that govern new and redevelopment projects within its jurisdiction.[3] The requirements address subjects such as erosion and sedimentation reduction, general stormwater pollution prevention, post construction best management practices and controls incorporation, impervious surface minimization, sensitive area restoration and protection, and watershed planning.[4]

The SMCWPPP has issued guidelines based on the regional NPDES permit for integrated pest management, and general and construction-specific BMPs to minimize sedimentation and discharge of pollutants into stormwater runoff within the SMCWPPP's area.

San Mateo County must ensure that new development and redevelopment mitigate, to the maximum extent practicable, water quality impacts to stormwater runoff both during construction and operation. Required permit provisions are detailed in Water Board Order R2- 2003-0023. Provision C.3 requires:

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[1]Construction General Permit Order 2009-0009-DWQ.

[2]Regional Water Board, 2007, Order No. R2-2007-0027, NPDES Permit No. CAS0029921.

[3]San Mateo Public Works Department, San Mateo Countywide Stormwater Pollution Prevention Program New Development Subcommittee: Model Development Policies, 2001.

[4]California Regional Water Quality Control Board, San Francisco Bay Region Municipal Regional Stormwater NPDES Permit (Final Tentative Order R2-2009-0074, NPDES Permit No. CAS612008) issued October 14, 2009 and effective December 1, 2009

- *Water Quality Treatment Measures.* Projects must include source controls, site design measures, and treatment controls to minimize stormwater pollutant discharges. Pollution treatment controls must be sized to treat the volume of annual runoff required to achieve 80 percent or more capture of average annual runoff (in the Bay Area this is equivalent to having the capacity to repetitively treat storm events of about one inch of precipitation).

- *Operation and Maintenance of Treatment Measures.* Treatment controls often do not work unless adequately maintained. The permit requires an operations and maintenance program.

- *Limitation on Increase of Peak Stormwater Runoff Discharge Rates.* Urbanization creates impervious surfaces that reduce the landscape's natural ability to absorb water and release it slowly to creeks. These impervious surfaces increase peak flows in creeks and can cause erosion (referred to as hydromodification). Projects must evaluate the potential for this to occur and provide mitigation as necessary. Furthermore, to mitigate any potential adverse impacts associated with stormwater runoff during construction and operation, the project sponsor would be required to develop and implement BMPs consistent with the SMCWPPP, which would minimize potential erosion and sedimentation. The SMCWPPP requires the use of BMPs to control erosion associated with grading, trenching, and other ground surface disturbing activities.

11.3 IMPACTS AND MITIGATION MEASURES

11.3.1 Significance Criteria

Based on the CEQA Guidelines,[1] the updated Community Plan would have a significant impact related to hydrology and water quality if it would:

(a) Violate any water quality standards or waste discharge requirements;

(b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

(c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site;

(d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate of amount of surface runoff in a manner which would result in flooding on- or off-site;

(e) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

[1] CEQA Guidelines, Appendix G, items VIII(a) through (i), and XVI(c).

(f) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff;

(g) Otherwise substantially degrade water quality;

(h) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map;

(i) Place within a 100-year flood hazard area structures which would impede or redirect flood flows;

(j) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam; or

(k) Expose people or structures to a significant risk of loss, injury or death resulting from inundation by seiche, tsunami or mudflow.

Impacts related to significance criteria (b), (j) (with respect to levee or dam failure), and (k) were found not to be significant during the EIR scoping process and are not discussed in this EIR. Please see Section 17.5 Effects Found Not to Be Significant in Chapter 17, CEQA-Required Assessment Considerations, as well as Appendix 21.2, Notice of Preparation and Initial Study.

11.3.2 Impacts and Mitigation measures

Stormwater Drainage System Impacts. Stormwater runoff is determined by a parcel's impervious surface area and not its use or density. Future development in accordance with the updated Community Plan would mostly consist of alterations of, additions to and redevelopment of existing improved properties. While land uses and the density and intensity of development may change, there would be limited change from existing conditions in terms of impervious surface area and stormwater runoff.

Development may result in increased impervious area on some parcels. New development would be required to implement on-site stormwater detention so that there is no increase in stormwater runoff from the site during a 10-year storm event. New development would be required to implement Low Impact Development (LID) measures, such as water reclamation and bioretention, that promote storage and treatment of stormwater. The LID measures can be on-site, regional or a combination. There is no requirement for existing development to correct current problems. Proposed fill may be required to be offset by storage such that there is no net impact on flood levels.

Therefore, the impacts of the updated Community Plan on storm drainage would represent a ***less-than-significant impact.***

Mitigation. No significant impact has been identified; no mitigation is required.

Construction Period Water Quality Impacts. Construction activities within the Plan area may substantially degrade the quality of downstream receiving waters and San Francisco Bay. Without proper controls, construction activities, in particular activities involving soil disturbance, excavation, cutting/filling, and grading, could result in increased erosion on-site and sediments,

pollutants and excess nutrients being carried to receiving waters, which could increase turbidity and sedimentation, disrupt aquatic habitats, impair beneficial uses and violate waste discharge requirements. Storage of excavated soil and pavement on a project site and subsequent off-site hauling could expose this material to both wind and water erosion that could adversely affect downstream drainage facilities and waterways. In addition, spilled or improperly used construction materials, such as fuel, paint, cement or solvents, could be washed into area storm drains or seep into the underlying groundwater.

However, as previously described in subsection 9.2, Regulatory Setting, any individual private development or public improvement project that would disturb an area larger than one acre or create 10,000 square feet or more of impervious surface would be required to obtain an NPDES General Construction Permit from the State Water Resources Control Board. The terms of this permit require applicants to prepare a Stormwater Pollution Prevention Plan (SWPPP) to demonstrate that project development (construction and operation) would not cause any increase in sedimentation, turbidity, or hazardous material concentrations within downstream receiving waters. Design requirements and implementation measures for individual development-specific erosion and sedimentation controls would be set forth in the applicant's SWPPP, in accordance with State and Water Board design standards, and with the County's NPDES Permit Requirements Checklist and Stormwater Pollution Prevention Program. During construction, the County Public Works Department would monitor implementation of the development's approved SWPPP, with a particular focus on erosion control.

Therefore, potential construction period water quality impacts would be adequately controlled through the implementation of existing County and Water Board requirements, and thus would be ***less than significant.***

Mitigation. No significant impact has been identified; no mitigation is required.

Long-Term Water Quality Impacts. Storm water runoff from within the Plan area, if not properly controlled before discharge, could substantially degrade water quality, disrupt aquatic habitats, impair beneficial uses or violate waste discharge requirements. Trash, particulate matter, oil and grease, and building chemicals that collect on streets, parking areas, roofs, open storage areas, and other impervious surfaces and are then washed into drainages, could impair runoff water quality. Increased uses of herbicides, pesticides, and fertilizers associated with landscaping could also contaminate receiving waters. The number of vehicle trips generated within the Plan area is also expected to increase, which is expected to result in a proportionate increase in the deposition of vehicle-related pollutants. New commercial operations could contaminate surfaces if potential pollutants are spilled, or stored or disposed of improperly.

However, as previously described in subsection 9.2, Regulatory Setting, the San Francisco Bay Water Board Municipal Regional Permit Provision C.3 requirements apply to projects that create or replace more than 10,000 square feet of impervious area (5,000 square feet for certain types of projects). Project applicants would also be required to develop and implement BMPs required by the San Mateo County's STOPPP. Project applicants must prepare and implement a Stormwater Control Plan containing treatment and source control measures that meet the "maximum extent practicable" standard as specified in the NPDES permit and the C.3 Guidebook. Project applicants must also prepare a Stormwater Facility Operation and Maintenance Plan and execute agreements to ensure the stormwater treatment and flow-control facilities are maintained in perpetuity.

Non-point source pollutant controls implemented to avoid or reduce long-term water quality impacts typically include both source control and pre-discharge treatment measures. Typical source controls include painting "Drains to the Bay" labels on storm drains, enforcing strict prohibitions on the use or disposal of contaminants, prohibiting the use of non-biodegradable fertilizers and pesticides, restricting vehicle maintenance and washing to areas not directly connected to the storm drain system, and regular cleaning and maintenance of all streets and parking areas, particularly at the onset of the rainy season, to reduce the build-up of the urban pollutants and debris that are normally washed into storm drains. Pervious pavement and infiltration basins are also used as source controls by reducing the total amount of stormwater runoff.

Pre-discharge treatment measures are routinely put in place to remove stormwater pollutants that bypass source controls. They are normally designed in accordance with BMPs and can be further categorized as either *active* or *passive*. The *active* category typically refers to either straight media filtration or to media filtration combined with hydrodynamic separators for removal of oil and grease, sediment, and debris. Simple filters can be installed in individual catch basins, while the much larger filter/separators are installed as "end of the line" structures that treat the runoff collected by many catch basins before it is discharged off-site. Both types of treatment measures require regular inspection, cleaning, and disposal of trapped pollutants, which generally makes them more effective on commercial or high-density residential sites, where a single owner is responsible for areawide maintenance.

Passive pre-discharge treatment methods generally use either small ponds or gently sloping swales to achieve pollutant removal through sedimentation and/or filtration. Ponds provide an opportunity for sediments to settle out before off-site discharge, while grass-lined swales (biofilters) pick up pollutants as the water slowly filters through the surface vegetation. Pollutants trapped in the sediment or adhering to the grass can then be removed by regular maintenance.

Therefore, potential long-term water quality impacts would be adequately controlled through the implementation of existing County and Water Board requirements, and thus would be ***less than significant.***

Mitigation. No significant impact has been identified; no mitigation is required.

100-Year Flood Impacts. The Plan area contains no properties within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map.[1] Therefore, the Plan Update would not place people or structures at unacceptable risk of injury or loss from flooding and the flooding related impacts of the updated Community Plan would be ***less than significant.***

Mitigation. No significant impact has been identified; no mitigation is required.

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[1]Federal Emergency Management Agency, Map Service Center, FEMA Issued Flood Maps, http://msc.fema.gov, viewed January 5, 2011. City of San Bruno, San Bruno General Plan Draft EIR, December 2008, p. 3-181.

Impact 11-1: Flooding Impacts Related to Sea Level Rise. A limited number of parcels located on Bay Road, Spring Street, Willow Street and Charter Street in the northwestern portion of the Plan area could be subject to flooding due to predicted sea level rise associated with global climate change. With increased flooding potential in the future, development in accordance with the updated Community Plan could place people, structures and other improvements in these areas at an increased risk of injury or loss from flooding. This possibility represents a ***potentially significant impact*** (see criterion (j) under subsection 11.3.1, "Significance Criteria," above).

Regional sea level rise predictions for the San Francisco Bay region predict a 16-inch rise in sea level by mid-century and a 55-inch rise by the end of the century. According to BCDC maps of shoreline areas vulnerable to sea level rise, none of the Plan area would be vulnerable to a 16-inch sea level rise and a limited number of parcels located on Bay Road, Spring Street, Willow Street and Charter Street in the northwestern portion of the Community Plan area may be vulnerable to a 55-inch sea level rise.[1] With increased flooding potential in the future, development in accordance with the updated Community Plan could place people, structures and other improvements at an increased risk of injury or loss from flooding.

There is currently no local or regional mitigation developed to address inundation due to projected sea level rise. While no specific mitigation strategies are currently being developed or considered, potential mitigation strategies could include strengthening or raising levees, creating new levees, participating in regional mitigation to address rising sea levels within the Bay as a whole, creation of new tidal wetlands, requiring new structures and site improvements to withstand regular flooding without significant damage (such as is commonly required for development within flood hazard areas under the National Flood Insurance Program), any combination of these measures, or other measures not listed here.

[1]San Francisco Bay Conservation and Development Commission, Shoreline Areas Vulnerable To Sea Level Rise: South Bay, http://www.bcdc.ca.gov/planning/climate_change/maps/16_55/south_bay.pdf, viewed April 28, 2011.

Mitigation 11-1. Future individual development projects on properties within the Plan area subject to flooding as a result of predicted sea level rise shall be required to comply with specific flood damage avoidance requirements commonly required for development within 100-year flood hazard areas under the National Flood Insurance Program and Chapter 35.5, Flood Hazard Areas, of the San Mateo County Code of Ordinances, even if such projects do not lie within an Area of Special Flood Hazard as identified by FEMA. These requirements may include, but are not limited to, raising the elevation of habitable space above anticipated flood heights, creating 'freely communicating' structures that allow flood waters to pass through lower levels of buildings, and ensuring that site design does not result in a reduction of floodplain areas which could result in increasing flooding conditions downstream. Implementation of this measure would reduce flooding impacts related to predicted sea level rise associated with global climate change to a ***less-than-significant level.***

Cumulative Hydrology and Water Quality Impacts. New development facilitated by the updated Community Plan, together with other reasonably foreseeable development, would result in no impacts or less-than-significant impacts with respect to storm drainage, construction period and operational water quality, groundwater, flooding, dam or levee failure inundation, and seiche, tsunami or mudflow. The contribution of the Community Plan Update to potentially significant cumulative hydrology and water quality impacts is not considered cumulatively considerable because each new development would be required to mitigate its own site-specific impacts. Project applicants would also be required to develop and implement BMPs required by the San Mateo County's STOPPP. Project applicants must prepare and implement a Stormwater Control Plan containing treatment and source control measures that meet the "maximum extent practicable" standard as specified in the NPDES permit and the C.3 Guidebook. Project applicants must also prepare a Stormwater Facility Operation and Maintenance Plan and execute agreements to ensure the stormwater treatment and flow-control facilities are maintained in perpetuity.

Cumulative development located in low-lying areas near San Francisco Bay could be subject to flooding due to sea level rise associated with global climate change. With increased flooding potential in the future, cumulative development could place people, structures and other improvements at an increased risk of injury or loss, which would represent a significant cumulative impact. There is considerable uncertainty regarding this emerging issue and there is currently no local or regional mitigation developed to address inundation due to projected sea level rise. However, as explained for Impact 11-1 above, none of the Community Plan area would be vulnerable to a 16-inch sea level rise and only a limited number of parcels in the northwestern portion of the Community Plan area may be vulnerable to a 55-inch sea level rise. Implementation of Mitigation 11-1 (specific flood damage avoidance requirements required for development within 100-year flood hazard areas under the National Flood Insurance Program and Chapter 35.5, Flood Hazard Areas, of the San Mateo County Code of Ordinances) the contribution of the updated Community Plan to cumulative flooding impacts related to predicted sea level rise would be reduced to a less-than-cumulatively considerable and thus a ***less-than-significant level.***

Mitigation. No significant project contribution to a cumulative impact has been identified; no mitigation is required.

12. LAND USE AND PLANNING

This chapter describes existing land uses in and around the Plan area, pertinent County and regional land use policies and regulations, and the potential land use impacts of the Community Plan Update.

12.1 ENVIRONMENTAL SETTING

12.1.1 Existing Land Use

North Fair Oaks is an unincorporated part of San Mateo County in the nine-county San Francisco Bay Area. The community is bounded by the cities of Redwood City to the north, west and southwest, Atherton to the east, and Menlo Park to the northeast.

Existing land uses in North Fair Oaks can be classified into four general categories: residential (365.2 acres), commercial (41.3 acres), industrial (117.2 acres), and institutional/public (33.5 acres). The remaining approximately 240 acres are dedicated to road and railroad rights-of-way. About two-thirds of all parcels in North Fair Oaks are in residential use. Residential uses range from low density residential (0.3 to 6.0 dwelling units per acre [du/ac]) to high density residential (17.5 to 87.0 du/ac). Low density residential parcels are located primarily in the central neighborhood, between the Caltrain and Southern Pacific Railroad tracks. Medium density (6.1 to 17.4 du/ac) and high density residential uses are located generally beyond this central neighborhood.

Existing neighborhood commercial uses are located along commercial corridors such as portions of Middlefield Road and 5th Avenue. Existing general commercial uses are located along El Camino Real and portions of Middlefield Road. Industrial uses are concentrated along portions of the SPR tracks and to the north of Fair Oaks Avenue/west of 2nd Avenue. The railroad tracks, and the parcels along the tracks, divide the neighborhoods. Two elementary schools and one community playground are located in North Fair Oaks. Approximately 13.8 acres in the community are vacant.

12.1.2 Vacant and Underutilized Parcels

According to analysis of data obtained from the San Mateo County Assessor's Office in 2009, approximately 2.5 percent (13.8 acres) of all parcels in North Fair Oaks are vacant and about 18.5 percent (103.1 acres) are considered underutilized (i.e., the land is worth more than the existing structures on it). Vacant or underutilized residential parcels (59.0 acres) in the Plan area are evenly distributed. There are no large parcels that provide an opportunity for major residential redevelopment. Approximately 23.2 acres of commercial parcels are either vacant or underutilized; these are concentrated along Middlefield Road and El Camino Real. About 34.7 acres of industrial parcels--concentrated north of Fair Oaks Avenue and west of 2nd Avenue, as well as along the SPR tracks--are either vacant or underutilized.

12.1.3 Block Pattern and Connectivity

Block sizes and street orientation vary throughout North Fair Oaks. Block lengths vary from 200 feet to 1,600. Streets generally follow a rectilinear pattern within a street grid. East-west connectivity is provided by Bay Road, Spring Street, Middlefield Road, and El Camino Real. North-west connections are provided by 2nd Avenue, 5th Avenue, and Marsh Road. 5th Avenue is the only street in the Plan area that provides an uninterrupted connection between the north and south edges of North Fair Oaks. Otherwise, railroad tracks act as barriers through the central and southern portions of the Plan area, frequently resulting in dead-end north-south streets.

12.2 REGULATORY SETTING

12.2.1 1979 North Fair Oaks Community Plan

The original North Fair Oaks Community Plan, prepared through the cooperative efforts of the San Mateo County Planning Commission, North Fair Oaks Advisory Council, and County Planning staff in 1979, addresses key goals for land use, housing, circulation, parks and recreation, economic development, and government organization. The 1979 Plan remains in effect, and identifies specific policies to support implementation of key goals. Prepared in response to issues identified in a 1976 North Fair Oaks Community Profile and 1977 Options Report, the 1979 Plan was adopted as an amendment to the San Mateo County General Plan. Key goals in the 1979 Plan include:

- Create a land use pattern which is compatible with the predominantly low-density, single-family residential character of the community while maintaining a strong commercial and industrial base.
- Provide a sufficient supply of safe, sanitary housing of adequate size for all North Fair Oaks residents, at an affordable cost.
- Alleviate traffic conflicts and promote the use of public transit.
- Provide park and recreation services that are convenient and fulfill the needs of a majority of North Fair Oaks residents.
- Maintain a commercial/industrial base which contributes to the economic well being of the community while controlling the external effects upon residential developments.
- Provide a governmental structure which best serves a majority of North Fair Oaks residents.

The currently proposed project (2011 Community Plan Update), if adopted, would replace the 1979 Plan.

12.2.2 San Mateo County General Plan (1986)

(a) Existing General Plan Land Use Designations. The San Mateo County General Plan includes the seven state-mandated elements (land use, circulation, housing, conservation, open space, noise, and safety) in addition to several optional elements. The Land Use Element

defines the type, location, intensity, and density of development allowed in all unincorporated parts of the County, including North Fair Oaks. These General Plan land use designations for the North Fair Oaks planning area are described below and illustrated on Figure 12.1. The designations are categorized into four groups: Residential Neighborhoods, Commercial, Industrial, and Public.

(1) Residential Neighborhoods:

Low Density Residential: This designation is intended for low density residential uses that are located in hillside areas with steep slopes, adjacent to sensitive habitats or hazardous areas, or in areas that do not have high perceived noise levels. The allowable density is 0.3 to 2.3 dwelling units per acre.

Medium Low Density Residential: This designation is intended for medium low density residential that is located in hillside areas with steep slopes, adjacent to sensitive habitats or hazardous areas, or in areas that do not have high perceived noise levels. The allowable density is 2.4 to 6.0 dwelling units per acre.

Medium Density Residential: This designation is intended for medium density residential uses that are close to adequate public services and facilities, along or near major transportation corridors, or in areas that do not have high perceived noise levels. The allowable density is 6.1 to 8.7 dwelling units per acre.

Medium High Density Residential: This designation is intended for medium high density residential uses that are along transportation corridors, adjacent to or in conjunction with commercial land uses, near employment centers, next to public services and facilities, on large vacant parcels on the edge or outside of single-family neighborhoods, or in areas that do not have high perceived noise levels. The allowable density is 8.8 to 17.4 dwelling units per acre.

High Density Residential: This designation is intended for high density residential uses that are along transportation corridors, adjacent to or in conjunction with commercial land uses, near employment centers, next to public services and facilities, on large vacant parcels on the edge or outside of single-family neighborhoods, or in areas that do not have high perceived noise levels. The allowable density is 17.5 to 87.0 dwelling units per acre.

(2) Commercial Districts:

Neighborhood Commercial: This designation is intended for neighborhood commercial uses where there is a demand for neighborhood commercial services; a variety of compatible commercial uses can be concentrated; convenient automobile access, parking facilities and other improvements can be provided; or next or close to major transportation routes but not in long, continuous strips or isolated locations.

General Commercial: This designation is intended for general commercial uses where there is a demand for general commercial services; a variety of compatible commercial uses that can be concentrated; convenient automobile access, parking facilities and other improvements can be provided; and next or close to major transportation routes but not in long, continuous strips or isolated locations.

SOURCE: Wagstaff/MIG

Figure 12.1

EXISTING GENERAL PLAN LAND USE DESIGNATIONS

(3) Industrial:

General Industrial: This designation is intended for general industrial uses that have access to housing opportunities, sufficient and available existing or potential urban services, and proximate and convenient major transportation facilities (road, transit and/or rail).

(4) Public:

Parks: The Parks (open space) designation is intended for areas suitable for natural resource protection and managed production of resources, where it is necessary to protect the public health and safety, and where outdoor recreation is or could be suitably provided.

Institutional: The institutional designation is intended for uses suitable for educational facilities, government facilities, other public facilities, and on parcels owned by public agencies and suitable for development of community and public uses.

(b) General Plan Policies. The following policies of the San Mateo County General Plan are relevant to consideration of the land use and planning impacts of the proposed Community Plan Update:

(1) Vegetative, Water, Fish and Wildlife Element:

1.27 Regulate Development to Protect Sensitive Habitats. Regulate land uses and development activities within and adjacent to sensitive habitats in order to protect critical vegetative, water, fish and wildlife resources; protect rare, endangered, and unique plants and animals from reduction in their range or degradation of their environment; and protect and maintain the biological productivity of important plant and animal habitats.

1.28 Establish Buffer Zones. Establish necessary buffer zones adjacent to sensitive habitats which include areas that directly affect the natural conditions in the habitats.

(2) General Land Use Element:

7.1 Fiscal. Distribute the designation of land uses to balance the costs of providing public services and facilities with generating public revenues.

7.3 Infrastructure. Distribute land uses where public services and facilities exist or can be feasibly provided (e.g., sewer and water systems) in order to achieve maximum efficiency.

7.16 Land Use Objectives for Urban Areas. Locate land use designations in urban areas (urban unincorporated areas) in order to: (1) maximize the efficiency of public facilities, services and utilities, (2) minimize energy consumption, (3) encourage the orderly formation and development of local government agencies, (4) protect and enhance the natural environment, (5) revitalize existing developed areas, and (6) discourage urban sprawl.

7.17 Appropriate Land Use Designations for Urban Areas. In order to meet land use objectives, primarily plan for the following generalized land use designations in urban areas: (1) Residential, (2) Commercial, (3) Office, (4) Industrial, (5) Airport, (6) Institutional, (7) Recreation, and (8) General Open Space.

(3) Urban Land Use Element:

8.1 Urban Land Use Planning. Plan for a compatible and harmonious arrangement of land uses in urban areas by providing a type and mix of functionally well-integrated land uses which meets general social and economic needs.

8.2 Land Use Objectives for Urban Communities.

a. Plan Urban Communities to be balanced, self-contained areas which have a sufficient mix of urban land uses to support the internal housing, employment, shopping, and recreation needs of the community;

b. Provide a mix of residential, commercial, and industrial land uses which will generate sufficient tax revenues to pay for the costs of providing desired levels of services and facilities;

c. Provide a mix of commercial and industrial uses in order to maintain, support, and strengthen local economies;

d. Provide a mix and an amount of residential land uses which will provide a substantial amount of housing opportunities in unincorporated areas;

e. Establish land use patterns which give Urban Communities strong, individual and identifiable characters.

8.11 General Plan Land Use Designations for Urban Areas.

a. Adopt the land use designations, and amendments thereto, of the: (1) Local Coastal Program, (2) Emerald Lake Hills Community Plan, and (3) North Fair Oaks Community Plan and other future area plans as the proposed General Plan land use designations in these urban areas.

b. Reflect these adopted area plan land use designations on the General Plan Proposed Land Use Maps....

8.14 Land Use Compatibility.

a. Protect and enhance the character of existing single-family areas.

b. Protect existing single-family areas from adjacent incompatible land use designations which would degrade the environmental quality and economic stability of the area.

8.15 Land Use Compatibility. Ensure that commercial development is compatible with adjacent land uses.

8.16 Commercial Recreation. Where appropriate, separate neighborhood commercial land uses from commercial recreation land uses.

8.17 Buffers. Buffer commercial land uses when needed to protect contiguous residential uses.

8.18 Standards. Regulate commercial development by enforcing development standards (e.g., site planning, design, and construction standards) and performance standards to ensure high quality commercial development.

8.19 Redevelopment. Encourage the redevelopment of existing commercial land uses in a manner which is compatible with surrounding land uses.

8.20 Industrial Planning. Plan for industrial land uses to provide an adequate tax base and source of employment.

8.21 Industrial Expansion. Designate land to allow for future industrial expansion.

8.22 Concentration of Uses. Concentrate the location of industrial land uses in order to achieve an efficient use of transportation facilities and energy supplies.

8.23 Land Use Compatibility. Ensure that industrial development is compatible with adjacent land uses.

8.24 Buffers. Buffer industrial development when needed to protect adjacent land uses.

8.25 Large Parcels. In order to achieve greater site planning flexibility and compatibility with adjacent land uses, consider industrial designations as more appropriate for large parcels. [*Large parcels are generally 20,000 square feet or greater.]*

8.26 Recreational Land Use Planning. Plan for recreational land uses to provide recreational opportunities.

8.27 Parcel Consolidation. Where necessary to achieve quality site planning and greater design flexibility, encourage the consolidation of smaller parcels which are designated for intense land uses, including, but not limited to, Industrial, Medium High and High Density Residential.

8.28 Density Bonuses. Consider allowing density bonuses for developments which consolidate smaller parcels that are designated Medium High to High Density Residential.

8.29 Infilling. Encourage the infilling of urban areas where infrastructure and services are available.

8.30 Mixed Use. Encourage development which contains a combination of land uses (mixed-use development), particularly commercial and residential developments along major transportation corridors.

8.34 Zoning Regulations. To ensure that development is consistent with land use designations, continue to use zoning districts which regulate development by applying specific standards.

8.35 Uses. Allow uses in zoning districts that are consistent with the overall land use designation.

8.36 Density. Regulate maximum allowable densities in zoning districts in order to: (1) ensure a level of development that is consistent with land use designations, (2) plan for the efficient provision of public facilities, services, and infrastructure, and (3) minimize exposure to natural and man-made hazards.

8.37 Parcel Sizes. Regulate minimum parcel sizes in zoning districts in an attempt to: (1) ensure that parcels are usable and developable, (2) establish orderly and compatible development patterns, (3) protect public health and safety, and (4) minimize significant losses of property values.

(4) Housing Element:

14.12 Preserve Existing Single-Family Residential Areas. Preserve and enhance the character of existing single-family residential areas by limiting adjacent land use designations to those that are compatible. Consider compatible land use designations to be residential, neighborhood commercial or mixed uses that include multi-family housing; locate compatible land uses in areas currently in transition and along traffic corridors.

14.19 Encourage New Housing Near Employment and Services. Encourage the provision of housing near employment centers and/or where adequate infrastructure and services exist or can be provided. Identify these areas, as well as their potential for additional residential and mixed-use development in future planning studies and documents.

14.20 Increase Land Available for Residential Use. Increase the amount of land available for residential use by considering: (a) the designation and zoning of undeveloped or underutilized land for residential development consistent with Policy 14.20 and the Locational Criteria contained in Table 8.1P of the Urban Land Use chapter; (b) the rezoning to multi-family densities of suitable large vacant parcels on the edge or outside of single-family neighborhoods; (c) the application of mixed-use zoning combining residential uses with compatible commercial or industrial uses; (d) the use of airspace above appropriate facilities as sites for housing; and (e) the conversion of land zoned for office development to residential or mixed use, or the conversion of underutilized office space to housing.

14.21 Require Development Densities Consistent with General Plan. Require the density of residential developments to be within the range specified by the General Plan Land Use and Zoning Designation. Encourage approval of residential development proposals at the maximum density permitted by zoning, provided environmental impacts can be mitigated to a less than significant level or a statement of overriding considerations is adopted. Search for ways to mitigate environmental impacts other than by lowering densities; consider a reduction in density only after all other mitigating measures have been determined to be infeasible.

14.22 Ensure that Sufficient Land is Available to Meet Future Housing Needs. Ensure that there is a sufficient amount of land available to meet future housing needs by identifying and, if necessary, proposing General Plan changes and rezoning of vacant and underutilized land suitable for multi-family residential and mixed-use development.

14.29 Encourage the Use of Alternative Housing Types and the Planned Unit Development District. Reduce construction costs by continuing to encourage: (a) alternative housing types, such as manufactured homes or (b) flexible site design standards, through the use of the Planned Unit Development District, where appropriate.

12.2.3 San Mateo County Zoning (1999)

The Zoning Regulations (Regulations) for San Mateo County, published in 1999, implement the land use policies of the County General Plan. The Regulations include zoning districts, which define the type and character of development that is allowed on each parcel in the County, including North Fair Oaks. Districts defined within the Plan area are listed in Table 12.1 and illustrated on Figure 12.2.

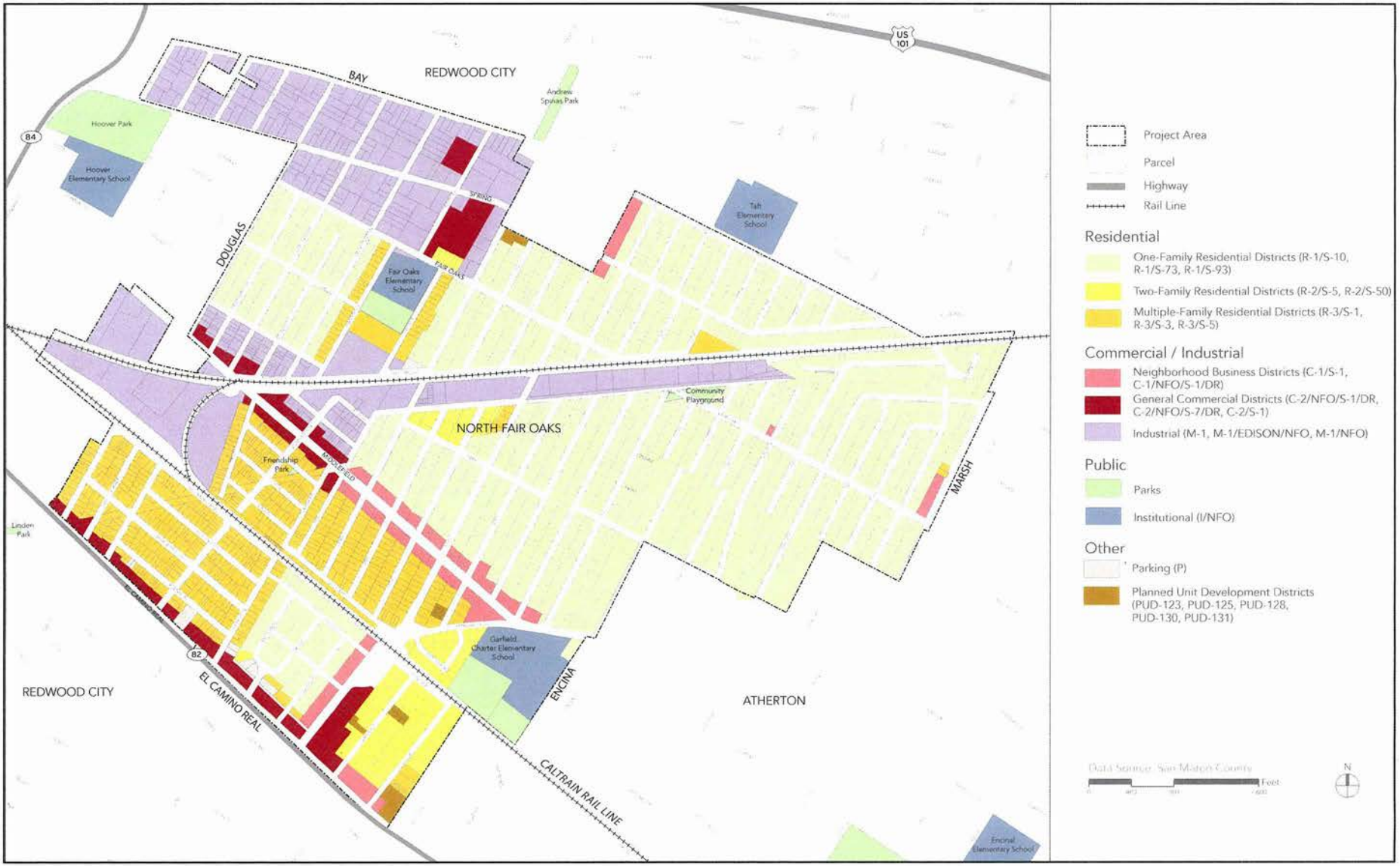
Table 12.1
BASE ZONING DISTRICTS IN NORTH FAIR OAKS

Zoning Designation	Description
R-1 One-Family Residential District (271.7 acres in Plan area)	The R-1 zoning district is intended for single-family dwellings. The R-1 zoning district is consistent with the Medium Density Residential land use designation of the General Plan. It is combined with the S-10, S-73, and S-93 districts in North Fair Oaks.
R-2 Two-Family Residential District (23.4 acres in Plan area)	The R-2 zoning district is intended for two-family dwellings. The R-2 zoning district is consistent with the Medium High Density Residential and High Density Residential land use designations of the General Plan. It is combined with the S-5 and S-50 districts in North Fair Oaks.
R-3 Multiple-Family Residential District (76.8 acres in Plan area)	The R-3 zoning district is intended for multiple-family dwellings. The R-3 zoning district is consistent with the Medium High Density Residential land use designation of the General Plan. It is combined with the S-1, S-3, and S-5 districts in North Fair Oaks.
PUD Planned Unit Development District (2.7 acres in Plan area)	The PUD zoning district is intended to allow a mix of uses based on a plan for future development of the PUD area, as approved by the Planning Commission, and consistent with the character of the surrounding community.
P Parking District (1.9 acres in Plan area)	The P zoning district is intended for the temporary parking of self-propelled private passenger vehicles.
H-1 Limited Highway Frontage District	The H-1 zoning district is intended to regulate the land uses adjacent to highways.
I/NFO Institutional (North Fair Oaks) (23.8 acres in Plan area)	The I/NFO zoning district is intended for institutional areas, specifically for the location of public and private facilities which serve educational, cultural, and public service needs of the community and region. The I/NFO zoning district is consistent with the Institutional land use designation of the General Plan.
C-1 Neighborhood Business District (C-1 districts combined total 17.1 acres in Plan area)	The C-1 zoning district is intended for commercial uses including retail stores, shops, and businesses. The C-1 zoning district is consistent with the Neighborhood Commercial land use designation of the General Plan. It is combined with the S-1 district in North Fair Oaks.
C-1/NFO Neighborhood Business District/North Fair Oaks	The C-1/NFO zoning district is intended for commercial areas with a limited number of trades and services that serve the needs of surrounding residential areas of North Fair Oaks. The C-1/NFO zoning district is consistent with the Neighborhood Commercial land use designation of the General Plan. It is combined with the S-1 district in North Fair Oaks.

Table 12.1 (cont.)
BASE ZONING DISTRICTS IN NORTH FAIR OAKS

Zoning Designation	Description
C-2 General Commercial District (C-2 districts combined total 22.8 acres in Plan area)	The C-2 zoning district is consistent with the General Commercial land use designation of the General Plan. It is combined with the S-1 and S-7 districts in North Fair Oaks.
C-2/NFO General Commercial District/North Fair Oaks	The C-1/NFO zoning district is intended for commercial areas with a limited range of trades and services to serve the needs of the surrounding community and region. The C-1/NFO zoning district is consistent with the General Commercial land use designation of the General Plan. It is combined with the S-1 district in North Fair Oaks.
M-1 Light Industrial District (M-1 districts combined total 117.2 acres in Plan area)	The M-1 zoning district is intended for industrial uses that meet the Planning Commission's approval for odor, dust, smoke, gas, noise or vibration impacts. The M-1 zoning district is consistent with the General Industrial land use designation of the General Plan.
M-1/EDISON/NFO Light Industrial District/Edison Way/North Fair Oaks	The M-1/EDISON/NFO zoning district is intended for the location of light manufacturing land uses that minimize the impact on, and are adequately scaled and set back from, the surrounding residential land uses. The M-1/EDISON/NFO zoning district is consistent with the General Industrial land use designation of the General Plan.
M-1/NFO Light Industrial District/North Fair Oaks	The M-1/NFO zoning district is intended primarily for the location of manufacturing land uses that do not create more than a moderate impact on the surrounding area and are adequately scaled and setback from adjacent residential land uses. The M-1/NFO zoning district is consistent with the General Industrial land use designation of the General Plan.
DR Design Review District	The DR district designates areas that have specific design guidelines for new buildings, as specified in the Zoning Regulations. Projects in DR districts must be reviewed and approved by the Design Review Committee.

SOURCE: Zoning Regulations for San Mateo County (1999), MIG (2011).



SOURCE: Wagstaff/MIG

Figure 12.2

EXISTING ZONING DESIGNATIONS

The base zoning districts are typically combined with overlay (or "Combining") zoning designations, which further define the types of development allowed in each area. The combining districts in North Fair Oaks include: S-1; S-3; S-5; S-7; S-10; S-50 (North Fair Oaks); S-73 (North Fair Oaks); and S-93 (North Fair Oaks). Development standards for these districts are listed in Table 12.2.

12.2.4 San Mateo County Housing Element (2004) and Housing Element Update (2010)

The Housing Element of the San Mateo County General Plan establishes the County's housing policies. The existing Housing Element was adopted in 2004; the County is also currently updating the Housing Element, and the updated Housing Element will replace the existing Housing Element on adoption. The existing and updated Housing Elements are both intended to ensure that decent, safe, affordable shelter is provided for all residents in the unincorporated County. The Community Plan Update effort has been closely coordinated with both the existing Housing Element and with the Housing Element Update effort to ensure consistency in addressing critical needs and priorities in North Fair Oaks.

12.2.5 Transportation 2035 Plan for the San Francisco Bay Area (2009)

The Metropolitan Transportation Commission (MTC) has adopted a *Transportation 2035 Plan for the San Francisco Bay Area* (Transportation 2035), which specifies how $218 billion in anticipated federal, state, and local transportation funds will be spent in the nine-county Bay Area over the next 25 years. Transportation 2035 was developed in collaboration with the California Department of Transportation (Caltrans), county congestion management agencies, Association of Bay Area Governments (ABAG), Bay Area Air Quality Management District (BAAQMD), and Bay Conservation and Development Commission (BCDC).

The vision for Transportation 2035 is to support a prosperous and globally competitive Bay Area economy, provide for a healthy and safe environment, and promote equitable mobility opportunities for all residents. Among the cornerstones of the new plan are a joint regional planning initiative known as FOCUS, which provides incentives for cities and counties to promote future growth near transit in already urbanized portions of the Bay Area. The plan also launches a Transportation Climate Action Campaign to reduce transportation-related greenhouse gas emissions.

Major transit projects included in Transportation 2035 that may be relevant to North Fair Oaks include the electrification of the Peninsula Caltrain system. Of the total $218 billion in transportation revenues that MTC anticipates coming to the Bay Area during the next quarter century, public transit operations, maintenance, and expansion will receive $142 billion. The remainder includes 30 percent ($66 billion) for street, road and highway maintenance, and 5 percent ($11 billion) for roadway expansion.[1]

12.2.6 FOCUS Program

"Focusing Our Vision" (FOCUS) is a Bay Area-wide effort, headed by the MTC and ABAG, to promote compact and equitable development that protects and enhances quality of life, and preserves open space and agricultural resources. FOCUS seeks to strengthen existing city centers, locate more housing near existing and future rail stations and quality bus lines,

[1] www.mtc.ca.gov/planning/2035_plan/

Table 12.2
EXISTING DEVELOPMENT STANDARDS FOR COMBINING DISTRICTS

District	Minimum Building Site		Minimum Lot Area Per Dwelling Unit (Sq. Ft.)	Minimum Yards Required			Maximum Height Permitted		Maximum Coverage Permitted (%)	Maximum Development Density (Dwelling Units/Net Acre)
	Average Width (Ft.)	Minimum Area (Ft.)		Front (Ft.)	Side (Ft.)	Rear (Ft.)	Stories	Ft.		
S-1	50	5,000	500	20	5	20	3	36	50	
S-3	50	5,000	1,250	20	5	20	3	36	50	
S-5	50	5,000	2,500	20	5	20	3	36	50	
S-7	50	5,000	5,000	20	5	20	3	36	50	
S-10	75	20,000	20,000	20	10	20	3	36	25	
S-50*	50	5,000		20	5	20	2	28	50	17.4
S-73*	50	5,000		20	5	20	2	28	50	8.7
S-93*	50	10,000		20	10	20	2	30	30	6.0

SOURCE: Zoning Regulations for San Mateo County.

*S-50 The total floor area of all stories of all buildings on a parcel shall not exceed 45% of the total parcel area. When the side property line fronts a public or private street, the minimum setback shall be 10 feet. The daylight plane shall be established by measuring along all setback lines a vertical distance of 20 feet from the existing grade and then inward at an angle of 45 degrees until a maximum height of 28 feet is reached.

*S-73 The total floor area of all stories of all buildings on a parcel shall not exceed 2,600 sq. ft. if the building site area is less or equal to 5,000 sq. ft and should be {.26(building site area - 5000) + 2,600 sq. ft} if greater than 5,000 sq. ft. When the side property line fronts a public or private street, the minimum setback shall be 10 feet. The daylight planes shall be established by measuring along the side setback lines a vertical distance of 16 feet from the existing grade and then inward at an angle of 45 degrees until a maximum height of 28 feet is reached.

*S-93 The total floor area of all stories of all buildings on a parcel should be {.26(building site area - 5000) + 2,600 sq. ft} if greater than 5,000 sq. ft. The daylight planes shall be established by measuring along the side setback lines a vertical distance of 20 feet from the existing grade and then inward at an angle of 45 degrees until a maximum height of 30 feet is reached.

encourage more compact and walkable suburbs, and protect regional open space. The primary goals of FOCUS are to encourage future growth near transit and in the existing communities that surround San Francisco Bay, enhance existing neighborhoods, and provide housing and transportation choices for all residents.

Through FOCUS, regional agencies support local governments' commitment to these goals by working to direct existing and future incentives to Priority Development Areas (PDAs) and Priority Conservation Areas (PCAs). PDAs have been identified throughout the Bay Area based on locally-identified infill development opportunities near transit. PCAs have also been identified throughout the region, encompassing regionally significant open spaces with broad consensus for long-term protection.

The compact growth envisioned for PDAs is based in large part on local aspirations and community context. PDAs may be designated either "Potential" or "Planned," based on the progress of community planning for the area.

North Fair Oaks has been designated a FOCUS Potential PDA, making it eligible for grant funding from MTC. The Community Plan Update has been funded primarily from these MTC grant funds, in combination with funds from the County Housing Department.

12.2.7 Middlefield Pedestrian Safety Project

A pedestrian safety assessment of Middlefield Avenue, led by San Mateo County Public Works, is underway. Its recommendations will be incorporated into the Community Plan Update.

12.2.8 California High Speed Rail Project

The California High-Speed Rail (HSR) project is a state-funded future high-speed rail system implementation program. The project was approved by California voters on November 4, 2008 with the passage of Proposition 1A authorizing $9.95 billion in general obligation bonds for the project. The project that is headed by California High-Speed Rail Authority (CHSRA). The CHSRA is currently tasked with completing final planning, design, and environmental efforts. When built, high-speed trains capable of traveling at speeds of up to 220 mph will link San Francisco and Los Angeles in as little as two and a half hours. The planned system would also serve other major California cities, such as Sacramento, San Jose, Fresno, Bakersfield, and San Diego.

Construction efforts are anticipated to begin in 2011. An implementation plan approved in August 2005 estimated that it would take eight to eleven years to "develop and begin operation of an initial segment of the California high-speed train."

The currently proposed HSR alignment will pass through North Fair Oaks along the Caltrain railroad right-of-way. The HSR alignment will have potentially significant impacts on the community. The Community Plan Update, as well as other community efforts, represent one means to ensure that local community input is adequately considered in HSR planning and design, that any related impacts on local communities are mitigated, and that potential local community benefits are maximized.

12.2.9 Dumbarton Rail Corridor Project

The proposed Dumbarton Rail Corridor Project would extend commuter rail service across the southern portion of San Francisco Bay between the Peninsula and the East Bay by connecting the Redwood City Caltrain Station with the Union City BART station. As currently proposed, the rail corridor would link Caltrain, the Altamont Express, Amtrak's Capitol Corridor and BART, as well as East Bay bus systems, via a multi-modal transit center in Union City.

The current rail corridor reconstruction proposal would include track improvements, a new moveable rail bridge, four stations, and a centralized traffic control system. Six round-trip trains would travel from Union City during peak commute hours. Three of these trains would travel to San Francisco and three to San Jose.

The proposed Dumbarton Rail alignment to San Francisco would pass through North Fair Oaks along the existing Southern Pacific Railroad right-of-way. The Community Plan Update process is exploring the potential impacts and benefits of the Dumbarton Rail Project, and the feasibility and potential for locating a station along this alignment in North Fair Oaks.

12.3 IMPACTS AND MITIGATION MEASURES

12.3.1 Significance Criteria

Based on the CEQA Guidelines,[1] the Community Plan Update would be considered to have a significant impact related to land use and planning if it would:

(a) Disrupt or divide the physical arrangement of a community;

(b) Be incompatible with existing land use in the vicinity; or

(c) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect.

12.3.2 Community Plan Update Growth Impacts

(a) Development Capacity Assumptions. Table 12.3 identifies the Community Plan Update-related development capacity assumptions used in this EIR. As shown in the Table, the Community Plan Update would allow up to approximately 3,024 additional dwelling units, 155,000 additional square feet of office uses, 180,000 additional square feet of retail uses, 210,000 additional square feet of industrial (R&D and general) uses, 110,000 additional square feet of institutional (community and school) uses, and 3.8 additional acres of public (parks and recreation) uses within the Plan area. This development capacity projection includes the Plan Update-proposed development intensification allowances within the five Opportunity Areas described in EIR subsection 3.4.2 (Development Framework), as well as infill development and redevelopment throughout the Plan area.

[1] CEQA Guidelines, Appendix G, Items II(a), II(c), IX(a), and IX(b).

(b) CEQA Definition of Cumulative Impacts. According to CEQA Guidelines Section 15355, "Cumulative impacts refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." CEQA Guidelines Section 15130(a) requires that cumulative impacts be discussed when the project's incremental effect is cumulatively considerable, as defined in Section 15065(c). "Cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects. Section 15130 of the CEQA Guidelines states that "the discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone."

The CEQA Guidelines provide that a lead agency may describe the cumulative environment by either a listing of pending, proposed, or reasonably anticipated projects, or a summary of projections contained in an adopted general plan or a related planning document that describes area-wide or regional cumulative conditions. The project and cumulative impact analyses in this EIR are based on the Plan area buildout (total Community Plan development capacity) totals listed in Table 12.3, and cumulative growth projections developed for the region by the City of Redwood City for its City Travel Demand Model and recently adopted General Plan. The Redwood City traffic model was derived from the broader City/County Association of Governments of San Mateo County (C/CAG) travel demand forecasting model, which reflects General Plan-based local and regional development, population, housing, and employment forecasts.

12.3.3 Impacts and Mitigation Measures

This subsection discusses potential land use impacts of the Community Plan Update with respect to community cohesion, land use compatibility, conformity with plans and policies, and contribution to cumulative land use impacts.

Impacts on the Physical Arrangement of the Community. The Community Plan Update would not further disrupt or divide the physical arrangement of the North Fair Oaks community or any surrounding community. As described in section 12.1 (Environmental Setting) of this EIR chapter, North Fair Oaks is currently subject to many *existing conditions* that disrupt and divide the community, such as: (1) Caltrain and SPR tracks that traverse the community and act as barriers, disrupting the street grid system (resulting in many dead end streets) and limiting connectivity between neighborhoods; and (2) vacant and underutilized (i.e., the land is worth more than the existing structures on it) parcels that physically disrupt the physical arrangement of the community.

As discussed in Chapter 3 (Project Description), the proposed Community Plan Update includes numerous objectives, goals, policies, development standards, and design guidelines within a development framework designed specifically to improve the existing physical connections (for pedestrians, bicycles, transit, and vehicles), and create new connections, between the neighborhoods of North Fair Oaks and between North Fair Oaks and surrounding communities.

New development under the Community Plan Update would occur primarily as infill. Plan-facilitated infill development on vacant land, and intensification and revitalization of underutilized properties, would result in more consolidated, coherent, and compatible land use patterns and physical connections, as well as a more unified development character. Implementation of the

Table 12.3
COMMUNITY PLAN UPDATE DEVELOPMENT CAPACITY ASSUMPTIONS

	Residential (dwelling units)		Commercial (s.f.)		Industrial (s.f.)		Institutional (s.f.)	Public (ac.)
	Single-Family	Multi-Family	Office	Retail	R&D	General	(Community/Schools)	(Parks/Recreation)
Existing	**2,700**	**1,550**	**180,000**	**500,000**	**125,000**	**1,150,000**	**675,000**	**10.0**
Proposed Plan Land Use Designation								
Neighborhood Mixed-Use (14 acres)		336	20,000	30,000			15,000	0.5
Commercial Mixed-Use (51 acres)		2,040	65,000	75,000			35,000	1.5
Industrial Mixed-Use (81 acres)		648	70,000	75,000	90,000	120,000	60,000	1.8
Subtotal (Net New Development)		**3,024**	**155,000**	**180,000**	**90,000**	**120,000**	**110,000**	**3.8**
Total Development Capacity	***2,700***	***4,574***	***335,000***	***680,000***	***215,000***	***1,270,000***	***785,000***	***13.8***

SOURCE: MIG and County of San Mateo, May 2011.

updated Community Plan would also improve pedestrian, bicycle, and transit connectivity, thereby creating a land use context more supportive of pedestrians and bicycles and increasing pedestrian and bicycle safety.

Based on the above evaluation, the impacts of the updated Community Plan on the physical arrangement and cohesion of the North Fair Oaks community and surrounding communities would represent a ***beneficial effect***.

Mitigation. No significant impact has been identified; no mitigation is required.

Land Use Compatibility Impacts. Development in North Fair Oaks in accordance with the updated Community Plan would result in an intensification of land use and the creation of different types of land uses on existing vacant or underutilized parcels or where existing uses do not conform to the goals, policies, and development framework of the updated Plan. As a long-range Community Plan Update, the project would not force any property owner of a non-conforming use to change the use of the property unless and until the property owner proposes a land use change. This Plan Update-guided shift to conforming uses would be expected to result in a reduction in nuisance-prone land uses and an increase in land uses more compatible with adjacent uses and policies of the Community Plan Update. In addition, the Community Plan Update does not propose any change in land use for existing single-family and multi-family residential properties.

Any public or private sector development that may be undertaken, encouraged, or accommodated by the Community Plan Update would be subject to the Plan's policies, development framework, development standards, and design guidelines, as well as the County's standard development review, design review, and environmental review process for individual future site-specific projects. These regulations and protocols would be expected to sufficiently address and mitigate potential land use compatibility impacts. The impacts of the Community Plan Update on land use compatibility would therefore represent a ***less-than-significant impact.***

Mitigation. No significant impact has been identified; no mitigation is required.

Consistency with Plans and Policies. The Community Plan Update would allow up to approximately 3,024 additional dwelling units, 155,000 additional square feet of office uses, 180,000 additional square feet of retail uses, 210,000 additional square feet of industrial (R&D and general) uses, 110,000 additional square feet of institutional (community and school) uses, and 3.8 additional acres of public (parks and recreation) uses in North Fair Oaks. The discussion below regarding plan and policy consistency correlates with the information in Section 12.2 (Regulatory Setting) of this chapter.

(a) 1979 North Fair Oaks Community Plan. The 2011 Community Plan would replace the original 1979 Community Plan, and the proposed land use designations identified in Chapter 3 (Project Description, especially Figure 3.3) of this EIR would replace the existing General Plan land use designations identified on Figure 12.1.

(b) San Mateo County General Plan. The updated Community Plan would be consistent with, and would serve to implement, applicable policies of the San Mateo County General Plan, as

listed in Subsection 12.2.2.b (General Plan Policies) of this EIR chapter. For example, because the updated Plan would provide a more intensive mix of interrelated land uses within cohesive and connected neighborhoods, the Plan would result in: more efficient uses of resources, consistent with County General Plan policies regarding infrastructure (Policy 7.3); an improved land use mix (Policies 8.1, 8.2, and 8.11--which specifically request such amendments to the 1979 North Fair Oaks Community Plan); protection of existing single-family areas (Policies 8.14 and 14.12); and encouragement of new housing near employment and services (Policy 14.19). Therefore, the Community Plan Update is considered substantially consistent with the San Mateo County General Plan.

(c) San Mateo County Zoning and Subdivision Regulations. Implementation of the Community Plan Update would require zoning amendments and amendments to the County subdivision regulations to reflect and implement the revised land uses, policies, development standards, design guidelines, programs, and strategies specified by the updated Community Plan. The development framework, land use plan, development standards, and design guidelines, as described and illustrated in EIR Chapter 3 (Project Description, including Figure 3.3), would serve as the guide to the associated zoning and subdivision regulation amendments.

(d) San Mateo County Housing Element. As noted in Subsection 12.2.4, the Community Plan Update has been closely coordinated with the County's current Housing Element, as well as the County's ongoing update to the Housing Element, to address critical needs and priorities in North Fair Oaks in a consistent manner. Therefore, the updated Community Plan is considered substantially consistent with both the existing Housing Element and the policies incorporated in the updated Housing Element.

(e) Transportation 2035 Plan for the San Francisco Bay Area. The Community Plan Update is also considered substantially consistent with the MTC Transportation 2035 Plan (see Subsection 12.2.5 of this chapter), primarily because the Community Plan designates and would facilitate future growth near potential new transit opportunities (e.g., Dumbarton Rail Corridor Project, Caltrain, Redwood City Light Rail, High Speed Rail).

(f) FOCUS Program. The Community Plan Update is considered substantially consistent with the FOCUS Program (see Subsection 12.2.6 herein). North Fair Oaks has been designated a FOCUS Potential Priority Development Area (PDA), and the updated Community Plan provides for development opportunities near transit, consistent with FOCUS criteria and goals. The Community Plan Update is funded primarily through a FOCUS grant.

(g) Middlefield Pedestrian Safety Project. As noted in Subsection 12.2.7 of this chapter, the recommendations of the Middlefield Pedestrian Safety Program have been incorporated into the Community Plan Update. Therefore, the Community Plan is considered substantially consistent with the Middlefield Project.

(h) California High Speed Rail Project. Still in the early planning stage, the California High Speed Rail (HSR) Project could pass through North Fair Oaks along the Caltrain right-of-way. The Community Plan Update has been formulated to help ensure that any future HSR project is compatible with community goals and policies (see Subsection 12.2.8 herein). In addition, the Noise and Transportation chapters of this Draft EIR address the potential traffic safety and noise implications of a possible HRS track alignment through the Plan area and any associated special mitigation needs.

(i) Dumbarton Rail Corridor Project. The proposed Dumbarton Rail alignment would pass through North Fair Oaks along the existing Southern Pacific Railroad right-of-way. Although the corridor project is in the planning stage and specific details have not been decided upon, the Community Plan Update has been formulated to accommodate the potential rail corridor project. In addition, the Noise and Transportation chapters of this Draft EIR address the potential traffic safety and noise implications of a possible HRS track alignment through the Plan area and any associated special mitigation needs.

Based on the above evaluation, the Community Plan Update is considered substantially consistent with other applicable land use plans, policies, and regulations, thereby resulting in a ***less-than-significant impact.***

Cumulative Land Use Impacts. As indicated in Subsection 12.3.2 of this EIR chapter, cumulative new residential and non-residential growth is also anticipated to continue in surrounding areas of San Mateo County. As described previously in this EIR section, the Community Plan Update would result in beneficial effects on the physical arrangement of the community, less-than-significant land use compatibility impacts, and substantial conformance with other applicable plans, policies, and regulations. Collectively, these effects would constitute a less than considerable, and therefore ***less-than-significant***, contribution to associated cumulative land use impacts.

Mitigation. No significant contribution to a cumulative land use impact has been identified; no mitigation is required.

13. NOISE AND VIBRATION

This EIR chapter describes the existing noise environment in North Fair Oaks, anticipated changes in the noise environment as a result of development in accordance with the updated Community Plan, and related noise impacts and mitigation needs. The technical analyses for this EIR chapter were completed by the EIR acoustical consultants, Illingworth & Rodkin, Inc.

13.1 ENVIRONMENTAL SETTING

The noise environment within the Plan area is affected by numerous existing sources, including traffic on arterial streets, Caltrain and freight train activity, and aircraft overflights associated with San Francisco International Airport (SFO) and San Carlos Airport. Existing train activity along the Caltrain line and anticipated train activity along the proposed Dumbarton Rail Corridor are also a potential sources of substantial groundborne vibration. To properly describe these conditions, the fundamentals of acoustics and groundborne vibration, and associated local conditions are described below.

13.1.1 Fundamentals of Acoustics

(a) Definitions of Noise. Noise is defined as unwanted sound. The effects of noise can range from interference with sleep, concentration, and communication, to physiological stress, and at higher noise levels, hearing loss. Sound levels are usually measured and expressed in decibels (dB), with 0 dB corresponding roughly to the threshold of hearing. The term "decibels" and other related technical terms are defined in Table 13.1.

(b) Human Sensitivity to Noise. The method commonly used to quantify environmental noise involves measurement of all frequencies of sound, with an adjustment to reflect the fact that human hearing is less sensitive to low and high frequencies than to midrange frequencies. This measurement adjustment is called "A" weighting. A noise level so measured is called an A-weighted sound level (dBA).[1] Examples of typical A-weighted noise levels in the environment and industry are provided in Table 13.2.

Environmental noise fluctuates in intensity over time. Therefore, time-averaged noise level computations are typically used to quantify noise levels and determine impacts. The two average noise level descriptors most commonly used are L_{dn} and CNEL. L_{dn}, the day/night average noise level, is the 24-hour average, with a 10 dBA penalty added for nighttime noise (10:00 PM to 7:00 AM) to account for the greater human sensitivity to noise during this period. CNEL, the community equivalent noise level, is similar to L_{dn}, but adds a five-dBA penalty to evening noise (7:00 PM to 10:00 PM).

[1] In practice, the level of a sound source is conveniently measured using a sound level meter that includes an electrical filter corresponding to the A-weighting curve.

Table 13.1
DEFINITIONS OF ACOUSTICAL TERMS

Term	Definitions
Decibel, dB	A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micropascals (20 micronewtons per square meter).
Frequency	The number of complete pressure fluctuations per second above and below atmospheric pressure.
A-Weighted Sound Level, dBA	The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise. All sound levels in this report are A-weighted.
L_{01}, L_{10}, L_{50}, L_{90}	The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% of the time during the measurement period.
Equivalent Noise Level, L_{eq}	The average A-weighted noise level during the measurement period.
Community Noise Equivalent Level, CNEL	The average A-weighted noise level during a 24-hour day, obtained after addition of 5 decibels in the evening from 7:00 PM to 10:00 PM and after addition of 10 decibels to sound levels in the night between 10:00 PM and 7:00 AM.
Day/Night Noise Level, L_{dn}	The average A-weighted noise level during a 24-hour day, obtained after addition of 10 decibels to levels measured in the night between 10:00 PM and 7:00 AM.
L_{max}, L_{min}	The maximum and minimum A-weighted noise level during the measurement period.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Intrusive	That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level.

SOURCE: Harris, Handbook of Acoustical Measurements and Noise Control, 1998.

Table 13.2
TYPICAL NOISE LEVELS IN THE ENVIRONMENT

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	110 dBA	Rock band
Jet fly-over at 1,000 feet		
	100 dBA	
Gas lawn mower at 3 feet	90 dBA	
Diesel truck at 50 feet at 50 mph		Food blender
	80 dBA	Garbage disposal
Noisy urban area, daytime		
Gas lawn mower, 30 feet	70 dBA	Vacuum cleaner
Commercial area		Normal speech face to face
Heavy traffic at 300 feet	60 dBA	
		Large business office
Quiet urban daytime	50 dBA	Dishwasher in next room
Quiet urban nighttime	40 dBA	Theater, large conference room
Quiet suburban nighttime		
	30 dBA	Library
Quiet rural nighttime		Bedroom at night, concert hall
	20 dBA	
		Broadcast/recording studio
Threshold of human hearing	10 dBA	
	0 dBA	

SOURCE: Caltrans, Technical Noise Supplement (TeNS), November 2009.

One way of anticipating a person's subjective reaction to a new noise is to compare the new noise with the existing noise environment to which the person has become adapted, i.e., the so-called "ambient" noise level. With regard to increases in A-weighted noise levels, knowledge of the following relationships will be helpful in understanding this EIR chapter:

- Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived.
- Outside of the laboratory, a 3 dBA change is considered a just-perceivable difference.
- A change in noise level of at least 5 dBA is required before any noticeable change in community response would be expected.
- A 10 dBA increase is subjectively heard as approximately a doubling in loudness, and would almost certainly cause an adverse change in community response.

(b) Structural Attenuation. Typical structural attenuation is 12-17 dBA with open windows. With closed windows in good condition, the noise attenuation factor is around 20 dBA for an older structure and 25 dBA for a newer dwelling. Sleep and speech interference is therefore possible when exterior noise levels are about 57-62 dBA L_{dn} with open windows and 65-70 dBA L_{dn} if the windows are closed.

(c) Typical Noise Levels. Levels of 55-60 dBA are common along collector streets and secondary arterials, while 65-70 dBA is a typical value for a primary/major arterial. Levels of 75-80 dBA are normal noise levels at the first row of development outside a freeway right-of-way. In order to achieve an acceptable interior noise environment, bedrooms facing secondary roadways need to be able to have their windows closed; those facing major roadways and freeways typically need special-glass windows with Sound Transmission Class ratings greater than 30 STC.

(d) Sleep and Speech Interference. The thresholds for speech interference indoors are about 45 dBA if the noise is steady and above 55 dBA if the noise is fluctuating. Outdoors the thresholds are about 15 dBA higher. Steady noise of sufficient intensity (above 35 dBA) and fluctuating noise levels above about 45 dBA have been shown to affect sleep. Interior residential standards for multi-family dwellings are set by the State of California at 45 dBA L_{dn}. Typically, the highest steady traffic noise level during the daytime is about equal to the L_{dn} and nighttime levels are 10 dBA lower. The standard is designed for sleep and speech protection and most jurisdictions apply the same criterion for all residential uses.

13.1.2 Fundamentals of Groundborne Vibration

The vibration effects of railroad traffic are a function of distance from the railroad track, the type and the speed of trains, and the type of track. People's response to ground vibration has been correlated most effectively with the "vibration velocity" level. Like the noise level, the vibration velocity level is expressed on the decibel scale. Following common practice, the abbreviation "VdB" is used in this document to quantify vibration decibels.

Background vibration levels in typical residential areas are usually 50 VdB or lower, well below the threshold of perception for most humans. Perceivable vibration levels inside residences are attributed to the operation of heating and air conditioning systems, door slams, and foot traffic.

Nearby construction activities (in particular, pile driving for taller buildings in certain soil conditions), train operations, and street traffic are some of the most common external sources of perceptible vibration inside residences. Table 13.3 identifies some common sources of vibration, corresponding VdB levels at 50 feet, and associated human perception and potential for structural damage.

13.1.3 Existing Noise Environment

Two-thirds of the Plan area are is comprised of residential land uses. The remaining land uses are classified as commercial, industrial and institutional/public. The primary noise sources in the Plan area are automobile and truck traffic along roadways and train noise along the Caltrain and Southern Pacific Railroad tracks. Intermittent aircraft over-flights are also audible. In addition, noise is generated by existing commercial and industrial development throughout the area, which has a localized effect on noise levels in the vicinity.

July 2008 short-term and long-term measurements made by Illingworth & Rodkin for the City of Redwood City General Plan Noise Element update were used to characterize the existing noise environment in North Fair Oaks. (The City of Redwood City General Plan Planning Area includes the unincorporated community of North Fair Oaks.) Standard measuring practices were followed; sound level meters were calibrated before and after each survey, microphones were fitted with windscreens, and data were gathered during good weather when it was not raining or too windy.

(b) Caltrain Noise. Long-term noise measurements were primarily influenced by Caltrain. The measured CNEL was 79 dBA at 30 feet and 70 dBA at 250 feet from the edge of the Caltrain tracks. The majority of the train passages are Caltrain passenger trains, which occur approximately four times per hour during weekdays (two northbound and two southbound), with additional train operations during commuting hours. Caltrain is not scheduled to operate passenger trains between approximately 12:45 a.m. and 5:15 a.m. Freight trains could operate during these times, and it appears from the measurement data that at least two trains operated during the late night period.

Based on the published Caltrain schedule dated January 1, 2011, 86 Caltrain passenger trains pass through the southwestern portion of the Community Plan area each weekday and about 36 Caltrain trains each Saturday and Sunday. The Redwood City station is located in Downtown Redwood City approximately two miles to the northwest of the Plan area and the Atherton station (open weekends only) is located less than ½-mile to the south. Exposure to Caltrain noise is dependent on proximity to the train line and to crossings where trains use warning horns, as well as shielding by buildings. Estimated noise levels within approximately 200 to 300 feet of Caltrain would exceed 70 dBA CNEL. Estimated Caltrain noise levels farther than 300 feet drop off at a rate of 5 dBA or more due to increased distance and shielding by buildings.

(c) Vehicular Traffic Noise. Vehicular traffic noise levels in North Fair Oaks result from a combination of local and distant traffic. Most streets within the Plan area have relatively low traffic speeds and moderate to low volumes. The combination of local and distant traffic, together with Caltrain results in an ambient noise environment that generally exceeds 60 dBA CNEL throughout the community. The primary sources of traffic noise in the Plan area are El Camino Real, Middlefield Road, Fifth Avenue, Bay Road, and Marsh Road. A typical sidewalk location on El Camino Real 60 feet from the roadway centerline experiences a

Table 13.3
TYPICAL LEVELS OF GROUNDBORNE VIBRATION

Human/Structural Response	Velocity Level, VdB	Typical Events (at 50 feet)
Threshold, minor cosmetic damage	100	Blasting, pile driving, vibratory compaction equipment, heavy tracked vehicles (bulldozers, cranes, drill rigs)
Difficulty with tasks such as reading a video or computer screen	90	Commuter rail, upper range
Residential annoyance, infrequent	80	Rapid transit, upper range
Residential annoyance, occasional	75	Commuter rail, typical bus or truck over bump or on rough roads
Residential annoyance, frequent	70	Rapid transit, typical
Approximate human threshold of perception to vibration	70 60	Buses, trucks and heavy street traffic Background vibration in residential settings in the absence of activity
Lower limit for equipment ultrasensitive to vibration	50	Background vibration in residential settings in the absence of activity

SOURCE: Illingworth & Rodkin, 2011.

noise level of approximately 75 dBA CNEL. Noise levels at similar locations on Middlefield Road, Fifth Avenue, Bay Road, and Marsh Road are approximately 65 to 70 dBA CNEL.

(d) Aircraft Noise. Individual aircraft operations produce intermittent noise within the Plan area; however, these intermittent noise events do not noticeably affect overall measured averaged noise levels. The nearest airport is San Carlos Airport, which is located more than three miles northwest of the Community Plan area.

(e) Miscellaneous Noise Sources. Noise in urban environments is typically characterized by a variety of noise sources, including persistent (continual), and transient (short-term and occasional) noise events. Vehicular traffic, a persistent noise source, tends to dominate the noise environment over a 24-hour period. Typical examples of transient noise sources include car horns, car alarms, loud vehicles or motorcycles, emergency sirens, loud music, mechanical equipment, trucks, and people talking or yelling. Many of these transient sources are common in the Plan area. Although some of these transient sources may be annoying, they do not contribute substantially to the overall ambient noise level in any particular area.

13.2 REGULATORY SETTING

The County of San Mateo and the State of California have established regulations and policies designed to prevent land use/noise incompatibilities and limit noise exposure at noise-sensitive land uses. Applicable policies and regulations used in this EIR noise impact assessment include the County of San Mateo General Plan, State of California Building Code, and Federal Transit Administration and Caltrans vibration impact thresholds.

13.2.1 County of San Mateo

(a) San Mateo County General Plan. The following San Mateo County General Plan Man-Made Hazards Element policies are relevant to consideration of the noise and vibration impacts of the updated Community Plan.

16.1 Strive Toward a Livable Noise Environment. Strive toward an environment for all residents of San Mateo County which is free from unnecessary, annoying, and injurious noise.

16.2 Reduce Noise Impacts Through Noise/Land Use Compatibility and Noise Mitigation. Reduce noise impacts within San Mateo County through measures which promote noise/land use compatibility and noise mitigation.

16.3 Promote Protection of Noise Sensitive Land Uses and Noise Reduction in Quiet Areas and Noise Impact Areas. Promote measures which: (1) protect noise sensitive land uses, (2) preserve and protect existing quiet areas, especially those which contain noise sensitive land uses, and (3) promote noise compatibility in Noise Impact Areas.

16.4 Noise Reduction Priority. Give priority to reducing noise at the source rather than at the receiver, recognizing that it is less expensive and more equitable to build noise mitigation into the source than providing for it along the path and at the receiver.

16.5 Noise Reduction Along the Path and at the Receiver. Promote noise reduction along the path and at the receiver through techniques which can be incorporated into the design and construction of new and existing development, including, but not limited to, site planning, noise barriers, architectural design, and construction techniques.

16.11 Regulate Distribution of Land Uses. Regulate the distribution of land uses to attain noise compatibility. Measures may include preference toward locating: (1) noise sensitive land uses within quiet areas, removed from Noise Impact Areas, and (2) noise generating land uses separate from noise sensitive land uses.

16.12 Regulate Noise Levels. Regulate noise levels emanating from noise generating land uses through measures which establish maximum land use compatibility and nuisance thresholds.

16.13 Site Planning Noise Control. Incorporate acoustic site planning into the design of new development, particularly large scale, master planned development, through measures which may include: (1) separation of noise sensitive buildings from noise generating sources and (2) use of natural topography and intervening structures to shield noise sensitive land uses.

16.14 Noise Barriers Noise Control. Promote measures which incorporate use of noise barriers into the design of new development, particularly within Noise Impact Areas. Noise barriers may include earth berms, walls, fencing, or landscaping.

16.15 Architectural Design Noise Control. Promote measures which incorporate architectural techniques into the design of new buildings, particularly buildings within Noise Impact Areas. Architectural design techniques may include: (1) grouping noise sensitive rooms together separated from noise sources, (2) placing windows, vents and other openings away from noise sources, and (3) avoidance of structural features which direct noise toward interior spaces.

16.16 Construction Techniques Noise Control. Promote measures which incorporate noise control into the construction of existing and new buildings, including, but not limited to, use of dense noise insulating building materials.

16.17 Promote Transportation Related Noise Reduction. Promote measures which reduce transportation related noise, particularly aircraft and vehicle noise, to enhance the quality of life within San Mateo County.

16.19 Promote County Roadway Noise Control. Promote measures which incorporate noise control into the design of County roadway projects. Roadway noise abatement may include smooth road surface, and noise barriers.

16.21 Adopt 1995 Noise Exposure Contours. Adopt 1995 Noise Exposure Contours as a guide to land use compatibility decisions within unincorporated San Mateo County.

16.22 Develop and Adopt Noise/Land Use Compatibility Regulations. Develop and adopt regulations which establish noise/land use compatibility standards for use as a basis for land use planning decisions. The regulations shall consider both exterior and interior exposures absorbed by or generated from a proposed land use. Efforts should be coordinated with the Office of Environmental Health.

16.23 Develop and Adopt Noise Insulation Requirements. Develop and adopt regulations which require acoustical analysis of noise sensitive land uses within Noise Impact Areas, including all new residential development. Acoustical analysis shall include recommended design and construction measures necessary to reduce noise exposure to acceptable levels.

16.27 Airport Land Use Commission (ALUC) Noise Planning Efforts. Encourage and support the Airport Land Use Commission to continue existing efforts toward promoting noise compatible development surrounding the County's airports.

16.29 County Health Department Noise Control Efforts. Encourage and support the County Health Department to continue existing efforts toward nuisance noise control through development and enforcement of regulatory measures, utilizing the most specialized and sophisticated equipment available to protect against unusually loud and uncommon neighborhood noise.

(b) San Mateo County Code of Ordinances. Chapter 4.88 of the San Mateo County Code of Ordinances regulates noise. Construction is exempted from the County's noise ordinance provided activities do not take place between the hours of 6:00 p.m. and 7:00 a.m. weekdays, 5:00 p.m. and 9:00 a.m. on Saturdays or at any time on Sundays, Thanksgiving and Christmas.

13.2.2 State of California Building Code

The State of California establishes exterior sound transmission control standards for new hotels, motels, dormitories, apartment houses, and dwellings other than detached single-family dwellings as set forth in the 2010 California Building Code (Chapter 12, Section 1207.11). Interior noise levels attributable to exterior environmental noise sources shall not exceed 45 dBA DNL/CNEL in any habitable room. When exterior noise levels (the higher of existing or future) where residential structures are to be located exceed 60 dBA DNL/CNEL, a report must be submitted with the building plans describing the noise control measures that have been incorporated into the design of the project to meet the interior noise level limit.

13.2.3 Federal Transit Administration Operational Groundborne Vibration Impact Criteria

Groundborne vibration impacts are typically associated with fast-moving railroad operations and large industrial equipment. The Federal Transit Administration (FTA) of the U.S. Department of Transportation has developed impact assessment criteria for evaluating vibration impacts associated with rapid transit projects. These criteria for groundborne vibration impacts on occupants inside buildings are shown in Table 13.4, and are based on average vibration levels calculated over a one-second period to relate to average, maximum vibration levels experienced by humans. Note that there are criteria for frequent events (more than 70 events per day), occasional events (between 30 and 70 events per day) and infrequent events (less than 30 events per day).

The FTA criteria limits contained in Table 13.4 are not appropriate for evaluating the potential for building structural or cosmetic damage due to train operations. It is extremely rare that train operations can cause any such damage except in the case of weakened structures or dilapidated buildings. Even in such cases, structural damage is unlikely unless the buildings are located extremely close to the tracks.

13.2.4 California Department of Transportation Construction Groundborne Vibration Impact Criteria

Demolition and construction activities can cause vibration that varies in intensity depending on several factors. Because of the percussive nature of pile driving activities, the use of the "peak particle velocity descriptor" (ppv) has been routinely used to measure and assess ground-borne vibration. The measurement of peak particle velocity has been used almost exclusively as the appropriate means to assess the potential of vibration to induce structural damage and the degree of annoyance for humans.[1, 2]

Construction-induced vibration that can be structurally damaging to a building is very rare and has been observed only in instances where the structure is already in a high state of disrepair and when the construction activity occurs immediately adjacent to the structure.

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[1]Dowding, Charles H. Construction Vibrations, Prentice Hall, 1996.

[2]Oriard, Lewis L. *The Effects of Vibration and Environmental Forces*, International Society of Explosives Engineers, 1999.

Table 13.4
FTA OPERATIONAL GROUNDBORNE VIBRATION IMPACT ASSESSMENT CRITERIA

	(VdB re 1 µinch/sec, root mean square)		
Land Use Category	Frequent Events[1]	Occasional Events[2]	Infrequent Events[3]
Category 1: Buildings where low ambient is essential for interior operations	65 VdB[4]	65 VdB[4]	65 VdB[4]
Category 2: Residences and buildings where people normally sleep	72 VdB	75 VdB	80 VdB
Category 3: Institutional land uses with primarily daytime use	75 VdB	78 VdB	83 VdB

SOURCE: U.S. Department of Transportation, Federal Transit Administration, Transit Noise and Vibration Impact Assessment, May 2006, FTA-VA-90-1003-06.

Notes:
1. "Frequent Events" is defined as more than 70 vibration events of the same source per day. Most rapid transit projects fall into this category.
2. "Occasional Events" is defined as between 30 and 70 vibration events of the same source per day. Most commuter trunk lines have this many operations.
3. "Infrequent Events" is defined as fewer than 30 vibration events of the same source per day. This category includes most commuter rail branch lines.
4. This criterion limit is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. Vibration-sensitive manufacturing or research should always require detailed evaluation to define the acceptable vibration limits. Ensuring low vibration levels in a building requires special design of HVAC systems and stiffened floors.

The California Department of Transportation uses a vibration (peak particle velocity) limit of 12.7 mm/sec (0.5 inches/sec) ppv for structurally sound buildings designed to modern engineering standards. A conservative vibration limit of 5 mm/sec (0.2 inches/sec) ppv has been used for buildings that are found to be structurally sound but for which structural damage is a major concern. All vibration limits referred to herein apply on the ground level and take into account the response of structural elements (i.e. walls and floors) to ground-borne vibration.

13.3 IMPACTS AND MITIGATION MEASURES

13.3.1 Significance Criteria

(a) CEQA Guidelines Significance Criteria. Based on the CEQA Guidelines, the proposed project would be considered in this EIR to have a significant impact on the noise environment if it would result in:[1]

(1) exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;

(2) exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels;

(3) a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;

(4) a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project; or

(5) for a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, exposure of people residing or working in the project area to excessive noise levels.

As described in subsection 13.1.3(d) above, the Plan area is located approximately three miles southeast of the San Carlos Airport, well outside the projected 55 dB CNEL contour published in the San Carlos Airport Land Use Plan. Impacts related to significance criterion (5) were found not to be significant during the EIR scoping process and are not discussed in this EIR. Please see Section 17.5 Effects Found Not to Be Significant in Chapter 17, CEQA-Required Assessment Considerations, as well as Appendix 21.2, Notice of Preparation and Initial Study.

(b) Thresholds of Significance. The following quantified thresholds are used in this chapter to determine the significance of impacts identified in accordance with the criteria contained in the CEQA guidelines.

(1) Noise Compatibility. A significant impact would be identified if land uses proposed by the Plan Update would be potentially exposed to noise levels exceeding the County's guidelines for noise and land use compatibility.

[1]CEQA Guidelines, Appendix G, item XI(a-e).

(2) Permanent Noise Increases. A significant noise impact would also result if noise levels increase substantially at existing noise-sensitive land uses (e.g., residences) due to the project land use changes or associated traffic increases. Following common professional noise impact assessment practice, a project-related increase in noise level (e.g. traffic noise) of 3 dBA in residential areas where existing noise levels exceed 60 dBA CNEL, or 5 dBA in non-residential areas where existing noise levels exceed 70 dBA CNEL, would constitute a significant impact.

(3) Temporary Construction Noise Increases. Construction-related noise levels are treated differently because they would be temporary and intermittent. Significant noise impacts would result from construction if noise levels were sufficiently high to interfere with speech, sleep, or normal residential activities. Following common noise impact assessment practice, construction-related hourly average noise levels received at noise-sensitive land uses above 60 dBA during the daytime and 55 dBA at night, and at least 5 dBA higher than ambient noise levels, would be considered significant.

(4) Ground-Borne Vibration. Presently, the County does not have established vibration criteria or limits that can be used to evaluate the compatibility of sensitive land uses with respect to ground-borne vibration. For construction-related vibration, Caltrans uses a vibration limit of 12.7 mm/sec (0.5 inches/sec) ppv for structurally sound buildings designed to modern engineering standards. A conservative vibration limit of 5 mm/sec (0.2 inches/sec) ppv has been used for buildings that are found to be structurally sound but for which structural damage is a major concern. Following common practice, the FTA Guidelines presented in Table 13.4 have been applied to evaluate the compatibility of new development proposed near the Caltrain tracks and Dumbarton Rail Corridor with train vibration.

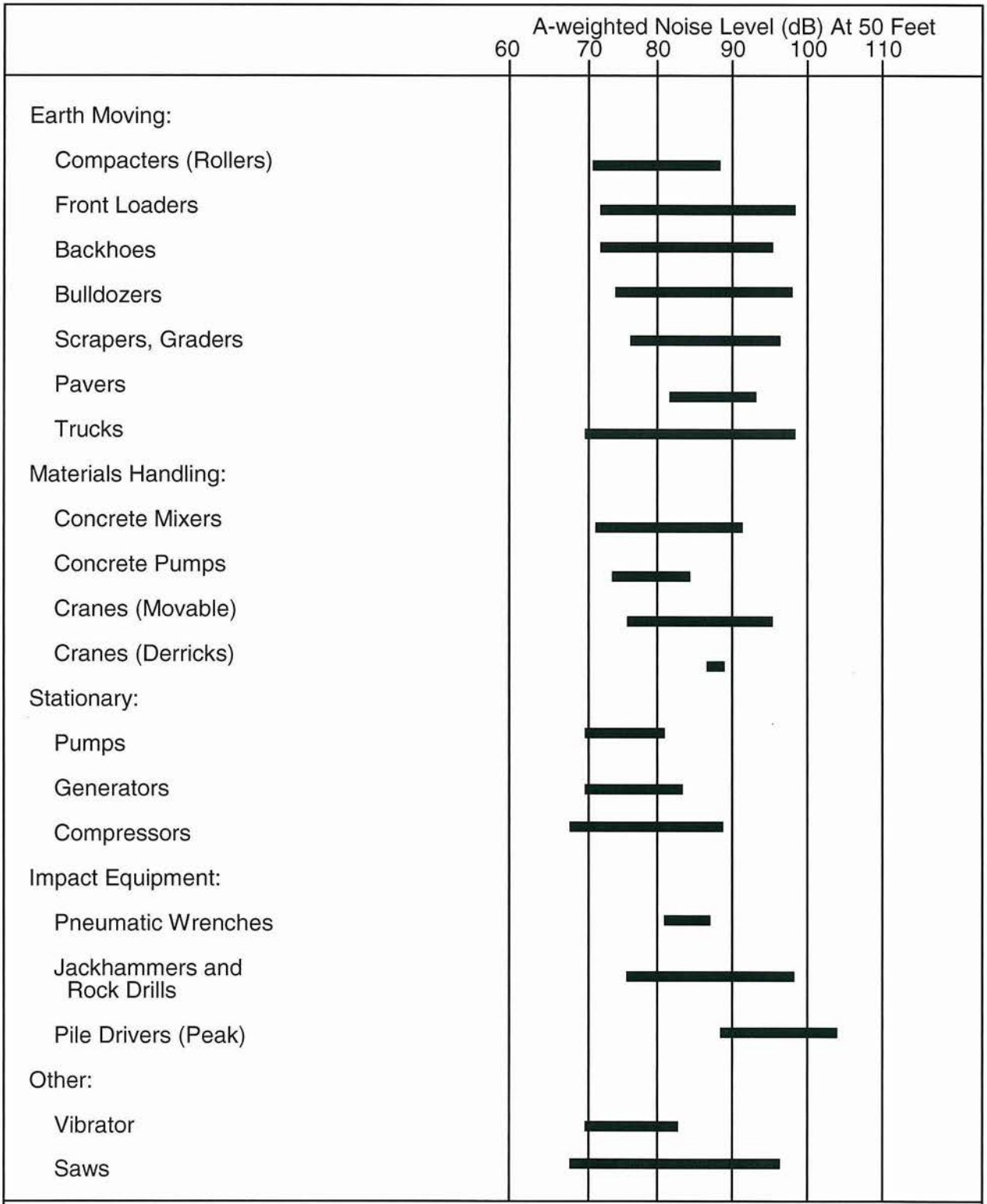
13.3.2 Impacts and Mitigation Measures

Impact 13-1: Demolition and Construction Period Noise. Demolition and construction activities associated with the updated Community Plan could temporarily increase noise levels at nearby residential and commercial sensitive receptors. Noise levels at 50 feet from the demolition or construction equipment source could reach approximately 105 dBA, resulting in intermittent interference with typical existing residential and business activities, and exceeding the County's noise ordinance limits. This possibility represents a ***potentially significant impact*** (see criteria 1 and 4 in subsection 13.3.1, "Significance Criteria," above).

Construction activities generate considerable amounts of noise, especially during the building demolition, grading and scraping, and infrastructure construction phases when heavy equipment is used. The noise effects of such demolition and construction activities would depend on the noise characteristics of selected pieces of construction equipment, the timing and duration of these noise generating activities, and the distance between these noise sources and the nearest noise-sensitive receptors. Noise levels during construction would occur in phases, including demolition of existing structures in the Plan area, grading and excavation, construction of foundations, erection of the new structures, and finishing.

Tables 13.5 and 13.6 depict typical noise levels generated by construction equipment at a distance of 50 feet from the source and at a distance of 50 feet from the construction activity center, respectively. The highest maximum noise levels generated by project construction

Table 13.5
CONSTRUCTION EQUIPMENT NOISE LEVEL RANGES



Source: Handbook of Noise Control, Cyril M. Harris, 1979.

Table 13.6
TYPICAL NOISE LEVEL RANGES AT 50 FEET, L_{eq} IN dBA, AT CONSTRUCTION SITES

	Domestic Housing		Office Building, Hotel, Hospital, School, Public Works		Industrial, Parking Garage, Religious, Amusement and Recreation, Store, Service Station		Public Works, Roads and Highways, Sewers and Trenches	
	I	II	I	II	I	II	I	II
Ground Clearing	83	83	84	84	84	83	84	84
Excavation	88	75	89	79	89	71	88	78
Foundations	81	81	78	78	77	77	88	88
Erection	81	65	87	75	84	72	79	78
Finishing	88	72	89	75	89	74	84	84

SOURCE: U.S. EPA, Legal Compilation on Noise, Vol. 1, p. 2-104, 1973.

I - All pertinent equipment present at site.
II - Minimum required equipment present at site.

activities would typically range from approximately 90 to 105 dBA at a distance of 50 feet from the noise source. These noise levels would result primarily from pile drivers, jack hammers, and other percussive pieces of equipment.

Typical hourly average construction-generated noise levels would be approximately 81 dBA to 89 dBA measured at a distance of 50 feet from the center of the site during busy construction periods. Construction-generated noise levels drop off at a rate of about 6 dBA per doubling of distance between the source and receptor. Shielding by intervening buildings or terrain typically result in much lower construction noise levels at distant receptors.

Construction noise impacts result primarily when construction activities occur during the noise-sensitive times of the day (i.e., early morning, evening, or nighttime hours), the construction occurs in areas immediately adjoining noise-sensitive land uses, or when construction durations last over extended periods of time. Limiting construction to daytime hours is often the most simple and effective method of reducing the potential for noise impacts. In areas immediately adjacent to construction, controls such as constructing temporary noise barriers and utilizing "quiet" construction equipment can also reduce the potential for noise impacts.

Mitigation 13-1. Reduce demolition- and construction-period noise impacts on nearby residences in the Community Plan area by incorporating conditions in project demolition and construction contract agreements that stipulate the following conventional construction-period noise abatement measures:

- *Construction Plan.* Prepare a detailed construction plan identifying the schedule for major noise-generating construction activities. The construction plan shall identify a procedure for coordination with nearby noise-sensitive facilities so that construction activities can be scheduled to minimize noise disturbance.

- *Construction Scheduling.* Ensure that noise-generating construction activity is limited to between the hours of 7:00 a.m. and 6:00 p.m. weekdays, 9:00 a.m. and 5:00 p.m. on Saturdays, and does not occur at any time on Sundays, Thanksgiving or Christmas.

- *Construction Equipment Mufflers and Maintenance.* Equip all internal combustion engine-driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.

- *Equipment Locations.* Locate stationary noise-generating equipment as far as possible from sensitive receptors when sensitive receptors adjoin or are near a construction project site.

(continued)

Mitigation 13-1 (continued):

- *Construction Traffic.* Route all construction traffic to and from the construction sites via designated truck routes where possible. Prohibit construction-related heavy truck traffic in residential areas where feasible.

- *Quiet Equipment Selection.* Use quiet construction equipment, particularly air compressors, wherever possible.

- *Temporary Barriers.* Construct solid plywood fences around construction sites adjacent to residences, operational businesses, or noise-sensitive land uses.

- *Temporary Noise Blankets.* Temporary noise control blanket barriers should be erected, if necessary, along building facades adjoining construction sites. This mitigation would only be necessary if conflicts occurred which were not able to be resolved by scheduling. (Noise control blanket barriers can be rented and quickly erected.)

- *Noise Disturbance Coordinator.* For larger construction projects, the County may choose to require project designation of a "Noise Disturbance Coordinator" who would be responsible for responding to any local complaints about construction noise. The Disturbance Coordinator would determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and institute reasonable measures to correct the problem. Conspicuously post a telephone number for the Disturbance Coordinator at the construction site and include it in the notice sent to neighbors regarding the construction schedule. (The project sponsor should be responsible for designating a Noise Disturbance Coordinator, posting the phone number, and providing construction schedule notices. The Noise Disturbance Coordinator would work directly with an assigned County staff member.)

Implementation of these measures would reduce this intermittent, short-term, project construction-period noise impact to a ***less-than-significant level.***

Impact 13-2: Exposure to Temporary Construction Ground-Borne Vibration. Demolition and construction activities associated with Plan Update-facilitated development activity could generate substantial temporary ground-borne vibration (e.g., from pile driving) exceeding standard vibration thresholds, which could interfere with normal activities or cause a nuisance for or damage to adjacent properties. Temporary excessive ground-borne vibration would represent a ***potentially significant impact*** (see criterion 2 under 13.3.1, "Significance Criteria," above).

As explained in Chapter 9, Geology and Soils, a Seismic Hazards Mapping Act Zone of Required Investigation related to liquefaction encompasses the majority of the Community Plan area. Therefore, Community Plan-facilitated development could involve construction on fill where pile driving may be required to support new building foundations. Potential construction sequencing on a particular development site would consist of demolition of existing structures and other site preparation work, followed by scraping, earth-moving and filling to prepare the site, followed by foundation work including possible pile driving, followed by new building erection.

The pile driving sequence has the potential to generate the highest ground vibration levels and could cause architectural damage to nearby structures, particularly when it occurs within 100 feet of such structures. Other activities during project construction--such as use of building demolition equipment, jackhammers, rock drills, and other high-power or vibratory tools and rolling stock equipment (tracked vehicles, compactors, etc.)--could also potentially generate substantial vibration in the immediate project vicinity. Depending on the proximity of existing structures to the construction area and the methods of construction used, high vibration levels may affect nearby properties.

Because of the percussive nature of pile driving activities, the use of the "peak particle velocity descriptor" (ppv) has been routinely used to measure and assess ground-borne vibration. The measurement of peak particle velocity has been used almost exclusively as the appropriate means to assess the potential of vibration to induce structural damage and the degree of annoyance for humans.[1, 2]

The two primary concerns with construction-induced vibration--the potential to damage a nearby structure and to interfere with the enjoyment of nearby daily activities--are evaluated against different vibration limits. Human perception to vibration varies with the individual and is a function of physical setting and the type of vibration. Studies[3] have shown that the threshold of perception for average persons is in the range of 0.2-to-0.3 millimeters per second (mm/sec) (0.008-to-0.012 inches/sec) ppv. However, persons exposed to elevated ambient vibration levels, such as people in an urban environment, may tolerate a higher vibration level.

Researchers have found safe vibration limits that can be applied to assess the potential for damaging a structure; however, vibration limits vary by researcher, and there is no general consensus as to what amount of vibration may pose a threat to a building. Furthermore, structural damage can be classified as cosmetic only, such as minor cracking of building elements, or it may threaten the integrity of the building. Construction-induced vibration that can be structurally damaging to a building is very rare and has been observed only in instances where the structure is already in a high state of disrepair and when the construction activity occurs immediately adjacent to the structure.

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[1]Dowding, Charles H. Construction Vibrations, Prentice Hall, 1996.

[2]Oriard, Lewis L. *The Effects of Vibration and Environmental Forces*, International Society of Explosives Engineers, 1999.

[3]Ernzen, James and Schexnayder, Cliff J. *NCHRP Synthesis 218*, Transportation Research Board, 1996.

The California Department of Transportation uses a vibration (peak particle velocity) limit of 12.7 mm/sec (0.5 inches/sec) ppv for structurally sound buildings designed to modern engineering standards. A conservative vibration limit of 5 mm/sec (0.2 inches/sec) ppv has been used for buildings that are found to be structurally sound but for which structural damage is a major concern. All vibration limits referred to herein apply on the ground level and take into account the response of structural elements (i.e. walls and floors) to ground-borne vibration. The County has not yet adopted significance thresholds specific to groundborne vibration.

Vibration levels resulting from project demolition and construction activities, when perceptible at nearby properties, would be intermittent and of short duration, especially for those construction operations that have the highest potential for producing vibration (building demolition, grading and scraping, pile driving, and use of jackhammers and other high power tools).

Mitigation 13-2. Reduce ground-borne vibration levels during individual, site-specific future project demolition and construction periods in the Plan area by incorporating conditions in individual project demolition and construction contractor agreements that stipulate the following ground-borne vibration abatement measures:

- Ensure that vibration-generating activity is limited to between the hours of 7:00 a.m. and 6:00 p.m. weekdays, 9:00 a.m. and 5:00 p.m. on Saturdays, and does not occur at any time on Sundays, Thanksgiving or Christmas.
- Notify occupants of land uses located within 200 feet of pile-driving activities of the project construction schedule in writing.
- Investigate in consultation with County staff possible pre-drilling of pile holes as a means of minimizing the number of pile driving blows required to seat the pile.
- Conduct a pre-construction site survey documenting the condition of any historic structure located within 200 feet of proposed pile driving activities.
- Monitor pile driving vibration levels to ensure that vibration does not exceed appropriate thresholds for the potentially affected building (5mm/sec or 0.2 inches/sec ppv for structurally sound buildings).

Implementation of these measures would reduce this potential intermittent and short-term Plan Update-related vibration impact to a ***less-than-significant level.***

Impact 13-3: Permanent Ground-Borne Vibration Impacts. Development facilitated by the updated Community Plan would not be expected to introduce any permanent new sources of significant groundborne vibration. However, the Plan Update would permit new multifamily and single-family residential development within 100 feet of the Caltrain tracks or the Dumbarton Rail Corridor. Groundborne vibration levels are typically less than the FTA criteria for frequent events (72 VdB) at a distance of approximately 100 feet or more from the centerline of the Caltrain tracks or the Dumbarton Rail Corridor. Therefore, where new residential or other vibration sensitive uses are proposed within 100 feet or less of the Caltrain tracks or the Dumbarton Rail Corridor, a ***potentially significant vibration impact*** could occur (see criterion 2 in subsection 13.3.1, "Significance Criteria," above).

New residential development within approximately 100 feet of the centerline of the Caltrain line or Dumbarton Rail Corridor would potentially be exposed to vibration levels estimated at 72 VdB or greater, which would exceed Federal Transit Agency thresholds based on human response to perceivable vibration levels.

Mitigation 13-3: Before the development of new habitable buildings in the Plan area within 100 feet of the centerline of the Caltrain tracks or Dumbarton Rail Corridor, completion of a detailed site-specific vibration study shall be required demonstrating that groundborne vibrations associated with rail operations either (1) would not exceed applicable FTA groundborne vibration impact assessment criteria (see Table 13.4), or (2) can be reduced to below the applicable FTA criteria thresholds through building design and construction measures (e.g., stiffened floors, modified foundations). Implementation of this measure would reduce this potential intermittent vibration impact to a ***less-than-significant level.***

Impact 13-4: Exposure to Noise Levels Exceeding Standards. The occupants of new residential and other noise-sensitive development facilitated in the Plan area by the Community Plan Update could be exposed to noise levels in excess of County noise standards and California Building Code standards, which would represent a ***potentially significant impact*** (see criteria 1 and 3 in subsection 13.3.1, "Significance Criteria," above).

Multifamily residential and other noise-sensitive land uses within the Plan area would be exposed to various existing and anticipated noise sources, including traffic, Caltrain, and Dumbarton Rail operations. Where projected future exterior noise levels exceed 60 dBA CNEL, interior noise levels may exceed the California Building Code standard of 45 dBA CNEL or County noise standards. Future noise levels throughout much of the Community Plan area would exceed 60 dBA CNEL. Land uses proposed within 200 to 300 feet of the Caltrain line and the proposed Dumbarton Rail Corridor, and within 120 feet of the centerline of El Camino Real and other major roadways, would be exposed to noise levels of 60 dBA CNEL or higher.

Mitigation 13-4. All proposed new multifamily residential or other noise-sensitive uses within 300 feet of the existing Caltrain line and proposed Dumbarton Rail Corridors, and within 120 feet of El Camino Real and other arterial roadways, shall submit for County approval a noise study, consistent with the requirements of the California Building Code, to identify noise reduction measures necessary to achieve compatibility with County noise standards and California Building Code noise compatibility standards. The noise study shall be approved by the County's Planning and Building Department prior to issuance of a building permit. Identified noise reduction measures, in order of preference so that windows can be opened, may include:

- Site and building design so as to minimize noise in shared residential outdoor activity areas by locating such areas behind the buildings, in courtyards, or orienting the terraces toward the interior of lots rather than streets;

- Site and building design so as to minimize noise in the most intensively occupied and noise-sensitive interior spaces of units, such as bedrooms, by placing such interior spaces and their windows and other openings in locations with less noise exposure;

- Design of windows, doors, and other sound transmission paths such as ventilation openings, walls, and roofs to achieve a high Sound Transmission Class (STC) rating and/or other noise-attenuating characteristics.

- Installation of forced air mechanical ventilation systems in all units exposed to noise levels exceeding Title 24 standards to allow residents the option of reducing noise by keeping the windows closed.

Implementation of these measures to the satisfaction of the County's Planning and Building Department would reduce this impact to a ***less-than-significant level.***

Permanent Noise Level Increases. The updated Community Plan would result in a permanent change in noise levels by facilitating new development in North Fair Oaks. The Plan Update is expected to introduce commercial uses adjacent to, or below, existing or proposed residential uses in mixed-use developments. Specific tenants for the commercial uses have not been identified, but uses could include offices, retail stores, restaurants, or cafes. New commercial development proposed next to or below residential development could generate noise that could result in adverse changes to the noise environment. In addition, new residential development could generate noise that may adversely affect existing or proposed noise-sensitive uses. An example of such residential development noise sources would be mechanical equipment associated with new multifamily residential structures. Chapter 4.88 of the San Mateo County Code of Ordinances regulates noise, including exterior noise levels at sensitive receptors (single or multiple family residences, schools, hospitals, churches, public libraries) and interior noise levels within dwelling units. The noise ordinance is enforced by the County Health Officer in

coordination with the Environmental Health section, Sheriffs Department, Planning Department and Department of Animal Control. Unnecessary, excessive or annoying noise levels would be adequately controlled by the County's established development review procedures and subsequent enforcement of the noise ordinance. Therefore, permanent noise level increases from new development facilitated by the updated Community Plan would be represent a ***less-than-significant impact.***

Impact 13-5: Cumulative Plus Project Noise Impacts. Cumulative plus project traffic noise levels are expected to increase by 3 dBA, and traffic resulting from the updated Community Plan would contribute at least 1 decibel to the cumulative traffic noise level increase, along the following two street segments:

- Bay Avenue between Woodside Road and Fifth Avenue, and
- Middlefield Road between Fifth Avenue and Eighth Avenue.

Noise-sensitive receptors along these street segments would be exposed to a substantial cumulative increase in traffic noise levels. The updated Community Plan would result in a cumulatively considerable contribution to this cumulative noise impact, representing a ***significant cumulative impact*** (see criteria 1, 2 and 3 under section 13.3.1, "Significance Criteria," above).

New development allowed by the updated Community Plan, together with other reasonably foreseeable development, would result in an increase in vehicle trips, which in turn would increase traffic noise levels at residential and other noise-sensitive receptors along roadways within and around the Plan area. These traffic volume increases could result in increased traffic noise levels at some residential, school, hospital, or other noise-sensitive uses. Where cumulative noise levels are substantially increased (3 dBA or more) and the project contributes at least 1 decibel to the cumulative noise level, a significant impact would occur.

Traffic noise level increases were calculated based on peak-hour intersection traffic volumes provided by Kimley-Horn and Associates, Inc. for Existing, Existing Plus Project, Cumulative, and Cumulative Plus Project scenarios (see Chapter 16, Transportation). Along roadways with low existing traffic volumes, ambient background noise levels (such as distant traffic) substantially contribute to overall noise levels. In areas where ambient noise levels are determined primarily by traffic noise, traffic volumes would have to double for noise levels to increase by 3 dBA. In addition to local traffic noise, distant traffic noise, localized transit, Caltrain, and other non-transportation related noise sources, dominate existing noise levels in the Plan area. The background noise level was taken into account when calculating noise level increases. Calculated traffic noise levels do not take into account shielding by terrain or structures.

Less-than-significant cumulative noise level increases of from 0 to 2 dBA above existing levels are predicted throughout most of the Plan area. However, along Bay Avenue from Woodside Road to Fifth Avenue, and along Middlefield Road from Fifth Avenue to Eighth Avenue, cumulative traffic noise levels are expected to increase by 3 dBA, and the project would contribute at least 1 decibel to the cumulative traffic noise level increase.

Other cumulative activities that would affect the noise environment in the Plan area and vicinity include the Caltrain electrification project and the California High Speed Rail project. According to Caltrain, the electrification project would reduce train noise along the route and decrease the number of affected sensitive receptors. In addition to engine operations, train horns and crossing bells are also major noise sources associated with Caltrain operations. The number of roadway crossings and stations would not be changed as a result of the electrification program; however, more gate down time (crossing bells) and train horns are expected from an increase in level of service. Therefore, although the noise impacts of train engine operations would be greatly improved by electrification, the noise impacts from train horns and crossing bells may be increased.[1]

The California High Speed Rail project would raise ambient noise levels along the Caltrain route. Many details regarding the California High Speed Rail project are uncertain: locations of stations, the timing of station construction, and whether the alignment would be above or below grade. Nonetheless, it is reasonable to assume that in addition to ambient noise increases resulting from new high speed rail service, this system could add temporary construction noise and permanent traffic and rail noise increases in and around the rail corridor. According to the Final Program EIR/EIS for the Bay Area to Central Valley Segment of the California High Speed Rail project, high-speed trains would travel below full speed on the San Francisco Peninsula (including through North Fair Oaks). Moreover, the EIR/EIS notes that implementation of the California High Speed Rail project would result in the removal of numerous at-grade crossings along the San Francisco Peninsula, reducing the need for signal horns for both Caltrain and the high-speed rail, which would reduce cumulative noise impacts.

Mitigation 13-5. Implementation of some combination of the following traffic noise reduction measures on Bay Avenue from Woodside Road to Fifth Avenue and on Middlefield Road from Fifth Avenue to Eighth Avenue would mitigate this impact:

- *Pave streets with reduced-noise pavement types such as rubberized or open grade asphalt*. Reduced-noise pavement types would reduce noise levels by 2 to 3 dBA depending on the existing pavement type, traffic speed, traffic volumes, and other factors. Case studies have shown that the replacement of standard dense grade asphalt with open grade or rubberized asphalt can reduce traffic noise levels along residential streets by 2 to 3 dBA. A possible noise reduction of 2 dBA would be expected using conservative engineering assumptions. Project-generated traffic noise increases could be reduced to a less-than-significant level along Bay Avenue from Woodside Road to Fifth Avenue and Middlefield Road from Fifth Avenue to Eighth Avenue. In order to provide permanent mitigation, all future repaving would needed to consist of "quieter" pavements.

(continued)

[1]U.S. Department of Transportation Federal Transit Administration and Peninsula Corridor Joint Powers Board, Caltrain Electrification Program Environmental Assessment/Final Environmental Impact Report, July 2009, p. 3-128.

Mitigation 13-5 (continued):

- *Construct new or larger noise barriers.* New or larger noise barriers could reduce noise levels by 5 dBA L_{dn}. The final design of such barriers, including an assessment of their feasibility and cost-effectiveness, should be completed during final design.

- *Install traffic calming measures to slow traffic along Bay Avenue and Middlefield Road.* Traffic calming measures could provide a qualitative (i.e., perceived if not measurable) improvement by smoothing out the rise and fall in noise levels caused by speeding vehicles.

- *Provide sound insulation treatments to affected buildings.* Sound-rated windows and doors, mechanical ventilation systems, noise insulation, and other noise-attenuating building materials could reduce noise levels in interior spaces.

Measures such as repaving with reduced-noise pavement types, the replacement or construction of noise barriers, traffic calming, and sound insulation could reduce the project contribution to cumulative traffic noise at affected sensitive receptors on Bay Avenue from Woodside Road to Fifth Avenue and on Middlefield Road from Fifth Avenue to Eighth Avenue to a less-than-significant level.

However, each of these measures involves other non-acoustical considerations. For example, other engineering considerations may require continued use of dense grade asphalt. Installation of noise barriers may be inconsistent with desired community character and local aesthetic goals. Installation of noise barriers and sound insulation treatments on private property would require agreements with each affected property owner. These measures therefore may not be feasible to reduce the project contribution to cumulative traffic noise at every affected sensitive receptor, or such measures may not be desired by the County or by affected individual property owners. Therefore, the contribution of the updated Community Plan to cumulative noise impacts is considered to represent an unavoidable, cumulatively considerable, effect--i.e., a ***significant and unavoidable Impact.***

14. POPULATION, HOUSING AND EMPLOYMENT

This chapter describes the existing conditions and regulatory setting related to population, housing and employment within North Fair Oaks, and related impacts of the updated Community Plan.

14.1 ENVIRONMENTAL SETTING

14.1.1 Population

(a) Population Trends.[1] Plan area, County, and Bay Area population trends are shown in Table 14.1. As shown, approximately 16,300 residents lived in North Fair Oaks as of 2009. North Fair Oaks residents make up two percent of San Mateo County's total population which stood at 745,900 residents in 2009. Since 2000, North Fair Oaks' population growth has matched the County's overall growth rate of 5.5 percent. The Bay Area has grown at a slightly faster pace, experiencing an 8.7 percent population increase during the same time period.

(b) Population Projections. Plan area, County, and Bay Area population projections are presented in Table 14.2. Based on ABAG's 2009 projections, the nine-county Bay Area is projected to grow at a slightly faster rate than San Mateo County between 2010 and 2030. San Mateo County population is expected to increase by 18 percent to reach approximately 863,000 residents, while the Bay Area is projected to grow by 19 percent between 2010 and 2030. In comparison, North Fair Oaks' population, without the proposed Plan Update, is anticipated to grow by just 11 percent during the same time period, reaching 17,000 residents in 2030.[2]

(c) Household Size. At 3.9 persons per household in 2009, the average household size in North Fair Oaks was significantly larger, by about one person per household, than the County and Bay Area averages of 2.79 and 2.72 persons per household, respectively. North Fair Oaks had a higher proportion of family households, which comprised 73 percent of all North Fair Oaks households in 2009, compared to 67 percent and 65 percent of San Mateo County and Bay Area households, respectively.

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[1]Recently released 2010 Census figures for North Fair Oaks differ somewhat from earlier published population and household estimates presented in this EIR, which showed the community gaining population, with the U.S. Census reporting that the community lost a total of 753 people as housing vacancies increased and household sizes decreased since 2000.

[2]The Association of Bay Area Governments (ABAG) provides population and household growth projections based on a combination of market and demographic trends, near-term available land to accommodate growth, and local policies that promote more compact in-fill development. ABAG does not provide projections for unincorporated Census Designated Places. Data for North Fair Oaks is based on the census tracts that comprise the Community Plan area. This slight discrepancy in geographic scale results in a difference of 819 fewer total residents reported by ABAG for North Fair Oaks in 2010 compared to estimates from Claritas, Inc.

Table 14.1
POPULATION AND HOUSEHOLD TRENDS, 2000-2009

North Fair Oaks	2000	2009 (est) (a)	% Change 2000-2009
Population	**15,440**	**16,296**	**5.5%**
Households	**3,997**	**4,119**	**3.1%**
Average Household Size	**3.81**	**3.90**	
Household Type (b)			
Families	73.5%	73.4%	
Non-Families	26.5%	26.6%	
Tenure			
Owner	51.3%	51.4%	
Renter	48.7%	48.6%	
San Mateo County			
Population	**707,161**	**745,858**	**5.5%**
Households	**254,103**	**263,848**	**3.8%**
Average Household Size	**2.74**	**2.79**	
Household Type (b)			
Families	67.4%	67.4%	
Non-Families	32.6%	32.6%	
Tenure			
Owner	61.4%	61.3%	
Renter	38.6%	38.7%	
Bay Area (c)			
Population	**6,783,760**	**7,375,678**	**8.7%**
Households	**2,466,019**	**2,656,487**	**7.7%**
Average Household Size	**2.69**	**2.72**	
Household Type (b)			
Families	64.7%	64.8%	
Non-Families	35.3%	35.2%	
Tenure			
Owner	57.7%	57.8%	
Renter	42.3%	42.2%	

Notes:
(a) 2009 estimates provided by Claritas. Population, household and household size data for San Mateo County and the Bay Area provided by CA Dept. of Finance.
(b) A family is a group of two people or more related by birth, marriage, or adoption and residing together.
(c) The nine-county Bay Area includes Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma counties.
Sources: Claritas, 2009; CA Dept. of Finance, 2009; BAE, 2010.

Table 14.2
POPULATION AND HOUSEHOLD PROJECTIONS, 2010-2030

North Fair Oaks Area (a)

	2010		2030		% Change 2010 - 2030
Population	15,477		17,144		10.8%
Households	4,047		4,554		12.5%
Population by Age	**Number**	**Percent**	**Number**	**Percent**	
19 years and under	5,156	33.3%	5,414	31.6%	
20 - 44 years	6,216	40.2%	6,601	38.5%	
45 - 64 years	3,021	19.5%	3,186	18.6%	
65 and over	1,084	7.0%	1,943	11.3%	
Totals	**15,477**	**100.0%**	**17,144**	**100.0%**	

San Mateo County

	2010		2030		% Change 2010 - 2030
Population	733,300		862,800		17.7%
Households	264,400		310,970		17.6%
Population by Age	**Number**	**Percent**	**Number**	**Percent**	
19 years and under	175,700	24.0%	187,900	21.8%	
20 - 44 years	247,700	33.8%	270,200	31.3%	
45 - 64 years	202,000	27.5%	212,900	24.7%	
65 and over	107,900	14.7%	191,800	22.2%	
Totals	**733,300**	**100.0%**	**862,800**	**100.0%**	

Bay Area (b)

	2,010		2,030		% Change 2010 - 2030
Population	7,341,700		8,719,300		18.8%
Households	2,667,340		3,171,940		18.9%
Population by Age	**Number**	**Percent**	**Number**	**Percent**	
19 years and under	1,805,200	24.6%	2,002,700	23.0%	
20 - 44 years	2,587,300	35.2%	2,980,100	34.2%	
45 - 64 years	1,930,200	26.3%	1,950,300	22.4%	
65 and over	1,019,000	13.9%	1,786,200	20.5%	
Totals	**7,341,700**	**100.0%**	**8,719,300**	**100.0%**	

Note:
(a) The North Fair Oaks Area consists of San Mateo County census tracts 610500, 610601, and 610602. ABAG does not provide projections for unincorporated CDPs.
(b) The nine-county Bay Area includes Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano and Sonoma counties.
Sources: ABAG Projections, 2009; BAE, 2010.

14.1.2 Housing

Table 14.3 presents housing units by type in North Fair Oaks. As shown in Table 14.3, there were an estimated 4,214 housing units in North Fair Oaks in 2009, including 2,692 single family units, 1,326 multifamily units and 142 mobile homes.

As shown in Table 14.3, North Fair Oaks has seen an increase of 155 housing units between 2000 and 2009. The large majority of new housing construction has been single-family homes, which represented 74 percent of new units during this time frame. By comparison, just 54 percent of San Mateo County's new homes were single-family.

14.1.3 Employment

(a) Existing Employed Residents. There were 7,527 employed residents in North Fair Oaks in 2009. The unemployment rate in North Fair Oaks of 18 percent in October 2009 was roughly double the County rate.

(b) Existing Jobs. There are an estimated 3,900 jobs in North Fair Oaks in 2010, representing approximately one percent of all jobs in the County.

(c) Projected Jobs Growth.[1] Employment projections are presented in Table 14.4, based on ABAG's 2009 projections. Between 2010 and 2030, North Fair Oaks is projected to increase its jobs base by 1,150 jobs, an increase of 29 percent. The County and region are expected to experience more employment growth, with projected increases in jobs of 37 percent in the County and 36 percent in the Bay Area.

14.1.4 Jobs/Housing Balance

Regional planning goals and County General Plan policies seek to improve the local balance between housing and jobs. To the degree that a balance can be achieved, greater opportunity for local residents to work close to where they live can be anticipated. A better jobs/housing balance can reduce commuting, traffic congestion, air quality and global warming impacts, the need for costly transportation infrastructure improvements, personal transportation costs, and lost leisure and family time. Where a community's jobs/employed resident ratio is higher than the regional ratio, a higher tendency toward in-commuting is indicated; where the ratio is lower than the regional ratio, a higher tendency toward out-commuting is indicated.

Table 14.5 presents the jobs-housing balance in North Fair Oaks and San Mateo County, based on ABAG projections of jobs and employed residents. As shown in Table 14.5, North Fair Oaks has a higher number of employed residents than local jobs, which indicates that a large proportion of residents must look outside of North Fair Oaks to find employment. North Fair

[1] ABAG projects future employment in San Mateo County and the Bay Area. Employment growth at the Census Tract level was used to project trends for North Fair Oaks because ABAG does not provide projections for unincorporated Census Designated Places.

Table 14.3
HOUSING UNITS BY TYPE, NORTH FAIR OAKS, 2000-2009

	2000		2009		Increase in Units (2000-2009)	
	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total
North Fair Oaks						
Single Family	2,578	63.5%	2,692	63.9%	114	73.5%
Multifamily	1,285	31.6%	1,326	31.5%	41	26.5%
Mobile Homes	144	3.5%	142	3.4%	0	0.0%
Other (a)	55	1.4%	54	1.3%	0	0.0%
Total	**4,062**	**100.0%**	**4,214**	**100.0%**	**155**	**100.0%**
San Mateo County						
Single Family	173,002	66.4%	175,043	66.4%	2,041	53.6%
Multifamily	84,084	32.3%	85,586	32.3%	1,502	39.4%
Mobile Homes	2,969	1.1%	3,194	1.1%	225	5.9%
Other (a)	521	0.2%	563	0.2%	42	1.1%
Total	**260,576**	**100.0%**	**264,386**	**100.0%**	**3,810**	**100.0%**

Notes:
(a) Other includes boats, RVs, vans, etc.
Sources: Claritas, 2009; BAE, 2010.

Table 14.4
EMPLOYMENT PROJECTIONS, 2010-2030

North Fair Oaks Area (a)

	2010		2030		Change
Employment Sector	**Number**	**Percent**	**Number**	**Percent**	**2010 - 2030**
Agriculture, Natural Resources	67	1.7%	67	1.3%	-
Manufacturing, Wholesale, Transportation	991	25.2%	1,189	23.4%	198
Retail	298	7.6%	447	8.8%	149
Financial & Professional Service	568	14.5%	784	15.4%	216
Health, Education, Recreational Service	1,108	28.2%	1,592	31.3%	484
Other (b)	897	22.8%	1,000	19.7%	103
Total	**3,929**	**100.0%**	**5,079**	**100.0%**	**1,150**

San Mateo County

	2010		2030		Change
Employment Sector	**Number**	**Percent**	**Number**	**Percent**	**2010 - 2030**
Agriculture, Natural Resources	1,900	0.5%	1,880	0.4%	(20)
Manufacturing, Wholesale, Transportation	73,940	21.4%	91,760	19.4%	17,820
Retail	33,840	9.8%	48,680	10.3%	14,840
Financial & Professional Service	90,990	26.3%	129,310	27.3%	38,320
Health, Education, Recreational Service	93,420	27.0%	127,020	26.8%	33,600
Other (b)	52,230	15.1%	74,640	15.8%	22,410
Total	**346,320**	**100.0%**	**473,290**	**100.0%**	**126,970**

Bay Area (c)

	2010		2030		Change
Employment Sector	**Number**	**Percent**	**Number**	**Percent**	**2010 - 2030**
Agriculture, Natural Resources	24,520	0.7%	25,470	0.5%	950
Manufacturing, Wholesale, Transportation	717,180	20.6%	913,960	19.3%	196,780
Retail	347,400	10.0%	491,310	10.4%	143,910
Financial & Professional Service	766,860	22.1%	1,076,540	22.7%	309,680
Health, Education, Recreational Service	1,120,700	32.2%	1,529,930	32.3%	409,230
Other (b)	499,180	14.4%	701,520	14.8%	202,340
Total	**3,475,840**	**100.0%**	**4,738,730**	**100.0%**	**1,262,890**

Notes:
(a) The North Fair Oaks Area consists of San Mateo County census tracts 610500, 610601, and 610602. ABAG does not provide projections for unincorporated CDPs.
(b) The "Other" sector includes construction, information, and government jobs.
(c) The nine-county Bay Area includes Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano and Sonoma counties.
Sources: ABAG, Projections, 2009; BAE, 2010.

Table 14.5
JOBS-HOUSING BALANCE

	North Fair Oaks (a)	San Mateo County
Employed Residents	6,169	330,700
Total Jobs	3,929	346,320
Employed Residents/Total Jobs	1.57	0.95

Note:
(a) The North Fair Oaks Area consists of San Mateo County census tracts 610500, 610601, and 610602.
Sources: ABAG Projections, 2009; BAE, 2010.

Oaks had 1.57 employed residents for every job in 2009, compared to 0.95 employed residents for every job in San Mateo County. The jobs-housing imbalance in North Fair Oaks and the mismatch between local jobs and the types of jobs held by North Fair Oaks residents highlight the need for new local employment and improved transportation options.

Commute data is consistent with the jobs-housing imbalance. Table 14.6 provides the commute patterns for North Fair Oaks residents and workers based on data from the 2000 Census. Approximately 92 percent of North Fair Oaks residents commute out of the community for work. Roughly 15 percent of the approximately 3,600 people who worked in North Fair Oaks also lived in the community in 2000, while the remaining 85 percent commute from a location outside of North Fair Oaks.

14.2 REGULATORY SETTING

14.2.1 San Mateo County General Plan

The following San Mateo County General Plan policies are relevant to consideration of the population and housing impacts of the updated Community Plan.

14.1 Maintain and Improve Quality and Affordability of Existing Housing Stock. Maintain and improve the quality and affordability of the existing housing stock in order to minimize the displacement of existing residents.

14.2 Promote Sufficient Production of New Housing. Promote sufficient production of new housing of affordable cost and diverse size to accommodate the housing needs of all persons who reside, work, or who can be expected to work or reside in the County.

Table 14.6
COMMUTE PATTERNS, 2000

North Fair Oaks Residents to Place of Work	Number	Percent	North Fair Oaks Workers from Place of Residence	Number	Percent
Redwood City	1,595	23.2%	Redwood City	685	19.1%
Palo Alto	620	9.0%	*North Fair Oaks*	*530*	*14.7%*
North Fair Oaks	*530*	*7.7%*	San Mateo	215	6.0%
Menlo Park	495	7.2%	San Francisco	165	4.6%
San Carlos	470	6.8%	Menlo Park	150	4.2%
San Mateo	420	6.1%	San Jose	125	3.5%
Unincorporated County (a)	335	4.9%	Fremont	120	3.3%
San Jose	230	3.3%	Burlingame	110	3.1%
Other Bay Area Cities (b)	2,122	30.8%	Other Bay Area Cities (b)	1,250	34.8%
Other Cities in CA (c)	66	1.0%	Other Cities in CA (c)	245	6.8%
Total Residents	**6,883**	**100.0%**	**Total Workers**	**3,595**	**100.0%**
North Fair Oaks Residents Out-Commuting	**6,353**	**92.3%**	**North Fair Oaks Workers In-Commuting**	**3,065**	**85.3%**

Notes:
(a) "Unincorporated CA" does not include Census Designated Places (CDP's).
(b) The nine-county Bay Area includes cities contained within Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma counties.
(c) "Other Cities in CA" include Census Designated Places (CDP's), and consists of all remaining CA city places of work and residence.
Sources: U.S. Census Transportation Planning Package, 2000; BAE, 2010.

14.3 Provide Housing Near Employment, Transportation, and Community Services. Strive to provide housing in balanced residential environments that combine access to employment opportunities, transportation, childcare and other community services.

14.12 Preserve Existing Single-Family Residential Areas. Preserve and enhance the character of existing single-family residential areas by limiting adjacent land use designations to those that are compatible. Consider compatible land use designations to be residential, neighborhood commercial or mixed uses that include multi-family housing; locate compatible land uses in areas currently in transition and along traffic corridors.

14.19 Encourage New Housing Near Employment and Services. Encourage the provision of housing near employment centers and/or where adequate infrastructure and services exist or can be provided. Identify these areas, as well as their potential for additional residential and mixed-use development in future planning studies and documents.

14.20 Increase Land Available for Residential Use. Increase the amount of land available for residential use by considering: (a) the designation and zoning of undeveloped or underutilized land for residential development consistent with Policy 14.20 and the Locational Criteria contained in Table 8.1P of the Urban Land Use chapter; (b) the rezoning to multi-family

densities of suitable large vacant parcels on the edge or outside of single-family neighborhoods; (c) the application of mixed-use zoning combining residential uses with compatible commercial or industrial uses; (d) the use of airspace above appropriate facilities as sites for housing; and (e) the conversion of land zoned for office development to residential or mixed use, or the conversion of underutilized office space to housing.

14.21 Require Development Densities Consistent with General Plan. Require the density of residential developments to be within the range specified by the General Plan Land Use and Zoning Designation. Encourage approval of residential development proposals at the maximum density permitted by zoning, provided environmental impacts can be mitigated to a less than significant level or a statement of overriding considerations is adopted. Search for ways to mitigate environmental impacts other than by lowering densities; consider a reduction in density only after all other mitigating measures have been determined to be infeasible.

14.22 Ensure that Sufficient Land is Available to Meet Future Housing Needs. Ensure that there is a sufficient amount of land available to meet future housing needs by identifying and, if necessary, proposing General Plan changes and rezoning of vacant and underutilized land suitable for multi-family residential and mixed-use development.

14.29 Encourage the Use of Alternative Housing Types and the Planned Unit Development District. Reduce construction costs by continuing to encourage: (a) alternative housing types, such as manufactured homes or (b) flexible site design standards, through the use of the Planned Unit Development District, where appropriate.

14.41 Establish Residential Densities to Encourage the Use of Density Bonuses. As part of the process to identify and rezone land to ensure that there is sufficient land to meet future housing needs, establish base densities for large residential and mixed-use parcels that make the use of density bonuses economically feasible.

14.43 Encourage Second Dwelling Units. Encourage the legalization of existing and construction of new second dwelling units on parcels where single-family residences are permitted by the zoning provided that: (a) the maximum housing growth from second units is limited to 20 percent of the existing number of main dwelling units in existence in an area; (b) the second unit is small or secondary in size to the main swelling unit; (c) minimum building site, off-street parking and design review requirements are met in order to ensure the compatibility of the second unit with the character of the neighborhood; and (d) there are no major conflicts with resource protection in rural areas.

14.3 IMPACTS AND MITIGATION MEASURES

This section describes potential population, housing and employment impacts of the updated Community Plan, including beneficial effects. This section also evaluates the consistency of the project with General Plan policies related to population, housing, employment and jobs/housing balance.

Changes in population and housing, in and of themselves, are generally characterized for CEQA purposes as social and economic effects, not physical effects on the environment. CEQA provides that economic or social effects are not considered significant effects on the

environment unless the economic or social effects are connected to physical environmental effects.

> *Economic or social effects of a project shall not be treated as significant effects on the environment. An EIR may trace a chain of cause and effect from a proposed decision on a project through anticipated economic or social changes resulting from the project to physical changes caused in turn by the economic or social changes. The intermediate economic or social changes need not be analyzed in any detail greater than necessary to trace the chain of cause and effect. The focus of the analysis shall be on physical changes. Economic or social effects of a project may be used to determine the significance of physical changes caused by the project.* (CEQA Guidelines Section 15131(a) and (b)).

14.3.1 Significance Criteria

Based on Appendix G of the CEQA Guidelines,[1] the updated Community Plan would be considered to have a significant adverse impact related to population and housing if it would:

(a) induce substantial population growth either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure); or

(b) displace substantial numbers of people or existing housing, necessitating the construction of replacement housing elsewhere.

14.3.2 Impacts and Mitigation Measures

Growth Inducement. Section 21100(b)(5) of CEQA requires that an EIR include information regarding the growth-inducing impacts of the proposed project. CEQA Guidelines section 15126.2(d) states that an EIR shall: *"Discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing either directly or indirectly, in the surrounding environment....It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment."* The updated Community Plan would foster economic growth, result in population growth, and indirectly result in the construction of additional housing within San Mateo County and the Bay Area region.

The updated Community Plan would result in population growth and would foster economic growth, stimulate private investment and increase the community's supply of housing, including affordable housing. For "worst case" CEQA environmental impact assessment purposes, it is assumed in this EIR that the updated Community Plan would be fully successful in facilitating the revitalization of the Community Plan area and the development of additional new housing outside the Community Plan area, and in indirectly stimulating economic activity throughout the city.

As shown in Table 14.7, the updated Community Plan would provide for the development of up to an additional 3,024 dwelling units, 180,000 square feet of retail uses, 155,000 square feet of office uses, 210,000 square feet of industrial uses, 110,000 square feet of institutional uses, and 3.8 acres of parks and recreation uses within the Community Plan area by 2035. As shown in Table 14.7, this development would result in an estimated 11,794 new residents and 1,905 new

[1] CEQA Guidelines, Appendix G, Items XII a-c.

Table 14.7
PROJECT-RELATED POPULATION, HOUSING AND EMPLOYMENT GROWTH

	Dwelling Units/Square Feet/Acres	Persons per Household	Square Feet/Acres per Employee	Residents/ Employees
Residents	3,024	3.9		11,794
Employment				
Retail	180,000		300	600
Office	155,000		300	517
Industrial	210,000		500	420
Institutional	110,000		300	367
Public	3.8		3	1
TOTAL Employment				1,905

SOURCE: MIG, 2010.

jobs in the Community Plan area. This population increase would not in itself constitute a significant adverse environmental impact.[1]

The updated Community Plan identifies properties within a roughly ¼-mile radius of a possible future multi-modal transit station at the Middlefield Road railroad crossing as appropriate for higher-intensity, mixed-use, transit-oriented development. The updated Community Plan would encourage redevelopment and job creation on vacant and underutilized (i.e., the land is worth more than the existing structures on it) land within existing industrial areas, taking advantage of potential demand for new office, research and development, and industrial space generated by the new Stanford Medical Campus and pending adjacent Stanford in Redwood City office and R&D campus. The Plan would promote residential infill development on vacant and underutilized residential parcels. The Plan would encourage new retail development, building synergy on well-established retail corridors, and providing space for local entrepreneurs and small businesses.

The updated Community Plan would focus growth in the following four "Opportunity Areas," which due to their location, mix and intensity of existing land uses, and access to transportation and infrastructure, have the most potential for change:

- Middlefield Road between the western edge of the Community Plan area and 1st Avenue, where a higher density mix of commercial, residential, institutional and public uses, would support transit-oriented development in the area around a potential future multi-modal transit

[1]CEQA Guidelines section 15126.2(d) states that an EIR shall: "*Discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing either directly or indirectly, in the surrounding environment....It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.*"

station, and would support Middlefield Road as the main commercial destination in North Fair Oaks;

- Middlefield Road between 1st Avenue and 8th Avenue, with a mix of medium-density, locally-oriented, smaller-scale commercial, residential and public uses;

- Existing industrial areas in the area bounded by 2nd Avenue, Willow Street, Fair Oaks Avenue and Bay Road, and the area along the railroad tracks between 5th Avenue and 12th Avenue, where underutilized and vacant industrial land would be revitalized with development of flexible space for a range of employment-generating industrial, commercial, institutional and public uses, and possibly limited low-density residential uses; and

- El Camino Real between the western edge of the Community Plan area and Loyola Avenue, and along 5th Avenue between El Camino Real and the Caltrain tracks, with local and regional commercial uses and higher-density residential uses.

The amount of new development allowed under the updated Community Plan would represent an increase over the amount of development allowed under the current Community Plan. The updated Community Plan would, on balance, be consistent with the general vision, and the goals, objectives and policies of the General Plan.

Growth within North Fair Oaks under the updated Community Plan would generate jobs, personal income, and revenue to the County. Development within the Community Plan area may in turn induce additional growth within San Mateo County through an economic "multiplier effect". A multiplier effect describes the indirect and induced employment and income generated by a project. For every new job, other jobs are created in the local economy to support that job. New uses developed within the Community Plan area would generate increased demand for local goods and services. This economic multiplier effect would generate additional indirect jobs throughout San Mateo County and additional personal income in the San Mateo County economy. A portion of this indirect economic activity would occur in North Fair Oaks.

The updated Community Plan recommends improving water, sewer and storm drainage facilities within the Community Plan area, which may be designed to also accommodate growth outside the area. Also, growth within North Fair Oaks in accordance with the updated Community Plan may increase the development potential for development and redevelopment in surrounding areas. New economic activity and growth outside North Fair Oaks may in turn increase traffic, air quality and noise impacts, and generate demand for housing, public services and utilities, the expansion or new construction of which could cause environmental impacts. Potential new development projects would require their own project-level environmental review in accordance with CEQA. The location, timing, nature, extent and severity of the potential environmental impacts of any given project are too speculative to predict or evaluate in this EIR.

The potential environmental impacts of development within North Fair Oaks induced by the updated Community Plan have been evaluated at a program level in this EIR. Potential induced growth outside the North Fair Oaks due to enhanced development potential on adjacent land and increased economic activity, would occur as already contemplated in and consistent with adopted plans and the environmental documents prepared for those plans, and would therefore not represent growth for which adequate planning has not occurred and, thus, would represent a ***less-than-significant impact.***

Mitigation: No significant impact has been identified; no mitigation is required.

Project-related growth Inducement is also addressed in Chapter 17, CEQA-Required Assessment Conclusions.

Displacement of People or Housing. Redevelopment of properties within the Plan area could result in the demolition and loss of housing units and the associated displacement of people, and a need for the construction of replacement housing. The timing of any potential displacement during the 25-year time frame of the plan is unknown and would depend on the market for redevelopment of occupied properties.

The updated Community Plan would provide for the development of an estimated 3,024 new housing units within the Plan area, which is considerably more than the existing Community Plan. The housing policies of the updated Community Plan are intended to address the range of housing needs in the community. In addition to the updated Community Plan, the General Plan Housing Element and a number of County programs promote the development and preservation of housing, including affordable housing and housing for families.

The potential environmental impacts of "replacement" housing developed within the Community Plan area is addressed at a program level within this EIR. The location, timing, nature, extent and severity of the potential environmental impacts of any given new housing development project within the Plan area is too speculative to predict or evaluate at the project level in this EIR. Parcel-specific housing projects will be subject to their own project level environmental review to evaluate their specific characteristics and changes in the environmental setting over time.

The displacement of people or housing as a result of the updated Community Plan would represent a ***less-than-significant impact.***

Mitigation: No significant impact has been identified; no mitigation is required.

Temporary and Permanent Employment. Development facilitated by the updated Community Plan would result in new temporary construction jobs and permanent employment opportunities within the Plan area. As shown in Table 14.7, the updated Community Plan would generate an estimated 1,905 direct new jobs within the Plan area by 2035. The economic multiplier effect would generate additional indirect jobs throughout San Mateo County and the Bay Area region, a portion of which would be created in North Fair Oaks. Employment generated by the development and economic activity facilitated by the updated Community Plan would be a ***beneficial impact.***

Mitigation. No significant impact has been identified; no mitigation is required.

Jobs/Housing Balance. The CEQA Guidelines do not suggest evaluation of jobs/housing balance or that a local imbalance in the number of jobs and housing would be a significant impact under CEQA. However, regional planning goals seek to improve the local balance between housing and jobs because a better jobs/housing balance can reduce commuting, traffic

congestion, air pollutant and greenhouse gas emissions, the need for costly transportation infrastructure improvements, personal transportation costs, and lost leisure and family time. Therefore, the potential effect of the updated Community Plan on jobs/housing balance is discussed here for informational purposes only.

As shown in Table 14.7, development facilitated by the updated Community Plan would result in an estimated 1,905 jobs and 3,024 housing units within the Plan area by 2035. By accommodating the development of more housing than jobs, the updated Community Plan may add to the existing mismatch between the number of housing units and jobs in North Fair Oaks. This could mean that a larger proportion of community residents would need to look outside of North Fair Oaks to find employment and highlights the need for improved transportation options.

It should be noted that while "jobs/housing balance" is the term commonly used, the "jobs/employed resident balance" is the more precise measure of the local ratio of housing to jobs, since housing units (or households), on average, contain more than one employed resident. It is also important to note that a simple numerical balance in the jobs/employed resident ratio does not necessarily indicate that local residents have adequate opportunity to work in their community. Other factors, such as the match between local resident employee skills and the skills required for local jobs, and the match between local job compensation levels and local housing prices, also influence a community's actual jobs/housing relationship. It is also useful to consider the jobs/housing balance in North Fair Oaks in the context of jobs in surrounding communities and the County as a whole. San Mateo County had slightly more jobs than employed residents in 2009, with 0.95 employed residents for every job. In addition, in 2000, 23 percent of North Fair Oaks held jobs in adjacent Redwood City, 9 percent in Palo Alto, 8 percent in Menlo Park, and 7 percent in San Carlos. 2010 Census data may reveal different commute patterns. In addition, without accounting for the jobs estimated to result from the updated Community Plan, ABAG projects North Fair Oaks to increase its jobs base by 29 percent between 2010 and 2030.

Cumulative Population and Housing Impacts. New development facilitated by the updated Community Plan, together with other reasonably foreseeable development, would add new residents and new jobs within the Plan area by 2035. Potential induced secondary growth outside the Plan area is generally already contemplated in adopted plans and the environmental documents for those plans. The updated Community Plan, together with other reasonably foreseeable projects, would not induce growth for which adequate planning has not occurred. Cumulative development could result in the demolition and loss of housing units and the associated displacement of people, and a need for the construction of replacement housing. However, such displacement would occur incrementally over time and surrounding jurisdictions have policies and programs that promote the development and preservation of housing, including affordable housing. Cumulative development would result in the creation of new jobs. Cumulative impacts related to growth inducement, and displacement of people or housing would be ***less than significant.***

Mitigation. No significant cumulative impact has been identified; no mitigation is required.

15. PUBLIC SERVICES AND UTILITIES

This chapter describes existing conditions and the regulatory setting related to public services and utilities, including water, wastewater, police, fire and emergency medical service, schools, parks and recreation, and solid waste and recycling, and the potential environmental impacts of the updated Community Plan.

15.1 WATER SERVICE

This section describes existing conditions, the relevant regulatory setting, and the potential impacts of the updated Community Plan related to water service.

15.1.1 Environmental Setting

(a) Water Supply. North Fair Oaks receives water from two supply sources: the California Water Service Company (Cal Water) and the City of Redwood City. The Cal Water Bear Gulch District and Redwood City water service area boundaries within the Community Plan area are shown on Figure 15.1, illustrating that Cal Water supplies the vast majority of the Plan area.

For its four Peninsula water systems, Cal Water relies on water purchased from the San Francisco Public Utilities Commission (SFPUC). Cal Water reports that it is at its limit of water supply guarantee from the SFPUC, and that any significant increase in water demand due to new development will impact its supply. Cal Water recognizes that any individual development proposal that meets Senate Bill (SB) 610 criteria (i.e., water demand equivalent to 500 dwelling units--see upcoming subsection 15.1.2 of this EIR chapter) must have prepared a Water Supply Assessment (WSA) to evaluate water supply availability. In addition, the individual project developer is responsible for funding the design and construction of necessary water infrastructure upgrades. To help determine system-wide water supply and demand, Cal Water currently implements its 2005 Bear Gulch District Urban Water Management Plan (UWMP) and is in the process of updating the UWMP.[1]

The City of Redwood City receives its water from the SFPUC. The City adopted an updated UWMP in June 2011. The UWMP forecasts growth in its service area within North Fair Oaks. As described above regarding SB 610, Redwood City prepares WSAs for individual development proposals meeting the SB 610 criteria.

[1]Tony Carrasco, District Manager--Bayshore & Bear Gulch, California Water Service Company, written communication, May 9, 2011; and personal communication, May 17, 2011.

SOURCE: Wagstaff/MIG, BKF

Figure 15.1

WATER SERVICE AREAS

(b) Water Treatment, Storage, Distribution and Fire Flow.[1] The water distribution system within most of North Fair Oaks is owned and operated by Cal Water. The northern portion of North Fair Oaks is served by the City of Redwood City. Existing water distribution facilities in and around the Community Plan area are shown on Figure 15.2.

The water system consists of a network of 4-inch through 10-inch pipes located within public street rights-of-way. Water is delivered to the system through various connections to SFPUC transmission pipelines and from the Bear Gulch Reservoir treatment system in Atherton. The Bear Gulch Reservoir is located on the northeast side of Interstate 280 between the Sand Hill Road and Woodside Road interchanges. Distribution lines consist of a combination of asbestos cement, transite, and cast iron pipe. Cal Water has a 50-year replacement program for cast iron pipe, as it tends to corrode in soil types that are common in North Fair Oaks.

The Cal Water system in the vicinity of North Fair Oaks is divided into two separate pressure zones: a high zone and a low zone. The Community Plan area is within the low zone, where static pressures range from 55 pounds per square inch (psi) to 65 psi.

Typically, a minimum of 1,500 gallons per minute (gpm) at any fire hydrant, with a residual pressure of 20 psi, is required to serve new development. Depending on building sizes and construction types, the Uniform Fire Code (UFC) may require higher fire flows with multiple fire hydrants flowing simultaneously.

The portion of the Community Plan area served by Redwood City has insufficient emergency water storage facilities.

(c) Existing Recycled Water Infrastructure. Redwood City obtains non-potable recycled water supply (i.e., reclaimed wastewater) from the South Bayside System Authority (SBSA) wastewater treatment plant, located at the eastern end of the Redwood Shores peninsula in Redwood City. SBSA produces recycled water that meets California's Title 22 environmental health requirements for disinfected tertiary treated recycled water established by the California Department of Public Health, which enables the water to be used for a variety of applications, including landscape irrigation, industrial processes, cooling towers, and some indoor uses such as toilet flushing.

Redwood City's recycled water service area includes the Greater Bayfront/Port of Redwood City, Redwood Shores, and central Redwood City areas. The recycled water pipeline distribution system within the Greater Bayfront/Port of Redwood City and Redwood Shores areas was completed in February 2010 and is currently operational.[2] The system is complete except for a crossing at Redwood Creek.

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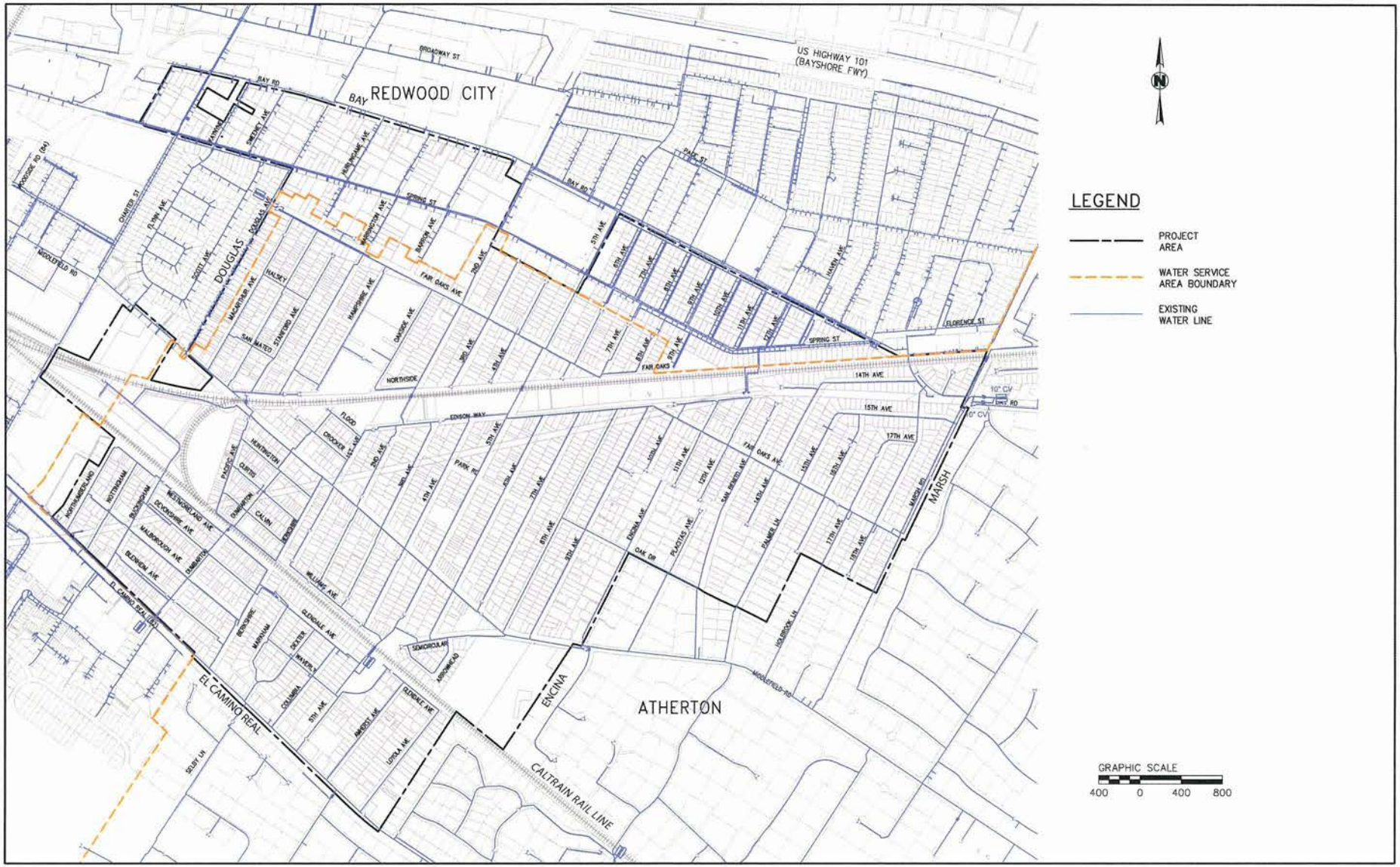
[1]MIG, Inc., North Fair Oaks Community Plan Update Existing Conditions Analysis--Infrastructure, June 2010, p. 5.

[2]City of Redwood City, Draft Environmental Impact Report for the Redwood City Downtown Precise Plan, August 2010, p. 10-3.



SOURCE: Wagstaff/MIG, BKF

Figure 15.2

EXISTING WATER DISTRIBUTION FACILITIES

There is currently no recycled water system that serves North Fair Oaks. The Community Plan area is outside of Redwood City's Phase 1 service area. Currently the closest existing point of connection from the Community Plan area to the recycled water system is east of the US 101/Woodside Road interchange. The City of Redwood City has discussed expansion of its system from this point westerly, along Highway 84, toward El Camino Real and ultimately to the foothills. Redwood City has not identified any additional future phases for the extension of the recycled water system at this time. Moreover, all future pipe alignments are north of Community Plan area.[1]

15.1.2 Regulatory Setting

(a) California Health and Safety Code. Section 64562 of the California Health and Safety Code requires all public water systems to have sufficient water available from their water sources and distribution reservoirs to supply adequately, dependably, and safely the total requirements of all users under maximum demand conditions before agreements are made to permit additional service connections to a system.

(b) California State Senate Bill 7. Enacted in late 2009, Senate Bill 7 (SB 7) requires the State of California as a whole to achieve a 20 percent reduction in urban per capita water use by December 31, 2020. The law also requires the State to make incremental progress towards this goal, namely achieving a 10 percent per capita reduction in urban water use on or before December 31, 2015. To achieve these goals, the law includes a requirement that urban retail water suppliers would not be eligible for state water grants or loans on and after July 1, 2013, unless they demonstrate compliance with the water conservation requirements of the bill.

(c) California State Senate Bills 610 and 221. Senate Bill 610 (SB 610) and Senate Bill 221 (SB 221) require local planning agencies to consider whether there are sufficient and reliable water supplies to serve proposed development projects of specified sizes during the application and environmental review processes for such projects.

SB 610 (codified at Section 10910-10915 of the California Water Code) requires the preparation of a Water Supply Assessment (WSA) for large-scale development projects, typically defined as any project involving a water demand increase equivalent to that associated with 500 or more dwelling units. The WSA must be requested by the lead agency from the local water provider at the time the lead agency determines that an EIR is required for the project under CEQA.

SB 221 (codified at California Government Code Section 66473.7) requires verification from applicable public water systems that a sufficient long-term water supply is available to meet projected demand associated with a proposed subdivision comprising water demand equivalent to 500 or more dwelling units.

A WSA is not required for the North Fair Oaks Community Plan Update because: (1) the Community Plan is a component of the County General Plan, and WSAs are not required for general plan updates and other long-range planning documents; and (2) the Community Plan Update would not be considered a "project" subject to a WSA because, according to Government Code Section 65931, a "project" is "any activity involving the issuance to a person of a lease, permit, license, certificate, or other entitlement for use by one or more public

[1]MIG, Inc., North Fair Oaks Community Plan Update Existing Conditions Analysis--Infrastructure, June 2010, pp. 5 and 6.

agencies," and adoption of the Community Plan Update in itself would not grant any such entitlements.

If, in the future, an individual applicant proposes a project that meets the Government Code definition of "project" and the SB 610 threshold for requiring a WSA (i.e., generally, the amount of water required by a 500 dwelling unit project, whether the project is residential, commercial, mixed use, etc.), then a WSA would be required for that individual project. Likewise, a water supply *verification* would be required under SB 221 if a subdivider submits an application for a tentative tract map, parcel map, or development agreement that covers 500 or more dwelling units.

(d) San Mateo County General Plan. The following San Mateo County General Plan policies are relevant to consideration of the water service impacts of the updated Community Plan.

(1) General Land Use Element

7.3 Infrastructure. Distribute land uses where public services and facilities exist or can be feasibly provided (e.g., sewer and water systems) in order to achieve maximum efficiency.

(2) Water Supply Element

10.1 Coordinate Planning. Coordinate water supply planning with land use and wastewater management planning to assure that the supply and quality of water is commensurate with the level of development planned for an area.

10.25 Efficient Water Use.
a. Encourage the efficient use of water supplies through effective conservation methods.
b. Require the use of water conservation devices in new structural development.
c. Encourage exterior water conservation.
d. Encourage water conservation for agricultural uses by using efficient irrigation practices.

10.26 Wastewater Reuse.
a. Encourage the reuse and recycling of water whenever feasible.
b. Encourage the use of treated wastewater that meets applicable County and State health agency criteria.

15.1.3 Significance Criteria

Based on the CEQA Guidelines,[1] the updated Community Plan would result in a significant impact on water service if it would:

(a) Require or result in the construction of new water facilities or expansion of existing facilities, the construction of which could cause significant environmental effects; or

(b) Result in a need for new or expanded water supply entitlements.

[1]CEQA Guidelines, Appendix G, items XVII(b and d).

15.1.4 Impacts and Mitigation Measures

Water Supply Impacts. The updated Community Plan would provide for the development of up to an additional 3,024 dwelling units, 180,000 square feet of retail uses, 155,000 square feet of office uses, 210,000 square feet of industrial uses, 110,000 square feet of institutional uses, and 3.8 acres of parks and recreation uses within the Community Plan area by 2035. This additional development would result in an estimated 11,794 new residents and 1,905 new jobs in the Community Plan area. This additional development would generate an increase in water demand. Table 15.1 presents net new projected future water demand with buildout of the updated Community Plan, divided into the Opportunity Areas identified in EIR Figure 3.3 (Proposed Land Use). As shown, net new development under the updated Community Plan would generate a projected net increase in water demand of approximately 555,560 gallons per day (gpd).[1]

As described above in subsection 15.1.1 (Environmental Setting), both water suppliers--Cal Water and the City of Redwood City--are currently updating their UWMPs to help determine current and future water supply and demand. Future growth in North Fair Oaks is expected by both water suppliers. As required by state law, any individual development proposal that meets Senate Bill (SB) 610 criteria (i.e., water demand equivalent to 500 dwelling units--see subsection 15.1.2 of this EIR chapter) must have prepared a WSA to evaluate water supply availability. In addition, each individual project developer would be responsible for funding the design and construction of necessary water infrastructure upgrades. Based on these requirements and conclusions, the water supply impact of the Community Plan Update is considered ***less than significant.***

Mitigation. No significant impact has been identified; no mitigation is required.

Water Distribution, Fire Flow, and Emergency Storage Impacts. Because water systems are sized primarily to meet fire flow capacity, some replacement of local water lines may be required to serve future, larger developments in the Plan area. Also, local improvements may be needed if higher density development occurs in a location currently served by undersized lines. Some locations identified for increased development capacity are currently served by lines as small as 2 to 4 inches. Individual development proposals would be required to have fire flow tests performed to determine if these small lines would provide adequate fire flow capacity. Based on the test results, it is likely that portions of these lines would need to be replaced and upsized.

Future development under the updated Community Plan would include construction activity in many streets. Scheduling the replacement of old water lines concurrently with the construction of roadway and frontage improvements associated with new development projects would save pavement and restoration costs, minimize construction impacts on neighborhoods, and optimize the value invested in pipeline replacement.

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[1]MIG, Inc., Draft North Fair Oaks Community Plan--Infrastructure (Chapter 4, Section 4.2), August 2011.

Table 15.1
PROJECTED WATER DEMAND (GPD)[1]

Opportunity Area	Net Increase with Community Plan Update Buildout
El Camino Real/5th Avenue Area	106,490
Middlefield Road/Transit Area	289,950
Edison Way Industrial Area	24,500
Northern Industrial Area	134,620
TOTAL:	**555,560**

SOURCE: Wagstaff/MIG, BKF. Draft North Fair Oaks Community Plan--Infrastructure, May 2011.

[1] gpd = gallons per day

Regarding insufficient emergency water storage facilities in the Redwood City service area within North Fair Oaks, the City of Redwood City plans to construct a three (3) million gallon water storage tank that will be able to serve the "Main City Service Area" (that portion of the service area located primarily east of El Camino Real, which includes the Community Plan area). New developments within Redwood City service area in North Fair Oaks would be responsible for paying their proportionate fair share towards the cost of the water storage tank.[1]

Under normal existing County development permitting procedures, each individual future development project within the Community Plan area would be required to: (1) pay applicable County development and connection fees, (2) pay its fair share toward necessary water system facilities to support the proposed development's water infrastructure needs, and (3) submit final project water system design specifications and construction modifications for approval by the Public Works Department. In addition, new service connections and/or the effects of higher density development may require localized pipe replacement.

Under its normal development review procedure for specific projects, the County would determine the actual fire flow and water system design requirements. Construction of water system improvements to meet the demand of future development under the updated Community Plan would occur within existing public rights-of-way. Temporary construction period traffic, noise, air quality, water quality and other potential impacts would be mitigated through the County's standard construction mitigation practices (many of which are described in this EIR, e.g., Chapters 5, 11, and 13). Therefore, the environmental impact of the updated Community Plan related to water distribution facilities and fire flow would be ***less than significant.***

Mitigation. No significant impact has been identified; no mitigation is required.

[1] Joseph Aranda, Assistant City Attorney, City of Redwood City, written communication, March 22, 2011.

Cumulative Water Service Impacts. Development facilitated by the updated Community Plan, together with other project areawide growth in neighboring communities, would result in additional residential and non-residential development by the year 2035. This cumulative development would create a need for additional water supply, treatment, storage, and distribution facilities. Under normal existing County development permitting procedures, each individual future development project within the Community Plan area would be required to: (1) pay applicable County development and connection fees, (2) pay its fair share toward necessary water system facilities to support the proposed development's water infrastructure needs, and (3) submit final project water system design specifications and construction modifications for approval by the Public Works Department. In addition, new service connections and/or the effects of adjacent higher density development may require localized pipe replacement. Under its normal development review procedure for specific projects, the County would determine the actual fire flow and water system design requirements. Construction of water system improvements to meet the demand of future development under the updated Community Plan would occur within existing public rights-of-way. Temporary construction period traffic, noise, air quality, water quality and other potential impacts would be mitigated through the County's standard construction mitigation practices. Therefore, cumulative impacts related to water service would be ***less than significant.***

Mitigation. No significant cumulative impact has been identified; no mitigation is required.

15.2 WASTEWATER SERVICE

This section describes the existing conditions, regulatory setting, and the potential impacts of the updated Community Plan related to wastewater collection, conveyance, and treatment facilities.

15.2.1 Environmental Setting

Within North Fair Oaks, wastewater collection service is provided by the Fair Oaks Sewer Maintenance District (FOSMD) and the West Bay Sanitary District, wastewater conveyance to the treatment plant is provided by City of Redwood City, and wastewater treatment is provided by the South Bayside System Authority (SBSA). The FOSMD has jurisdiction over wastewater conveyance within North Fair Oaks, to a connection point near the Chestnut Street/Veterans Boulevard intersection, where the Redwood City sewer system begins. Redwood City has jurisdiction over conveyance from that point to the Maple Street Pump Station. SBSA has jurisdiction from the Maple Street Pump Station to the SBSA treatment plant.[1]

[1]The analysis of sewer system capacity and improvement needs relied on different sewage generation rates from each of the two agencies with jurisdiction over different portions of the North Fair Oaks sewer system, the City of Redwood City and the FOSMD. For non-residential developments, FOSMD estimates flow rates using the total number of proposed sewage receptors or plumbing fixtures. Each five (5) plumbing fixtures are deemed to be one (1) Residential Unit Equivalent (RUE), and each RUE is estimated to generate 220 gpd. Connection fees for future development under the updated Community Plan would be based on the number of RUEs. FOSMD will consider implementing a monitoring program to track actual usage rates versus calculated demand rates for any individual project. For multi-phase projects, FOSMD will also consider adjusting estimated sewage generation rates for later project phases based on measured generation rates from the initial project phases.

(a) Wastewater Collection. Existing wastewater collection facilities in and around the Community Plan area are shown on Figure 15.3. Information about the existing sewer system--including pipe size, slope, material, inverts, location, and length--is based on utility maps, and construction plans and profiles provided by the City of Redwood City's Engineering Department and the FOSMD. The existing sewer system includes four major north-south trunk lines in Douglas Avenue, Barron Avenue, 6th Street and 12th Street, fed by 6-inch and 8-inch diameter feeder lines. Portions of the sewer system outside the Community Plan area include two parallel 30-inch and 24-inch diameter lines in Bay Road. Flows from the FOSMD are conveyed north under US 101 to a 30-inch diameter line, which flows to the Maple Street Pump Station.

The September 2000 FOSMD Sewer Master Plan identifies significant lengths of the North Fair Oaks sewer system as under capacity for peak wet weather flow (PWWF). Approximately 2,800 feet of the 16th Avenue system are undersized and should be replaced with 15-inch to 18-inch diameter lines. Approximately 3,250 feet of the Barron Avenue system are undersized and should be replaced with a 15-inch diameter line.[1]

(b) Wastewater Conveyance. The wastewater conveyance system relevant to the updated Community Plan consists of the Maple Street Pump Station (which is owned by the City of Redwood City and maintained by SBSA), the force main to the treatment plant, and the lift station at the treatment plant. Conveyance capacity was evaluated using the net increase in peak wet weather flow (PWWF) under buildout of the updated Community Plan. The capacity is not exclusively determined by the physical characteristics of the Maple Street Pump Station and downstream facilities, but also the PWWF rights owned by Redwood City and allocated to FOSMD. Redwood City's rights represent the maximum contractual transmission capacity of 30.5 million gallons per day (mgd) (4.6 mgd for Redwood Shores and 25.9 mgd for the remainder of Redwood City).

(b) Wastewater Treatment.[2] Wastewater treatment for North Fair Oaks is provided by the South Bayside System Authority (SBSA) treatment plant, located at the northeastern end of the Redwood Shores peninsula. The SBSA operates under a joint powers authority comprised of four member agencies: Redwood City, Belmont, San Carlos, and the West Bay Sanitary District (which serves Menlo Park and portions of Atherton, Portola Valley, East Palo Alto and San Mateo County). The FOSMD is not a member of the joint powers authority but gets its transmission and treatment allocations through the City of Redwood City.[3]

Wastewater flows are defined as "average dry weather flow" (ADWF) and "peak wet weather flow" (PWWF). The average dry weather flow (ADWF) represents the average flow of wastewater generated by a community or development from domestic and industrial uses that occurs on a daily basis with no evident reaction to rainfall. The peak wet weather flow (PWWF) represents the highest measured hourly flow that occurs during wet weather. Wastewater flows can vary with precipitation levels, insofar as rainwater can enter the wastewater collection system through infiltration and inflow (I/I) during significant rain events. "Infiltration" of water into

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[1]MIG, Inc., North Fair Oaks Community Plan Update Existing Conditions Analysis--Infrastructure, June 2010, p. 11.

[2]City of Redwood City, Draft Environmental Impact Report for the Redwood City Downtown Precise Plan, August 2010, pp. 10-11 and 10-12.

[3]MIG, Inc., North Fair Oaks Community Plan Update Existing Conditions Analysis--Infrastructure, June 2010, p. 10.

SOURCE: Wagstaff/MIG, BKF

Figure 15.3

EXISTING WASTEWATER COLLECTION FACILITIES

the wastewater collection system generally occurs during the winter when precipitation raises the groundwater table to a level where the water infiltrates defective sewer lines. "Inflow" represents discharges into the sewer system such as surface runoff into manholes, unpermitted roof connections, and other drainage connections. Both infiltration and inflow contribute to PWWF and result in an increase in total wastewater flow that reduces the overall available capacity of the sewer system during wet weather events.

The SBSA wastewater treatment plant has an operating capacity of 29 mgd ADWF. The plant is permitted by the RWQCB to discharge 29 mgd ADWF into San Francisco Bay. The current permitted peak wet weather capacity of the SBSA facility is 71 mgd.

Each member agency of the SBSA is allotted maximum transmission and treatment capacity rights for PWWF, ADWF, Biochemical Oxygen Demand, and Suspended Solids. The SBSA member agencies purchased flow capacity when the treatment plant was built and became operational in the early 1980s. This phase was called Stage 1 and had an ADWF capacity of 24 mgd. In mid-1995, the SBSA initiated actions to expand the ADWF capacity of the treatment plant to 29 mgd. The expansion phase is called Stage 2. Redwood City's ADWF capacity allocation is 11.4 mgd from Stage 1 and 2.375 mgd from Stage 2, for a total ADWF capacity allocation of 13.775 mgd. As of April 2010, the City had purchased approximately 12.3 mgd of its total ADWF allocation. Between 1995 and 2006, Redwood City's ADWF to the SBSA ranged from 7.5 to 9 mgd. During the summer of 2008, the ADWF from Redwood City was about 7.3 mgd. These figures are well below the City's purchased ADWF capacity.

Redwood City's PWWF allocation at the treatment plant is approximately 30.5 mgd (25.9 mgd for the central portion of the city and 4.6 mgd for Redwood Shores). According to the SBSA, Redwood City's highest PWWF rate was 29.22 mgd, recorded in January 2008. The City is entitled to an additional 1.475 mgd of PWWF treatment capacity even though it has not yet purchased that capacity. Some of the member agencies, including Redwood City, have exceeded their PWWF allocation over the years during significant rain events. The SBSA is currently evaluating PWWF capacity at the plant and the possible use of the flow equalization facility operated by the West Bay Sanitary District in Menlo Park to address peak wet weather flows.

15.2.2 Regulatory Setting

(a) Federal Clean Water Act. The Clean Water Act (CWA) gave the EPA authorization to implement pollution control programs, including setting standards for wastewater systems, water quality, and drinking water. The CWA regulates discharges of effluent to surface waters to protect water quality. Discharges are subject to the requirements of the National Pollutant Discharge Elimination System (NPDES) permitting process. In addition, Section 303 of the CWA requires individual states to adopt water quality standards which "consist of the designated uses of the navigable waters involved and the water quality criteria for such waters based upon such values."

(b) Porter-Cologne Water Quality Control Act. The Porter-Cologne Act set out the functions of the SWRCB with respect to water quality control and establishes the nine regional water quality control boards. Each Regional Board is charged with preparing a water quality plan (Basin Plan) for its region, which lists the beneficial uses to be protected, water quality objectives, and an implementation program to meet these objectives.

(c) California Regional Water Quality Control Board, San Francisco Bay Region. The SBSA treatment plant operates under a permit from the California Regional Water Quality Control Board (Water Board). Pursuant to the federal Clean Water Act and California's Porter-Cologne Water Quality Control Act, the Water Board regulates wastewater discharges to surface waters (e.g., San Francisco Bay) through its NPDES program. SBSA's NPDES permit governs the quantity and quality of treated wastewater that can be discharged into San Francisco Bay. RWQCB requires periodic reissuance of its NPDES permits; SBSA's wastewater treatment facility permit is scheduled to expire in March 2012; reissuance activities are expected to commence in 2011. Under its existing permit from the RWQCB, SBSA operates a pre-treatment program. Under this program, SBSA and its member agencies have established sewer use ordinances that apply to all industrial users in its sewer service area. The program limits the types of materials that industrial users may discharge into a member agency's wastewater collection system.

(d) San Mateo County General Plan. The following San Mateo County General Plan policies are relevant to consideration of the wastewater impacts of the updated Community Plan.

(1) General Land Use Element

7.3 Infrastructure. Distribute land uses where public services and facilities exist or can be feasibly provided (e.g., sewer and water systems) in order to achieve maximum efficiency.

(2) Wastewater Element

11.7 Phasing Sewerage Improvements. Phase the development of wastewater facility improvements in areas with substantial growth potential so that sufficient capacity becomes available when needed by new growth in accordance with adopted land use plans.

11.8 Infiltration of Storm Water Into Sewerage Systems. Encourage sewerage treatment and collection system operators to conduct studies on potential infiltration and inflow of storm waters into sewerage systems and to implement programs to correct such problems.

15.2.3 Significance Criteria

Based on the CEQA Guidelines,[1] the updated Community Plan would result in a significant impact on wastewater service if it would:

(a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board;

(b) Require or result in the construction of new wastewater facilities or expansion of existing facilities, the construction of which could cause significant environmental impacts; or

(c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

[1] CEQA Guidelines, Appendix G, items XVII(a, b, and e).

15.2.4 Impacts and Mitigation Measures

The updated Community Plan would provide for the development of up to an additional 3,024 dwelling units, 180,000 square feet of retail uses, 155,000 square feet of office uses, 210,000 square feet of industrial uses, 110,000 square feet of institutional uses, and 3.8 acres of parks and recreation uses within the Community Plan area by 2035. This additional development would result in an estimated 11,794 new residents and 1,905 new jobs in the Community Plan area. This additional development would generate an increase in wastewater requiring collection and treatment. Table 15.2 presents projected net new future wastewater generation with buildout of the updated Community Plan, divided into the Opportunity Areas identified in EIR Figure 3.3 (Proposed Land Use). As shown, net new development under the updated Community Plan would result in an estimated additional wastewater generation in the Community Plan area of approximately 2,399 Residential Unit Equivalents (RUE).[1] The 2,399 RUEs equates to about 527,780 gpd, or 95 percent of total water demand; this is consistent with standard, professionally recognized ratios of wastewater generation to water demand (e.g., City of Redwood City calculation formulas).

Wastewater Collection Impacts. The updated Community Plan proposes a number of sewer trunk line improvements within the Plan area to accommodate new development under the Plan. The estimated increase in wastewater generation of 2,399 RUE resulting from future development within the Plan area would require substantial upgrades to existing wastewater facilities in the area, as follows:

- Approximately 2,800 feet of the 16th Avenue system are undersized and should be replaced with 15-inch to 18-inch diameter lines.[2]

- Approximately 3,250 feet of the Barron Avenue system are undersized and should be replaced with a 15-inch diameter line.[3]

- Portions of lines in the following locations are considered "Priority Lines" for improvement: Middlefield Road, Bay Road/Douglas Avenue, and 6th Avenue.[4]

Sewer lines serving the Plan area would be upgraded by individual development project applicants to ensure adequate capacity for residential, commercial, and industrial demand. Under normal existing County development permitting procedures, each individual future development project within the Community Plan area would be required to: (1) pay applicable County development and connection fees, (2) pay its fair share toward necessary sewer system facilities to support the proposed development's sewer infrastructure needs, and (3) submit final project water system design specifications and construction modifications for approval by the Public Works Department. Construction of sewer system improvements to meet the demand of future development under the updated Community Plan would occur within existing public rights-of-way. Temporary construction period traffic, noise, air quality, water quality and other

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[1]MIG, Inc., Draft North Fair Oaks Community Plan--Infrastructure (Chapter 5, Section 5.2), May 2011.

[2]MIG, Inc., North Fair Oaks Community Plan Update Existing Conditions Analysis--Infrastructure, June 2010, p. 11.

[3]Ibid.

[4]MIG, Inc., Draft North Fair Oaks Community Plan--Infrastructure (Chapter 5, Section 5.2), May 2011.

Table 15.2
PROJECTED WASTEWATER GENERATION DEMAND (RUE)[1]

Opportunity Area	Net Increase with Community Plan Update Buildout
El Camino Real/5th Avenue Area	460
Middlefield Road/Transit Area	1,252
Edison Way Industrial Area	106
Northern Industrial Area	581
TOTAL:	**2,399**

SOURCE: Wagstaff/MIG, BKF. Draft North Fair Oaks Community Plan--Infrastructure, May 2011.

[1] RUE = Residential Unit Equivalent. One RUE = approximately 220 gallons per day; 2,399 RUEs = 527,780 gpd. See footnote in subsection 15.2.1.

potential impacts would be mitigated through the County's standard construction mitigation practices (e.g., see Chapters 5, 11, and 13 of this EIR). Therefore, the impact of the updated Community Plan related to wastewater collection would be ***less than significant.***

Mitigation. No significant impact has been identified; no mitigation is required.

Wastewater Treatment Impacts. Wastewater treatment plant capacity impacts are considered separately in terms of average dry weather flow (ADWF) and peak wet weather flow (PWWF):

Average Dry Weather Flow (ADWF). As noted above, net new development allowed under the Plan Update could generate a total of approximately 0.507 mgd ADWF of wastewater, or a net increase of approximately 0.528 mgd ADWF. Redwood City has been allocated 13.8 mgd of ADWF capacity at the SBSA wastewater treatment facility, and currently uses up to approximately 9 mgd of its capacity. Therefore, available treatment capacity is adequate to meet the estimated net increase of 527,780 gpd (0.528 mgd) ADWF with the Community Plan Update.

Peak Wet Weather Flow (PWWF). Redwood City has been allocated 30.5 mgd of PWWF treatment capacity at the SBSA treatment facility. According to the SBSA, Redwood City's highest PWWF rate was 29.22 mgd in January 2008, which is approaching but still less than its allocated capacity. The SBSA facility currently has a PWWF capacity of 71 mgd for all of its member agencies. Management of PWWF at SBSA is the joint responsibility of the individual member agencies and the SBSA. The SBSA is currently evaluating options for managing PWWF, including the use of the WBSD flow equalization facility. In addition, PWWF is a function of rainfall, which causes infiltration and inflow into the collection system, and is not

caused or increased by development, unless development results in a substantial increase in impervious surfaces, which would not be the case within the Community Plan area.

The West Bay Sanitary District provides wastewater collection and conveyance services for approximately 78 parcels in the Plan area. The District's share of ADWF capacity at the SBSA plant is 7.975 mgd, with an ADWF of 4.5 mgd. After reviewing the proposed land use map for the Community Plan Update, the District has concluded that, based on the limited land use changes proposed under the Plan in the West Bay Sanitary District service area, the Plan Update would result in a less-than-significant impact on the District system. As a standard procedure, proposed individual developments would require project-specific review to determine whether the development would impact any District collection or conveyance limitations.[1]

Based on the above evaluation, the impact of new development allowed under the Plan Update on wastewater treatment capacity would be ***less than significant.***

Mitigation. No significant impact has been identified; no mitigation is required.

Cumulative Wastewater Service Impacts. Development in accordance with the updated Community Plan, together with other projected areawide growth in neighboring communities, would result in additional residential and non-residential development by the year 2035. Sewer lines serving the Plan area would be upgraded by individual development project applicants to ensure adequate capacity for residential, commercial, and industrial demand. Under normal existing County and other jurisdictional development permitting procedures, each individual future development project would be required to: (1) pay applicable development and connection fees, (2) pay its fair share toward necessary sewer system facilities to support the proposed development's sewer infrastructure needs, and (3) submit final project sewer system design specifications and construction modifications for approval by the jurisdictional Public Works Department. Construction of sewer system improvements to meet the demand of future development under the updated Community Plan would occur within existing public rights-of-way. Temporary construction period traffic, noise, air quality, water quality and other potential impacts would be mitigated through the County's standard construction mitigation practices (e.g., see Chapters 5, 11, and 13 of this EIR). Therefore, cumulative impacts related to wastewater would be ***less than significant.***

Mitigation. No significant cumulative impact has been identified; no mitigation is required.

15.3 POLICE SERVICE

This section describes the existing conditions and regulatory setting, and the potential impacts of the updated Community Plan related to police service.

[1]Bill Kitajima, Projects Manager, West Bay Sanitary District, written communication, May 6, 2011.

15.3.1 Environmental Setting[1]

Police service in the Community Plan area is provided by the County of San Mateo Office of the Sheriff. Three patrol units are on duty in North Fair Oaks, 24 hours a day, 7 days a week. The deputy-to-population ratio is approximately 1 per 1,000. Additional units that are available if needed to assist include, but are not limited to, supervisors, detectives, school resource deputies, community policing deputies, and civilian support personnel. The response time for high-priority calls is less than 4 minutes.

15.3.2 Regulatory Setting

(a) San Mateo County General Plan. The San Mateo County General Plan does not contain any policies specifically related to the police service impacts of the updated Community Plan.

15.3.3 Significance Criteria

Based on the CEQA Guidelines, the updated Community Plan would have a significant impact related to police service if it would:[2]

(a) Result in a need for new or physically altered facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for police services.

15.3.4 Impacts and Mitigation Measures

Project Police Service Impacts. The updated Community Plan would provide for the development of up to an additional 3,024 dwelling units, 180,000 square feet of retail uses, 155,000 square feet of office uses, 210,000 square feet of industrial uses, 110,000 square feet of institutional uses, and 3.8 acres of parks and recreation uses within the Community Plan area by 2030. This additional development would result in an estimated 11,794 new residents and 1,905 new jobs in the Community Plan area. This anticipated additional development would result in an associated increase in service calls and a commensurate incremental need for additional staffing and equipment to maintain the County's response time goals. By revitalizing and activating the Community Plan area, the updated Community Plan may help reduce crime as more people are brought into the areas on a more constant basis, municipal services and infrastructure are upgraded, and newer developments incorporate up-to-date security features and technology. In addition, the potential economic growth and revitalization resulting from the updated Community Plan may serve to reduce crime. The updated Community Plan would bring additional annual revenue to the County in the form of increased local property taxes and sales taxes that would help offset the increased demand for police service by funding increases in police personnel, training, and equipment. In addition, the Sheriff's Office has concluded that the effect of the updated Community Plan on the Office's ability to patrol, gain access, and respond within the Plan area would be negligible. The Office notes that development under the Plan Update may result in the temporary or permanent change of location for the Sheriff's Office

[1]Greg Munks, Sheriff, County of San Mateo Office of the Sheriff, written communication, May 18, 2011.

[2]CEQA Guidelines, Appendix G, item XIV(b).

Sub-Station at 4th Avenue and Middlefield Road.[1] Although speculative at this time, if such a situation occurs in the future, this EIR can be used as the first-tier evaluation of a relocated sub-station, with additional site-specific CEQA analysis required as necessary.

Based on the above evaluation, the impacts of the updated Community Plan related to police service would be ***less than significant.***

Mitigation. No significant impact has been identified; no mitigation is required.

Cumulative Police Service Impacts. Development facilitated by the updated Community Plan, together with projected areawide growth in neighboring communities, would result in additional residential and non-residential development by the year 2035. This cumulative development would result in a corresponding increase in calls for police service and a need for additional staffing, equipment, and facilities to maintain the police service staffing ratios and response time goals. Cumulative development would bring additional annual revenue in the form of increased local property taxes and sales taxes that would help offset the increased demand for police service by funding increases in police personnel, training, and equipment. Therefore, cumulative impacts related to police service would be ***less than significant.***

Mitigation. No significant cumulative impact has been identified; no mitigation is required.

15.4 FIRE AND EMERGENCY MEDICAL SERVICE

This section describes existing conditions and the regulatory setting related to fire and emergency medical service, and the potential impacts of the updated Community Plan. Emergency response is addressed in Chapter 10, Hazards and Hazardous Materials, of this EIR.

15.4.1 Environmental Setting

Fire and emergency medical service (EMS) in North Fair Oaks is provided by the Redwood City Fire Department (RCFD) and the Menlo Park Fire Protection District. Generally, the RCFD serves the Plan area north of the Caltrain rail line, and Menlo Park District serves the area south of the Caltrain line. The RCFD service area is referred to as "Fire Protection Subzone of County Service Area 8 (CSA-8)."

(a) Redwood City Fire Department.[2] RCFD Fire Station 11, located at 1091 2nd Avenue (at Broadway), serves CSA-8. Housed there is a 1,500 gpm pumper staffed by a fire captain and two firefighters. Station 11 is located approximately 0.18 miles to the closest point of CSA-8 and 0.91 miles to its farthest point (see previous Figure 4.3 in this EIR).

RCFD Fire Station 9, located at 755 Marshall Street (between Jefferson and Main), also serves CSA-8, with a fire captain and two firefighters staffing Engine 9 and a fire captain and three

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[1]Munk.

[2]Uli Peretz, Fire Prevention Officer, Redwood City Fire Department, written communication, May 11, 2011.

firefighters staffing Truck 9. Station 9 is located between approximately 0.8 and 2.2 miles from CSA-8 (see previous Figure 4.3 in this EIR). An automatic-aid engine company is also received from the Menlo Park Fire Protection District on an as-needed basis.

Each Engine and Truck 9 are staffed with a licensed firefighter/paramedic to provide Advanced Life Support (ALS). The remaining company members on all fire equipment are licensed Emergency Medical Technicians (EMT).

Average response time for the RCFD in North Fair Oaks in fiscal year 09/10 was 4 minutes, 23 seconds, which is within the Department's goal. According to the RCFD, the existing level of fire protection is adequate to serve CSA-8. Possible future budget cuts may force a reduction in current fire protection levels and response times.

Two designated emergency landing zones for helicopters are located less than 0.7 miles from any point in CSA-8. Also, the RCFD participates in a countywide automatic aid system that provides the closest resources to an incident, and also signatory to various statewide mutual aid agreements.

(b) Menlo Park Fire Protection District.[1] In the eastern portion of North Fair Oaks, the Menlo Park Fire Protection District operates Fire Station 5 at Fair Oaks Avenue and 15th Avenue (see previous Figure 4.3 in this EIR). The single-bay station accommodates a single fire engine and three personnel. The current lot configuration and station size cannot accommodate more than one fire engine and three personnel.

15.4.2 Regulatory Setting

(a) Uniform Fire Code. The Uniform Fire Code (UFC) contains regulations relating to the construction, maintenance, and use of buildings. Topics addressed in the code include fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, hazardous materials storage and use, provisions intended to protect and assist fire responders, industrial processes, and many other general and specialized fire-safety requirements for new and existing buildings and the surrounding premises. The UFC contains specialized technical regulations related to fire and life safety.

(b) California Health and Safety Code. State fire regulations are set forth in Sections 13000 et seq. of the California Health and Safety Code, which includes regulations for building standards (as set forth in the California Building Code), fire protection and notification systems, fire protection devices such as extinguishers, smoke alarms, high-rise building, childcare facility standards, and fire suppression training.

(c) San Mateo County General Plan. The following San Mateo County General Plan policies are relevant to consideration of the fire and emergency medical service impacts of the updated Community Plan.

[1] Harold Schapelhouman, Fire Chief, Menlo Park Fire Protection District, written communication, May 27, 2011.

(1) Natural Hazards Element

15.27 Appropriate Land Uses and Densities in Fire Hazard Areas....

c. In urban areas, consider higher density land uses to be appropriate if development can be served by CDF/County Fire Department, a fire protection district or a city fire department, adequate access for fire protection vehicles is available and sufficient water supply and fire flow can be guaranteed.

15.29 Review Criteria for Locating Development Outside of Fire Hazard Areas. Insure that fire safety is adequately addressed in the review of new development proposed in unincorporated areas located outside of fire hazard areas through measures including but not limited to referral of proposals for development to appropriate fire protection agencies for conditions of approval.

15.30 Standards for Water Supply and Fire Flow for New Development.

a. Require connection to a public water system or private water company or provision of an on-site water supply as a condition of approval for any new development proposal.

b. Determine the quantity of on-site water supply, fire flow requirements and spacing and installation of hydrants in accordance with the standards of the agency responsible for fire protection for the site proposed for development.

c. Consider the use of additional on-site fire protection devices including but not limited to the use of residential sprinkler systems and contracting the services of private alarm companies for development proposed in remote areas.

15.31 Standards for Road Access for Fire Protection Vehicles to Serve New Development.

a. Consider the adequacy of access for fire protection vehicles during review of any new development proposal.

b. Determine the adequacy of access through evaluation of length of dead end roads, turning radius for fire vehicles, turnout requirements, road widths and shoulders and other road improvement considerations for conformance with the standards of the agency responsible for fire protection for the site proposed for development....

15.32 Street Signing. Support efforts to identify all roads, streets and major public buildings in a manner so that they are clearly visible to fire protection and other emergency vehicles.

15.33 Road Patterns.

a. Ensure road patterns that facilitate access for fire protection vehicles and provide secondary access and emergency evacuation routes when reviewing proposals for new subdivisions.

b. Encourage the Department of Public Works to study existing road patterns that have access problems to determine the feasibility and costs of access improvements.

c. Encourage fire protection agencies to identify emergency access and evacuation routes for existing developed areas and to provide this information to area residents.

15.35 Fire Retardant Vegetation. Encourage the use of fire retardant vegetation when reviewing new development proposals.

15.41 Incorporate Fire Hazard Concerns During Review of Proposals for New Development. Incorporate fire hazard concerns into the review of proposals for new development through measures, including but not limited to: (1) regulation of land use and limitation of density, (2)

review of access, water supply and hydrant location, (3) conformance to defined hazardous areas design criteria, and (4) conformance with established building code requirements.

15.4.3 Significance Criteria

Based on the CEQA Guidelines,[1] the updated Community Plan would result in a significant impact on fire and emergency medical service if it would:

(a) Result in a need for new or physically altered facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire and emergency medical service.

15.4.4 Impacts and Mitigation Measures

Project Fire and Emergency Medical Service Impacts. The updated Community Plan would provide for the development of up to an additional 3,024 dwelling units, 180,000 square feet of retail uses, 155,000 square feet of office uses, 210,000 square feet of industrial uses, 110,000 square feet of institutional uses, and 3.8 acres of parks and recreation uses within the Community Plan area by 2035. This additional development would result in an estimated 11,794 new residents and 1,905 new jobs in the Community Plan area. This additional development would contribute to an increase in service calls and an incremental need for additional staffing and equipment to maintain fire protection/EMS response time goals and staffing ratios.

The Menlo Park Fire Protection District has concluded that the projected potential growth in the Plan area may result in the need for larger fire suppression apparatus (e.g., quint/aerial ladder truck), more than one apparatus (e.g., engine and squad), and more personnel, which would require the District to either expand the Fire Station 5 site or relocate to accommodate the additional equipment and personnel. In addition, new types of development possible under the Plan Update (e.g., transit-oriented development) may require specialized equipment and procedures for fire suppression and emergency medical service related to train, light rail, streetcar, and other potential transportation options.[2]

Until any specific Menlo Park Fire Protection District expansion needs can be identified in terms of size, staffing, equipment, and location, assessment of associated environmental impacts would be highly speculative. As a result, this effect does not represent a significant "environmental" impact under CEQA--i.e., would not meet the criteria suggested in Appendix G (Environmental Checklist Form), item XIV (Public Services) of the CEQA Guidelines: "result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services." If and when identified by the District, any proposal for an expanded or new fire station would require its own CEQA review process and documentation. The Menlo Park Fire Protection District has noted that, as new development in the Plan area occurs over time, traffic control devices may need to be modified or eliminated in order for the District to meet acceptable response time standards. For example, traffic pre-emption devices

[1]CEQA Guidelines, Appendix G, item XIV(a).

[2]Schapelhouman.

(e.g., a system allowing firefighters to change traffic signals remotely as the fire truck approaches an intersection) may need to be installed and maintained.[1] The installation of such equipment, as deemed necessary as Plan area growth occurs over time, could be coordinated with traffic mitigations identified in chapter 16 (Transportation) of this EIR.

In a process independent of the Community Plan Update, the Menlo Park Fire Protection District is planning to prepare a development impact fee study applicable to structures over three stories in height.[2] As of the preparation of this EIR, this fee study has not been completed, and no fee has been adopted. Therefore, assessment of a District impact fee cannot be assumed in this EIR. However, if such a fee is adopted, future development under the Plan Update would be subject to the fee, as applicable.

Development under the Community Plan Update would be subject to the policies, regulations, and standards of the County, including appropriate standards for emergency access roads, emergency water supply, and fire preparedness, capacity, and response. New developments may incorporate up-to-date fire protection features and technology (e.g., smoke alarms, interior sprinkling systems). The updated Community Plan would bring additional annual revenue to the County in the form of increased local property taxes and sales taxes that would help offset the increased demand for fire and emergency medical services by funding increases in firefighters, administrative personnel, training, and equipment. No additional mitigation would be required beyond the mandatory application of these standard, adopted procedures. In addition, new development within the Community Plan area would be required to incorporate design features identified in the California Building Code, and the Redwood City Fire Department and Menlo Park Fire Protection District review and comment on the design of any project that could affect fire or public safety.

Since development would be subject to the County's normal development review and permitting procedures, and building and fire code requirements, the impacts of the updated Community Plan related to fire and emergency medical service would be ***less than significant.***

Mitigation. No significant impact has been identified; no mitigation is required.

Cumulative Fire and Emergency Medical Service Impacts. Development facilitated by the updated Community Plan, together with projected areawide growth in neighboring communities, would result in additional residential and non-residential development by 2035. This cumulative development would contribute to an increase in service calls and an incremental need for additional staffing and equipment to maintain fire protection/EMS response time goals and staffing ratios.

Development would be subject to the policies, regulations and standards of the County, including appropriate standards for emergency access roads, emergency water supply, and fire preparedness, capacity, and response. New development may incorporate up-to-date fire protection features and technology (e.g., smoke alarms, interior sprinkling systems). Cumulative development would bring additional annual revenue to the County in the form of increased local property taxes and sales taxes that would help offset the increased demand for

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[1]Schapelhouman.

[2]Schapelhouman.

fire and emergency medical services by funding increases in firefighters, administrative personnel, training, and equipment. No additional mitigation would be required beyond the mandatory application of these standard, adopted procedures. In addition, new development within the Community Plan area would be required to incorporate design features identified in the California Building Code, and the RCFD and Menlo Park Fire Protection District review and comment on the design of any project that could affect fire or public safety.

Since cumulative development would be subject to the County's normal development review and permitting procedures, and building and fire code requirements, cumulative impacts related to fire and emergency medical service would be ***less than significant.***

Mitigation. No significant cumulative impact has been identified; no mitigation is required.

15.5 SCHOOLS

The Redwood City School District and the Sequoia Union High School District (SUHSD) serve the Community Plan area. This section describes existing conditions related to the school district, the relevant regulatory setting, and the potential impacts of the updated Community Plan related to schools.

15.5.1 Environmental Setting

The 2010/2011 enrollment at schools serving children in North Fair Oaks is presented in Table 15.3.

15.5.2 Regulatory Setting

(a) School Facilities Act of 1986. The California School Facilities Act of 1986 (AB 2926) authorizes entities to levy statutory fees on new residential and commercial/industrial development in order to pay for school facilities. AB 2926 was revised by the passage of AB 1600, which added Section 66000 *et seq.* of the Government Code.

(b) California Government Code Sections 65995, 65996(a) and 65996(b). The California State Legislature has determined that school impact fees shall be the exclusive method of mitigating the school facilities impacts of a project or plan, has set limits on school impact fees, and has determined that payment of school impact fees shall be deemed to provide full and complete school facilities mitigation.

(c) San Mateo County General Plan. The San Mateo County General Plan does not contain any policies specifically related to the schools impacts of the updated Community Plan.

Table 15.3
REDWOOD CITY SCHOOL DISTRICT AND SEQUOIA UNION HIGH SCHOOL DISTRICT ENROLLMENT AND CAPACITY

School	2010/2011 Enrollment	Capacity
Elementary:		
Fair Oaks	463	586
Garfield	663	681
Hoover	874	896
Selby Lane	715	888
High School:		
Sequoia	1,922	2,200
Menlo-Atherton	2,049	not reported

SOURCE: Donald Dias, Director of Facilities, Redwood City School District, written communication, June 23, 2011; California Department of Education, Educational Demographics Unit, http://data.cde.ca.gov, accessed August 3, 2011; Redwood City New General Plan Draft EIR, May 2010, p. 4-12-10.

15.5.3 Significance Criteria

Based on the CEQA Guidelines,[1] the updated Community Plan would result in a significant impact related to schools if it would:

(a) Result in substantial adverse physical impacts associated with the provision of new or physically altered school facilities, or the need for new or physically altered school facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives of the school districts.

15.5.4 Impacts and Mitigation Measures

Project Impacts on Schools. The updated Community Plan would provide for the development of up to an additional 3,024 dwelling units, 180,000 square feet of retail uses, 155,000 square feet of office uses, 210,000 square feet of industrial uses, 110,000 square feet of institutional uses, and 3.8 acres of parks and recreation uses within the Community Plan area by 2035. This development would generate additional students attending the Redwood City School District and the Sequoia Union High School District. For example, based on the current number of school students living in North Fair Oaks, the RCSD forecasts that the updated Community Plan, at buildout, would generate approximately 468 new students to the District.

[1] CEQA Guidelines, Appendix G, item XIV(a).

The permitted method for addressing school enrollment increase impacts is limited to the state-authorized statutory authority of school districts to impose school impact fees. State government code sections established in 1998 (sections 65995 and 65996) have pre-empted and limited the ability of local governments to exercise their police power to mitigate school impacts. A local government may not impose development requirements regarding school facilities in a manner inconsistent with state statutes on the subject. Therefore, under current statutes and case law, payment of the required school impact fees would address the impact of the updated Community Plan on school services to the furthest extent permitted by law. School impact fees are collected when building permits are issued. The state-mandated school fee maximums may permit increases in local school impact fees prior to issuance of building permits for development in the Community Plan area.

The courts have held that increased classroom enrollment resulting in school overcrowding is considered a "social" rather than a physical "environmental" impact and is not, in itself, a significant environmental impact requiring mitigation under CEQA (Goleta Union School District vs. Regents of University of California [2d Dist. 1995]). The duty of a lead agency to mitigate school impacts beyond the state-mandated fees arises only where there is a physical environmental impact involved beyond the mere addition of students to a school. Without definitive, detailed information on specific future school district facility expansion plans, identification of such secondary physical environmental impacts at this time would be speculative.

The Redwood City School District and the Sequoia Union High School District collect school impact fees from residential and non-residential development within the Community Plan area. Under California Government Code Sections 65995, 65996(a) and 65996(b), payment of these fees is deemed to be full and complete mitigation. Therefore, the impact of the updated Community Plan related to schools would be ***less than significant.***

Mitigation. No significant impact has been identified; no mitigation is required.

Cumulative Impacts on Schools. Development facilitated by the updated Community Plan, together with other projected aerawide growth in neighboring communities, would result in additional residential and non-residential development by 2035. This cumulative development would generate additional students attending the Redwood City School District and the Sequoia Union High School District.

Cumulative development would be assessed state-mandated development impact fees. The California State Legislature has determined that school impact fees shall be the exclusive method of mitigating the school facilities impacts of a project or plan, has set limits on school impact fees, and has determined that payment of school impact fees shall be deemed to provide full and complete school facilities mitigation.[1] The duty of a lead agency to mitigate school impacts beyond the state-mandated fees arises only where there is a physical environmental impact. Depending on their location and characteristics, the construction of any new or expanded school facilities could cause environmental impacts; however, the location, timing, nature, extent, and severity of any potential environmental impacts are too speculative to predict

[1]California Government Code Sections 65995, 65996(a), and 65996(b)

or evaluate at this time. School facilities construction would require its own environmental review in accordance with CEQA. Therefore, cumulative impacts related to schools at this time are considered ***less than significant.***

Mitigation. No significant cumulative impact has been identified; no mitigation is required.

15.6 PARKS AND RECREATION

This section describes the existing conditions and regulatory setting related to parks and recreation, and the potential impacts of the updated Community Plan related to parks and recreation.

15.6.1 Environmental Setting[1]

(a) Existing Park and Recreation Needs. The Community Plan area is deficient in neighborhood and community parks. There are very few parks, playgrounds, and open spaces within the Plan area, and these facilities are not adequately maintained. The two parks in North Fair Oaks have minimal park amenities, limited to playground equipment. There are no multi-use trail facilities in the Plan area. Some of the parks and playgrounds were created through the efforts of residents and are still maintained by residents. Physical barriers to mobility, particularly the railroad tracks, affect how readily residents can access parks. Although many recreational services are available, programming is still not adequate to meet community need, particularly for youth. Over half of the population of North Fair Oaks is under age 35 and nearly one-third is under 18. The community has a high proportion of large family households and families with children. Older residents are also in need of appropriate recreational opportunities.

(b) Existing Park and Recreation Facilities. There are two parks in North Fair Oaks (see Figure 3.2, North Fair Oaks Community Plan Area, in this EIR).

- *North Fair Oaks Park.* Also known as the Community Playground, North Fair Oaks Park is a 0.39-acre playground located on 9th Avenue at Edison Way; and

- *Friendship Park.* Friendship Park is a 0.11-acre pocket park with a small playground located on Huntington Avenue between Berkshire Avenue and Dumbarton Avenue. The park grounds are not actively maintained. The park serves primarily as a walking path for the surrounding neighborhood.

(1) City of Redwood City Parks. In addition to parks, playgrounds, and school sites located within the Community Plan area, North Fair Oaks residents also have access to four nearby Redwood City parks:

- *Andrew Spinas Park.* Andrew Spinas Park, a 1.77-acre neighborhood park located at Bay Road and 2nd Avenue, includes two playgrounds and a basketball court;

[1]MIG, Inc., North Fair Oaks Community Plan Update Existing Conditions Analysis--Parks and Recreation, June 2010.

- *Hoover Park*. Hoover Park, a 10.5-acre community park located on Spring Street between Woodside Road and Charter Street, adjacent to Hoover Elementary School, includes two sports fields and playground equipment, among other amenities;

- *Linden Park*. Linden Park, a 0.22-acre pocket park located at Linden Street and Park Street, includes playground equipment; and

- *Taft Elementary School*. Taft Elementary School, located at the northeast edge of North Fair Oaks at Bay Road and 10th Avenue, includes 1.77 acres of active recreation land available to the community outside school hours under a joint use agreement.

(2) County of San Mateo Parks. North Fair Oaks residents also have access to one County of San Mateo park:

- *Flood Park*, a 21-acre community park located on Bay Road between Marsh Road and Ringwood Avenue, that contains drop-in picnicking, baseball, softball, tennis, horse shoe, volleyball, and petanque facilities.

(3) School Sites. The Redwood City School District operates two schools within North Fair Oaks: Fair Oaks Elementary School, located on Fair Oaks Avenue between Hampshire Avenue and Oakside Avenue; and Garfield Elementary School, located between Semicircular Road and Glendale Avenue. Both schools have playfields, but there currently are no joint use agreements in place to make these facilities accessible to community members outside of school hours.

(4) Sports Fields and Courts. There are two sports fields and a basketball court at Hoover Park that are used by football, soccer, baseball, and basketball teams and individual players. Taft Elementary School and Garfield Elementary School also each have a sports field and basketball court.

(5) Aquatics. There are no aquatic facilities within the North Fair Oaks. Redwood City and the Redwood City School District maintain a joint use agreement at the Hoover Elementary School pool. Redwood City's Recreation Department provides swim lessons at the pool.

(6) Trails. There are no trails in North Fair Oaks. The San Francisco Public Utilities Commission (PUC) Hetch Hetchy Bay Division Pipeline right-of-way, a 60-foot-wide easement that extends east-west through the center of North Fair Oaks, is currently not open to the public but presents an opportunity for trail segments or pocket parks.

(7) Community Garden. The St. Francis Center, a nonprofit organization helping needy families, operates the Holy Ground of Guadalupe community garden, located at the corner of Buckingham Avenue and Marlborough Avenue.

(c) Parks and Recreation Level of Service Standards. The two existing park facilities within the Community Plan area provide a parkland ratio of 0.03 acres of parkland per 1,000 residents. This amount of parkland is substantially lower than the level of service in adjacent communities. By comparison, Redwood City, Palo Alto, and Menlo Park provide over two acres of active parkland per 1,000 residents. In addition, Redwood City and Palo Alto provide over nine acres of open space per 1,000 residents.

If joint use agreements were to make playfields at Fair Oaks Elementary School and Garfield Elementary School accessible to the community outside of school hours, the level of service would rise to 0.59 acres per 1,000 persons. Even then, North Fair Oaks would remain significantly deficient in terms of parkland acreage.

(d) Parks Assessments and Fees. There is currently no parks assessment district or parks development impact fee in North Fair Oaks.

(e) Community Facilities. Community facilities in North Fair Oaks are owned and operated by the City of Redwood City, the County of San Mateo, and non-profit community-based organizations. North Fair Oaks residents have access to the following community facilities:

- *Fair Oaks Community Center.* The Fair Oaks Community Center, jointly operated by the City of Redwood City and the County of San Mateo, is located along the North Fair Oaks border at 2600 Middlefield Road. The Community Center is a multi-service facility that provides a variety of services. The Community Center provides space for department programs, non-profit organization activities and meetings, private rentals, and large community events.

- *Fair Oaks Intergenerational Center.* The Family Service at Fair Oaks Intergenerational Center (FOIC) is adjacent to the Fair Oaks Community Center and is operated by the Family Services Agency. FOIC currently offers services to maintain and improve the health, quality of life, and independence of older adults in the community. FOIC offers free yoga, tai chi, low-impact aerobics, weight training, and soul line dancing classes as well as a variety of recreational and socialization activities, including computer training, arts and crafts classes, community education, and meal programs. FOIC connects clients to disease self-management classes, peer support groups, on-site Senior Peer Counseling, and therapy. FOIC coordinates a variety of mobility options, including Redi-Wheels Paratransit, Transportation Reimbursement and Independence Program (TRIP), and referral to the free Redwood City shuttle.

15.6.2 Regulatory Setting

(a) State Public Park Preservation Act. The primary instrument for protecting and preserving parkland is the State Public Park Preservation Act. Under the Public Resources Code, cities and counties may not acquire any real property that is in use as a public park for any non-park use unless compensation or land, or both, are provided to replace the parkland acquired. This provides for no net loss of parkland and facilities.

(b) Quimby Act. California Government Code Section 66477, Subdivision Map Act, referred to as the Quimby Act, permits local jurisdictions to require the dedication of land and/or the payment of in-lieu fees solely for park and recreation purposes. The required dedication and/or fee are based upon the residential density, parkland cost, and other factors. Land dedicated and fees collected pursuant to the Quimby Act may only be used for developing new, or rehabilitating existing park or recreational facilities.

(c) San Mateo County General Plan. The following San Mateo County General Plan policies are relevant to consideration of the parks and recreation impacts of the updated Community Plan.

(1) Historical and Archaeological Resources Element

5.18 Development of County Historic Sites. Develop County-owned historic sites in park and recreation areas in accordance with the performance criteria and development standards [contained in Appendix D of the Element].

(2) Park and Recreation Resources Element

6.1 Equitable and Balanced System of Facilities. Provide for a balanced and equitable system of park and recreation facilities. Consider identified and/or changing needs and the impact upon environmental, service, competing land use, fiscal and organizational constraints.

6.2 Meet Recreational Need. Meet identified relative park and recreation needs in a manner which best enhances the physical, mental and spiritual quality of life of San Mateo County residents.

6.3 Build Upon Existing System.

a. Design all park and recreation systems on the strengths and potentials of existing facilities and develop programs for meeting current and future needs.

b. Consider the feasibility of redesigning and/or expanding existing park and recreation facilities to meet future needs while developing new acquisition and development programs.

6.4 Environmental Compatibility.

a. Protect and enhance the environmental quality of San Mateo County when developing park and recreation facilities.

b. Mitigate, to the extent feasible, the impacts of those recreation uses which may adversely affect the environment and adjoining private ownership.

6.5 Access to Park and Recreation Facilities.

a. Attempt to provide appropriate access and conveniences for all people in park and recreation facilities.

b. Encourage access to the park and recreation system by transportation means other than private automobiles, where feasible.

c. Attempt to provide adequate access for emergency services.

6.9 Locate Suitable Park and Recreation Facilities in Urban Areas. Generally, encourage all providers to locate active park and recreation facilities in urban areas, taking advantage of existing service infrastructure systems and maximizing the recreational use of limited available land. Consider the following activities to be generally compatible with active park and recreation facilities such as group games, swimming, and tennis.

6.13 Development Plans.

a. Encourage all providers to prepare development plans for proposed facilities which contain provisions that easily adapt to changing conditions.

b. Encourage all development plans to include restroom facilities and ensure that these correspond in size and detail to the type of park and recreation facility proposed.

6.14 Site Planning for Public and Private Facilities.

a. Encourage all providers to design sites to accommodate recreation uses that minimize adverse effects on the natural environment and adjoining private ownership.

b. Encourage all providers to design, where feasible, park and recreation sites that accommodate a variety of recreational activities.

6.15 Building Materials and Service Technology for Public and Private Facilities.

a. Encourage the use of materials and technologies that achieve low development, maintenance and operation costs while maintaining environmental compatibility.

b. Encourage innovative technologies for conserving energy, water and other utilities for park and recreation facilities.

6.16 Prioritizing Facility Development.

a. Encourage all providers to give priority to the development of those facilities that meet the greatest recreational need.

b. Encourage the phased development of recreation facilities in order to assess whether full development is warranted.

6.17 Techniques for Providing Park and Recreation Facilities.

a. Regulate development to provide new or improved park and recreation facilities. Use one or a combination of the following techniques: (1) offer of dedication, (2) grant of fee interest, and (3) in lieu fees.

b. Encourage the dedication of easements to implement trails programs.

c. Base the requirements for the provision of park and recreation facilities on the: (1) size and type of development, (2) benefit to the developer, (3) burden to the public, and (4) within the Coastal Zone, priority given to the type of development under the Coastal Act.

6.20 Consider Land Banking.

a. Utilize land banking as a method of acquiring land for future park and recreation use when conditions are prudent.

b. Seek to place land banked sites into environmentally compatible interim uses. Provide for the protection and maintenance of these sites.

6.21 Transfer of Unused School Land. Encourage school districts to transfer idle, unused land to appropriate agencies for park and recreation use.

6.50 Outdoor Recreation and Programs. Provide County park and recreation facilities for primarily outdoor rather than indoor recreation. Facilities should emphasize the enjoyment and appreciation of natural outdoor settings.

6.51 Park and Recreation Facilities for Unincorporated Areas. Encourage the provision of park and recreation facilities for use by local residents in unincorporated areas consistent with community plans.

(e) Joint Use Agreements. The County of San Mateo, the City of Redwood City, Sequoia Union High School District, Sequoia Healthcare District, Kaiser Permanente, and the John W. Gardner Center for Youth and Their Communities (Stanford University) established a joint use agreement with the Redwood City School District for the period between July 1, 2008 and June 30, 2010 that enables City, County, and school staff to establish operating agreements at school sites and to coordinate afterschool and weekend programs and activities.

15.6.3 Significance Criteria

Based on the CEQA Guidelines,[1] the updated Community Plan would create a significant impact on parks and recreational services if it would:

(a) Result in substantial adverse physical impacts associated with the provision of new or physically altered parks and recreational facilities, or the need for new or physically altered parks and recreational facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives for parks and recreational services;

(b) Result in an increased use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; or

(c) Include recreational facilities, or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment.

15.6.4 Impacts and Mitigation Measures

Project Impacts on Parks and Recreation. The updated Community Plan would provide for the development of up to an additional 3,024 dwelling units, 180,000 square feet of retail uses, 155,000 square feet of office uses, 210,000 square feet of industrial uses, 110,000 square feet of institutional uses, and 3.8 acres of parks and recreation uses within the Community Plan area by 2030. The estimated 11,794 additional residents with the updated Community Plan would generate a need for additional parkland and recreational facilities. Parks and recreational facilities may also be required as part of new development projects.

As described above, current and future residents of North Fair Oaks have convenient access to nearby public parks and recreational facilities in neighboring Redwood City. The Redwood City New General Plan EIR concludes that potential physical deterioration of Redwood City parks and recreation facilities (including those utilized by residents of North Fair Oaks, which is in the Redwood City planning Sphere of Influence) would be less than significant through the continued application of the City's parkland dedication/in lieu fee program in combination with implementation of Redwood City New General Plan policies and strategies (e.g., Parks, Recreation, and Community Services Strategic Plan), and ongoing maintenance of improvements to existing facilities undertaken by the City through its park planning and implementation programs.[2] The City of Redwood City coordinated its New General Plan (adopted in 2010) with County staff in order to help ensure that future growth anticipated in North Fair Oaks under the Redwood City New General Plan closely reflects the growth anticipated in the Community Plan Update.[3]

Implementation of the updated North Fair Oaks Community Plan Health and Wellness goals and policies (see Section 3.8 of this EIR, goals 5.1 through 5.3) would make important contributions

[1]CEQA Guidelines, Appendix G, items XIII(a), XIV(a), and XIV(b).

[2]City of Redwood City, A New General Plan for Redwood City, Draft Environmental Impact Report, May 2010, pp. 4.13-11 through 4.13-17.

[3]Blake Lyon, Acting Principal Planner, City of Redwood City; written communication, June 2, 2011.

to the community's parks and public realm environment. The updated Community Plan (Design of the Public Realm, Open Space Guidelines) calls for new pocket parks, greenways, pedestrian connections, and other enhancements of the public realm. The Open Space Guidelines are intended to ensure that community spaces throughout the Plan area are designed to be welcoming to pedestrians and fit seamlessly into their surrounding environments. Temporary construction period traffic, noise, air quality, water quality, and other potential impacts would be mitigated through the County's standard construction mitigation practices (e.g., see Chapters 5, 11, and 13 of this EIR).

In addition to the park and recreational components of the Community Plan Update, the San Mateo County Parks Department has recommended that a "North Fair Oaks Park Development Fee" be adopted for new construction and remodelings. A similar fee has been adopted in the Midcoast area.[1] The formulation and adoption of such a fee would require a separate County process whose outcome is considered speculative under CEQA; therefore, the fee is not assumed in this EIR analysis.

The updated Community Plan recommendations would make important contributions to the County's parks and public realm. Also, parks and recreation facilities may be required as part of new development projects. Therefore, the parks and recreation impacts of the updated Community Plan would be ***less than significant.***

Mitigation. No significant impact has been identified; no mitigation is required.

Cumulative Impacts on Parks and Recreation. Development facilitated by the updated Community Plan, together with other projected areawide growth, would result in additional residential and non-residential development by the year 2035. The proposed Community Plan Update would provide additional public parks and recreational opportunities in North Fair Oaks, which could also be utilized by residents of neighboring jurisdictions. Parks and recreation development fees, as applicable in neighboring jurisdictions, would be assessed in those communities (e.g., Redwood City). In addition, parks and recreational facilities may also be required as part of new development projects. Based on the above evaluation, cumulative impacts on parks and recreation are considered ***less than significant.***

Mitigation. No significant cumulative impact has been identified; no mitigation is required.

15.7 SOLID WASTE DISPOSAL AND RECYCLING

This section describes the existing conditions and regulatory setting related to solid waste disposal and recycling services, and the potential impacts of the updated Community Plan.

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[1]Samuel Herzberg, Senior Planner, San Mateo County Parks, written communication, May 4, 2011.

15.7.1 Environmental Setting[1]

(a) Solid Waste/Recyclables Collection. The Plan area is located within the South Bayside Waste Management Authority Service Area. Recology San Mateo County provides franchised recycling, compost, and trash collection services for residents and businesses in North Fair Oaks.

(b) Solid Waste/Recyclables Disposal. Recology currently hauls waste materials to the Shoreway Environmental Center, which is partly in San Carlos and partly in Redwood City. The waste is then hauled by South Bay Recycling to the Ox Mountain Landfill, located near Half Moon Bay. Ox Mountain is the only active landfill in San Mateo County. Per the state's official Cal Recycle website "Solid Waste Facility Listing" for the Ox Mountain Landfill, the remaining capacity is 44,646,148 cubic yards, with a maximum currently permitted capacity of 37,900,000 cubic yards. The landfill is currently permitted to operate through January 2018; a longer operation period is pending renewal of the landfill's permit.[2] Recycled materials are sent to various other locations for processing.

During the first quarter of 2011, solid waste collection in North Fair Oaks totaled 1,188.08 tons of trash, 377.14 tons of recycling, and 581.01 tons of organics (compost).

15.7.2 Regulatory Setting

(a) California Integrated Waste Management Act. California's Integrated Waste Management Act of 1989 (AB 939) set a requirement for Cities and Counties to divert 50 percent of all solid waste from landfills by January 1, 2000 through source reduction, recycling and composting. To help achieve this goal, the Act requires that each City and County prepare and submit a Source Reduction and Recycling Element that addresses waste characterization, source reduction, recycling, composting, solid waste facility capacity, education and public information, funding, and special wastes. AB 939 also established the goal for all California counties to provide at least 15 years of ongoing landfill capacity.

(b) California Solid Waste Reuse and Recycling Access Act of 1991. The California Solid Waste Reuse and Recycling Access Act requires areas to be set aside for collecting and loading recyclable materials in development projects and for local agencies to adopt such an ordinance.

(c) San Mateo County General Plan. The following San Mateo County General Plan policies are relevant to consideration of the solid waste and recycling impacts of the updated Community Plan.

(1) Solid Waste Element

13.5 Minimize Dependence on Landfills. Reduce to a minimum the dependence on landfills by promoting recycling, resource recovery and reduction of residential and commercial wastes.

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[1]Lillian Clark, Recycle Works Program Manager, County of San Mateo Department of Public Works, written communications, May 17, 2011 and May 24, 2011; personal communication, May 24, 2011.

[2]City of Redwood City, Draft Environmental Impact Report for the Redwood City Downtown Precise Plan, Section 8.3 (Solid Waste Service), p. 8-19, August 2010.

13.23 Promoting Curbside Recycling. Promote the establishment of curbside recycling programs as a means to increase recycling.

13.25 Locating Rubbish Collection Points.

a. Consider permitting the placement of receptacles for recyclables within appropriate residential and commercial areas; and

b. Encourage the use of public facilities, such as parks and playgrounds, for locating receptacles for recyclables.

15.7.3 Significance Criteria

Based on the CEQA Guidelines[1], the updated Community Plan would result in a significant impact related to solid waste disposal and recycling services if it would:

(a) Result in a need for new or physically altered facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives for solid waste disposal and recycling services;

(b) Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs; or

(c) Fail to comply with federal, state, and local statutes and regulations related to solid waste.

Impacts related to significance criterion (c) were found not to be significant during the EIR scoping process and are not discussed in this EIR. Please see Section 17.5 Effects Found Not to Be Significant in Chapter 17, CEQA-Required Assessment Considerations, as well as Appendix 21.2, Notice of Preparation and Initial Study.

15.7.4 Impacts and Mitigation Measures

Project Impacts on Solid Waste and Recycling Services. The updated Community Plan would provide for the development of up to an additional 3,024 dwelling units, 180,000 square feet of retail uses, 155,000 square feet of office uses, 210,000 square feet of industrial uses, 110,000 square feet of institutional uses, and 3.8 acres of parks and recreation uses within the Community Plan area by 2035. Demolition and construction activities, and the operation of new development facilitated by the updated Community Plan, would generate additional solid waste. The South Bayside Waste Management Authority Service does not anticipate any impact on Recology's ability to handle the waste hauling needs under the proposed Community Plan Update. Property owners would be required to comply with all provisions of the San Mateo County Ordinance Code, Title 4, Sanitation and Health, Chapter 4.04--Solid Waste Collection, Transport and Disposal; and Chapter 4.105--Recycling and Diversion of Debris from Construction and Demolition, Section 4.105.010(a); as well as the San Mateo County Green Building Program (Sections 1401-1408 of the County Code). In addition, County Public Works recommends that all new development be required to have on-site areas of adequate size designated for the location of recycling containers.[2]

[1]CEQA Guidelines, Appendix G, Items XVII(f and g).

[2]Clark.

Future development under the Plan Update would not be expected to generate an inordinate amount of solid waste--i.e., a rate inconsistent with adopted polices and regulations--either during demolition/construction or operation/occupancy--and would be served by a landfill with sufficient capacity to accommodate Plan Update demolition/construction debris and annual solid waste disposal needs. The impact of development allowed under the Plan Update on solid waste and recycling services would therefore represent a ***less-than-significant impact.***

Mitigation. No significant impact has been identified; no mitigation is required.

Cumulative Impacts on Solid Waste and Recycling Service. Development facilitated by the updated Community Plan, together with other projected areawide growth in neighboring communities, would result in additional residential and non-residential development by 2035. This cumulative development would generate additional solid waste. Given the sufficient permitted capacity of the Ox Mountain Landfill and mandatory waste diversion regulations, cumulative impacts related to solid waste and recycling services are considered ***less than significant.***

16. TRANSPORTATION

This chapter describes existing conditions and policies related to transportation and traffic, evaluates the short-term and long-term impacts of the Community Plan Update on transportation and traffic, and identifies measures to mitigated identified significant impacts.

The information in this chapter is derived from the San Mateo County North Fair Oaks Community Plan Update Traffic Impact Analysis prepared by the EIR transportation consultant, Kimley-Horn and Associates, Inc., and available for review at the County of San Mateo Planning and Building Department, 455 County Center, 2nd Floor, Redwood City, during regular business hours.

16.1 METHODOLOGY

16.1.1 Study Area Roadway System

The Plan area is illustrated on Figure 16.1. The area is generally located between the two regional freeways, US 101 and I-280. US 101 is a primary north-south state highway connecting Northern California cities in Sonoma, Marin, San Francisco, San Mateo, Santa Clara, and Monterey Counties. In the Plan area vicinity, access to US 101 is provided by full access interchanges at Woodside Road and Marsh Road. I-280 is located farther from the Plan area than US 101, with access from the Plan area via Woodside Road. I-280 runs parallel to and west of US 101, connecting San Francisco and San Jose.

The study area is locally served by El Camino Real and Middlefield Road, with additional frontage along Bay Street, Fifth Avenue, and Marsh Road. Located between US 101 and I-280, El Camino Real (SR 82) stretches from San Francisco to San Jose. Over this distance, El Camino Real carries between 17,000 and 50,000 vehicles daily. Within North Fair Oaks, El Camino Real carries approximately 36,500 vehicles per day. Woodside Road (SR 84) is a state highway that stretches from US 101 to I-280 and carries approximately 39,000 vehicles per day near the Plan area.

Numerous local streets, as illustrated on Figure 16.1, provide access within and through North Fair Oaks and to neighboring communities.

16.1.2 Study Intersections

Intersections, rather than mid-block roadway segments, are almost always the critical capacity-controlling locations for vehicular travel on urban and suburban roadway networks. Ten "study intersections" in the Community Plan area vicinity have been selected by the County and the EIR transportation consultant as those most likely to be affected by the Plan Update and warranting study in this EIR. The 10 study intersections are mapped on Figure 16.1 and listed below:

SOURCE: Wagstaff/MIG; Kimley-Horn and Associates, Inc.

Figure 16.1

STUDY INTERSECTIONS

1. El Camino Real (SR 82)/Dumbarton Avenue (signal),
2. El Camino Real (SR 82)/Fifth Avenue (signal),
3. Middlefield Road/Woodside Road (SR 84) (signal),
4. Middlefield Road/Fifth Avenue (signal),
5. Middlefield Road/Semicircular Road (signal),
6. Middlefield Road/Marsh Road (signal),
7. Fifth Avenue/Semicircular Road (signal),
8. Fifth Avenue/Bay Road (all-way stop controlled),
9. Marsh Road/Florence Street (signal), and
10. Bay Road/Woodside Road (SR 84) (signal).

16.1.3 Traffic Analysis Scenarios

For purposes of CEQA and identification of project-specific impacts and mitigation measures, this EIR chapter evaluates the study intersection operational conditions for the AM and PM peak hours under the following scenarios:

- **Existing Conditions**: Existing traffic volumes obtained from current weekday peak hour traffic counts.

- **Existing Plus Project Conditions**: Existing traffic volumes obtained from counts plus additional vehicular trips generated by the land uses proposed in the Community Plan Update.

- **Cumulative (2035) No Project Conditions**: Estimated traffic volumes for the year 2035 based on growth factors derived from the travel demand forecasting model used for the recently-certified Redwood City General Plan EIR (2010) and the City/County Association of Governments of San Mateo County (C/CAG) travel demand forecasting model. The Redwood City and C/CAG models reflect buildout of local and regional General Plan-based development, population, housing, and employment projections.

- **Cumulative (2035) Plus Project Conditions**: 2035 No Project volumes plus additional vehicular trips generated by the land uses proposed in the Community Plan Update.

Baseline conditions (Existing and Cumulative No Project) establish background conditions for the evaluation of project in the future and form the basis for determining and comparing project and cumulative impacts.

16.1.4 Study Methodology and Impact Criteria

(a) Level of Service (LOS) Methods. An analysis of study intersection operation for the four scenarios listed above has been conducted in accordance with the requirements from Appendix B of the C/CAG *Congestion Management Plan for 2009*. C/CAG Appendix B requires that the latest version of the *Highway Capacity Manual* (HCM) or the Transportation Board's *Circular 212* methodology be used to calculate levels of service.

Level of service (LOS) is a qualitative term describing operating conditions a driver will experience while traveling on a particular street or at an intersection during a specific time

interval. LOS ranges from LOS A (very little delay) to LOS F (long delays and congestion). Table 16.1 provides a definition for each LOS category.

(1) Signalized Intersections. Signalized intersection level of service is measured as the average control delay in seconds per vehicle. Control delay is the portion of the total delay experienced by drivers at intersections which is attributable to traffic signal operation. It includes the delay for decelerating to a stop at a signal, moving slowly in a queue of vehicles, stopped delay, and acceleration after the signal turns green. Table 16.2 summarizes the relationship between the LOS rating and control delay for signalized intersections. To evaluate signalized intersections, the operations method of the *Highway Capacity Manual (HCM)* (Transportation Research Board, National Research Council, 2000) was utilized.

(2) Unsignalized Intersections. Unsignalized intersection level of service evaluation also utilized the HCM 2000 operations methodology. This methodology determines the LOS based on delay. Similar to signalized intersections, the effectiveness of an unsignalized intersection is measured in average control delay; however, the delay is reported for the worst-case approach to the intersection. The LOS criteria for unsignalized intersections are summarized in Table 16.2.

(3) Traffic Signal Warrants. The installation of a traffic signal is often considered when unsignalized intersection levels of service drop below acceptable standards. Signals are commonly needed to offer side street traffic an opportunity to safely access a major road where high volumes and/or high vehicle speeds impede crossing or turn movements. Signals do not, however, increase the capacity of an intersection. In fact, signals often slightly reduce the number of total vehicles that can pass through an intersection in a given period of time. Signals can also cause an increase in certain types of traffic accidents if installed at inappropriate locations.

Tests for determining whether a traffic signal should be considered have been developed in the 2003 Manual of Uniform Traffic Control Devices (MUTCD). These tests, called "warrants," consider criteria such as traffic volume, pedestrian volume, presence of school children, and accident history. There are a total of eleven signal warrants used in the State of California and usually two or more warrants must be met before a signal is installed. For example, an intersection meets Warrant #3, the Peak Hour Signal Warrant, when traffic volumes on the major and minor approaches exceed specified thresholds for at least one hour of the day. When the conditions of Warrant #3 are met, there is a strong indication that a *detailed* signal warrant analysis covering additional warrants is appropriate.

16.2 ENVIRONMENTAL SETTING

This section describes the current transportation network within the study area, including roadway, bicycle, pedestrian, and transit facilities. Existing operational conditions at the ten study area intersections are analyzed and discussed.

16.2.1 Existing Roadway Network and Street Classifications

The existing circulation network within the Community Plan area vicinity is composed of freeways, arterial roads, and local streets. Several of the arterials are State highways. The San

Table 16.1
LEVEL OF SERVICE (LOS) DEFINITIONS

Level of Service	Description
A	Free flow with no delays. Users are virtually unaffected by others in the traffic stream. At signalized intersections, turning movements are easily made and all queues clear in a single signal cycle.
B	Stable traffic. Traffic flows smoothly with few delays. An occasional approach phase is fully utilized. Drivers begin to feel somewhat restricted within platoons of vehicles.
C	Stable flow but the operation of individual users becomes affected by other vehicles. Modest delays. Major approach phases fully utilized. Backups may develop behind turning vehicles.
D	Approaching unstable flow. Operation of individual users becomes significantly affected by other vehicles. Delays may be more than one cycle during peak hours. Queues may develop but dissipate rapidly, without excessive delays.
E	Unstable flow with operating conditions at or near the capacity level. Long delays and vehicle queuing.
F	Forced or breakdown flow that causes reduced capacity. Traffic demand exceeds the capacity. Stop and go traffic conditions. Excessive long delays and vehicle queuing.

SOURCE: Transportation Research Board, *Highway Capacity Manual 2000*, National Research Council, 2000.

Table 16.2
LEVEL OF SERVICE DEFINITIONS FOR SIGNALIZED AND UNSIGNALIZED INTERSECTIONS

Level of Service	Signalized Intersection Control Delay (seconds/vehicle)	Unsignalized Intersection Control Delay (seconds/vehicle)
A	≤ 10	0 to 10
B	> 10 – 20	> 10 to 15
C	> 20 – 35	> 15 to 25
D	> 35 – 55	> 25 to 35
E	> 55 – 80	> 35 to 50
F	> 80	> 50

SOURCE: Transportation Research Board, *Highway Capacity Manual 2000*, National Research Council, 2000.

Mateo County General Plan (1986) includes the following street classifications and definitions, which govern County-established roadway engineering design standards and LOS policies:

Freeways--A freeway is a divided highway for through traffic with full control of access and grade separation at intersections.

Expressways--An expressway is a highway for through traffic with partial control of access, which may or may not be divided and may or may not have grade separation at intersections.

Arterial--An arterial is a street or highway serving major activity centers, carrying the highest traffic volumes, and with running speeds of 25 to 45 miles per hour (mph) along sections of uninterrupted flow.

Local Streets--Although not specifically defined in the County General Plan, local streets are typically low speed (15-25 mph), low volume (1,000 average daily trips) streets that provide access to neighborhood areas and internal commercial driveways. All local streets provide vehicle, pedestrian, and utility access. On-street parking is often present to provide parking and to slow traffic.

16.2.2 Existing North Fair Oaks Community Plan Area Circulation System

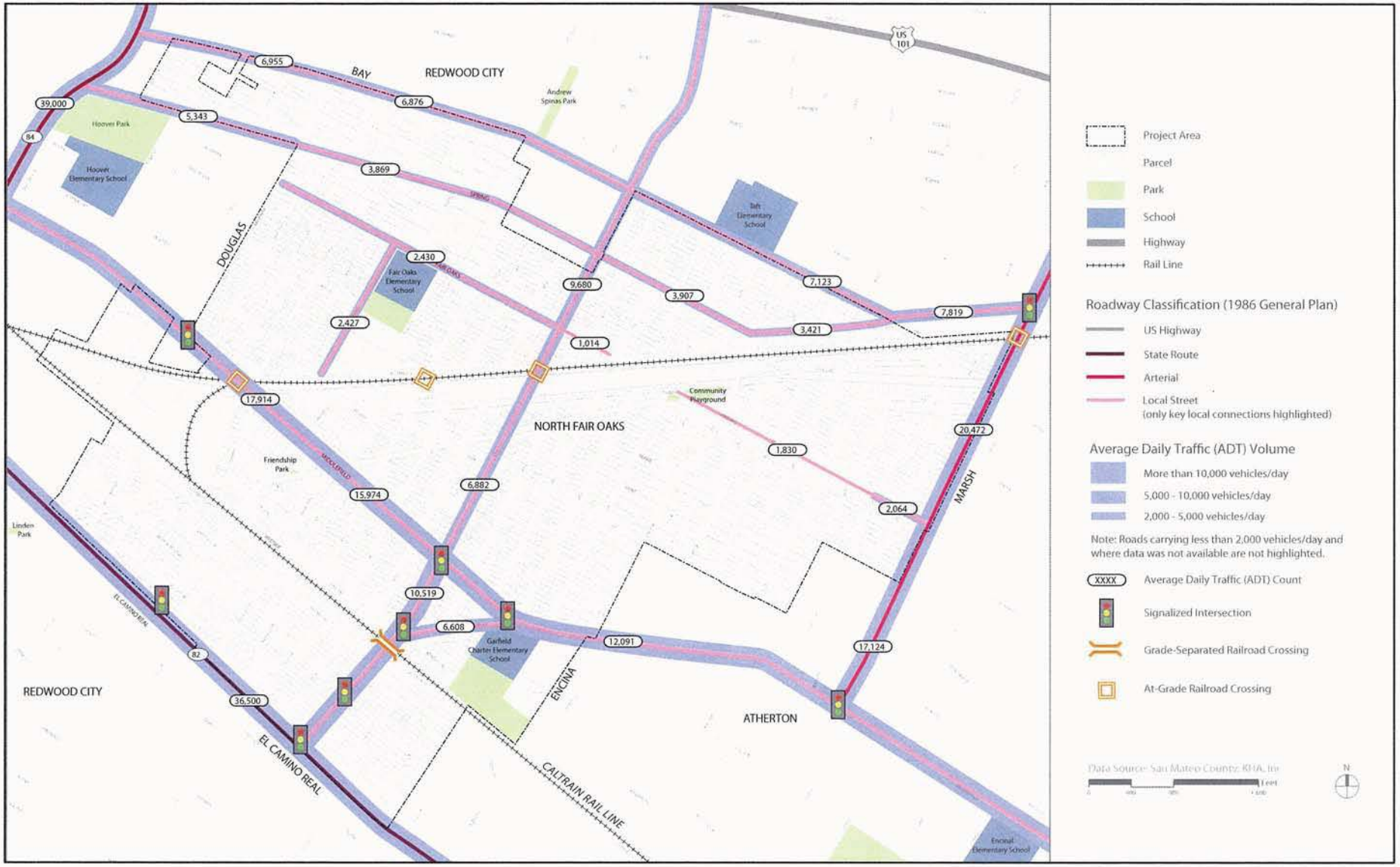
The North Fairs Oaks circulation system comprises arterials, collectors, and local streets. Middlefield Road and Fifth Avenue serve as primary access points to North Fair Oaks, while state highways, including US 101, El Camino Real (SR 82), and Woodside Road (SR 84) provide regional access to neighboring cities.

US 101 passes along the bayside of the Peninsula to the northeast of North Fair Oaks. The Southern Pacific Railroad and Caltrain rail lines run directly through the Plan area, creating a barrier effect and limiting connectivity and circulation within North Fair Oaks.

(a) Existing Roadway Network. The existing vehicular circulation system within the Plan area is shown on Figure 16.2. Key access routes are described below:

- *El Camino Real (SR 82)* is a six-lane state highway that provides regional access to South San Francisco and Daly City to the northwest and San Jose to the southeast, as well as local access to Redwood City to the west and Menlo Park and Palo Alto to the southeast. Within the Plan area, a landscaped raised median exists and on-street parking is permitted along the commercial uses in the westbound direction. The speed limit along the Plan area is 35 mph, and the segment of SR 82 through San Mateo County is included in the Surface Transportation Assistance Act (STAA) national truck route network. Although El Camino Real travels only along the boundary of North Fair Oaks, it serves as a key connection to the Plan area.

- *Woodside Road (SR 84)* is a four-to-six lane state highway that provides access to I-280 in the south and US 101 to the north. Within the vicinity of the Plan area, there are two lanes in either direction, with a raised median and a speed limit of 35 mph. On-street parking is not permitted along this segment. SR 84 from I-280 to US 101 is included in the state truck route network. Although Woodside Road travels just outside the boundary of North Fair Oaks, it serves as a key connection to the Plan area.



SOURCE: Wagstaff/MIG; Kimley-Horn and Associates, Inc.

Figure 16.2

EXISTING ROADWAY SYSTEM

- *Middlefield Road* is a two-to-four-lane, southeast-northwest, major local street that extends through Menlo Park, Atherton, North Fair Oaks, and Redwood City. The roadway is undivided, with one-to-two lanes in either direction. The roadway does not include exclusive left or right turn lanes through most of the Plan area. Angled and parallel on-street parking is provided on Middlefield Road, and the speed limit is 30 mph. Middlefield Road is fronted by primarily low density commercial and industrial uses, including several automotive repair and service businesses. There are several unsignalized marked pedestrian crossings along Middlefield Road, and an at-grade railroad crossing exists between Pacific Avenue and Northside Avenue.

- *Marsh Road* is a two-to-four lane arterial that runs in the north-south direction along the east border of North Fair Oaks. From Middlefield Road to Fair Oaks Avenue, the roadway is undivided with one lane in each direction and scattered on-street parking. North of Fair Oaks Avenue, there are two lanes in each direction with on-street parking permitted in some areas, and a raised median for some segments. An at-grade railroad crossing exists just north of Bay Road. The speed limit for Marsh Road is 30 to 35 mph.

- *Fifth Avenue* is an undivided, two-to-four lane, north-south major local street that runs from El Camino Real north through North Fair Oaks to its terminus just south of US 101. Two lanes exist in either direction between El Camino Real and Semicircular Road, while the roadway narrows to one lane in either direction just north of the Caltrain overcrossing. On-street parking is provided along most of Fifth Avenue, and the speed limit is 25 mph.

- *Fair Oaks Avenue* is an undivided, two-lane local street that runs east-west from Douglas Avenue to Marsh Road. The roadway is split into two unconnected segments at Edison Way, due to the Southern Pacific Railroad tracks. From Douglas Avenue to Marsh Road, the roadway is fronted by a mix of low density residential and light industrial uses, with on-street parking along much of the segment. From Edison Way to Marsh Road, the road travels through a neighborhood of single-family homes without curb and gutter. For this segment, on-street parking is permitted along wide gravel shoulders. The speed limit along Fair Oaks Avenue is 25 to 30 mph.

- *Bay Road* is an undivided local street that runs east-west from Beech Street in Redwood City east to Willow Road in Menlo Park. Through the study area, two lanes exist in either direction from Willow Street to Fifth Avenue. From Fifth Avenue east to Fifteenth Avenue, there is one lane in either direction with a center two-way-left-turn lane. The speed limit along Bay Road is 25 mph, and on-street parking exists along most of the street.

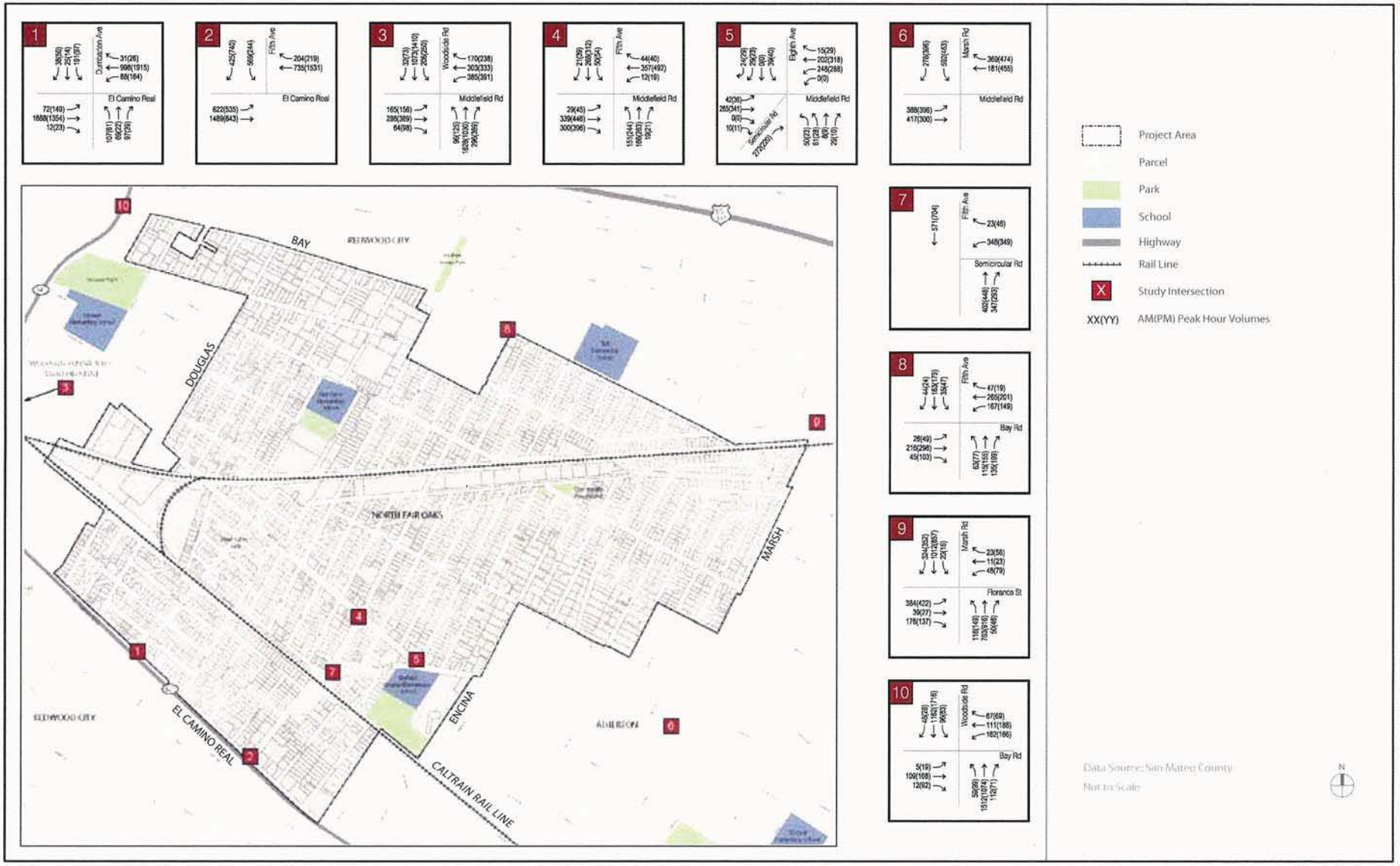
(b) Intersection Operations. Intersection turning movement counts were collected on a typical weekday from 7:00 to 9:00 AM and 4:00 to 6:00 PM at all ten study intersections. The traffic counts were conducted on March 8 and March 10, 2011. A field visit was also conducted to observe intersection geometry, intersection control, pedestrian and bicycle accessibility, and queue lengths. Existing intersection geometry and traffic control is illustrated in Figure 16.3. Existing condition traffic volumes for the AM and PM peak hours are shown on Figure 16.4.

An existing traffic operations model was developed for the Plan area and vicinity using TRAFFIX software, which utilizes the modeling methodology identified in the 2000 Highway Capacity Manual (HCM). Table 16.3 summarizes model-identified existing intersection LOS for the AM and PM peak hour.

SOURCE: Wagstaff/MIG; Kimley-Horn and Associates, Inc.

Figure 16.3

EXISTING INTERSECTION GEOMETRY AND TRAFFIC CONTROL



SOURCE: Wagstaff/MIG; Kimley-Horn and Associates, Inc.

Figure 16.4

EXISTING PEAK HOUR INTERSECTION VOLUMES

Table 16.3
EXISTING CONDITIONS--INTERSECTION LEVELS OF SERVICE

Intersection (*Jurisdiction*)	Traffic Control	Peak Hour	Average Delay[1]	LOS[2]	LOS Standard[3]
1. El Camino Real (SR 82)/Dumbarton Avenue *(CT)*	Signal	AM	25.7	C	C
		PM	17.8	B	
2. El Camino Real/Fifth Avenue *(CT)*	Signal	AM	30.1	C	C
		PM	20.6	C	
3. Middlefield Road/Woodside Road (SR 84) *(CMP)*	Signal	AM	36.0	D	E
		PM	44.9	D	
4. Middlefield Road/Fifth Avenue *(SMC)*	Signal	AM	32.3	C	D
		PM	**55.9**	**E**	
5. Middlefield Road/Semicircular Road *(SMC)*	Signal	AM	**56.3**	**E**	D
		PM	42.2	D	
6. Middlefield Road/Marsh Road *(ATH)*	Signal	AM	27.9	C	D
		PM	30.8	C	
7. Fifth Avenue/Semicircular Road *(SMC)*	Signal	AM	10.4	B	D
		PM	11.1	B	
8. Fifth Avenue/Bay Road *(RC)*	AWSC	AM	27.5	D	D
		PM	23.9	C	
9. Marsh Road/Florence Street *(MP)*	Signal	AM	29.4	C	D
		PM	30.2	C	
10. Bay Road/Woodside Road (SR 84) *(CT)*	Signal	AM	20.5	C	C
		PM	24.9	C	

SOURCE: Kimley-Horn and Associates, Inc., May 2011

Notes:

1. Whole intersection weighted average total delay for signalized and all-way stop-controlled intersections (expressed in seconds per vehicle).
2. LOS calculations performed using the 2000 *Highway Capacity Manual*.
3. LOS standard for County of San Mateo, City of Redwood City, City of Menlo Park, Caltrans and C/CAG CMP.
4. Unacceptable operations are indicated in **bold** type.
5. AWSC – All-Way Stop controlled.
6. Jurisdictions: SMC = San Mateo County, ATH = Atherton, RC = Redwood City, MP = Menlo Park, CT = Caltrans, CMP = C/CAG Congestion Management Program

As Table 16.3 illustrates, all of the ten study intersections currently operate at acceptable LOS, with the exception of Middlefield Road/Fifth Avenue and Middlefield Road/Semicircular Road, which operate at unacceptable LOS E for the PM peak hour and AM peak hour, respectively.

(c) Transit Network. Public transit routes, stops, and stations within the project vicinity are shown on Figure 16.5.

Public transit is provided to the project vicinity by the San Mateo County Transit District (SamTrans) and Caltrain. SamTrans operates fixed-route bus, community-based shuttles, paratransit, and BART commuter shuttles within San Mateo County. A number of bus routes and shuttles operate through the Plan area and vicinity. Caltrain, a commuter rail system connecting Gilroy to San Francisco, provides two existing stations near the Plan area--the Redwood City station to the south and the Atherton station to the north.

(1) Bus Service. Local transit service is provided to North Fair Oaks by SamTrans, operated by the San Mateo County Transit District. SamTrans currently operates seven bus routes through the North Fair Oaks community. Figure 16.5 shows the existing SamTrans bus transit routes and bus stop locations in the Plan area, which are also described below.

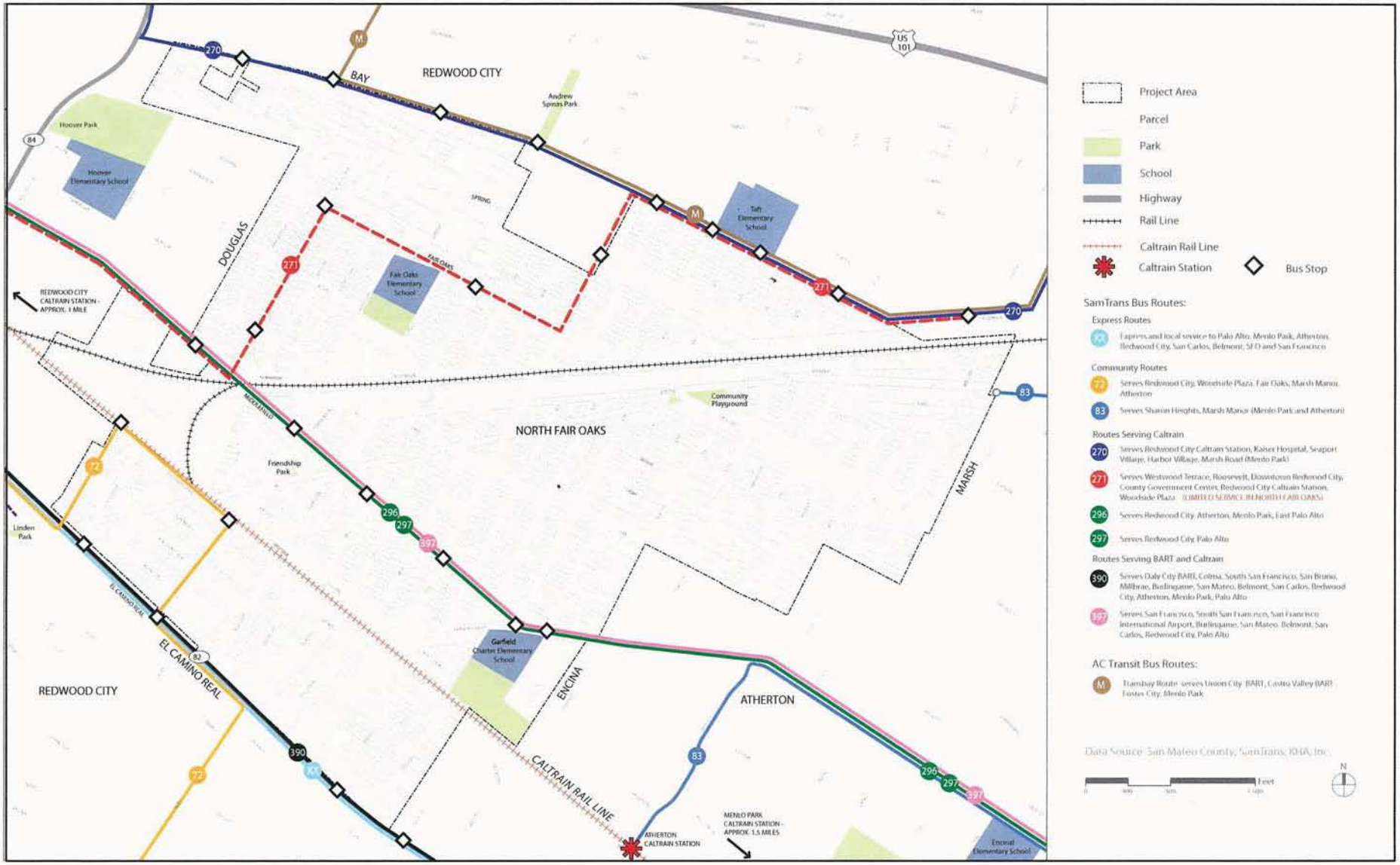
- *Route KX* runs along El Camino Real adjacent to the Plan area. It is a multi-city express route connecting Caltrain stations, San Francisco International Airport, and downtown San Francisco. The route runs from Mission and 1st Street in San Francisco in the north to the Palo Alto Caltrain station in the south. Buses usually operate on a 40-minute to 60-minute headway on weekdays from 5:30 AM to 11:45 PM. Buses also operate on Saturdays, Sundays, and holidays from 6:15 AM to 10:40 PM on 60-minute headways.

- *Route 72* runs along El Camino Real and Marlborough Avenue through the Plan area. It is a local community route connecting Redwood City to the Woodside Plaza Shopping Center. The route runs from El Camino Real and Woodside Road in the north to San Carlos Avenue and Massachusetts Avenue in the south. Buses operate on school days for less than an hour starting at 8:00 AM, then continue at 1:45 PM to 3:45 PM in the afternoon.

- *Route 270* runs along Florence Street and Bay Road through the plan area. It is a multi-city route connecting to the Redwood City Caltrain station. The route runs from the Redwood City Caltrain station in the west to Marsh Road in the east. Buses usually operate at 60-minute headways on weekdays from 6:35 AM to 7:00 PM. Buses also operate on Saturdays from 9:35 AM to 6:10 PM on 60-minute headways.

- *Route 271* serves the Plan area north of the Southern Pacific Railroad line along Fifth Avenue, Fair Oaks Avenue, and Middlefield Road. The route provides a connection to Woodside Plaza to the south and the Redwood City Caltrain Station to the northwest; however, service is limited for the segment of this route that serves North Fair Oaks. Bus service is provided within the Plan area for limited hours on school days only.

- *Route 296* runs along Middlefield Road through the Plan area. It is a multi-city route connecting Caltrain stations. The route runs from the Redwood City Caltrain station in the west to East Bayshore Road and Cooley Avenue in East Palo Alto in the east. Buses



SOURCE: Wagstaff/MIG; Kimley-Horn and Associates, Inc.

Figure 16.5

EXISTING TRANSIT SERVICE

usually operate on 30-minute to 60-minute headways on weekdays from 5:45 AM to 10:50 PM. Buses also operate on Saturdays, Sundays, and holidays from 8:50 AM to 7:45 PM on 60-minute headways.

- *Route 297* runs along Middlefield Road through the Plan area. It is a multi-city overnight route connecting Caltrain stations. The route runs from the Redwood City Caltrain station in the north to the Palo Alto Caltrain station in the south. Buses usually operate at 60-minute headways on weekdays from 10:45 PM to 5:20 AM. Buses also operate on Saturdays, Sundays, and holidays from 6:45 PM to 9:20 AM on 60-minute headways.

- *Route 390* runs along El Camino Real adjacent to the Plan area. It is a multi-city route connecting Caltrain stations as well as BART stations. The route runs from the Daly City BART station in the north to the Palo Alto Caltrain station in the south. Buses usually operate on 25-minute to 60-minute headways on weekdays from 5:30 AM to 1:00 AM. Buses also operate on Saturdays, Sundays, and holidays from 6:00 AM to 2:30 AM on 30-minute to 60-minute headways.

- *Route 397* runs along Middlefield Road through the Plan area. It is a multi-city overnight route connecting Caltrain stations, BART stations, San Francisco International Airport, and downtown San Francisco. The route runs from Mission and 1st Street in San Francisco in the north to the Palo Alto Caltrain station in the south. Buses usually operate at 60-minute headways on weekdays from 12:50 AM to 5:45 AM. Buses also operate on Saturdays, Sundays, and holidays from 12:50 AM to 6:20 AM on 60-minute headways.

- *AC Transit*, the transit provider for Alameda County, operates a regional Transbay bus route, Line M, from the East Bay to the Peninsula and San Mateo County. Line M connects Union City and Castro Valley BART to Foster City, Menlo Park, and San Mateo. Through the Plan area, Line M travels along Bay Road, then north on Douglas Avenue. On weekdays, the bus service operates from 6:12 AM to 8:11 PM at 30-minute headways. On weekends, the bus service operates from 7:54 AM to 6:46 PM at 60-minute headways.

- *San Mateo County Transit District* provides service to ADA and senior persons within San Mateo County. Paratransit service is provided by the District using Redi-Wheels.

(2) Existing Shuttle Service. Caltrain and the Peninsula Traffic Congestion Relief Alliance operate several shuttles in Redwood City and through parts of North Fair Oaks. The shuttles operate during peak commute times between the Redwood City Caltrain station and major employers in the area. Shuttles help facilitate transit ridership among people whose ultimate destination is beyond walking or biking distance from Caltrain, or for those who cannot or prefer not to ride a bike or walk. If employees of major employers purchase Caltrain tickets, the shuttle is free. The shuttles are partially funded by participating employers and other agencies such as Bay Area Air Quality Management District (BAAQMD) and the Peninsula Joint Powers Board.

A mid-day on-demand community shuttle service also operates in the eastern part of Redwood City. The shuttle operates in the area approximately bounded by El Camino Real, Marsh Road, US 101, and Whipple Avenue. The shuttle, which operates between 10:00 AM and 5:00 PM from Tuesdays to Saturdays, is free and open to the general public. However, riders must call on the day before their trip to reserve a pick-up and drop-off time.

(3) Rail Service. Caltrain provides commuter rail services between San Francisco County and Santa Clara County, with the railroad line running through the southwest portion of the North Fair Oaks community. There are two Caltrain stations adjacent to the community. The Atherton station is currently located on Dinkelspiel Station Lane near Fair Oaks Lane, approximately half a mile to the southeast of North Fair Oaks. The Redwood City station is currently located on James Avenue near El Camino Real, approximately one mile to the northwest of North Fair Oaks. These two stations can be accessed by SamTrans bus service. Caltrain currently operates 98 trains per day during the week traveling north and south along the rail corridor, which includes the Baby Bullet service. In addition, there are 32 trains on Saturdays and 28 trains on Sundays.

There are no existing at-grade Caltrain railroad crossings within North Fair Oaks. There are several at-grade railroad crossings elsewhere along the Southern Pacific Railroad line, which runs east-west through the community and currently operates with limited freight service. The nearest at-grade railroad crossings to the Plan area are near the intersections of Middlefield Road at Hurlingame Avenue, Second Avenue at Northside Avenue, Fifth Avenue at Edison Way, and Marsh Road at Bohannon Drive/Florence Street.

(d) Planned and Proposed Public Transportation Improvements.

(1) SamTrans System Changes. According to the San Mateo County Transit District Strategic Plan 2009-2013, the District is planning to improve the transit systems in San Mateo County. The District has advocated the following specific initiatives to improve transit service in the County:

- The Grand Boulevard Initiative focuses on changing the key transit corridor in the Peninsula, El Camino Real, into a livable corridor. The vision is to mix commercial and residential land uses along El Camino Real into a transit-oriented lifestyle, thus promoting more vibrant communities. Additionally, SamTrans' long-term planning is likely to include Bus Rapid Transit (BRT) service on El Camino Real.

- The San Mateo County Measure A Program, a half-cent sales tax generating revenue solely for transportation projects, was recently reapproved and will result in an estimated $3 billion of revenue for San Mateo County's transportation projects.

The SamTrans Short-Range Transit Plan 2009-2018 identifies immediate SamTrans service reductions, which are expected to result in a 7.5 percent reduction in service within the County, including six fewer fixed-route bus routes and seven fewer express routes. Routes will also see a reduction in service frequency, and some routes may be limited to a single direction loop during non-peak hours.

(2) Caltrain 2025 Service and Electrification Plan. Caltrain continues to explore ways to improve service and increase ridership. However, the railroad's infrastructure, signal system, and equipment inhibit expansion beyond the current service level of five trains per hour during the peak. The Caltrain 2025 Service and Electrification Plan identifies several planned improvements to modernize the system, expand capacity, and improve safety. The improvement program includes three projects: electrification of the railroad, Positive train control, and Electric-multiple units. By converting to electric trains, Caltrain will be able to operate with reduced emissions, faster travel times, increased capacity, and decreased noise levels.

(3) San Mateo County Grade Crossing Improvement Project. Caltrain has initiated a project to improve 25 existing at-grade railroad crossings in San Mateo County. Project improvements include new pedestrian safety markings, improved sidewalks, and new roadway pavement markings. There are no existing at-grade Caltrain crossings within North Fair Oaks; however, at-grade crossings identified for improvement near the Plan area include the following:

- Atherton--Fair Oaks Lane and Watkins Avenue; and
- Redwood City--Chestnut Street, Main Street, and Maple Street.

(4) Dumbarton Rail Corridor Project. The proposed Dumbarton Rail Corridor Project would reconstruct this rail corridor to extend commuter rail service across the southern portion of San Francisco Bay between the Peninsula and the East Bay by connecting the Redwood City Caltrain Station with the Union City BART station. Should the project be implemented, the rail corridor, as currently proposed, would link Caltrain, the Altamont Express, Amtrak's Capitol Corridor and BART, as well as East Bay bus systems, at a multi-modal transit center in Union City.

The current rail corridor reconstruction proposal would include track improvements, a new moveable rail bridge, four stations, and a centralized traffic control system. Six round-trip trains would travel from Union City during peak commute hours. Three of these trains would travel to San Francisco and three to San Jose. The Dumbarton Rail alignment would pass through North Fair Oaks along the existing Southern Pacific Railroad right-of-way.

(5) High-Speed Rail Project. The California High-Speed Rail (HSR) project is a future high-speed rail system implementation program headed by the California High-Speed Rail Authority (CHSRA). The project was approved by California voters on November 4, 2008 with the passage of Proposition 1A authorizing $9.95 billion in general obligation bonds for the project. The CHSRA is currently tasked with completing final planning, design, and environmental efforts. When built, high-speed trains that are capable of traveling at speeds of up to 220 mph will link San Francisco and Los Angeles in as little as two and a half hours. The planned system would also serve other major California cities, such as Sacramento, San Jose, Fresno, Bakersfield, and San Diego.

Construction efforts are anticipated to begin in 2011. An implementation plan approved in August 2005 estimated that it would take eight to eleven years to "develop and begin operation of an initial segment of the California high-speed train." The currently proposed HSR alignment will pass through North Fair Oaks along the Caltrain railroad right-of-way.

(6) Redwood City Streetcar Proposal. The recently adopted Redwood City General Plan includes a recommendation to study the feasibility of implementing a streetcar or similar fixed route system in Redwood City as a long-term community asset to enhance non-automobile connectivity between neighborhoods, the Downtown core, and other transit hubs. Three potential streetcar corridors are identified in the General Plan: Broadway, Middlefield Road, and Seaport Boulevard. The proposed Middlefield Road corridor is identified as extending from just east of Fifth Avenue in North Fair Oaks to Broadway in Redwood City.

The following additional transportation projects, as identified in applicable City general plans and in recent planning studies, are proposed within the vicinity of the Plan area:

(7) Middlefield Road Utility Undergrounding Project. A utility undergrounding project is currently planned along Middlefield Road west of Fifth Avenue. The project includes the relocation of existing above-ground utilities (electric and communications systems) to below the roadway surface and improvements to pedestrian facilities. The project includes the conversion of angled on-street parking along Middlefield Road to parallel parking in order to widen the sidewalks along the street to eight feet. The initial plans for the project include curb extensions at several intersections and ADA improvements at curb ramps and crossings.

(8) Middlefield Road Pedestrian Safety Study. The County recently commissioned a Pedestrian Safety Study for the section of Middlefield Road corridor within North Fair Oaks. The study included an analysis of pedestrian accident history, an assessment of existing pedestrian facilities, and a series of recommendations to improve pedestrian safety and walkability within the study area. The study also included a series of potential conceptual design improvements for Middlefield Road, including two options that feature a road diet from Fifth Avenue to Douglas Avenue. (A road diet is a term used to describe to process of reducing the number of travel lanes in a street in order to reallocate roadway width to sidewalks, parking, or bicycle facilities.)

(9) Redwood City Traffic Impact Mitigation Fee Study. The Redwood City Traffic Impact Mitigation Fee Study was prepared and adopted to establish a source of funding for future transportation system capital improvements in Redwood City. The following facilities within the vicinity of North Fair Oaks are identified in the study for improvements:

- Bay Road/Fifth Street (Installation of a traffic signal); and
- Woodside Road (SR 84) has been identified for widening to six lanes from El Camino Real north to US 101, and from El Camino Real south to Valota Road. A Caltrans-prepared Project Study Report (PSR) and Environmental Document (ED) have been approved for this project.

(10) Metropolitan Transportation Commission (MTC) Transportation 2035 Plan. The MTC Transportation 2035 Plan specifies how some $218 billion in anticipated federal, state, and local transportation funds will be spent in the nine-county Bay Area during the next 25 years. The 2035 Plan indentifies the following relevant transportation projects in San Mateo County within the vicinity of North Fair Oaks:

- US 101 in San Mateo County from San Mateo/Santa Clara County line to Whipple Avenue--convert HOV lanes to express lanes;
- Reconstruct US 101/Woodside Road interchange;
- Reconstruct US 101/Willow Road interchange;
- Construct auxiliary lanes (one in each direction) on US 101 from Marsh Road to Embarcadero Road;
- Improve access to/from west side of Dumbarton Bridge on Route 84 connecting US 101 (includes flyovers, interchange improvements, and conversion of Willow Road between Route 84 and US 101 to expressway);

- Construct ferry terminal at Redwood City; and

- Improve streetscape and traffic calming along Bay Road, and construct new northern access connection between Demeter Street and University Avenue.

(e) Existing and Proposed Bicycle Facilities. The San Mateo County Comprehensive Bicycle Route Plan (October 2000) discusses bikeways throughout the county and illustrates the bicycle facilities network. As referenced in this plan, cities generally follow state definitions for bikeways, which identify three distinct types of bicycle facilities: bike paths, bike lanes, and bike routes, as follows:

- *Class I Bikeway (Bike Path or Bike Trail)*: Provides completely separated right-of-way designated for the exclusive use of bicycles and pedestrians with crossflows by motorists minimized.

- *Class II Bikeway (Bike Lane)*: Provides a restricted right-of-way designated for the exclusive use or semi-exclusive use of bicycles with through travel by motor vehicles or pedestrians prohibited, but with vehicle parking and crossflows by pedestrians and motorists provided.

- *Class III Bikeway (Bike Route)*: Provides a right-of-way designated by signs or permanent markings and shared with pedestrians or motorists.

Currently, there are no designated bike facilities within North Fair Oaks, with the exception of bike lanes on Fifth Avenue between Waverly Avenue and Semicircular Road (see Figure 16.6). The Bay Trail travels along the Bayfront Expressway, approximately one mile northeast of North Fair Oaks. The Bay Trail connects to multi-use trails on the Dumbarton Bridge, which allows bicyclists to reach destinations in the East Bay. Another Class I Bikeway travels along US 101 from Whipple Road in Redwood City, approximately 1 ½ miles northwest of North Fair Oaks, to Brittan Avenue in San Carlos. Bike lanes currently exist to the west along Middlefield Road from Woodside Road (SR-84) to Cassia Street in Redwood City, to the east along Middlefield Road from Encina Avenue to Willow Road in Menlo Park, and along Selby Lane from El Camino Real (SR 82) to Oakwood Boulevard south of the Plan area. The nearest bike routes to North Fair Oaks exist along Middlefield Road west of Cassia Street to the Redwood City Caltrain station.

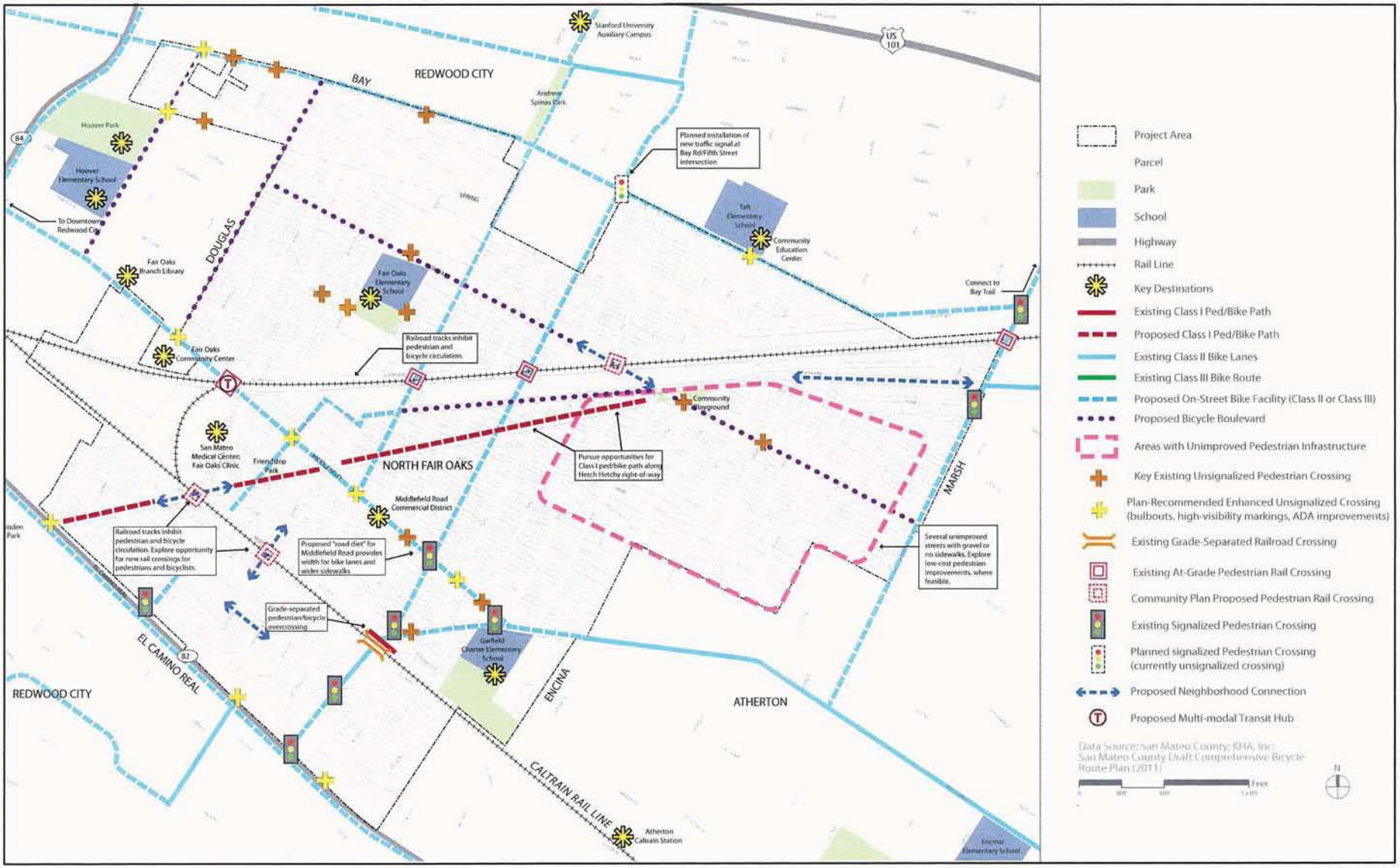
The San Mateo County Comprehensive Bicycle Route Plan includes the following proposed improvements to the bicycle network near the Plan area (see Figure 16.6):

- New Class I Bikeway north of US 101, filling the gap in the Bay Trail between the Bayfront Expressway and the northern trail connection in Redwood City;

- On-street bike facility along El Camino Real (SR 82) from Valparaiso Avenue in Menlo Park north to Hillsdale Boulevard in Foster City;

- On-street bike facility along Fifth Avenue between El Camino Real (SR 82) and Semicircular Road;

- On-street bike facility along Semicircular Road from Fifth Avenue to Middlefield Road;



SOURCE: Wagstaff/MIG; Kimley-Horn and Associates, Inc.

Figure 16.6
EXISTING AND PROPOSED BICYCLE AND PEDESTRIAN FACILITIES

- On-street bike facility along Middlefield Road from Semicircular Road west to Jefferson Avenue in Redwood City;

- On-street bike facility along Marsh Road from Middlefield Road north to Bay Trail connection near Bayfront Expressway;

- On-street bike facility along Selby Lane from El Camino Real (SR 82) south to Oakwood Boulevard, then west along Oakwood Boulevard to Central Avenue, then along Central Avenue/Hudson Road to Whipple Road in Redwood City. This route will create a bypass route of Downtown Redwood City; and

- On-street bike route along Jefferson Boulevard from El Camino Real (SR 82), near the Redwood City Caltrain station, south to Canada Road in Redwood City.

The proposed bicycle facilities would provide local and regional access to the Bay Trail, Redwood City, and Menlo Park. The San Mateo County Comprehensive Bicycle Route Plan identifies proposed routes as either on-street or off-street facilities, but it does not specify whether future on-street facilities will be Class II bike lanes or Class III bike routes. Additional bicycle improvements identified for El Camino Real in Redwood City, Atherton, and Menlo Park include signal improvements, signing, and lane re-striping.

(1) Bicycle Collision History. Statewide Integrated Traffic Records System (SWITRS) reports, published by the California Highway Patrol, include details regarding each documented accident, including location, type of collision, and whether pedestrians or bicyclists were involved. According to data from SWITRS between 1998 and 2008, there were several collisions involving bicyclists in the North Fair Oaks community. Locations with the greatest number of pedestrian collisions include the intersections of Middlefield Road/Fifth Avenue, Middlefield Road/ Fourth Avenue, Middlefield Road/Second Avenue, Middlefield Road/Northside Avenue, El Camino Real (SR 82)/Dumbarton Avenue and El Camino Real (SR 82)/Berkshire Avenue.

(f) Existing Pedestrian Facilities. Sidewalks currently exist through much of the Plan area; however, there are several unimproved streets, primarily within the residential neighborhoods on the eastern side of the Plan area, where sidewalks are not provided. Sidewalk widths typically range from four to six feet and are located at the backside of the curb, with the exception of some residential streets where small planting strips and street trees exist between the curb and the sidewalk.

(1) Types of Pedestrian Crossings. There are multiple pedestrian crossings located in North Fair Oaks. Pedestrian crossing types and locations are described below.

Signalized Intersections with Pedestrian Crossings. These crossings have marked crosswalks and pedestrian-activated signal control. Pedestrian signal heads are provided. Most signalized crossings provide crosswalks on all approaches of the intersection, but several locations do not provide pedestrian crosswalks for one or more approaches. The following intersections within the Plan area provide key signalized pedestrian crossings:

- El Camino Real (SR 82)/Fifth Avenue,
- El Camino Real (SR 82)/Dumbarton Avenue,

- Fifth Avenue/Waverly Avenue,
- Fifth Avenue/Semicircular Road,
- Fifth Avenue/Middlefield Road,
- Middlefield Road/Eighth Avenue/Semicircular Road (with textured pavement and curb extensions),
- Middlefield Road/Douglas Avenue, and
- Bay Road/Marsh Road.

Unsignalized Intersection with Marked Crossings. These crossings have standard transverse or ladder-style crosswalk markings. Most crossings provide advance warning signs and standard crossing signs at the crosswalk. At several locations along Middlefield Road, flashing warning lights are installed at the crossings. The following unsignalized intersections within the Plan area provide marked pedestrian crossings to key destinations within the community, such as schools, parks, commercial businesses and restaurants:

- El Camino Real (SR 82)/Stockbridge Avenue,
- El Camino Real (SR 82)/Selby Lane,
- El Camino Real (SR 82)/Northumberland Avenue,
- Fifth Avenue/Bay Road,
- Fifth Avenue/Glendale Avenue (with textured pavement; connects to Glendale Avenue overcrossing and pedestrian path under Caltrain overcrossing),
- Semicircular Road/Arrowhead Lane,
- Middlefield Road/Seventh Avenue (with textured pavement and curb extensions),
- Middlefield Road/Sixth Avenue (with textured pavement and curb extensions),
- Middlefield Road/Fourth Avenue,
- Middlefield Road/Second Avenue,
- Middlefield Road/Dumbarton Avenue,
- Bay Road/Tenth Avenue (yellow-striped school crossing),
- Bay Road/Warrington Avenue,
- Bay Road/Sweeney Avenue,
- Bay Road/Kaynyne Street,
- Bay Road/Charter Street,
- Spring Street/Charter Street (yellow-striped school crossing),
- Spring Street/Kaynyne Street (yellow-striped school crossing),
- Fair Oaks Avenue/Warrington Avenue (yellow-striped school crossing),
- Fair Oaks Avenue/Hampshire Avenue (yellow-striped school crossing),
- Fair Oaks Avenue/Barron Avenue (yellow-striped school crossing),
- Fair Oaks Avenue/Oakside Avenue (yellow-striped school crossing),
- Fair Oaks Avenue/Second Avenue (yellow-striped school crossing), and
- Spring Street/Second Avenue.

Unsignalized Intersections with No Marked Crossings. These intersections are legal crossing points but have no marked or signed facilities. There are many crossings of this type in North Fair Oaks.

Grade-Separated Pedestrian Crossing. There is one grade-separated railroad crossing within North Fair Oaks at Fifth Avenue near the Caltrain overcrossing, providing connection from Williams Avenue to Semicircular Road near Garfield Elementary School.

At-Grade Pedestrian Railroad Crossing. There are currently no at-grade crossings along the Caltrain rail line within North Fair Oaks. At-grade crossings along the Southern Pacific Railroad spur (proposed Dumbarton Rail line) exist at the following nearby locations:

- Middlefield Road (between Northside Avenue and Pacific Avenue),
- Second Avenue (between Edison Way and Northside Avenue),
- Fifth Avenue (between Fourth Avenue and Sixth Avenue), and
- Marsh Road (between Bay Road and Florence Street).

(2) Pedestrian Accessibility. Generally, where paved sidewalks and curb ramps exist, they meet the minimum requirements for accommodating persons with disabilities. However, many of the pedestrian facilities within North Fair Oaks were not designed using the current best practices, and there are locations that are not consistent with current Americans with Disabilities Act (ADA) guidelines. For example, along Middlefield Road, the buildings are built to the property line, which limits the available width for sidewalks. Further, the pedestrian path is obstructed with utility and light poles along both sides of the road, creating very narrow segments for pedestrians to pass. In several locations within the Plan area, the sidewalk narrows below the minimum 36-inch wheelchair clearance required by ADA due to utility poles and obstructions. There are several curb ramps that do not provide a level surface for wheelchairs and create points of potential vehicle/pedestrian conflict; also, no curb ramps were observed to include textured pads with truncated domes per current ADA requirements. These pads provide a detectible warning surface to help aid visually impaired pedestrians. In general, the sidewalk pavement surface is in moderate condition; however, there are locations where significant cracks or gaps exist.

Field observations reveal that pedestrian activity within the Plan area is fairly consistent, with concentration of activity along Middlefield Road and Fifth Avenue. Additionally, there are concentrations of pedestrian activity near transit stops, schools, and the commercial retail and restaurant uses along El Camino Real.

(3) Pedestrian Circulation to Key Destinations/Points of Interest. The existing Caltrain and Southern Pacific Railroad lines create a barrier within North Fair Oaks, resulting in a distinct disconnect between the northern, central, and southern areas of the community. There are limited crossing points along the rail lines and only one continuous north-south route (Fifth Avenue) through the Plan area. Due to these conditions, pedestrian access to key internal and external destinations is inhibited.

The primary pedestrian routes within North Fair Oaks are Middlefield Road and Fifth Avenue. Middlefield Road serves as an important pedestrian connection to local restaurants and businesses, as well as key community points of interest, such as the Fair Oaks Branch Library, Fair Oaks Community Center, and the San Mateo County Sheriff's Office. Middlefield Road also provides important transit connections to local and regional destinations, such as the Redwood City Caltrain station, Atherton Caltrain station, and BART. Fifth Avenue serves as a key connection to the commercial uses and transit service on El Camino Real (SR 82) and provides the only continuous north-south route through North Fair Oaks. Significant secondary pedestrian routes include Semicircular Road, Fair Oaks Avenue, Bay Road, and Second Avenue. These routes provide access to schools, parks and other local destinations.

(4) Pedestrian Collision History. According to data from SWITRS between 1998 and 2008, were several pedestrian collisions have been reported in the community. Locations with the

greatest number of pedestrian collisions include the intersections of Middlefield Road/Fifth Avenue, Middlefield Road/Fourth Avenue, Middlefield Road/Second Avenue, Oakside Avenue/Northside Avenue and Dumbarton Avenue/Marlbrough Avenue.

The existing pedestrian system within the Plan area is illustrated in Figure 16.6.

16.3 REGULATORY SETTING

16.3.1 California Department of Transportation (Caltrans)

Caltrans builds, operates, and maintains the State Highway system, including the Interstate Highway system. Caltrans' mission is to improve mobility statewide. Caltrans operates under strategic goals to provide a safe transportation system, optimize throughput and ensure reliable travel times, improve the delivery of State Highway projects, provide transportation choices, and improve and enhance the state's investments and resources. Caltrans controls the planning of the State Highway system and accessibility to the system. Caltrans establishes LOS goals for highways, and works with local and regional agencies to assess impacts and develop funding sources for improvements to the State Highway system. Caltrans requires encroachment permits from agencies or new development before any construction work may be undertaken within the state's right-of-way. For projects that would impact traffic flow and levels of services on State Highways, Caltrans would recommend measures to mitigate the traffic impacts.

While there are no State Highways within the Plan area, access to North Fair Oaks is provided by State Route 82 (El Camino Real), State Route 84 (Woodside Road), and US Highway 101.

16.3.2 San Mateo County Congestion Management Program and Bicycle Route Plan

The City/County Association of Governments of San Mateo County (C/CAG) is the designated Congestion Management Agency (CMA) and Regional Transportation Planning Agency for San Mateo County. C/CAG is responsible for preparation of the area's Regional Transportation Plan, as well as other regional responsibilities, such as preparation of the San Mateo County Comprehensive Bicycle Route Plan. The C/CAG Board is comprised of members of each City within San Mateo County and has ultimate decision making responsibility for C/CAG.

C/CAG is required to prepare and adopt a Congestion Management Program (CMP) every two years. The San Mateo County CMP identifies programs, standards, and planned improvements designed to maintain an acceptable level of service, reduce automobile traffic in order to improve air quality, and reduce traffic congestion. Measures and programs in the CMP include public transit, carpooling, vanpooling, walking, bicycling, and incentives to increase the use of these alternatives.

The San Mateo County Comprehensive Bicycle Route Plan, prepared in 2001 by C/CAG, contains a detailed set of policies, goals and objectives, intended to support the goals of the County and City's General Plans, as well as other relevant regional plans. These policies focus on key issues relating to the County's bikeways such as planning, community involvement, utilization of existing resources, facility design, multi-modal integration, safety and education, support facilities and programs, funding, implementation and maintenance.

16.3.3 San Mateo County General Plan (1986)

The San Mateo County General Plan includes goals and policies that address a range of transportation issues. The following are most relevant to consideration of the transportation impacts of the North Fair Oaks Community Plan update:

(a) Urban Land Use Element.

8.39 Parking Requirements. Regulate minimum on-site parking requirements and parking development standards in order to: (1) accommodate the parking needs of the development, (2) provide convenient and safe access, (3) prevent congestion of public streets, and (4) establish orderly development patterns.

(b) Transportation Element.

12.2 To the extent possible, plan for accommodating future transportation demand in the County by using existing transportation facilities more efficiently, or improving and expanding them before building new facilities.

12.3 Provide for a balanced and integrated transportation system in the County which allows for travel by various modes and easy transfer between modes.

12.4 Plan for increasing the proportion of trips using public transit or ridesharing.

12.5 Balance and attempt to minimize adverse environmental impacts resulting from transportation system improvements in the County.

12.6 Promote the development of energy-conserving transportation systems in the County.

12.8 Additional Capacity. When providing additional capacity for automobile traffic where needed, give priority to upgrading and expanding existing roads before developing new road alignments.

12.10 Urban Road Improvements. In urban areas, where improvements are needed due to safety concerns or congestion, support the construction of interchange and intersection improvements, additional traffic lanes, turning lanes, redesign of parking, channelization, traffic control signals, or other improvements.

12.15 Local Circulation Policies. In unincorporated communities, plan for providing:

a. Maximum freedom of movement and adequate access to various land uses;
b. Improved streets, sidewalks, and bikeways in developed areas;
c. Minimal through traffic in residential areas;
d. Routes for truck traffic which avoid residential areas and are structurally designed to accommodate trucks;
e. Access for emergency vehicles;
f. Bicycle and pedestrian travel;
g. Access by physically handicapped persons to public buildings, shopping areas, hospitals, offices, and schools;
h. Routes and turnouts for public transit;

i. Parking areas for ridesharing;
j. Coordination of transportation improvement with adjacent jurisdictions.

12.16 Local Road Standards. Allow for modification of road standards for sub-areas of the County, which respond to local needs and conditions as identified in area plans.

12.19 Parking Standards. Review and update the County's off-street and on-street parking standards in order to reflect current conditions and requirements. Consider the needs of each individual land use, the potential for joint use of parking areas, fees in lieu of parking, spaces for smaller cars, and parking management strategies.

12.25 Caltrain Service. Support the continued upgrading of the Peninsula Train Service by CalTrans, including relocation of the station in San Francisco to a more central location, more frequent service, acquisition of new rolling stock, refurbishing of stations, and track rehabilitation.

12.36 Bicycle Storage Facilities. Promote the provision of bicycle lockers and other storage facilities at transit stops, schools, shopping areas and other activity centers.

12.38 Facilities for Bicyclists. Encourage large employers to provide shower and locker facilities for their employees who bike to work as part of a commute alternative program.

12.50 Modification of Road Standards. Continue existing policy as set forth in the Creative Road Design Guide and area plans allowing selective modification of County road standards in order to protect the natural environment, conserve natural resources and preserve neighborhood quality.

12.51 County Bikeways Plan. Review, adopt, and maintain the Bikeway Plan map as the County's policy regarding a future bikeways system in San Mateo County.

12.52 Staff Bikeways Coordinator. The County staff Bikeways Coordinator shall: (1) plan and develop bikeway facilities in the unincorporated areas; (2) develop requirements for bike facilities in new developments in unincorporated areas; (3) provide staff services to the County Bikeways Advisory Committee; (4) work with the cities and monitor progress toward implementation of the County Bikeways Plan; (5) assist cities without active bikeways programs to develop and implement programs for their cities; and (6) coordinate with bicycle organizations.

12.59 Role of RIDES for Bay Area Commuters, Inc. Support the efforts of RIDES to expand ridesharing by San Mateo County commuters and encourage employers in the County to provide ridesharing among their employees.

16.3.4 Existing North Fair Oaks Community Plan

The existing North Fair Oaks Community Plan was adopted in 1979, and is one of five area plans that form a subset of the County's General Plan. The existing plan includes goals and policies regarding land use, housing, parks/open space, economic development, and governmental organization. The following are the most relevant transportation and parking-related goals and policies presented in the existing plan:

(a) Land Use

1.7 To alleviate parking problems in existing commercial areas, the creation of parking districts should be encouraged.

(b) Infrastructure Chapter

2.1 To alleviate traffic conflicts and promote the use of public transit.

2.2 SamTrans should be encouraged to continue a fare policy which considers the ability to pay of its patrons.

2.3 The County Board of Supervisors should request Southern Pacific to improve the condition of their right-of-way by the provision of adequate landscaping.

2.4 Housing and Community Development Block Grant funds should be used to provide for planning and engineering studies for a storm drainage system in low-income areas of North Fair Oaks.

2.5 Modified road standards following principles established in the Creative Road Design Guide should be followed in pertinent areas of North Fair Oaks.

2.6 The County will investigate the possibility of establishing parking districts in area of inadequate off-street parking facilities.

(c) Park and Recreation Resources Chapter

4.2c A plan for partial development of the Hetch-Hetchy right-of-way as a low maintenance linear open space shall be pursued.

16.3.5 Grand Boulevard Initiative

The Grand Boulevard Initiative is a collaborative effort between 19 cities, counties, local, and regional agencies, as well as other stakeholders--such as local businesses and advocates for housing, bicycling, economic development and smart growth--with the goal of improving the performance, safety, and aesthetics of El Camino Real. El Camino Real is a historic route that extends from Daly City in the north to the Diridon Multimodal station in downtown San Jose. The initiative brings together the many agencies with partial responsibility for the street with the common purpose of producing a coordinated series of policy decisions that will enhance the function and character of El Camino Real, transforming the corridor into a pedestrian, transit-friendly, multimodal arterial where all modes move efficiently and safely.

The San Mateo County Transit District, in partnership with the Santa Clara Valley Transportation Authority (VTA), is currently developing an El Camino Real Multimodal Transportation Corridor Plan from Daly City to the Caltrain Diridon station in San Jose as part of the Grand Boulevard Initiative. The plan will identify future types and levels of transit service and land uses in the corridor, as well as strategies for multimodal access and coordination within the communities along the corridor.

16.4 IMPACTS AND MITIGATION MEASURES

16.4.1 Significance Criteria

(a) CEQA Significance Criteria. According to the CEQA Guidelines,[1] the Community Plan Update would be considered in this EIR to have a significant impact related to transportation and traffic if it would:

(1) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation, including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit;

(2) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways;

(3) 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;

(4) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);

(5) Result in inadequate emergency access; or

(6) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

Impacts related to significance criterion (3) were found not to be significant during the EIR initial environmental review and scoping process. Please see Section 17.5 Effects Found Not to Be Significant in Chapter 17, CEQA-Required Assessment Considerations, as well as Appendix 21.2, Notice of Preparation and Initial Study.

(b) Thresholds of Significance. The thresholds used to determine the significance of transportation impacts are based on standards of significance based on the type of transportation facility and the jurisdiction that controls the facility, including the County, Caltrans, C/CAG, Redwood City, and the City of Menlo Park.

(1) Roadway Thresholds of Significance. For this EIR analysis, the relevant criteria for impacts at intersections are based on County, Caltrans, C/CAG Congestion Management Program, Redwood City, and City of Menlo Park level of service (LOS) guidelines, depending on the jurisdiction of the study intersection. The following standards for intersections have been applied, where applicable.

San Mateo County Intersections. According to County LOS guidelines, a project would create a significant adverse impact on traffic conditions at a signalized intersection if for either peak hour:

[1] CEQA Guidelines, Appendix G, Items XVI(a) through (f).

- the level of service at the intersection degrades from an acceptable LOS D or better (for CMP intersections, the minimum acceptable level of service is LOS E) under baseline conditions to an unacceptable LOS E or F under project conditions; or

- the level of service at the intersection is an unacceptable LOS E or LOS F under baseline conditions and the addition of project trips causes the critical-movement volume-to-capacity ratio (V/C) to increase by 0.02 or more with the addition of project trips.

Redwood City Intersections. According to Redwood City guidelines, a project would create a significant adverse impact on traffic conditions at an intersection if, for either peak hour, project traffic would:

- cause a signalized intersection operating at acceptable LOS D or better to operate at LOS E or F under project conditions; or

- cause a signalized intersection already operating at unacceptable LOS E or F under baseline conditions to experience an increase in the average control delay of five (5) seconds or more;

- cause an unsignalized intersection to deteriorate from an acceptable LOS D or better under baseline conditions to an unacceptable LOS E or F under project conditions, *and* the traffic volumes at the intersection satisfy the MUTCD peak hour volume warrant for traffic installation; or

- cause an unsignalized intersection already operating at unacceptable LOS E or F to experience an increase in average control delay by five (5) or more seconds *and* the traffic volumes at the intersection satisfy the MUTCD peak hour volume warrant for traffic installation.

City of Menlo Park Intersections. According to Menlo Park guidelines, a project would create a significant adverse impact on traffic conditions at an intersection if, for either peak hour, project traffic would:

- cause an intersection on a collector street operating at acceptable LOS C or better to operate at LOS D, E or F, or have an increase of 23 seconds or greater in average vehicle delay;

- cause an intersection on arterial streets or local approaches to state-controlled signalized intersections operating at LOS D or better to operate at an unacceptable LOS E or F, or have an increase of 23 seconds or greater in average vehicle delay; or

- cause an increase of more than 0.8 seconds of average delay to vehicles on all critical movements for intersections operating at a baseline LOS D, E or F for collector streets and at a baseline LOS E or F for arterial streets.

California Department of Transportation (Caltrans) Intersections. The intersections of El Camino Real (SR 82)/Dumbarton Road, El Camino Real (SR 82)/Fifth Avenue, Woodside Road (SR 84)/Middlefield Road, and Woodside Road (SR 84)/Bay Road are under the

jurisdiction of Caltrans. The Guide for the Preparation of Traffic Impact Studies (2002) defines the following LOS standards for State-operated facilities, which include intersections on State Routes:

- Caltrans endeavors to maintain a target LOS at the transition between LOS C and LOS D; and

- if an existing state-operated facility is operating at less than LOS C, the existing LOS should be maintained. Caltrans staff has indicated that Caltrans considers any increase in traffic to a state-operated facility operating at an unacceptable level of service is considered a significant impact.

San Mateo County Congestion Management Plan (CMP) Facilities. C/CAG has developed LOS standards for designated Congestion Management Program (CMP) roadways and intersections. There are no identified CMP facilities within the Plan area boundary; however, the following CMP roadways and intersections are located within the vicinity:

- US 101 from Whipple Avenue to Santa Clara County Line;

- State Route 82 (El Camino Real) from State Route 84 (Woodside Road) to Glenwood Avenue;

- State Route 84 (Woodside Road) from Alameda de las Pulgas to US 101; and

- Intersection of State Route 84 (Woodside Road) and Middlefield Road.

The CMP peak hour LOS standard is LOS F for the segment of US 101 within the vicinity of the Plan area. The CMP standard is LOS E for El Camino Real (SR 82) and Woodside Road (SR 84) within the vicinity of the Plan area. The Woodside Road (SR 84)/Middlefield Road intersection has a CMP LOS standard of LOS E.

Town of Atherton Intersections. No intersection level of service standards were identified for the Town of Atherton. For this EIR, the City of Redwood City standards of significance were used for study intersections within the Town of Atherton.

Roadway Mitigation Effectiveness. A significant impact at a signalized intersection would be satisfactorily mitigated when measures are implemented that would restore intersection operations back to background (without the project) conditions or better.

(2) Pedestrian System Thresholds of Significance. A significant impact related to the pedestrian system would occur if implementation of the project causes:

- disruption to existing pedestrian facilities, or interference with planned pedestrian facilities;

- inconsistencies with adopted pedestrian system plans, guidelines, policies, or standards; or

- vehicles to cross pedestrian facilities on a regular basis without adequate design and/or warning systems, causing safety hazards.

(3) Bicycle System Thresholds of Significance. Bicycle impacts would be considered significant if implementation of the project:

- disrupts existing, or interferes with planned, bicycle facilities;
- creates inconsistencies with adopted pedestrian system plans, guidelines, policies, or standards; or
- increases potential for bicycle/vehicle conflicts.

(4) Transit System Thresholds of Significance. Transit impacts are considered significant if implementation of the project results in the following:

- disrupts existing, or interferes with planned, transit services or facilities;
- creates inconsistencies with adopted transit system plans, guidelines, policies, or standards; or
- creates demand for public transit services above that which is provided or planned.

The Plan Update lays the ground work to establish North Fair Oaks as a diverse, walkable, transit-oriented community. The Plan is proposing a broad array of land uses, including moderate- to high-density housing of varying types and costs; institutional (community/schools); community- and neighborhood-serving commercial, retail, and light industrial uses to meet local needs and provide significant employment opportunities; and open space (parks/ recreation).

The proposed development program for the Plan Update includes a concentration of higher-density development near the site of a potential new multi-modal transit station, which could potentially service high-frequency bus, streetcar and/or light rail, or commuter rail service. Higher density development is also proposed along the El Camino Real and Middlefield Road transit corridors, where convenient access to bus service, nearby Caltrain commuter rail stations, and potential future High Speed Rail and Dumbarton commuter rail service would increase the use of the regional transit system and strengthen North Fair Oaks' connection to other parts of the Bay Area.

As described in chapter 3 (Project Description) of this EIR, the Plan Update includes various strategies and recommendations for transportation, urban design, zoning and development standards, infrastructure, and financing to support development of this vision for North Fair Oaks. Key transportation strategies in the Plan Update include the identification of key motorized and non-motorized connections, identification of potential improvements to enhance multi-modal access and connectivity, and development of transportation and parking goals and policies to support the objectives for the Plan area.

It should be noted that the proposed strategy for North Fair Oaks identifies potential locations for additional railroad crossings along the Caltrain line and future Dumbarton Rail line (currently the Southern Pacific Railroad spur) to improve connectivity and circulation for all travel modes within the Plan area. While these additional crossings are desired and would be effective in overcoming the existing barriers to connectivity that the railroad tracks create within North Fair Oaks, the request to provide new rail crossings is a process that requires significant coordination and ultimate approval by several regulatory agencies, including the California

Public Utilities Commission (CPUC). There may be potential to construct new grade-separated rail crossings in conjunction with infrastructure improvements for the California High Speed Rail and Dumbarton Rail Corridor projects; however, at this time no new grade-separated crossings are explicitly proposed within North Fair Oaks for either rail project. Most likely, any new railroad crossings within North Fair Oaks would need to be at-grade crossings.

16.4.3 Existing Plus Project Conditions

The Existing Plus Project traffic scenario is a hypothetical scenario that identifies impacts of the proposed Plan Update compared to existing conditions. The peak hour traffic volumes for this scenario were developed by adding the net new trips generated by buildout of the projected development capacity under the proposed Plan Update (see Table 3.1 in chapter 3, Project Description) to the existing traffic volumes. This scenario also evaluates potential ramifications to pedestrian, bicycle, and transit circulation.

It should be noted that potential new rail crossings were not assumed in the traffic analysis for the proposed Plan Update. While the addition of new rail crossings along the Caltrain and future Dumbarton Rail corridors is identified in the Plan Update as a desired improvement to enhance circulation and connectivity in within North Fair Oaks, it is unknown whether the implementation of new crossings is feasible or likely. The request for construction of new rail crossings is a process that requires significant environmental and safety review, as well as coordination and ultimate approval by several regulatory agencies, particularly the California Public Utilities Commission (CPUC).

There may be potential to construct new grade-separated rail crossings in conjunction with infrastructure improvements for the California High Speed Rail and Dumbarton Rail Corridor projects; however, no new grade-separated crossings are proposed within North Fair Oaks at this time. Most likely, any new railroad crossings within North Fair Oaks would need to be at-grade crossings, for which it can be challenging to receive approval. For this reason, the traffic analysis for the proposed project does not reflect any potential shifts in traffic patterns associated with proposed new at-grade rail crossings. Further, the overall traffic distribution patterns are not anticipated to change significantly, because the primary roadway network remains the same.

The additional trip generation for new development concentrated around potential new transit station on Middlefield Road is reflected in the traffic analysis for the proposed Plan Update. However, the potential trip generation associated with the new transit station is difficult to approximate at this stage in the planning process and could vary significantly depending on the types of transit systems serving the station (e.g., commuter rail, streetcar, light rail, bus rapid transit). Therefore, the potential trip generation associated with the new transit station was not included in the traffic analysis for the proposed project.

(a) Project Trip Generation. The Institute of Transportation Engineer's (ITE) *Trip Generation, 8th Edition*, was used to estimate daily and peak hour trip generation that can be attributed to the proposed Plan Update development scenario. Trip generation rates are the number of trips generated by a particular land use per an independent variable of dwelling units, employees, or square feet.

For purposes of determining the worst-case impacts of traffic on the surrounding street network, the trips generated by a proposed development are typically estimated between the critical peak

commute hours of 7:00-9:00 AM and 4:00-6:00 PM. While the project itself may generate more traffic during some other time of the day (such as around noon), the peak of "adjacent street traffic" represents the time period when the uses generally contribute to the greatest amount of congestion, with the PM peak commonly being the greatest congestion period. This methodology is consistent with typical County practice.

Because development in the Plan area would consist of the redevelopment and intensification of existing land uses, estimates of the "net new external" vehicle trips generated by the proposed project equals the total trip generation within the Plan area with buildout under the Plan Update, minus the trip generation of existing uses.

(1) Internal Capture. With multi-use development, there is the potential for interaction among uses within a site. These types of trips are considered internal to the site and are "captured" within the site. Trip estimates for the proposed Plan Update were reduced to account for mixed-use internal capture based on ITE's "Multi-Use Internalization Methodology" published in the Trip Generation Handbook, 2nd Edition. This reduction may be used to reflect the fact that some trips are made between different land uses when a site development, or adjacent development, contains a mix of complementary land use types (e.g., stores near an office). The trips are expected to remain internal to the project site or district and frequently do not require the use of an automobile. Internal capture reductions for each use within the mixed-use development opportunity areas were calculated separately based on ITE methodology.

(2) Project Transit Trip Reduction. Developments constructed within viable walking distance (generally within 1/3-mile) to existing transit systems typically have lower vehicular trip generation than developments with poor access to transit. Further, areas with well-connected and attractive pedestrian and bicycle networks create a greater propensity for walk and bike travel. In order to account for the potential transit, walk, and bike mode share that can be anticipated with the Plan Update, the following trip reductions were calculated for the land uses in the project as follows[1]:

- Residential: 11 percent,
- Office: 11 percent, and
- Retail: 3 percent.

(3) Project Pass-By Trips. Pass-by trips represent trips already on the road which stop as they pass by a site as a matter of convenience on their path to another destination. These trips enter and exit the site at the driveways but are not new trips to the study area. The most complete source of data regarding average pass-by rates for various land uses is the *Trip Generation Handbook*. A reduction was applied to the trip generation for retail uses within the Plan area to account for pass-by trips.

Trip generation was calculated based on the proposed development for each individual development opportunity area and then added together to estimate the overall Plan's trips. Table 16.4 presents the total trip generation for the Plan area. As noted in the table, the net new development within the Plan area would generate approximately 2,059 new AM peak hour trips and 2,873 new PM peak hour trips.

[1]Source of transit/walk/bike mode share for work-based trips: US Census Bureau, American Community Survey (ACS) 2005-2009, Journey to Work for North Fair Oaks Census Tracts.

Table 16.4
PROJECT TRIP GENERATION ESTIMATES

Land Use	ITE[1] Code	Units	Quantity	Daily	AM Peak In	AM Peak Out	AM Peak Total	PM Peak In	PM Peak Out	PM Peak Total
Existing Trip Generation				***51,020***	***2,020***	***2,129***	***4,149***	***2,590***	***2,825***	***5,415***
Trip Generation for Existing Uses + Project Development										
Residential (Single-Family)	210	DU	2,700	25,839	506	1,519	2,025	1,718	1,009	2,727
Residential (Multi-Family)	220	DU	4,702	31,268	480	1,918	2,398	1,895	1,020	2,915
Retail	820	KSF	680.00	29,199	415	265	680	1,245	1,295	2,540
Office	710	KSF	335.00	3,688	457	62	519	85	414	499
Industrial (General)	110	KSF	1,270.00	8,852	1,028	140	1,168	148	1,084	1,232
Industrial (R&D)[2]	110/710	KSF	215.00	1,933	234	32	266	32	232	264
Institutional (Community/Schools)[2]	N/A	KSF	110.00	4,518	93	50	143	237	274	511
Total Unadjusted Trip Generation				***105,297***	***3,213***	***3,986***	***7,199***	***5,360***	***5,328***	***10,688***
Internal Trip Adjustment[3]				(13,194)	(156)	(156)	(312)	(601)	(601)	(1,202)
Reduction for Transit/Walk/Bike[4]				(7,454)	(211)	(389)	(600)	(422)	(346)	(768)
Reduction for Retail Pass-by (Daily-15%,AM-15%,PM-24%)[5]				(3,401)	(40)	(39)	(79)	(215)	(215)	(430)
Total External Trips for Existing Uses + Project Development				***81,248***	***2,806***	***3,402***	***6,208***	***4,122***	***4,166***	***8,288***
Net New External Trips (Existing with Project Trips – Existing Trips)				**30,228**	**786**	**1,273**	**2,059**	**1,532**	**1,341**	**2,873**

SOURCE: Kimley-Horn and Associates, Inc., May 2011

Notes:
(1) Trip generation estimates calculated based on ITE's *Trip Generation, 8th Edition.*
(2) See detailed Trip Generation Calculations in traffic report appendix for assumptions and methodology regarding trip generation for Industrial (R&D) and Institutional uses. Available at San Mateo County Planning and Building Department.
(3) Calculations for Mixed-Use Internal Capture and retail Pass-by are based on ITE *Trip Generation Handbook, 2nd Edition.* Mixed-Use Internal Capture reductions applied to residential/retail/office uses only. No Internal Capture reductions are applied to Industrial or Institutional uses.
(4) Source of Transit/Walk/Bike Mode Split Data: US Census Bureau, American Community Survey (ACS) 2005-2009, Journey to Work for North Fair Oaks Census Tracts.
- 11% Transit/Walk/Bike Split used for Residential, Office and Institutional uses (per ACS Survey Journey-to-Work data).
- 3% Transit/Walk/Bike split assumed for Retail and Industrial uses (reduced to reflect typically lower non-auto mode split for these uses).

(5) A retail Pass-by percentage of 15% is assumed for Daily and AM Peak Hour scenarios, where no rate is given, per Caltrans TIA Standards, 2002.

(b) Project Trip Distribution and Assignment. Project distribution was developed based on existing traffic count information, traffic volumes in the C/CAG travel demand model, and the general orientation of similar land uses to the Plan area and population and employment sources to the stud area. Figure 16.7 presents the traffic distributions assumed for this traffic analysis.

The net new trips generated by the development of the Plan Update were assigned to the roadway network on the basis of the trip distribution and the likely travel patterns to and from the Plan area. The results of the Plan's peak hour traffic assignment are illustrated on Figure 16.8.

(c) Intersection Operations. Each study intersection was analyzed using the proposed intersection geometry and traffic control illustrated on Figure 16.3. Using the trip generation from Table 16.4 and the trip distribution percentages from Figure 16.7, the net new project trips were calculated and added to the existing traffic volumes to develop the existing plus project traffic volumes. Figure 16.9 illustrates the Existing Plus Project peak hour volumes. Results of the capacity analysis are shown in Table 16.5.

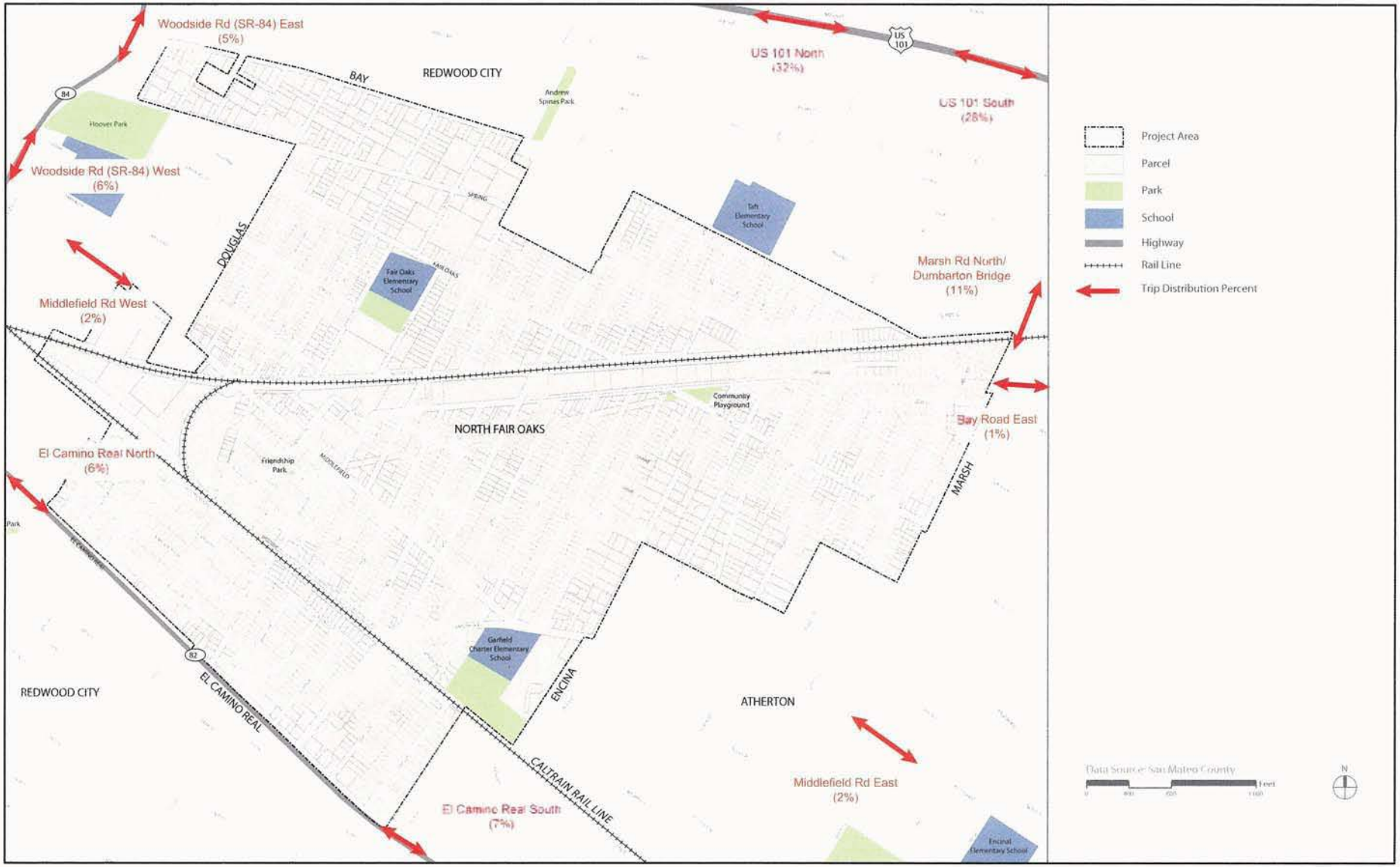
(d) Existing Plus Project Conditions Impacts and Mitigation Measures

As shown previously in Table 16.5, the ten study intersections under Existing Plus Project Conditions would continue to operate at acceptable levels of service, except for the following intersections:

- El Camino Real and Fifth Avenue (AM Peak),
- Middlefield Road and Woodside Road (PM Peak),
- Middlefield Road and Fifth Avenue (AM and PM Peak),
- Middlefield Road and Semicircular Road (AM and PM Peak),
- Fifth Avenue and Bay Road (AM and PM Peak), and
- Bay Road and Woodside Road (AM and PM Peak).

The intersections of El Camino Real/Fifth Avenue, Middlefield Road/Woodside Road, Fifth Avenue/Bay Road, and Bay Road/Woodside Road operate at acceptable LOS under Existing Conditions. By adding the trips generated by the Plan Update scenario, the intersections would operate at an unacceptable level. The intersections of Middlefield Road/Fifth Avenue and Middlefield Road/Semicircular Road currently operate at LOS E under Existing Conditions during the PM peak hour and AM peak hour, respectively. However, the Plan Update scenario would add trips to the intersections, which would contribute to their continuing unacceptable operation.

Impact 16-1: El Camino Real/Fifth Avenue Intersection Impacts. Under Existing Plus Project conditions, intersection operations would deteriorate from acceptable LOS C (existing) to unacceptable LOS D during the AM peak hour, which would represent a ***potentially significant impact*** under Caltrans criteria (see "Caltrans Intersections" in subsection 16.4.1, "Significance Criteria," above).



SOURCE: Wagstaff/MIG; Kimley-Horn and Associates, Inc.

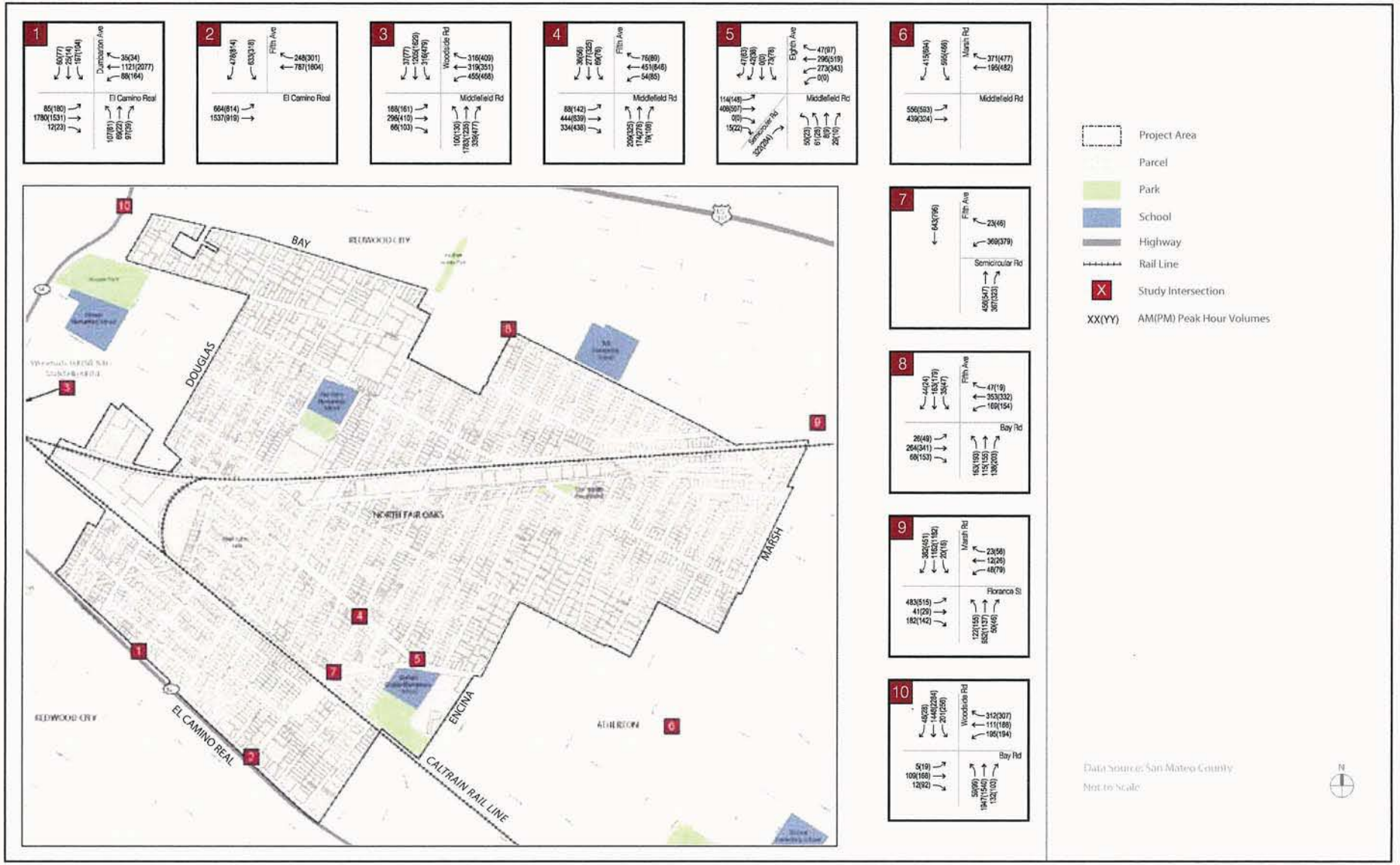
Figure 16.7

TRIP DISTRIBUTION

SOURCE: Wagstaff/MIG; Kimley-Horn and Associates, Inc.

Figure 16.8

TRIP ASSIGNMENT



SOURCE: Wagstaff/MIG; Kimley-Horn and Associates, Inc.

Figure 16.9

EXISTING PLUS PROJECT AM AND PM PEAK HOUR INTERSECTION VOLUMES

Table 16.5
EXISTING PLUS PROJECT CONDITIONS – INTERSECTION LEVELS OF SERVICE

Intersection (*Jurisdiction*)	Traffic Control	Peak Hour	Existing Conditions Avg. Delay[1]	Existing Conditions LOS[2]	Existing Plus Project Avg. Delay[1]	Existing Plus Project LOS[2]	LOS Standard[3]	Significant Impact
1. El Camino Real(SR 82)/ Dumbarton Avenue *(CT)*	Signal	AM	25.7	C	28.7	C	C	No
		PM	17.8	B	20.2	C		
2. El Camino Real/Fifth Avenue *(CT)*	Signal	AM	30.1	C	**41.0**	**D**	C	**Yes**
		PM	20.6	C	25.5	C		
3. Middlefield Road/ Woodside Road (SR 84) *(CMP)*	Signal	AM	36.0	D	63.3	E	E	**Yes**
		PM	44.9	D	**111.9**	**F**		
4. Middlefield Road/Fifth Avenue *(SMC)*	Signal	AM	32.3	C	**110.8**	**F**	D	**Yes**
		PM	**55.9**	**E**	**212.4**	**F**		
5. Middlefield Road/ Semicircular Road *(SMC)*	Signal	AM	**56.3**	**E**	**90.5**	**F**	D	**Yes**
		PM	42.2	D	**130.6**	**F**		
6. Middlefield Road/Marsh Road *(ATH)*	Signal	AM	27.9	C	33.0	C	D	No
		PM	30.8	C	41.8	D		
7. Fifth Avenue/Semicircular Road *(SMC)*	Signal	AM	10.4	B	10.8	B	D	No
		PM	11.1	B	11.7	B		
8. Fifth Avenue/Bay Road *(RC)*	AWSC	AM	27.5	D	**76.4**	**F**	D	**Yes**
		PM	23.9	C	**62.0**	**F**		
9. Marsh Road/Florence Street *(MP)*	Signal	AM	29.4	C	38.3	D	D	No
		PM	30.2	C	41.2	D		
10. Bay Road/Woodside Road (SR 84) *(CT)*	Signal	AM	20.5	C	**37.5**	**D**	C	**Yes**
		PM	24.9	C	**70.5**	**E**		

SOURCE: Kimley-Horn and Associates, Inc., May 2011

Notes:

1. Whole-intersection-weighted average total delay for signalized and all-way stop-controlled intersections (expressed in seconds per vehicle).
2. LOS calculations performed using the 2000 *Highway Capacity Manual*.
3. LOS standard for County of San Mateo, City of Redwood City, City of Menlo Park, Caltrans, and C/CAG CMP.
4. Unacceptable operations are indicated in **bold** type.
5. AWSC – All-Way Stop Controlled.
6. Jurisdictions: SMC = San Mateo County, ATH = Atherton, RC = Redwood City, MP = Menlo Park, CT = Caltrans, CMP = C/CAG Congestion Management Program

Mitigation 16-1. Restripe the southbound approach to one dedicated left turn lane, one dedicated right turn lane, and one shared left turn/right turn lane. This mitigation would improve the intersection to LOS C during the AM peak hour and therefore would reduce the project impact to a ***less-than-significant level***.

Impact 16-2: Middlefield Road/Woodside Road Intersection Impacts. Under Existing Plus Project conditions, intersection operations would deteriorate from acceptable LOS D (existing) to unacceptable LOS F during the PM peak hour, which would represent a ***potentially significant impact*** under C/CAG criteria (see "CMP Facilities" in subsection 16.4.1, "Significance Criteria," above).

Mitigation 16-2. Modify traffic signal operations to include a westbound right turn overlap phase and a northbound right turn overlap phase. This mitigation would improve the intersection to LOS E during the PM peak hour and therefore would reduce the project impact to a ***less-than-significant level***.

Impact 16-3: Middlefield Road/Fifth Avenue Intersection Impacts. Under Existing Plus Project conditions, intersection operations would deteriorate from acceptable LOS C (existing) to unacceptable LOS F during the AM peak hour, and from unacceptable LOS E (existing) to unacceptable LOS F during the PM peak hour, which would represent a ***potentially significant impact*** under San Mateo County criteria (see "San Mateo County Intersections" in subsection 16.4.1, "Significance Criteria," above).

Mitigation 16-3. In the northbound and southbound directions, prohibit on-street parking within the vicinity of the intersection, shift the through/right turn lane and stripe a dedicated left turn lane; modify traffic signal operations from split phase to concurrent northbound and southbound travel with protected left turn phasing; prohibit parking in the eastbound direction within the vicinity of the intersection and stripe a dedicated eastbound right turn lane. This mitigation would improve the intersection to LOS C during the AM peak hour, and therefore would reduce the project impact to a ***less-than-significant level***.

Impact 16-4: Middlefield Road/Semicircular Road Intersection Impacts. Under Existing Plus Project conditions, intersection operations would deteriorate from unacceptable LOS E (existing) to unacceptable LOS F during the AM peak hour, and from unacceptable LOS D (existing) to unacceptable LOS F during the PM peak hour, which would represent a ***potentially significant impact*** under San Mateo County criteria (see "San Mateo County Intersections" in subsection 16.4.1, "Significance Criteria," above).

Mitigation 16-4. In the eastbound direction, prohibit on-street parking within the vicinity of the intersection, and stripe a dedicated left turn lane, resulting in one left turn lane, one through lane, and one shared through/right turn lane; modify traffic signal operations to the following phases:

- Phase 1: NE Semicircular Rd through movement and WB Middlefield Rd through and unprotected left (as exists currently)
- Phase 2: EB Middlefield Rd through phase and WB Middlefield Rd through and unprotected left turn
- Phase 3: EB Middlefield Rd through and protected left turn
- Phase 4: Pedestrian only phase for Semicircular Rd crossing (as exists currently)
- Phase 5: NB and SB phases with unprotected left turns (as exists currently)

This mitigation would improve the intersection to LOS D during the AM and PM peak hours, and therefore would reduce the project impact to a ***less-than-significant level***.

Impact 16-5: Fifth Avenue/Bay Road Intersection Impacts. Under Existing Plus Project conditions, intersection operations would deteriorate from acceptable LOS D (existing) to unacceptable LOS F during the AM peak hour, and from acceptable LOS C (existing) to unacceptable LOS F during the PM peak hour, which would represent a ***potentially significant impact*** under City of Redwood City criteria (see "Redwood City Intersections" in subsection 16.4.1, "Significance Criteria," above).

Mitigation 16-5. The Redwood City Traffic Impact Mitigation Fee Program includes the installation of a traffic signal at this intersection as a planned capital improvement. As a condition of approval for future individual discretionary development projects within the Plan area, require project fair-share contribution toward the installation of this traffic signal. This mitigation would improve the intersection to LOS C during the AM peak hour, and therefore would reduce the project impact to a ***less-than-significant level***.

Impact 16-6: Bay Road/Woodside Road Intersection Impacts. Under Existing Plus Project conditions, intersection operations would deteriorate from acceptable LOS C (existing) to unacceptable LOS D during the AM peak hour, and from acceptable LOS C (existing) to unacceptable LOS E during the PM peak hour, which would represent a ***potentially significant impact*** under Caltrans criteria (see "Caltrans Intersections" in subsection 16.4.1, "Significance Criteria," above).

Mitigation 16-6. The MTC Transportation 2035 Plan and the Redwood City Traffic Impact Mitigation Fee Program identify the widening of Woodside Road to six travel lanes between El Camino Real and US 101 as a planned capital improvement. As a condition of approval for future individual discretionary development projects within the Plan area, require project fair-share contribution toward the addition of a southbound through lane and optimization of cycle length. This mitigation would improve the intersection to LOS C during the AM and PM peak hours, and therefore would reduce the project impact to a ***less-than-significant level***.

The Existing Plus Project and Existing Plus Project Plus Mitigation levels of service are summarized in Table 16.6.

Pedestrian and Bicycle Facilities Impacts. Implementation of the project would generate pedestrian and bicycle trips, which would use the existing and planned circulation network in the Community Plan area.

As noted in subsection 16.4.1, "Significance Criteria," the Plan Update would be considered to have a significant impact if it conflicted with adopted policies, plans, and programs supporting alternative transportation (e.g., bicycle racks) or generated pedestrian and bicycle travel demand that would not be accommodated by current pedestrian and bicycle facilities.

Currently, sidewalks and pedestrian paths exist along the vast majority of roadways within the Plan area. Further, the Plan Update would enhance pedestrian conditions in several ways (see Figure 16.6 above):

- The Plan Update would set standards for pedestrian-oriented street design features, such as wider sidewalks, landscaping and streetscape improvements, curb extensions at some

Table 16.6
EXISTING PLUS PROJECT MITIGATION--INTERSECTION LEVELS OF SERVICE

Intersection (*Jurisdiction*)	Traffic Control	Peak Hour	Existing Conditions Avg. Delay[1]	Existing Conditions LOS[2]	Existing Plus Project Avg. Delay[1]	Existing Plus Project LOS[2]	Existing Plus Project Plus Mitigation Avg. Delay[1]	Existing Plus Project Plus Mitigation LOS[2]
2. El Camino Real/Fifth Avenue *(CT)*	Signal	AM	30.1	C	**41.0**	**D**	23.7	C
		PM	20.6	C	25.5	C	22.7	C
3. Middlefield Road/ Woodside Road (SR 84) *(CMP)*	Signal	AM	36.0	D	63.3	E	51.5	D
		PM	44.9	D	**111.9**	**F**	67.4	E
4. Middlefield Road/Fifth Avenue *(SMC)*	Signal	AM	32.3	C	**110.8**	**F**	33.3	C
		PM	**55.9**	**E**	**212.4**	**F**	54.2	D
5. Middlefield Road/ Semicircular Road *(SMC)*	Signal	AM	**56.3**	**E**	**90.5**	**F**	51.7	D
		PM	42.2	D	**130.6**	**F**	45.9	D
8. Fifth Avenue/Bay Road *(RC)*	Signal	AM	27.5	D	**76.4**	**F**	38.5	D
		PM	23.9	C	**62.0**	**F**	36.2	D
10. Bay Road/Woodside Road (SR 84) *(CT)*	Signal	AM	20.5	C	**37.5**	**D**	29.8	C
		PM	24.9	C	**70.5**	**E**	31.8	C

SOURCE: Kimley-Horn and Associates, Inc., May 2011

Notes:

1. Whole-intersection-weighted average total delay for signalized and all-way stop-controlled intersections (expressed in seconds per vehicle).
2. LOS calculations performed using the 2000 *Highway Capacity Manual.*
3. LOS standard for County of San Mateo, City of Redwood City, City of Menlo Park, Caltrans, and C/CAG CMP.
4. Unacceptable operations are indicated in **bold** type.
5. AWSC – All-Way Stop Controlled.
6. Jurisdictions: SMC = San Mateo County, ATH = Atherton, RC = Redwood City, MP = Menlo Park, CT = Caltrans, CMP = C/CAG Congestion Management Program

intersections to shorten crossing distances, high-visibility crosswalk markings, and pedestrian-scaled lighting.

- The Plan Update would set standards for new building frontages to provide an attractive and comfortable environment for pedestrians.

- The Plan Update would promote a mix of uses in new developments, which would bring trip origins and destinations closer together to encourage walking.

- The Plan Update would recommend directional and wayfinding signage to direct pedestrians to key destinations.

As summarized above, the Plan Update includes recommendations and strategies to enhance pedestrian facilities within North Fair Oaks. The Plan Update would potentially generate pedestrian demand; however, the Plan Update is not anticipated to interfere with any of existing or planned pedestrian facilities.

Currently, there are several bicycle facilities within the Plan area. There are also several planned and proposed bicycle facilities within the Plan area, as identified in the County's current bicycle plan. In addition, the Plan Update includes recommendations to support implementation of currently planned bicycle improvements and identifies several strategies to further enhance the connectivity of the bicycle system within North Fair Oaks. The Plan Update includes recommendations to explore the opportunity to provide additional on-street and off-street bicycle facilities to connect to the regional bike network, as well as recommendations to provide enhanced bicycle amenities, such as secure bicycle storage areas within areas of high bicycle activity, such as the Middlefield Road mixed-use district and the proposed multi-modal transit station. The Existing Plus Project traffic impact scenario and Project area access improvements would not create any significant adverse changes to the existing or planned bicycle facilities.

The proposed project would not interfere with existing or planned pedestrian or bicycle facilities. Thus, the project's impact on pedestrian and bicycle facilities is determined to be ***less than significant***.

Mitigation. No significant impact has been identified; no mitigation is required.

Impact 16-7: Transit Facilities Impacts. The Existing Plus Project scenario would generate additional transit trips, which would place substantial additional demands on the existing and planned SamTrans, Caltrain and High Speed Rail Authority transit network in the Plan area. This would represent a ***potentially significant impact*** (see "Transit System Thresholds of Significance" in subsection 16.4.1, "Significance Criteria," above).

The North Fair Oaks Community Plan encourages the integration of land use and transit, with a mixture and density of uses that would support transit ridership, viability, and high service levels. With the proposed land use plan, higher-density mixed-use development would be intensified along the El Camino Real and Middlefield Road transit corridors and around the potential new

transit station. The vision of the Plan is to better integrate future development with the existing and future transit system in order to promote transit use as the primary mode of transportation.

The Community Plan includes recommendations to support improvements to transit service in the area including, but not limited to the following:

- Explore the potential to reduce headways and add new stops for existing SamTrans bus routes serving North Fair Oaks.

- Support plans for future projects to improve transit service within the area and to create key stations/stops/transit hubs within North Fair Oaks. Potential transit projects in the area include:

  - Proposed new multi-modal transit station within the Plan area with the potential to accommodate high-frequency bus service and potentially Caltrain or Dumbarton Rail passenger rail service if the opportunity arises;

  - SamTrans long-range plans for potential high-frequency Bus Rapid Transit (BRT) service on El Camino Real (SR 82);

  - Potential streetcar or light-rail service along Middlefield Road (as identified in the Redwood City General Plan) and/or Fifth Avenue; and

  - California High Speed Rail.

- Explore the potential for re-routing of existing bus service, or the potential to provide a new local circulator route, to provide better north-south connectivity between the bus routes on El Camino Real, Middlefield Road and Bay Road. Fifth Avenue would be a logical route, as it serves as the only continuous north-south connection through North Fair Oaks.

The Plan also recommends that bus stops within the Plan area be enhanced with transit amenities such as shelters, benches, lighting, and information displays.

The Plan recommends transit improvements and provides for a mix of land uses and a character of development that is supportive of transit. However, buildout of the proposed land use program would generate additional transit trips, which would place additional demand on Caltrain, SamTrans, shuttle service, as well as potential future service such as the streetcar proposed in the Redwood City General Plan, High Speed Rail service and the proposed Dumbarton Rail service. Therefore, the transit impacts of the Community Plan would considered be a significant impact.

Mitigation 16-7. The County shall coordinate with SamTrans, Caltrain, the High Speed Rail Authority, and other appropriate transit authorities to ensure that existing and future transit services within the vicinity of North Fair Oaks are capable of accommodating potential Plan Update-related increases in transit demand. Given the anticipated long-term Plan area buildout period and the uncertainty of the existing and proposed transit facilities, equipment, and services beyond the County's jurisdiction, it cannot be determined at this time whether service improvements would be implemented concurrently with increase demand such that acceptable service levels would be maintained. Therefore, the impacts of the Community Plan on transit service are currently deemed to be ***significant and unavoidable***.

Impact 16-8: Safety Impacts at At-Grade Railroad Crossings. Development facilitated by the Plan Update may result in substantial additional automobile, bicycle, and/or pedestrian traffic at existing at-grade railroad crossings in the Plan area vicinity and potentially contribute to safety issues at these railroad crossings. This would represent a ***potentially significant impact*** (see criterion (4) in subsection 16.4.1, "Significance Criteria," above).

Development facilitated by the Plan Update may result in additional vehicle, bicycle, and/or pedestrian traffic at existing at-grade railroad crossings, thereby potentially contributing to safety issues along the railroad corridor. For example, automobile traffic generated by new developments may increase vehicle queues at intersections near the railroad crossings. The additional traffic may result in queues backing up onto at-grade railroad crossings, possibly resulting in a higher potential for train-related collisions. A substantial increase in traffic generated by the project may increase hazards that occur between incompatible uses (i.e., motor vehicles and trains, or pedestrians and trains).

There are four at-grade railroad crossings in the Plan area vicinity along the future Dumbarton Rail service. Considering that this EIR is a programmatic review that cannot analyze impacts from specific projects at particular locations, no detailed analysis, such as vehicle queuing near at-grade railroad crossings, is feasible at this time.

Mitigation 16-8. As a condition of approval for future individual discretionary development projects within the Plan area that would generate substantial additional multi-modal trip (i.e., motor vehicles or pedestrians) crossing volume at at-grade railroad crossings in the project vicinity, require project implementation of the following:

- Transportation Impact Studies (TIS) for At-Grade Railroad Crossings. The TIS, otherwise required to be prepared for proposed developments under the Community Plan Update, in accordance with standard City policies and practices, will evaluate potential impacts to at-grade railroad crossings resulting from project-related traffic. The TIS shall examine whether the proposed development would generate substantial multi-modal trips crossing at-grade railroad crossings which could substantially increase hazards between incompatible uses (e.g., motor vehicles and trains, pedestrians and trains). Such analysis may include a Diagnostic Review for each railroad crossing.

- If required, the Diagnostic Review must be completed with all affected properties and stakeholders, in coordination with the California Public Utilities Commission (CPUC). It will include: roadway and rail descriptions; collision history; traffic volumes for all modes; train volumes; vehicular speeds; train speeds; and existing rail and traffic controls. Based on the Diagnostic Review and the number of projected trips, the TIS will evaluate if the proposed development increases hazards at the crossing. For example, vehicle traffic generated by a proposed development may cause vehicle queuing at intersections resulting in traffic spilling back onto at-grade railroad crossings.

- Where the TIS identifies substantially hazardous crossing conditions caused by the proposed development, mitigations relative to the development's contribution to the crossing, as necessary, shall be applied through project redesign and/or incorporation of improvements to reduce potential adverse impacts. Proposed improvements must be coordinated with CPUC and affected railroads and all necessary permits/approvals obtained, including a GO 88-B Request (Authorization to Alter Highway Rail Crossings). These improvements may include:

  - installation of additional warning signage;
  - improvements to warning devices at existing rail crossings;
  - installation or improvement to automobiles and/or pedestrian control gates;
  - installation of concrete panels to provide a smooth crossing surface;
  - reduction in the flangeway gap to improve pedestrian and bicyclist safety;
  - installation of median separation to prevent vehicles from driving around railroad crossings;

(continued)

Mitigation 16-8 (continued):

- improvements to traffic signaling at intersections adjacent to crossings (e.g., signal preemption);
- prohibition of parking within 100 feet of the crossings to improve the visibility of warning devices and approaching trains;
- where soundwalls, landscaping, buildings, etc., would be installed near crossings, maintain the visibility of warning devices and approaching trains;
- elimination of driveways near crossings;
- installation of vandal-resistant fencing or walls to limit the access of pedestrians onto the railroad right-of-way; and/or
- installation of grade separations at crossings.

This mitigation measure shall be applied by the County on individual development projects (case-by-case), as appropriate. The incorporation of improvements identified in this mitigation measure could reduce the development's impact to the at-grade railroad crossing to a less-than-significant level. However, to the extent that installation of safety mechanisms is not feasible (physically, financially or otherwise), impacts would remain significant and unavoidable. More detailed individual project-specific analysis of this impact and effectiveness of the mitigation measure at specific at-grade railroad crossings is not feasible in this programmatic EIR; therefore, it is conservatively concluded that this mitigation measure may not mitigate the identified significant impact to a less-than-significant level, and the impact remains potentially significant and unavoidable. Therefore, this EIR conservatively identifies the Plan Update impact on railroad crossing safety as ***significant and unavoidable***.

16.4.8 Cumulative (2035) No Project Conditions

Cumulative (2035) traffic volumes at the study intersections and roadways were derived from the travel demand forecasting model used for the recently certified Redwood City General Plan EIR. The Redwood City General Plan traffic model was derived from the broader C/CAG travel demand forecasting model, which reflects General Plan-based local and regional development, population, housing and employment forecasts. Land use data is included in the model at a traffic analysis zone (TAZ) level of detail. Model trip generation is performed with algorithms that reflect land use, population, employment, income levels, auto ownership, persons per household, and other socio-economic factors specific to the area.

The model has been used in this EIR analysis to forecast weekday AM and PM peak hour volumes for the Cumulative (2035) No Project scenario.

Most of the key roadways in the Plan area are detailed in the current C/CAG model; however, some local streets within the Plan area and vicinity are not accurately represented. For local streets that are not accurately detailed in the model but can be reasonably anticipated to

experience some growth in local traffic, an average annual without project base growth rate of approximately 0.5 percent was assumed. This methodology is considered conservative since local streets are not anticipated to experience the same level of background growth in traffic as major streets. Projected Cumulative conditions intersection geometry and traffic control are shown on Figure 16.10, and projected Cumulative No Project traffic volumes are shown on Figure 16.11.

(a) Intersection Operations. Each study intersection was analyzed for the Cumulative (2035) No Project scenario based on the intersection geometry and traffic control illustrated on Figure 16.10 and the volumes shown on Figure 16.11. The results of the analysis are summarized in Table 16.7. As shown, the following two study intersections are projected to deteriorate to unacceptable levels of service during a peak hour under Cumulative No Project conditions (i.e., prior to adding trips generated by the proposed Plan Update):

- El Camino Real and Fifth Avenue (AM Peak), and
- Middlefield Road and Fifth Avenue (PM Peak).

16.4.9 Cumulative (2035) Plus Project Conditions

Turning movement volumes for the Cumulative (2035) Plus Project scenario were calculated by adding the net new trips generated under the Community Plan Update scenario to the Cumulative No Project Conditions. The Cumulative Plus Project traffic volumes are shown on Figure 16.12.

(a) Intersection Operations. Each study intersection was analyzed based on the proposed intersection geometry and traffic control illustrated on Figure 16.10 and the peak hour turning movement volumes shown in Figure 16.12. Results of the analysis are shown in Table 16.8.

(b) Cumulative (2035) Plus Project Conditions Impacts and Mitigation Measures. Traffic generated by the project would affect levels of service at study intersections under Cumulative Plus Project conditions. As shown on Table 16.8, net new traffic generated under the Plan Update scenario would significantly affect levels of service at the following study intersections:

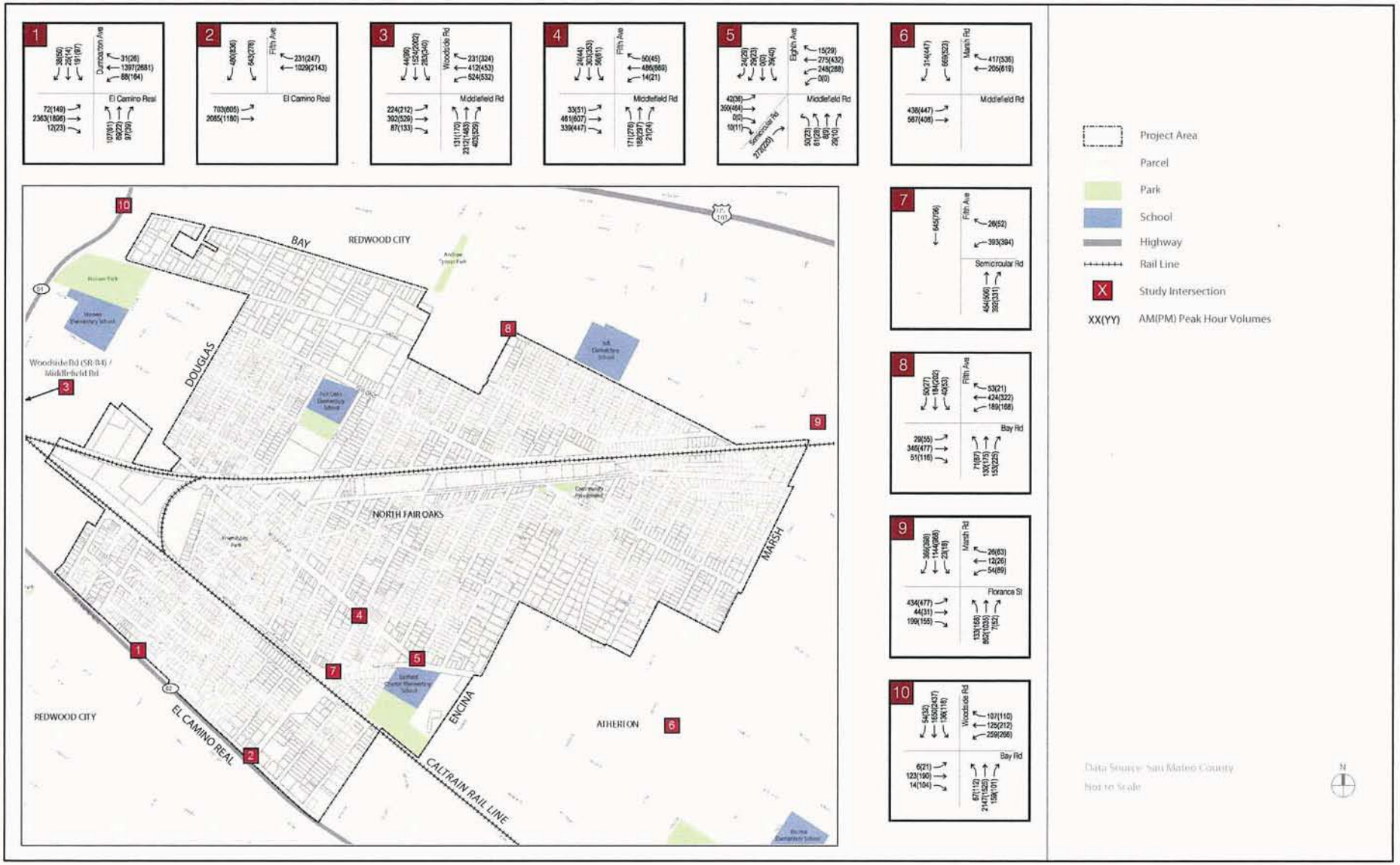
- El Camino Real and Fifth Avenue (AM and PM Peak),
- Middlefield Road and Woodside Road (AM and PM Peak),
- Middlefield Road and Fifth Avenue (AM and PM Peak),
- Middlefield Road and Semicircular Road (AM and PM Peak),
- Middlefield Road and Marsh Road (AM and PM Peak), and
- Bay Road and Woodside Road (AM and PM Peak).

The intersections of Middlefield Road/Woodside Road, Middlefield Road/Semicircular Road, Middlefield Road/Marsh Road and Woodside Road/Bay Road are projected to operate at acceptable LOS under Cumulative No Project conditions. However, by adding the net new trips generated by the Plan Update, the intersections would operate at an unacceptable level. The

SOURCE: Wagstaff/MIG; Kimley-Horn and Associates, Inc.

Figure 16.10

CUMULATIVE (2035) INTERSECTION GEOMETRY AND TRAFFIC CONTROL



SOURCE: Wagstaff/MIG; Kimley-Horn and Associates, Inc.

Figure 16.11

CUMULATIVE (2035) NO PROJECT PEAK HOUR INTERSECTION VOLUMES

Table 16.7
CUMULATIVE (2035) NO PROJECT CONDITIONS--INTERSECTION LEVELS OF SERVICE

Intersection (*Jurisdiction*)	Traffic Control	Peak Hour	Average Delay[1]	LOS[2]	LOS Standard[3]
1. El Camino Real(SR 82)/Dumbarton Avenue *(CT)*	Signal	AM	25.0	C	C
		PM	19.3	B	
2. El Camino Real/Fifth Avenue *(CT)*	Signal	AM	**37.0**	**D**	C
		PM	30.7	C	
3. Middlefield Road/Woodside Road (SR 84) *(CMP)*	Signal	AM	61.4	E	E
		PM	69.7	E	
4. Middlefield Road/Fifth Avenue *(SMC)*	Signal	AM	30.5	C	D
		PM	**83.9**	**F**	
5. Middlefield Road/Semicircular Road *(SMC)*	Signal	AM	50.2	D	D
		PM	49.2	D	
6. Middlefield Road/Marsh Road *(ATH)*	Signal	AM	33.0	C	D
		PM	50.5	D	
7. Fifth Avenue/Semicircular Road *(SMC)*	Signal	AM	10.3	B	D
		PM	11.6	B	
8. Fifth Avenue/Bay Road *(RC)*	Signal	AM	33.1	C	D
		PM	38.4	D	
9. Marsh Road/Florence Street *(MP)*	Signal	AM	29.5	C	D
		PM	31.1	C	
10. Bay Road/Woodside Road (SR 84) *(CT)*	Signal	AM	25.5	C	C
		PM	31.6	C	

SOURCE: Kimley-Horn and Associates, Inc., May 2011

Notes:

1. Whole-intersection-weighted average total delay for signalized and all-way stop-controlled intersections (expressed in seconds per vehicle).
2. LOS calculations performed using the 2000 *Highway Capacity Manual.*
3. LOS standard for County of San Mateo, City of Redwood City, City of Menlo Park, Caltrans, and C/CAG CMP.
4. Unacceptable operations are indicated in **bold** type.
5. AWSC – All-Way Stop Controlled.
6. Jurisdictions: SMC = San Mateo County, ATH = Atherton, RC = Redwood City, MP = Menlo Park, CT = Caltrans, CMP = C/CAG Congestion Management Program

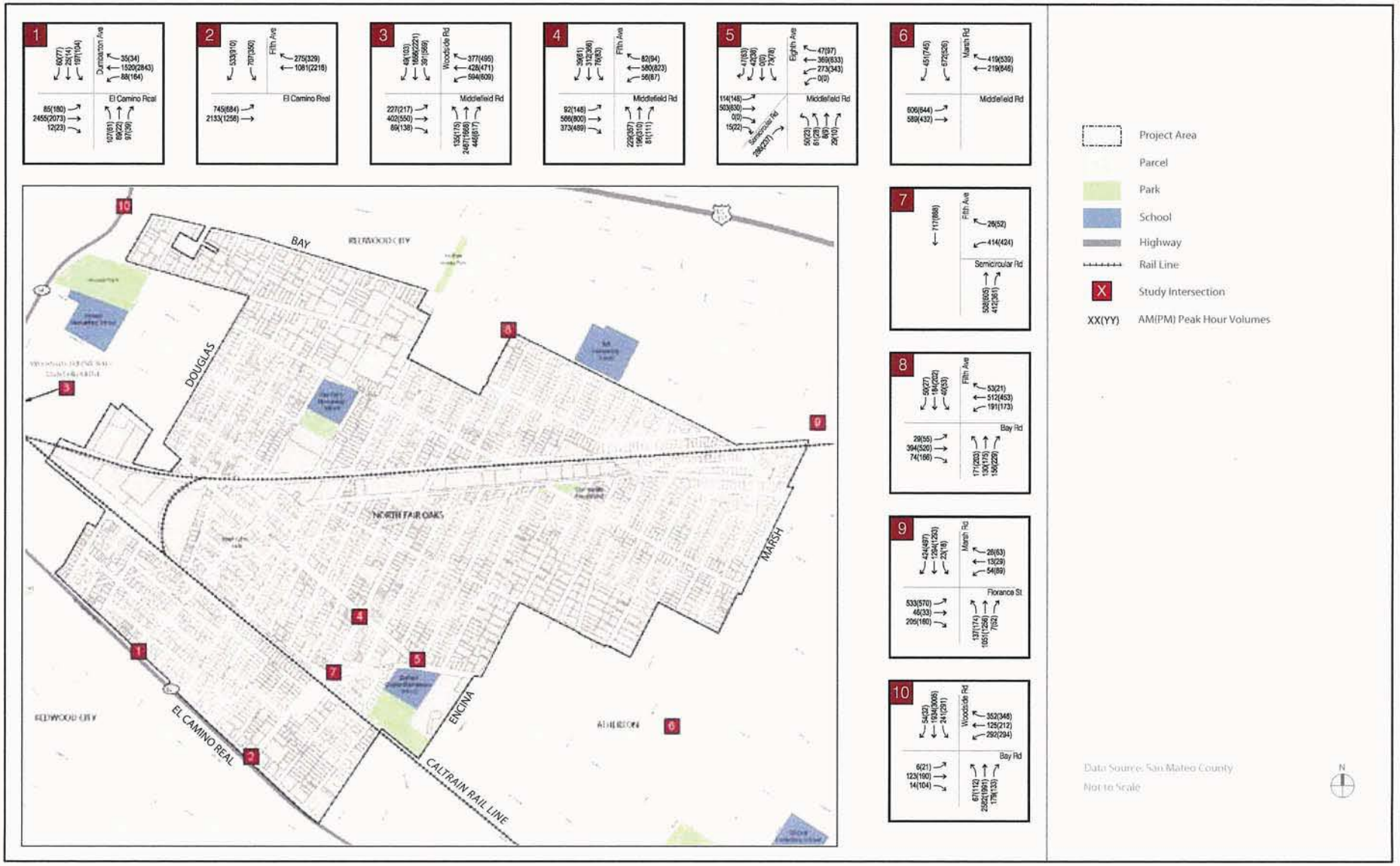
Table 16.8
CUMULATIVE (2035) PLUS PROJECT CONDITIONS--INTERSECTION LEVELS OF SERVICE

Intersection (*Jurisdiction*)	Traffic Control	Peak Hour	Cumulative No Project Avg. Delay[1]	Cumulative No Project LOS[2]	Cumulative Plus Project Avg. Delay[1]	Cumulative Plus Project LOS[2]	LOS Standard[3]	Significant Impact
1. El Camino Real(SR 82)/ Dumbarton Avenue *(CT)*	Signal	AM	25.0	C	29.7	C	C	No
		PM	19.3	B	27.1	C		
2. El Camino Real/Fifth Avenue *(CT)*	Signal	AM	**37.0**	**D**	**50.1**	**D**	C	**Yes**
		PM	30.7	C	**53.0**	**D**		
3. Middlefield Road/ Woodside Road (SR 84) *(CMP)*	Signal	AM	61.4	E	**87.4**	**F**	E	**Yes**
		PM	69.7	E	**115.7**	**F**		
4. Middlefield Road/Fifth Avenue *(SMC)*	Signal	AM	30.5	C	**57.6**	**E**	D	**Yes**
		PM	**83.9**	**F**	**254.5**	**F**		
5. Middlefield Road/ Semicircular Road *(SMC)*	Signal	AM	50.2	D	**70.4**	**E**	D	**Yes**
		PM	49.2	D	**112.4**	**F**		
6. Middlefield Road/Marsh Road *(ATH)*	Signal	AM	33.0	C	42.9	D	D	**Yes**
		PM	50.5	D	**77.5**	**E**		
7. Fifth Avenue/Semicircular Road *(SMC)*	Signal	AM	10.3	B	10.7	B	D	No
		PM	11.6	B	12.1	B		
8. Fifth Avenue/Bay Road *(RC)*	AWSC	AM	33.1	C	37.6	D	D	No
		PM	38.4	D	45.8	D		
9. Marsh Road/Florence Street *(MP)*	Signal	AM	29.5	C	39.9	D	D	No
		PM	31.1	C	53.3	D		
10. Bay Road/Woodside Road (SR 84) *(CT)*	Signal	AM	25.5	C	**74.6**	**E**	C	**Yes**
		PM	31.6	C	**94.6**	**F**		

SOURCE: Kimley-Horn and Associates, Inc., May 2011

Notes:

1. Whole-intersection-weighted average total delay for signalized and all-way stop-controlled intersections (expressed in seconds per vehicle).
2. LOS calculations performed using the 2000 *Highway Capacity Manual.*
3. LOS standard for County of San Mateo, City of Redwood City, City of Menlo Park, Caltrans, and C/CAG CMP.
4. Unacceptable operations are indicated in **bold** type.
5. AWSC – All-Way Stop Controlled.
6. Jurisdictions: SMC = San Mateo County, ATH = Atherton, RC = Redwood City, MP = Menlo Park, CT = Caltrans, CMP = C/CAG Congestion Management Program



SOURCE: Wagstaff/MIG; Kimley-Horn and Associates, Inc.

Figure 16.12

CUMULATIVE (2035) PLUS PROJECT PEAK HOUR INTERSECTION VOLUMES

intersections of El Camino Real/Fifth Avenue and Middlefield Road/Fifth Avenue are projected to operate at LOS D in the AM peak hour and LOS F in the PM peak hour, respectively, under the Cumulative (2035) No Project condition. The updated Plan would add trips to these two intersections, contributing to their already unacceptable operation.

Impact 16-9: Cumulative Plus Project Impact on El Camino Real/Fifth Avenue Intersection. Under Cumulative Plus Project conditions, intersection operations would deteriorate from an unacceptable LOS D (No Project, 37.0 seconds average delay) to unacceptable LOS D (50.1 seconds average delay) during the AM peak hour, and from acceptable LOS C (No Project) to unacceptable LOS D delay during the PM peak hour, which would represent a ***potentially significant impact*** under Caltrans criteria (see "Caltrans Intersections" in subsection 16.4.1, "Significance Criteria," above).

Mitigation 16-9. Implement Mitigation 16-1: restripe the southbound approach to one dedicated left turn lane, one dedicated right turn lane, and one shared left turn/right turn lane. Under the Cumulative Plus Project condition during the AM peak hour, this mitigation would result in a projected LOS C; however, during the PM peak hour, the intersection would still operate at LOS D.

Additional capacity would be needed at this intersection to mitigate the Cumulative Plus Project impact. Constructing additional lanes would require obtaining additional right-of-way and relocation of utilities, and would contradict the purpose of the Plan Update to create a pedestrian, bicycle, and transit-friendly environment. Achievement of an "acceptable" vehicular LOS standard at this intersection would not encourage development of the pedestrian-friendly, mixed-use, transit-oriented environment. Typically, construction of additional intersection lanes can worsen conditions for pedestrian and bicycle travel by increasing exposure to conflicts with vehicles and deteriorating the non-motorized environment. Also, since this intersection is controlled by Caltrans, this improvement would exceed the County's authority to implement. This impact is therefore considered ***significant and unavoidable***.

Impact 16-10: Cumulative Plus Project Impact on Middlefield Road/Woodside Road Intersection. Under Cumulative Plus Project conditions, intersection operations would deteriorate from an acceptable LOS E (No Project) to unacceptable LOS F during both the AM and PM peak hour, which would represent a ***potentially significant impact*** under C/CAG criteria (see "CMP Facilities" in subsection 16.4.1, "Significance Criteria," above).

Mitigation 16-10. Implement Mitigation 16-2: modify traffic signal operations to include a westbound right turn overlap phase and a northbound right turn overlap phase. This mitigation would improve the intersection to LOS E during the AM and PM peak hours and would therefore reduce the project impact to a ***less-than-significant level***.

Impact 16-11: Cumulative Plus Project Impact on Middlefield Road/Fifth Avenue Intersection. Under Cumulative Plus Project conditions, intersection operations would deteriorate from an acceptable LOS C (No Project) to unacceptable LOS E during the AM peak hour, and from unacceptable LOS F (No Project, 83.9 seconds average delay) to unacceptable LOS F (254.5 seconds average delay) during the PM peak hour, which would represent a ***potentially significant impact*** under San Mateo County criteria (see "San Mateo County Intersections" in subsection 16.4.1, "Significance Criteria," above).

Mitigation 16-11. Implement Mitigation 16-3: in the northbound and southbound directions, prohibit on-street parking within the vicinity of the intersection, shift the through/right turn lane and stripe a dedicated left turn lane; modify traffic signal operations from split phase to concurrent northbound and southbound travel with protected left turn phasing; prohibit parking in the eastbound direction within the vicinity of the intersection; and stripe a dedicated eastbound right turn lane.

This mitigation would improve the intersection to LOS C during the AM peak hour and LOS E during the PM peak hour. While the PM peak hour would still not meet the LOS standard, the mitigation would decrease average delay to a level that is lower than under Cumulative No Project conditions. Therefore, the project's contribution to this cumulative impact would be reduced to a ***less-than-significant level***.

Impact 16-12: Cumulative Plus Project Impact on Middlefield Road/ Semicircular Road Intersection. Under Cumulative Plus Project conditions, intersection operations would deteriorate from an acceptable LOS D (No Project) to unacceptable LOS E and LOS F during the AM and PM peak hour, respectively, which would represent a ***potentially significant impact*** under San Mateo County criteria (see "San Mateo County Intersections" in subsection 16.4.1, "Significance Criteria," above).

Mitigation 16-12. Implement Mitigation 16-4: in the eastbound direction, prohibit on-street parking within the vicinity of the intersection, and stripe a dedicated left turn lane, resulting in one left turn lane, one through lane, and one shared through/right turn lane; modify traffic signal operations to the following phases:

- Phase 1: NE Semicircular Rd through movement and WB Middlefield Rd through and unprotected left (as exists currently)
- Phase 2: EB Middlefield Rd through phase and WB Middlefield Rd through and unprotected left turn
- Phase 3: EB Middlefield Rd through and protected left turn
- Phase 4: Pedestrian only phase for Semicircular crossing (as exists currently)
- Phase 5: NB and SB phases with unprotected left turns (as exists currently)

This intersection is projected to operate at LOS D during the AM and PM peak hours. With the addition of project generated trips, the intersection is projected to operate at LOS E during the AM peak hour and LOS F during the PM peak hour under the Cumulative plus Project scenario. The mitigation measure would mitigate the project's impact at this intersection. The proposed mitigation would improve the intersection to LOS D during the AM and PM peak hours and therefore would reduce the project impact to a ***less-than-significant level***.

Impact 16-13: Cumulative Plus Project Impact on Middlefield Road/Marsh Road Intersection. Under Cumulative Plus Project conditions, intersection operations would deteriorate from an acceptable LOS C (No Project) to unacceptable LOS E during the PM peak hour, which would represent a ***potentially significant impact*** under Town of Atherton criteria (see "Town of Atherton Intersections" in subsection 16.4.1, "Significance Criteria," above).

Mitigation 16-13. As identified in the Menlo Gateway Project Draft EIR, construction of a southbound left turn lane from Middlefield Road onto Marsh Road, or similar traffic mitigations, could improve intersection operation to acceptable LOS D during the PM peak hour. However, this mitigation measure may require obtaining additional right-of-way from adjacent developed properties, and is therefore potentially infeasible. Additionally, since the intersection is in the jurisdiction of the Town of Atherton, this improvement would exceed the County's authority to implement. It is recommended that the County coordinate with the Town of Atherton to consider implementation of the mitigation. Until such time as this mitigation is considered feasible, the impact is considered ***significant and unavoidable***.

Impact 16-14: Cumulative Plus Project Impact on Bay Road/Woodside Road Intersection. Under Cumulative Plus Project conditions, intersection operations would deteriorate from an unacceptable LOS C (No Project) to unacceptable LOS E and LOS F during the AM and PM peak hour, respectively, which would represent a ***potentially significant impact*** under Caltrans criteria (see "Caltrans Intersections" in subsection 16.4.1, "Significance Criteria," above).

Mitigation 16-14. Construction of an additional northbound through lane, an additional southbound through lane, and a dedicated westbound right turn lane, plus addition of an overlap signal phase to coincide with the existing southbound left turn phase, would improve operation at this intersection to acceptable LOS C during the AM and PM peak hours. However, this mitigation measure may require obtaining additional right-of-way from adjacent developed properties, and is therefore potentially infeasible. Constructing additional lanes would also require relocation of utilities, and would contradict the purpose of the Plan Update to create a pedestrian, bicycle, and transit-friendly environment. Typically, such intersection improvements can worsen conditions for pedestrian and bicycle travel by increasing exposure to conflicts with vehicles and deteriorating the non-motorized environment. Additionally, this intersection is controlled by Caltrans, this improvement would exceed the County's authority to implement. This impact is therefore considered ***significant and unavoidable***.

The Cumulative No Project, Cumulative Plus Project, and Cumulative Plus Project Plus Mitigation levels of service are summarized in Table 16.9.

Cumulative Plus Project Pedestrian and Bicycle Facilities Impacts. Cumulative Plus Project conditions would generate additional pedestrian and bicycle trips, which would use the existing and planned circulation network in the Plan area. Please refer to the previous discussion under "Pedestrian and Bicycle Facilities Impacts."

Cumulative Plus Project Transit Facilities Impacts. Cumulative Plus Project conditions would generate additional transit trips, which would utilize the existing and planned transit network in the Plan area. Please refer to the previous discussion under "Transit Facilities Impacts."

Impact 16-15: Cumulative Plus Project Safety Impacts at At-Grade Railroad Crossings. Development facilitated under Cumulative Plus Project conditions may result in additional automobile, bicycle, and/or pedestrian traffic at the existing at-grade railroad crossings and potentially contribute to safety issues along the railroad crossings. This would represent a ***potentially significant cumulative impact*** (see criterion (4) in subsection 16.4.1, "Significance Criteria," above).

Table 16.9
CUMULATIVE PLUS PROJECT MITIGATION--INTERSECTION LEVELS OF SERVICE

Intersection (*Jurisdiction*)	Traffic Control	Peak Hour	Cumulative No Project Avg. Delay[1]	Cumulative No Project LOS[2]	Cumulative Plus Project Avg. Delay[1]	Cumulative Plus Project LOS[2]	Cumulative Plus Project Plus Mitigation Avg. Delay[1]	Cumulative Plus Project Plus Mitigation LOS[2]
2. El Camino Real/Fifth Avenue *(CT)*	Signal	AM	**37.0**	**D**	**50.1**	**D**	25.9	C
		PM	30.7	C	**53.0**	**D**	**43.2**	**D**
3. Middlefield Road/ Woodside Road (SR 84) *(CMP)*	Signal	AM	61.4	E	**87.4**	**F**	77.2	E
		PM	69.7	E	**115.7**	**F**	78.8	E
4. Middlefield Road/Fifth Avenue *(SMC)*	Signal	AM	30.5	C	**57.6**	**E**	27.3	C
		PM	**83.9**	**F**	**254.5**	**F**	**71.0**	**E**
5. Middlefield Road/ Semicircular Road *(SMC)*	Signal	AM	50.2	D	**70.4**	**E**	51.3	D
		PM	49.2	D	**112.4**	**F**	46.7	D
8. Fifth Avenue/Bay Road *(RC)*	Signal	AM	33.0	C	42.9	D	24.9	C
		PM	50.5	D	**77.5**	**E**	43.6	D
10. Bay Road/Woodside Road (SR 84) *(CT)*	Signal	AM	25.5	C	**74.6**	**E**	29.4	D
		PM	31.6	C	**94.6**	**F**	31.6	D

SOURCE: Kimley-Horn and Associates, Inc., May 2011

Notes:

1. Whole-intersection-weighted average total delay for signalized and all-way stop-controlled intersections (expressed in seconds per vehicle).
2. LOS calculations performed using the 2000 *Highway Capacity Manual*.
3. LOS standard for County of San Mateo, City of Redwood City, City of Menlo Park, Caltrans, and C/CAG CMP.
4. Unacceptable operations are indicated in **bold** type.
5. AWSC – All-Way Stop Controlled.
6. Jurisdictions: SMC = San Mateo County, ATH = Atherton, RC = Redwood City, MP = Menlo Park, CT = Caltrans, CMP = C/CAG Congestion Management Program

Mitigation 16-15. Implement Mitigation 16-8. As discussed under that mitigation, it is conservatively concluded that the mitigation would not mitigate the identified significant impact to a less-than-significant level, and the impact would remain ***significant and unavoidable***.

17. CEQA-REQUIRED ASSESSMENT CONCLUSIONS

This chapter summarizes the EIR findings in terms of the assessment categories required by Section 21100 of the California Environmental Quality Act CEQA: "growth inducement," "unavoidable significant impacts," "irreversible environmental changes," "cumulative impacts," and "effects found not to be significant."

17.1 GROWTH-INDUCING IMPACTS

Section 21100(b)(5) of CEQA requires that an EIR include information regarding the growth-inducing impacts of the proposed project. CEQA Guidelines section 15126.2(d) states that an EIR shall: *"Discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing either directly or indirectly, in the surrounding environment....It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment."* The updated Community Plan would foster economic growth, result in population growth, and indirectly result in the construction of additional housing within San Mateo County and the Bay Area region.

The updated Community Plan would result in population growth and would foster economic growth, stimulate private investment and increase the community's supply of housing, including affordable housing. For "worst case" CEQA environmental impact assessment purposes, it is assumed in this EIR that the updated Community Plan would be fully successful in facilitating the revitalization of the Plan area and the development of additional new housing outside the Plan area, and in indirectly stimulating economic activity throughout the county.

As shown in Table 14.9 in Chapter 14, Population, Housing and Employment, of this EIR, the updated Community Plan would provide for the development of up to an additional 3,024 dwelling units, 180,000 square feet of retail uses, 155,000 square feet of office uses, 210,000 square feet of industrial uses, 110,000 square feet of institutional uses, and 3.8 acres of parks and recreation uses within the Community Plan area by 2035. As shown in Table 14.9, this development would result in an estimated 11,794 new residents and 1,905 new jobs in the Community Plan area. This population increase would not in itself constitute a significant adverse environmental impact.[1]

The updated Community Plan identifies properties within roughly a ¼-mile radius of a possible future multi-modal transit station at Middlefield Road at the railroad crossing as appropriate for higher-intensity, mixed-use, transit-oriented development. The updated Community Plan would encourage redevelopment and job creation on vacant and underutilized land within existing industrial areas, taking advantage of potential demand for new office, research and

[1]CEQA Guidelines section 15126.2(d) states that an EIR shall: *"Discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing either directly or indirectly, in the surrounding environment....It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment."*

development, and industrial space generated by the new Stanford Medical Campus and adjacent pending Stanford in Redwood City office and R&D campus. The Plan would promote residential infill development on vacant and underutilized residential parcels. The Plan would encourage new retail development, building synergy on well-established retail corridors, and providing space for local entrepreneurs and small businesses.

The updated Community Plan would focus growth in six "Opportunity Areas," which due to their location, mix and intensity of existing land uses, and access to transportation and infrastructure, have the most potential for change:

- Middlefield Road between the western edge of the Community Plan area and 1st Avenue, where a higher intensity mix of commercial, residential, institutional and public uses, would support transit-oriented development near a potential future multi-modal transit station, and would support Middlefield Road as the main commercial destination in North Fair Oaks;

- Middlefield Road between 1st Avenue and 8th Avenue, with a mix of medium-density, locally-oriented, smaller-scale commercial, residential and public uses;

- Existing industrial areas in the area bounded by 2nd Avenue, Willow Street, Fair Oaks Avenue and Bay Road, and the area along the Southern Pacific railroad tracks between 5th Avenue and 12th Avenue, where underutilized and vacant industrial land would be revitalized with development of flexible space for a range of employment-generating industrial, commercial, institutional and public uses, and possibly limited low-density residential uses; and

- El Camino Real between the western edge of the Community Plan area and Loyola Avenue, and along 5th Avenue between El Camino Real and the Caltrain tracks, with local and regional commercial uses and higher-density residential uses.

The amount of new development allowed under the updated Community Plan would represent an increase over the amount of development allowed under the current Community Plan. The updated Community Plan would, on balance, be consistent with the general vision, and the goals, objectives and policies of the San Mateo County General Plan.

Growth within North Fair Oaks under the updated Community Plan would generate jobs, personal income, and revenue to the County. Development within the Community Plan area may in turn induce additional growth within San Mateo County through an economic "multiplier effect". A multiplier effect describes the indirect and induced employment and income generated by a project. For every new job, other jobs are created in the local economy to support that job. New uses developed within the Community Plan area would generate increased demand for local goods and services. This economic multiplier effect would generate additional indirect jobs throughout San Mateo County and additional personal income in the San Mateo County economy. A portion of this indirect economic activity would occur in North Fair Oaks.

The updated Community Plan recommends improving water, sewer and storm drainage facilities within the Plan area, which may be designed to also accommodate growth outside the area. Also, growth within North Fair Oaks in accordance with the updated Community Plan may increase the development potential for development and redevelopment in surrounding areas. New economic activity and growth outside North Fair Oaks may in turn increase traffic, air

quality and noise impacts, and generate demand for housing, public services and utilities, the expansion or new construction of which could cause environmental impacts. Potential new development projects would require their own project-level environmental review in accordance with CEQA. The location, timing, nature, extent and severity of the potential environmental impacts of any given project are too speculative to predict or evaluate in this EIR.

The potential environmental impacts of development within the North Fair Oaks induced by the updated Community Plan have been evaluated at a program level in this EIR. Potential induced growth outside the North Fair Oaks due to enhanced development potential on adjacent land and increased economic activity, would occur as already contemplated in and consistent with adopted plans and the environmental documents prepared for those plans, and would therefore not represent growth for which adequate planning has not occurred.

17.2 UNAVOIDABLE SIGNIFICANT ADVERSE IMPACTS

CEQA Guidelines section 15126.2(b) requires that the EIR discuss "significant environmental effects which cannot be avoided if the proposed project is implemented." Unavoidable significant impacts are those that could not be reduced to less-than-significant levels by mitigation measures, as part of the project, or other mitigation measures that could be implemented. The updated Community Plan would result in the following unavoidable significant impacts:

- Impact 8-2: Impacts on Historic Resources,
- Impact 8-4: Cumulative Cultural Resources Impacts,
- Impact 13-5: Cumulative Plus Project Noise Impacts,
- Impact 16-7: Transit Facilities Impacts,
- Impact 16-8: Safety Impacts at At-Grade Railroad Crossings,
- Impact 16-9: Cumulative Plus Project Impact on El Camino Real/Fifth Avenue Intersection,
- Impact 16-13: Cumulative Plus Project Impact on Middlefield Road/Marsh Road Intersection,
- Impact 16-14: Cumulative Plus Project Impact on Bay Road/Woodside Road Intersection, and
- Impact 16-15: Cumulative Plus Project Safety Impacts at At-Grade Railroad Crossings.

17.3 IRREVERSIBLE ENVIRONMENTAL CHANGES

CEQA Guidelines section 15126.2(c) requires that an EIR also discuss *"significant irreversible environmental changes which would be caused by the proposed project should it be implemented."*

The updated Community Plan would commit future generations to an increase in development intensity and changes in land use and visual character within the Plan area. Given the significant public and private investments in buildings and other improvements associated with these changes, and the anticipated lifetime of these improvements, these changes would not be likely to be reversed or significantly changed for many years to come.

The updated Community Plan may also result in the unavoidable irreversible loss of significant historic resources.

Development under the updated Community Plan would not be expected to involve significant quantities of hazardous materials, nor other potential for environmental accidents. While some new uses in accordance with the updated Community Plan would involve the use, transport, storage and disposal of hazardous materials, such activities would comply with existing federal, State and County regulations and standards, and the routine practices of regulatory and oversight agencies, which would reduce the likelihood and severity of environmental accidents which could result in irreversible environmental damage.

Development under the updated Community Plan would irreversibly commit construction materials and non-renewable energy resources to the purposes of the projects. These energy resource demands would be used for demolition, construction, transportation of people and goods, heating, ventilation and air conditioning, lighting, and other associated energy needs. Because development facilitated by the updated Community Plan would be required to comply with California Code of Regulations Title 24 energy regulations, the updated Community Plan would not be expected to use energy in a wasteful, inefficient, or unnecessary manner.

Non-renewable and slowly renewable resources used by projects that implement the updated Community Plan would include, but are not limited to, lumber and other forest products; sand and gravel; asphalt; petrochemical construction materials; steel; copper; lead and other metals; water; etc. The impacts of the updated Community Plan related to consumption of non-renewable and slowly renewable resources are considered to be less than significant because these projects would not use unusual amounts of energy or construction materials.

17.4 CUMULATIVE IMPACTS

The cumulative impact development assumptions used throughout this EIR are described in Chapter 12, Land Use and Planning. Cumulative Impacts are evaluated for each environmental topic in Chapters 4 through 16 of this EIR. The updated Community Plan would result in a cumulatively considerable contribution and thus a significant impact related to the following:

- Impact 8-4: Cumulative Cultural Resources Impacts
- Impact 13-5: Cumulative Plus Project Noise Impacts,
- Impact 16-9: Cumulative Plus Project Impact on El Camino Real/Fifth Avenue Intersection,
- Impact 16-10: Cumulative Plus Project Impact on Middlefield Road/Woodside Road Intersection,
- Impact 16-11: Cumulative Plus Project Impact on Middlefield Road/Fifth Avenue Intersection,
- Impact 16-12: Cumulative Plus Project Impact on Middlefield Road/Semicircular Road Intersection,
- Impact 16-13: Cumulative Plus Project Impact on Middlefield Road/Marsh Road Intersection,
- Impact 16-14: Cumulative Plus Project Impact on Bay Road/Woodside Road Intersection, and
- Impact 16-15: Cumulative Plus Project Safety Impacts at At-Grade Railroad Crossings.

Cumulative impacts 16-10, 16-11, and 16-12 would be reduced to less-than-significant levels with implementation of the accompanying mitigation measures in this EIR; all other identified cumulative impacts would be significant and unavoidable.

17.5 EFFECTS FOUND NOT TO BE SIGNIFICANT

CEQA allows environmental issues for which there is no likelihood of an impact to be "scoped out" during an EIR scoping process and not covered in the EIR. All environmental topics suggested by Appendix G of the CEQA Guidelines or raised by responsible agencies or trustee agencies, or interested members of the public during the EIR scoping process were addressed in this EIR, except for the following topics, which were "scoped out" for the reasons discussed in the Initial Study included in Appendix 21.2, Notice of Preparation and Initial Study, of this EIR:

- Aesthetics
  - State Scenic Highways

- Agricultural and Forestry Resources
  - Conversion of important farmlands to urban use
  - Conflict with agricultural zoning or Williamson act contracts
  - Conflict with forest or timber production zoning
  - Loss of forest land
  - Other conversion of farmland or forest land

- Biological Resources
  - Riparian habitat or other sensitive natural community
  - Wetlands and other waters
  - Conflict with a Habitat Conservation Plan

- Geology and Soils
  - Earthquake fault surface rupture
  - Landslides
  - Soils suitability for alternative wastewater disposal systems

- Hazards and Hazardous Materials
  - Airport safety hazard
  - Wildland fire hazard

- Hydrology and Water Quality
  - Groundwater supplies
  - Flooding due to dam or levee failure
  - Seiche, tsunami or mudflow

- Land Use and Planning
  - Conflict with a Habitat Conservation Plan

- Mineral Resources
  - Loss of mineral resources of State-wide or regional importance
  - Loss of locally important mineral resources

- Noise
  - Exposure to airport noise

- Transportation
  - Change air traffic patterns

- Utilities and Service Systems
  - Compliance with solid waste regulations.

18. ALTERNATIVES TO THE PROPOSED PROJECT

Section 15126.6 of the CEQA Guidelines requires an EIR to "describe a range of reasonable alternatives to the project, or to the location of the project, which 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 evaluate the comparative merits of the alternatives. The section also states that the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if those alternatives would impede to some degree the attainment of the basic project objectives, or would be more costly.

Pursuant to Section 15126.6, this chapter describes four alternatives to the updated Community Plan and compares their impacts to those of the proposed update. Pursuant to the CEQA Guidelines, the ability of the alternatives to meet the basic project objectives is also described, and the "environmentally superior" alternative among the four is identified.

Several unavoidable significant impacts of the updated Community Plan were identified in Chapters 4 through 16. Pursuant to the CEQA Guidelines, the alternatives in this chapter were developed with the purpose of avoiding or substantially reducing these unavoidable significant impacts, as well as other significant impacts of the project for which feasible mitigation measures have been identified.

In accordance with CEQA Guidelines Section 15126.6(a), this EIR does not evaluate every conceivable alternative. Only a feasible range of alternatives that would allow decision-makers to make a reasoned choice, and only alternatives that meet most of the basic objectives of the updated Community Plan identified in Section 3.3 (Project Objectives) of Chapter 3 (Project Description) have been evaluated.

The following alternatives have been evaluated in comparison to the project:

- Alternative 1: No Project--Existing Conditions,
- Alternative 2: No Project--Existing Community Plan Buildout Scenario,
- Alternative 3: Updated Community Plan--Lower Development Density and Intensity, and
- Alternative 4: Alternative Project Location.

In accordance with Section 15126.6(d) of the CEQA Guidelines, the discussion in this chapter of the impacts of the alternatives is intended to be less detailed than the discussions in Chapters 4 through 16 of the impacts of the updated Community Plan. Table 18.1 provides a summary comparison of the impacts of the alternatives to those of the updated Community Plan.

Table 18.1
ALTERNATIVES COMPARISON TO THE PROJECT

Impact	Alternatives[1]		
	Alternative 1: No Project--Existing Conditions	Alternative 2: No Project--Existing Community Plan	Alternative 3: Lower Development Density and Intensity
(a) Aesthetics	No impacts.	Reduced less than significant impacts.	Reduced less than significant impacts.
(b) Air Quality	No impacts.	No significant unavoidable impact. Reduced less than significant impacts.	Reduced significant impacts. Reduced significant unavoidable impacts.
(c) Climate Change	No impacts.	Reduced less than significant impact.	Reduced less than significant impact.
(e) Cultural Resources	No impacts.	Similar significant unavoidable impact.	Similar significant unavoidable impact.
(h) Hazards and Hazardous Materials	No impacts.	Similar less than significant impacts.	Reduced less than significant impacts.
(i) Hydrology and Water Quality	No impacts.	Reduced less than significant impacts.	Reduced less than significant impacts.
(j) Transportation	No impacts.	No significant unavoidable impacts. Reduced less than significant impacts.	Reduced significant unavoidable impacts. Reduced less than significant impacts.
(k) Public Services and Utilities	No impacts.	Reduced less than significant impacts.	Reduced less than significant impacts.
(l) Noise	No impacts.	Reduced less than significant impacts.	Reduced less than significant impacts.
(m) Land Use and Planning	No impacts.	Similar less than significant impacts.	Similar less than significant impacts.
(n) Population and Housing	No impacts.	Reduced less than significant impacts.	Reduced less than significant impacts.
Attainment of Project Objectives	No attainment.	No attainment.	Reduced attainment.

SOURCE: Wagstaff/MIG, 2011.

[1]Alternative 4: Alternative Project Location would not achieve the basic project objectives, would not necessarily avoid or lessen the significant impacts of the project and may result in new significant impacts, and would be infeasible, and thus was eliminated from further consideration.

18.1 ALTERNATIVE 1: NO PROJECT--EXISTING CONDITIONS

18.1.1 Principal Characteristics

CEQA Guidelines section 15126.6(e)(1) requires the specific alternative of No Project to "be evaluated along with its impact…to allow decision-makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project." CEQA Guidelines section 15126.6(e)(2) requires the No Project analysis to "discuss the existing conditions at the time the (EIR) notice of preparation is published…as well as what would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans." Accordingly, Alternative 1: No Project--Existing Conditions compares the effects of the project to existing conditions. Alternative 1 would maintain the existing conditions as described in the "Setting" sections of each environmental topic chapter in this EIR. With Alternative 1, there would be no new development within the Community Plan area and existing conditions would remain.

18.1.2 Comparative Impacts and Mitigating Effects

(a) Aesthetics. No impacts. The existing visual character and light, glare and shadow conditions within the Plan area would remain unchanged. There would also be no new distinct gateways to the community, no enhanced community character and identity, and no rehabilitation of deteriorated private properties or public improvements.

(b) Air Quality. No impacts. There would be no new development and thus no increase in air pollutant emissions, and no increased number of sensitive receptors exposed to toxic air contaminants, $PM_{2.5}$ and odors.

(c) Biological Resources. No Impacts. There would be no disturbance of existing urban landscape habitat within the Plan area and no disturbance of nesting birds during construction. Existing trees within the Community Plan area would not be removed.

(d) Climate Change. No impacts. There would be no new development and thus no increase in greenhouse gas emissions and no impact on climate change.

(e) Cultural Resources. No impacts. Any existing potentially significant historical resources within or adjacent to the Plan area would remain undisturbed for potential future preservation or rehabilitation. There would also be no opportunity for rehabilitation as part of development under the updated Community Plan.

(f) Geology and Soils. No impacts. There would be no new public improvements, development or occupants on the site exposed to potential ground shaking, subsidence, slope instability or soils-related hazards associated with seismic and soils conditions within the Community Plan area.

(g) Hazards and Hazardous Materials. No impacts. There would be no change in potential exposure of people or property to hazards or hazardous materials.

(h) Hydrology and Water Quality. No impacts. Potential degradation of water quality from construction period erosion and sedimentation would be avoided. There would be no change in the existing impervious surface area, the amount or rate of surface water runoff, or potential

impacts to surface water quality from new development. There would also be no new infrastructure installed to support and stimulate development, and existing drainage system deficiencies would remain. There would be no new public improvements, development or occupants on the site exposed to potential flooding from sea level rise associated with global climate change.

(i) Land Use and Planning. No impacts. The existing land use characteristics within the Plan area would remain unchanged. There would be no new mixed-use development, no infill development of vacant and under-utilized land, no transit-oriented development, and no revitalization of commercial corridors.

(j) Noise and Vibration. No impacts. There would be no development and thus no increase in noise and vibration generated from within the Plan area, such as noise from construction activities or increases in traffic, as well as no increase in the number of sensitive receptors exposed to traffic or Caltrain noise.

(k) Population, Housing and Employment. No impacts. There would be no potential displacement of housing or people and no growth inducement. There would also be no new housing to meet the community and regional need for housing, affordable housing, and family housing; no improved community access to daily goods and services for families and children; and no increases in employment, income, or revenue accruing to the County.

(l) Public Services and Utilities. No impacts. There would be no development and thus no additional water demand, sewage generation, calls for police or fire service, student generation, demand for library space, need for park and recreation facilities, or solid waste generation associated with the Plan area. There would also be no new infrastructure installed to support and stimulate development, and no expanded recreational opportunities.

(m) Transportation. No impacts. There would be no development and thus no new vehicle trips generated from within the Plan area and no impact on area roadways and intersections. The substantial improvements to existing transit service, and bicycle and pedestrian circulation within the Plan area with the updated Plan would not be realized. There would be no new transit-oriented development to support a possible future multi-modal transit station, and new or enhanced bus, bus rapid transit, local light rail, and regional rail transit and passenger rail service.

18.1.3 Attainment of Project Objectives

Existing conditions would remain within the Plan area. Alternative 1: No Project--Existing Conditions would not achieve the basic project objectives to:

- Improve connectivity and reduce mobility barriers throughout North Fair Oaks for all types of travel, including pedestrian, bicycle, automobile, and public transit.

- Improve area health and safety by increasing walkability and bikeability within North Fair Oaks, increasing access to healthy food sources, increasing access to open space and recreational opportunities, adding trees and other greenery, and promoting land uses and urban design patterns that mitigate health and safety issues.

- Improve travel and transit connections between North Fair Oaks and surrounding communities and the region.

- Provide sufficient, safe, and affordable housing of all types to meet the needs of current and future residents.

- Maintain and enhance a vital and viable mix of land uses, including commercial, industrial, residential, public, and other land uses to create a vibrant, livable environment for area residents, with ready access to local goods and services, recreational opportunities, employment, and transportation access.

- Provide adequate infrastructure to support current uses and facilitate future development.

- Promote development and redevelopment of unused and underutilized land with appropriate types of uses to serve the needs of the community.

- Maintain local employment opportunities and facilitate new job-generating development by preserving and encouraging a mix of uses in designated parts of North Fair Oaks, including preservation of key areas of existing industrial and commercial uses.

- Require and encourage appropriate development densities to support sufficient housing and employment-generating land uses to meet the needs of North Fair Oaks residents.

- Improve access to park and recreational facilities for all area residents.

- Support the creation of new public transit routes and stations, and promote appropriate development to facilitate creation of new transit facilities.

18.2 ALTERNATIVE 2: NO PROJECT--EXISTING COMMUNITY PLAN

18.2.1 Principal Characteristics

Alternative 2: No Project--Existing Community Plan consists of buildout of the Community Plan area in accordance with the existing Community Plan, within approximately 25 years, or by 2035. Alternative 2 would result in lower densities, a more auto-oriented development character, and a reduction in the number of housing units and the amount of non-residential development as compared to the project.

18.2.2 Comparative Impacts and Mitigating Effects

(a) Aesthetics. With less development, Alternative 2 would have less substantial less-than-significant impacts as compared to the updated Community Plan with respect to aesthetics, including potential impacts related to visual character, light and glare, and shadows. There would also be no new distinct gateways to the community, less enhanced community character and identity, and less rehabilitation of deteriorated private properties or public improvements.

(b) Air Quality. Alternative 2 would result in lower air pollutant emissions, and fewer sensitive receptors exposed to toxic air contaminants, $PM_{2.5}$ and odors.

(c) Biological Resources. With less development under Alternative 2, there may be less disturbance of existing urban landscape habitat within the Community Plan area, less potential disturbance of nesting birds during construction, and fewer of the existing trees within the Community Plan area may be removed.

(d) Climate Change. With fewer housing units and less non-residential development, buildout of the Plan area under the existing Community Plan would result in a reduction in greenhouse gas (GHG) emissions as compared to the updated Community Plan. On the other hand, with a lower density and intensity of development, no transit-oriented development, and no improvements to existing transit service, and bicycle and pedestrian circulation within the Plan area, GHG emissions per service population may be greater under the existing Community Plan.

(e) Cultural Resources. Buildout under the existing Community Plan would have similar impacts and mitigation needs as the updated Community Plan with respect to cultural resources.

(f) Geology and Soils. With Alternative 2, there would be less public improvements and development, and fewer occupants exposed to potential ground shaking, liquefaction, lateral spreading, expansive soils, subsidence, and differential settlement hazards associated with seismic and soils conditions within the Plan area.

(g) Hazards and Hazardous Materials. With fewer housing units and less non-residential development, buildout under the existing Community Plan would result in less potential exposure of people or property to hazards or hazardous materials.

(h) Hydrology and Water Quality. Alternative 2 would have similar impacts to the project with respect to impacts on drainage and water quality. Surface runoff is determined by a parcel's impervious surface area and not use or density. With less intensive development, there would be limited change from existing conditions and limited change as compared to development under the updated Community Plan, in terms of impervious surface area, stormwater runoff, and pollutant loading. There would also be less infrastructure improvements to support and stimulate development, and more of the existing drainage system deficiencies would remain. There would be less public improvements, development or occupants within the Plan area exposed to potential flooding from sea level rise associated with global climate change.

(i) Land Use and Planning. This alternative would have similar impacts as the project with respect to community cohesion, changes in land use, and land use compatibility. There would be no new mixed-use development, less infill development of vacant and under-utilized land, no transit-oriented development, and less revitalization of commercial corridors.

(j) Noise and Vibration. Buildout under the existing Community Plan would result in less noise than under the updated Community Plan due to a reduction in the number of new vehicle trips added to local roadways, as well as a reduction in the number of sensitive receptors exposed to traffic and Caltrain noise.

(k) Population, Housing and Employment. Alternative 2 would result in less growth inducement and smaller increases in employment, income, and revenue accruing to the County. There would also be less new housing to meet the community and regional need for housing,

affordable housing, and family housing, and less improved community access to daily goods and services for families and children.

(l) Public Services and Utilities. This alternative would result in reduced water demand and sewage generation, as compared to the updated Community Plan. Due to the age and condition of existing water and sewer facilities in the Community Plan area, buildout under the existing Community Plan would still require many of the infrastructure upgrades within existing rights-of-way required for the project. This alternative would also result in a corresponding reduction in calls for police and fire service, student generation, demand for library space, need for park and recreation facilities, and solid waste generation, relative to the project, as well as a reduction in development impact and connection fees received by the County.

(m) Transportation. Trip generation from new development within the Plan area would be reduced with buildout of the Plan area under the existing Community Plan as compared to the updated Community Plan. The impacts of this alternative are evaluated in the section 16.4.8, Cumulative (2035) No Project Conditions, in Chapter 16, Transportation. Buildout under the existing Community Plan would avoid the unavoidable significant impact of the updated Community Plan on the El Camino Real/5th Avenue intersection and the unavoidable significant impact of the updated Community Plan on the Middlefield Road/5th Avenue intersection could be mitigated to a less-than-significant level. With Alternative 2, the substantial improvements of the updated Community Plan to existing transit service, and bicycle and pedestrian circulation would not be realized.

18.2.3 Attainment of Project Objectives

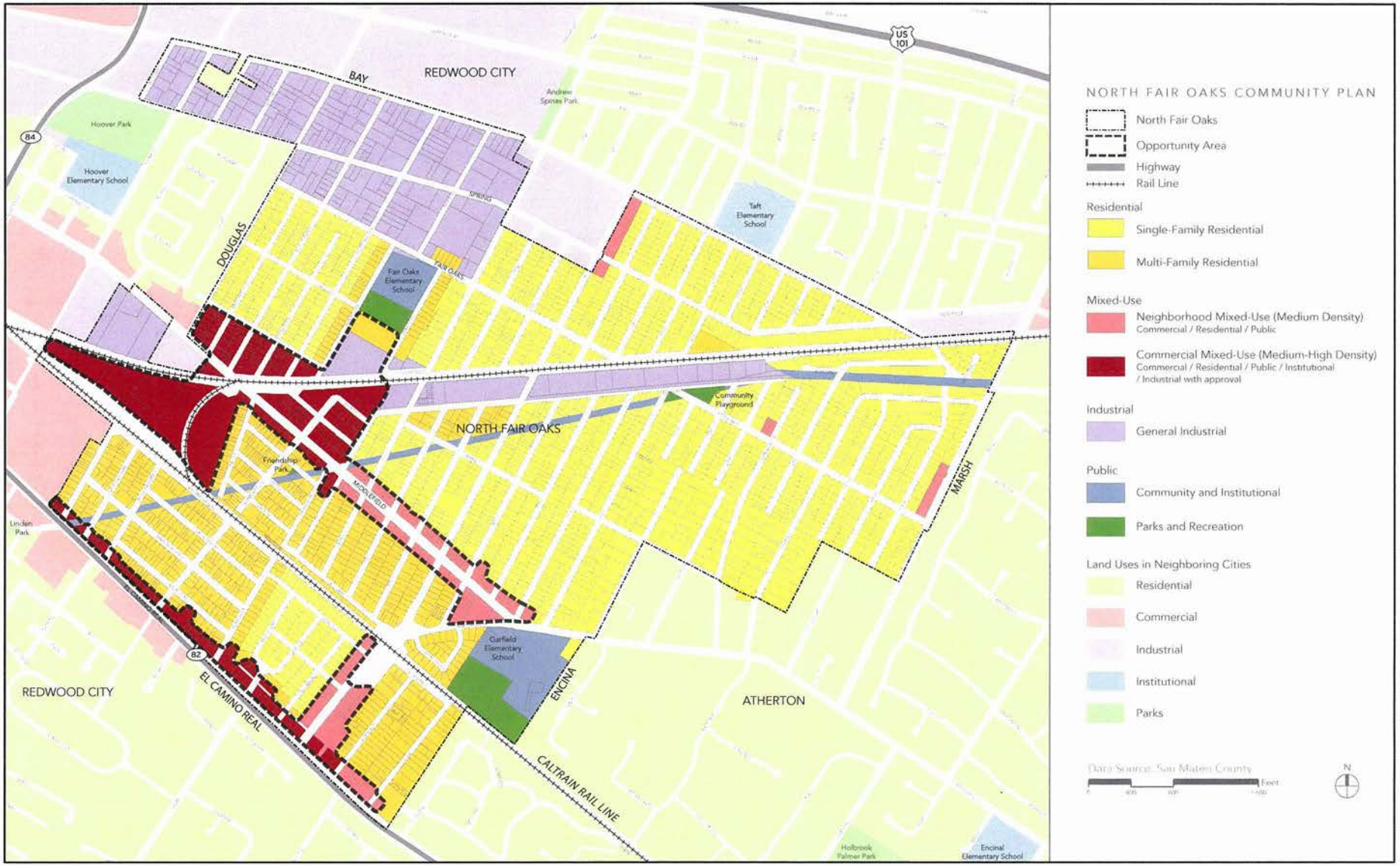
With fewer housing units and less non-residential development, as well as no new mixed-use development, less infill development of vacant and underutilized land, no transit-oriented development, and less revitalization of commercial corridors, Alternative 2: No Project--Existing Community Plan would be less effective in achieving the basic project objectives as listed previously in subsection 18.1.3.

18.3 ALTERNATIVE 3: UPDATED COMMUNITY PLAN--LOWER DEVELOPMENT DENSITY AND INTENSITY

18.3.1 Principal Characteristics

Alternative 3 assumes adoption of a similar North Fair Oaks Community Plan Update, but with a lower density and intensity of development--i.e., less change in land use, density and building height as compared to the project. Proposed land use designations for Alternative 3 are shown in Figure 18.1. The proposed Land Use and Community Design Framework for Alternative 3 is shown in Figure 18.2.

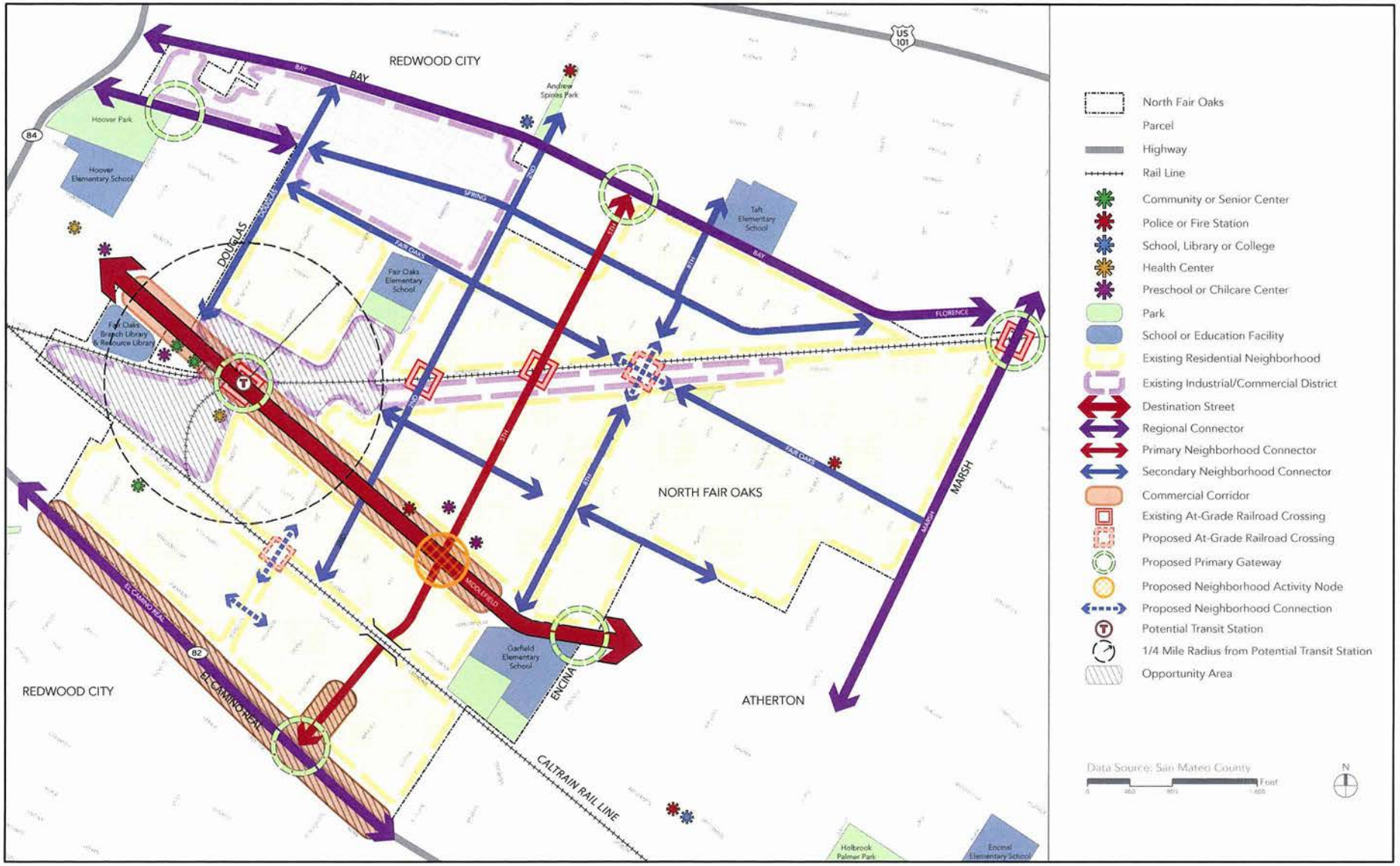
As shown in Table 18.1, Alternative 3 would provide for the development of up to an additional 2,008 housing units, 85,000 square feet of retail uses, 110,000 square feet of office uses, 50,000 square feet of institutional uses, and 2.0 acres of parks within the Community Plan area within approximately 20 years, or by 2030. This amount of development represents a 34 percent reduction in the number of new housing units and a 63 percent reduction in the amount of non-residential development as compared to the project. There would be no new industrial development within the Plan area under Alternative 3.



SOURCE: Wagstaff/MIG

Figure 18.1

ALTERNATIVE 3 PROPOSED LAND USE



SOURCE: Wagstaff/MIG

Figure 18.2
ALTERNATIVE 3 LAND USE AND COMMUNITY DESIGN FRAMEWORK

Similar to the project, Middlefield Road between the western edge of the Plan area and 1st Avenue would be designated Commercial Mixed-Use, which would allow a higher density mix of commercial, residential, institutional and public uses, would support transit-oriented development in the area around a potential future multi-modal transit station, and would support Middlefield Road as the main commercial destination in North Fair Oaks. However, the new Commercial Mix-Use land use designation would extend along the potential future Dumbarton rail line only as far as Oakside Avenue, rather than to 12th Avenue as with the project. With Alternative 3, there would also be no change in the existing land use designation, and no intensification and diversification of development, in the area along the railroad tracks between 5th Avenue and 12th Avenue.

Alternative 3 also does not include the proposed changes in land use designation and intensification of development within the existing industrial area bounded by 2nd Avenue, Willow Street, Fair Oaks Avenue and Bay Road. Additionally, Alternative 3 does not include recreational use of the Hetch Hetchy Bay Division Pipeline right-of-way between 12th Avenue and the eastern edge of the Plan area.

Similar to the project, Alternative 3 does include the three new or improved roadway connections identified for the project—i.e., at Marlborough Avenue at Berkshire Avenue, Berkshire Avenue across the railroad tracks, and 8th Avenue and Fair Oaks Avenue. Similar to the project, Alternative 3 also includes special signage, building form, street trees, and sidewalk and crossing treatments at six gateways into North Fair Oaks, as well as a Neighborhood Activity Node at the Middlefield Road/5th Avenue intersection.

Alternative 3 does not include Middlefield Road and 5th Avenue as a preferred route for a potential future light rail line connecting to downtown Redwood City.

18.3.2 Comparative Impacts and Mitigating Effects

(a) Aesthetics. With fewer housing units and less non-residential development, Alternative 3 would have less substantial less-than-significant impacts as compared to the project with respect to aesthetics, including potential impacts related to visual character and shadows.

Alternative 3 would also provide distinct gateways to the community, enhance community character and identity, and result in rehabilitation of deteriorated private properties and public improvements, but less than with the project.

(b) Air Quality. With less development and lower vehicle trip generation, Alternative 3 would result in lower air pollutant emissions, and fewer sensitive receptors exposed to toxic air contaminants, $PM_{2.5}$ and odors.

(c) Biological Resources. With less development under Alternative 3, there may be less disturbance of existing urban landscape habitat within the Plan area, less potential disturbance of nesting birds during construction, and fewer of the existing trees within the Plan area may be removed.

(d) Climate Change. With fewer housing units and less non-residential development, buildout of the Plan area under Alternative 3 would result in a reduction in greenhouse gas (GHG)

emissions as compared to the project. On the other hand, with a lower density and intensity of development, GHG emissions per service population may be greater than with the project.

(e) Cultural Resources. Alternative 3 would have similar impacts and mitigation needs to the project with respect to cultural resources.

(f) Geology and Soils. With Alternative 3, there would be less development and fewer occupants exposed to potential ground shaking, liquefaction, lateral spreading, expansive soil, subsidence, and differential settlement hazards associated with seismic and soils conditions within the Plan area.

(g) Hazards and Hazardous Materials. With no additional industrial development, fewer housing units and less non-residential development, Alternative 3 would result in less potential exposure of people or property to hazards or hazardous materials.

(h) Hydrology and Water Quality. Alternative 3 would have similar impacts to the project with respect to impacts on drainage and water quality. Surface runoff is determined by a parcel's impervious surface area and not use or density. With less intensive development, there would be limited change from existing conditions and limited change as compared to development under the project, in terms of impervious surface area, stormwater runoff, and pollutant loading. Existing drainage system deficiencies would be remedied, similar to the project. There would be less development or occupants within the Plan area exposed to potential flooding from sea level rise associated with global climate change.

(i) Land Use and Planning. Alternative 3 would have similar impacts as the project with respect to community cohesion, land use compatibility, new mixed-use development, infill development of vacant and under-utilized land, transit-oriented development, and revitalization of commercial corridors.

(j) Noise and Vibration. Alternative 3 would result in less noise than the project due to a reduction in the number of new vehicle trips added to local roadways, as well as a reduction in the number of sensitive receptors exposed to traffic or Caltrain noise.

(k) Population, Housing and Employment. Alternative 3 would result in less growth inducement and smaller increases in employment, income, and revenue accruing to the County. There would also be less new housing to meet the community and regional need for housing, affordable housing, and family housing, and less improved community access to daily goods and services for families and children.

(l) Public Services and Utilities. This alternative would result in reduced water demand and sewage generation, as compared to the project. Alternative 3 would still require many of the infrastructure upgrades within existing rights-of-way required for the project. This alternative would also result in a corresponding reduction in calls for police and fire service, student generation, demand for library space, need for park and recreation facilities, and solid waste generation, relative to the project, as well as a reduction in development impact and connection fees received by the County.

(m) Transportation. Alternative 3 would result in fewer net new vehicle trips from new development within the Plan area and, in particular, from within the area along the railroad tracks between 5th Avenue and 12th Avenue, and the existing industrial area bounded by 2nd

Avenue, Willow Street, Fair Oaks Avenue and Bay Road, as compared to the project, and lower traffic volumes at the study intersections. With Alternative 3, the substantial improvements of the project to existing transit service, and bicycle and pedestrian circulation would also be realized.

18.3.3 Attainment of Project Objectives

Alternative 3 would be substantially but somewhat less effective as the project in achieving the basic project objectives as listed previously in subsection 18.1.3.

18.4 ALTERNATIVE 4: ALTERNATIVE PLAN LOCATION

Section 15126.6(a) of the CEQA Guidelines states, "An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic project objectives but would avoid or substantially lessen any of the significant effects of the project[.]" Further, section 15126.6(c) explains, "Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental effects." To help clarify the meaning of "feasibility," CEQA Guidelines section 15126.6(f)(1) (Rule of Reason/Feasibility) states, "Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries...and whether the proponent can reasonably acquire, control, or otherwise have access to the alternative site....No one of these factors establishes a fixed limit on the scope of reasonable alternatives."

North Fair Oaks is an unincorporated community of San Mateo County surrounded by the incorporated cities of Redwood City, Menlo Park and Atherton. The Community Plan area is coterminous with the unincorporated territory and jurisdiction boundaries of the County of San Mateo. An alternative location for the updated Community Plan would not be feasible.

In addition, the CEQA Guidelines provide that the alternatives evaluated in an EIR should be selected based on their ability to avoid or substantially lessen the significant Impacts of the proposed project. Thus, even if an alternative location for the project could implement the County's basic objectives for the project, only those locations that would avoid or substantially lessen any of the significant impacts of the project need to be considered in the EIR. The EIR identifies the following unavoidable significant impacts which could not be reduced to a less-than-significant level by mitigation measures, as part of the project, or other mitigation measures that could be implemented:

- Impact 8-2: Impacts on Historic Resources,
- Impact 8-4: Cumulative Cultural Resources Impacts,
- Impact 13-5: Cumulative Plus Project Noise Impacts,
- Impact 16-7: Transit Facilities Impacts,
- Impact 16-8: Safety Impacts at At-Grade Railroad Crossings,
- Impact 16-9: Cumulative Plus Project Impact on El Camino Real/Fifth Avenue Intersection,
- Impact 16-13: Cumulative Plus Project Impact on Middlefield Road/Marsh Road Intersection,

- Impact 16-14: Cumulative Plus Project Impact on Bay Road/Woodside Road Intersection, and
- Impact 16-15: Cumulative Plus Project Safety Impacts at At-Grade Railroad Crossings

Therefore, because an alternative project location would not achieve the basic objectives of the project, would be infeasible, and would not necessarily avoid or lessen the significant impacts of the project and may result in new significant impacts, an alternative that would involve a different project location was eliminated from further detailed consideration. No further evaluation of alternative project locations is required under CEQA.[1]

18.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The CEQA Guidelines (section 15126[e][2]) stipulate, "If the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives." Other than the No Project Alternative, Alternative 3: Lower Development Density and Intensity, would result in the least adverse environmental impacts, and would therefore be the "environmentally superior alternative." This conclusion is based on the avoidance of some of the unavoidable significant impacts of the project. This alternative would also avoid significant impacts or reduce significant impacts for which feasible mitigation measures are also available.

[1]CEQA Guidelines section 15126.6(c) explains that alternatives may be eliminated from detailed consideration in the EIR if they fail to meet most of the basic project objectives, are infeasible, or do not avoid any significant environmental effects. CEQA Guidelines section 15126.6(f) indicates that the Lead Agency should consider site suitability, economic viability, availability of infrastructure, general plan consistency, other regulatory limitation, jurisdictional boundaries, and the proponents control over alternative sites in determining the range of alternatives to be evaluated in an EIR. With respect to alternative locations, CEQA Guidelines section 15126.6(f) indicates that alternative locations need not be evaluated in every case. The key question in determining whether to evaluate alterative locations is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location. Only locations that would avoid or substantially lessen any significant effects need be evaluated in the EIR. CEQA Guidelines section 15126(f)(2) indicates that alternatives that are remote or speculative, or the effects of which cannot be reasonably predicted, need not be considered.

19. MITIGATION MONITORING

19.1 MITIGATION MONITORING REQUIREMENTS

CEQA Section 21081.6 of the Public Resources Code requires a Lead Agency to adopt a mitigation monitoring program when it approves a project for which an EIR or mitigated negative declaration has been prepared. A mitigation monitoring program would therefore be required to verify the implementation of those mitigation measures identified in this EIR that are adopted by the County. Monitoring of the implementation of most of the mitigation measures would occur through the County's development review procedures, including plan check and field inspection procedures. However, to satisfy CEQA statute Section 21081.6 and CEQA Guidelines Section 15097 (Mitigation Monitoring and Reporting), a documented record of implementation will be necessary.

19.2 MITIGATION MONITORING CHECKLIST FORMAT

A Mitigation Monitoring Program will be prepared after the County certifies the Final EIR and adopts the North Fair Oaks Community Plan Update, and makes findings as to which mitigation measures are feasible and within its jurisdiction, and will be implemented. The following Mitigation Monitoring Checklist (Table 19.1) template contains the following information, pursuant to CEQA Guidelines Section 15097:

- *Identified Impact.* This column identifies each significant impact, as presented in the EIR summary table (Table 2.1 in Chapter 2).

- *Related Mitigation Measure.* This column identifies the corresponding mitigation measures as presented in the EIR summary table, and may be supplemented by the performance criteria by which the success of the mitigation will be gauged.

- *Monitoring.* This column identifies (1) the "implementation entity" responsible for carrying out each mitigation measure (e.g., County, individual project applicant); (2) the "monitoring and verification entity" responsible for verifying compliance (e.g., County department); and (3) timing (e.g., upon completion of a particular construction phase, before issuance of an occupancy permit).

- *Verification.* This column provides a space for the signature and date of the "monitoring and verification" entity when a monitoring milestone is reached.

Table 19.1

MITIGATION MONITORING CHECKLIST--NORTH FAIR OAKS COMMUNITY PLAN UPDATE

The environmental mitigation measures listed in column two below have been incorporated into the conditions of approval for the North Fair Oaks Community Plan Update in order to mitigate identified environmental impacts. A completed and signed chart will indicate that each mitigation requirement has been complied with, and that County and state monitoring requirements have been fulfilled with respect to Public Resources Code Section 21081.6.

		MONITORING			VERIFICATION	
IDENTIFIED IMPACT	**RELATED MITIGATION MEASURE (Performance Criteria)**	**Implementation Entity**	**Monitoring and Verification Entity**	**Timing Requirements**	**Signature**	**Date**
AIR QUALITY						
Impact 5-1.						
Impact 5-2.						
CLIMATE CHANGE						
Impact 7-1.						
Impact 7-2.						
CULTURAL AND HISTORIC RESOURCES						
Impact 8-1.						
Impact 8-2.						
HAZARDS AND HAZARDOUS MATERIALS						
Impact 10-1.						
Impact 10-2.						

20. ORGANIZATIONS AND PERSONS CONTACTED

20.1 COUNTY OF SAN MATEO

Lillian Clark, Recycle Works Program Manager, County of San Mateo Department of Public Works
William Gibson, Project Planner, County of San Mateo, Planning and Building Department
Samuel Herzberg, Senior Planner, San Mateo County Parks
Greg Munks, Sheriff, County of San Mateo Office of the Sheriff

20.2 OTHER

Joseph Aranda, Assistant City Attorney, City of Redwood City
Tony Carrasco, District Manager, Bayshore & Bear Gulch, California Water Service Company
Donald Dias, Director of Facilities, Redwood City School District
Jilian Guldenbrein, Researcher, California Historical Resources Information System, Northwest Information Center
Bill Kitajima, Projects Manager, West Bay Sanitary District
Blake Lyon, Acting Principal Planner, City of Redwood City
Uli Peretz, Fire Prevention Officer, Redwood City Fire Department
Harold Schapelhouman, Fire Chief, Menlo Park Fire Protection District

21. APPENDICES

APPENDIX 21.1: PROGRAM EIR AUTHORITY (CEQA GUIDELINES SECTION 15168)

This EIR for the proposed North Fair Oaks Community Plan Update has been prepared as a program EIR under authority of section 15168 of the CEQA Guidelines. Section 15168 explains that a program EIR may be prepared on a series of actions that can be characterized as one large project and are related either (1) geographically; (2) as logical parts in the chain of contemplated actions; (3) in connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program; or (4) as individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways.

The proposed Community Plan Update and the series of actions required for its implementation are characterized by all four of these relationships. One, they are geographically related because the project, including all of its implementing actions, would occur in the community of North Fair Oaks. Two, the various local, state, and federal governmental approvals, entitlements, and permits that may be required for development of the project are all logical parts in the chain of actions contemplated by the Community Plan Update program. Three, the project would be undertaken in connection with the issuance of rules, regulations, plans, and other general criteria set forth as part of the Plan Update. Four, activities under the Plan Update implementation program would be comprised of various individual activities carried out under the statutory authority of the County of San Mateo which would generally have similar environmental effects that could be mitigated in similar ways.

Subsequent development activities must be examined in the light of the program EIR to determine whether an additional environmental document must be prepared. If a later activity would have effects that were not examined in the program EIR, a new Initial Study would need to be prepared leading to either an EIR or a Negative Declaration. If the lead agency finds that, pursuant to CEQA Guidelines section 15162, no new effects could occur or no new mitigation measures would be required, the lead agency can approve the activity as being within the scope of the project covered by the program EIR, and no new environmental document would be required. Under CEQA Guidelines section 15168, a lead agency shall incorporate feasible mitigation measures and alternatives developed in the program EIR into subsequent actions in the program. Where the subsequent activities involve site-specific operations, the lead agency should use a written checklist or similar device to document the evaluation of the site and the activity to determine whether the environmental effects of the operation were covered in the program EIR.

A program EIR will be most helpful in dealing with subsequent activities if it deals with the effects of the program as specifically and comprehensively as possible. With a good and detailed analysis of the program, many subsequent activities can be found to be within the scope of the project described in the program EIR, and no further environmental document would be required.

A program EIR can be used to simplify the task of preparing environmental documents on later parts of the program. The program EIR can (1) provide the basis in an Initial Study for

determining whether the later activity may have any significant effects; (2) be incorporated by reference to deal with regional influences, secondary effects, cumulative impacts, broad alternatives, and other factors that apply to the program as a whole; and (3) focus an EIR on a subsequent project to permit discussion solely of new effects that had not been considered before.

APPENDIX 21.2

NOTICE OF PREPARATION AND INITIAL STUDY

County of San Mateo

Planning & Building Department

455 County Center, 2nd Floor
Redwood City, California 94063
650/363-4161 Fax: 650/363-4849

Mail Drop PLN122
plngbldg@co.sanmateo.ca.us
www.co.sanmateo.ca.us/planning

NOTICE OF EIR PREPARATION
NOTICE OF EIR SCOPING MEETING

To:	Responsible Agencies, Trustee Agencies, and Other Interested Parties
Subject:	**Notice of Preparation of a Draft Environmental Impact Report**
From:	County of San Mateo
Street Address:	455 County Center, 2nd Floor
City/State/Zip:	Redwood City, California 94063
Contact:	William Gibson, Planner

The County of San Mateo will be the Lead Agency and will prepare an Environmental Impact Report (EIR) for the proposed North Fair Oaks Community Plan Update identified below. We are interested in comments from your agency as to the appropriate scope and content of the EIR's environmental information pertaining to your agency's statutory responsibilities in connection with the proposed project.

The proposed project, its location, and its potential environmental effects are described in the attached copy of the County-prepared Initial Study.

Due to the time limits mandated by state law, your response to this notice must be sent at the earliest possible date but ***not later than 30 days*** after receipt of this notice.

Please send your response to the County of San Mateo, Attention: William Gibson, Planner, Planning and Building Department, 455 County Center, 2nd Floor, Redwood City, California 94063. Please provide a contact name for your agency with your comments.

Project Title: North Fair Oaks Community Plan Update

Project Applicant: County of San Mateo

Project Location: North Fair Oaks is an unincorporated part of San Mateo County in the nine-county San Francisco Bay Area. The community comprises approximately 798 acres and is bounded by the cities of Redwood City to the north, west and southwest, Atherton to the east, and Menlo Park to the northeast. The city of San Francisco is approximately 30 miles to the north, and the City of San Jose is about 20 miles to the south. North Fair Oaks is located four miles north of Stanford University. Though close to San Francisco Bay, community access to the shoreline is blocked by Highway 101 to the northeast.

Project Background: The first North Fair Oaks Community Plan was adopted in 1979. Key issues and opportunities in this 2011 Community Plan Update, which have become community priorities over the intervening years, include the following: neighborhood environmental quality, housing, community services and facilities, the local economy, transportation, and public health and safety.

Proposed Project: The County of San Mateo is proposing to adopt an updated North Fair Oaks Community Plan. The proposed updated Plan--including its goals, policies, programs, and development potential--will be the subject of the North Fair Oaks Community Plan Update Environmental Impact Report (EIR). The Plan's policy framework addresses the following topics: land use, circulation and parking, parks and recreation, infrastructure, health and wellness, housing, and economic development. Generally, the goals of the updated Plan are to: (1) encourage mixed-use development in appropriate areas; (2) promote revitalization of vacant and underutilized land; (3) amend land use categories to strengthen neighborhood and community character; (4) encourage transit-oriented development (TOD) around an area designated for potential multi-modal transit improvements and along major transit corridors; (5) create distinct gateways; (6) improve neighborhood and transit connectivity, including pedestrian/bicycle facilities; (7) improve parking efficiency; (8) improve and expand recreational opportunities; (9) improve utility infrastructure; (10) enhance community health and wellness through access to recreation and to daily goods and services, especially for families and children; (11) improve housing opportunities and conditions, and accommodate future housing demand; and (12) plan to accommodate potential demand for new non-residential development while expanding employment opportunities.

The updated Community Plan could result in up to approximately 3,024 additional dwelling units, 180,000 additional square feet of retail uses, 155,000 additional square feet of office uses, 210,000 additional square feet of industrial (R&D and general) uses, 110,000 additional square feet of institutional (community and school) uses, and 3.8 additional acres of public (parks and recreation) uses.

Notice of Scoping Meeting: Pursuant to CEQA Guidelines section 15082 (Notice of Preparation and Determination of Scope of EIR), the County of San Mateo will conduct a scoping meeting for the purpose of soliciting views of adjacent cities, responsible agencies, agencies with jurisdiction by law, trustee agencies, and interested parties requesting notice, as to the appropriate scope and content of the EIR.

The scoping session will be conducted by the County of San Mateo
on May 5, 2011 at1:30 PM at 455 County Center, Room 101, Redwood City, CA, 94063.
Please contact William Gibson, Planner, for further information.

William Gibson, Planner

4/26/2011
Date

Telephone: 650/363-1816
FAX: 650/363-4849
E-mail: wgibson@co.sanmateo.ca.us

WSG:pac - WSGV0323_WPP.DOC

COUNTY OF SAN MATEO
INITIAL STUDY AND ENVIRONMENTAL CHECKLIST FORM

1.	**Project Title:**	**North Fair Oaks Community Plan Update**
2.	**Lead Agency Name and Address:**	County of San Mateo 455 County Center, 2nd Floor Redwood City, CA 94063
3.	**Contact Person and Phone Number:**	William Gibson, Planner Telephone: 650/363-1816 Fax: 650/363-4849 Email: wgibson@co.sanmateo.ca.us
4.	**Project Location:**	Unincorporated part of San Mateo County bounded by the cities of Redwood City to the north, west and southwest, Atherton to the east, and Menlo Park to the northeast. See Figures 1 and 2.
5.	**Project Sponsor's Name and Address:**	County of San Mateo 455 County Center, 2nd Floor Redwood City, CA 94063
6.	**General (Community) Plan Designation:**	Residential (Medium Low Density Residential, Medium Density Residential, Medium High Density Residential), Commercial (Neighborhood Commercial, General Commercial), Industrial (General Industrial), and Public (Institutional).
7.	**Zoning:**	R-1--One Family Residential, R-2--Two Family Residential, R-3--Multiple Family Residential, PUD--Planned Unit Development, P--Parking, H-1--Limited Highway Frontage, I/NFO--Institutional/North Fair Oaks, C-1--Neighborhood Business, C-1/NFO--Neighborhood Business/North Fair Oaks, C-2--General Commercial, C-2/NFO--General Commercial/North Fair Oaks, M-1--Light Industrial, M-1/EDISON/NFO--Light Industrial/ Edison Way/North Fair Oaks, M-1/NFO--Light Industrial/ North Fair Oaks, and DR--Design Review.
8.	**Existing Plan Area Land Uses:**	Existing land uses in North Fair Oaks can be classified into four general categories: residential (365.2 acres), commercial (41.3 acres), industrial (117.2 acres), and institutional/public (33.5 acres). The remaining approximately 240 acres are dedicated to road and railroad rights-of-way. About two-thirds of all parcels in North Fair Oaks are in residential use. Residential uses range from low density residential (0.3 to 6.0 dwelling

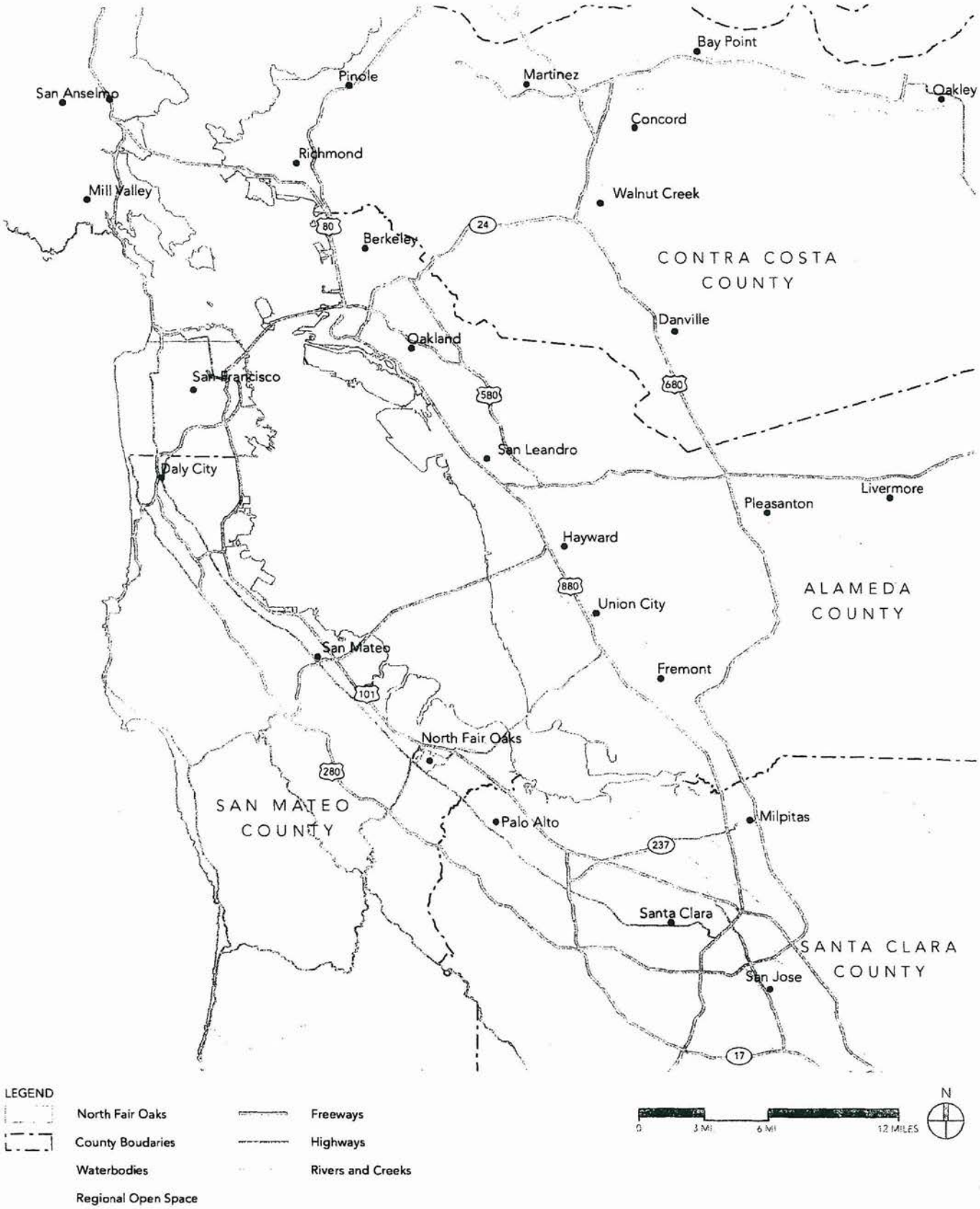


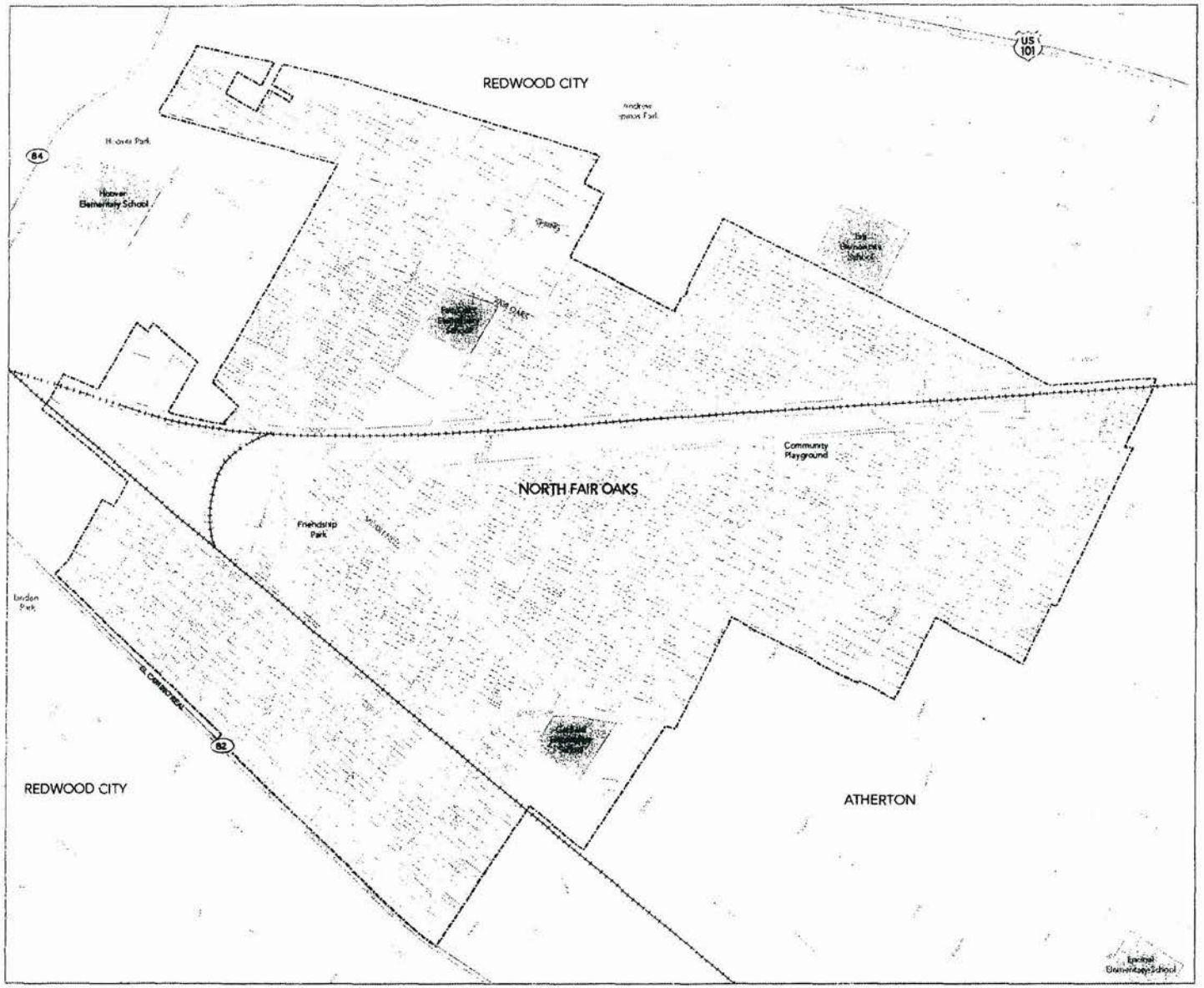
Figure 1: Project Location
North Fair Oaks Community Plan

Updated Mar 2010

Figure 2

North Fair Oaks

NORTH FAIR OAKS COMMUNITY PLAN



- Project Area
- Parcel
- Park
- School
- Highway
- Rail Line

units per acre [du/ac]) to high density residential (17.5 to 87.0 du/ac). Low density residential parcels are located primarily in the central neighborhood, between the Caltrain and Southern Pacific Railroad tracks. Medium density (6.1 to 17.4 du/ac) and high density residential uses are located generally beyond this central neighborhood.

Neighborhood commercial uses are located along commercial corridors such as portions of Middlefield Road and 5th Avenue. General commercial uses are located along El Camino Real and portions of Middlefield Road. Industrial uses are concentrated along portions of the Southern Pacific Railroad tracks and to the north of Fair Oaks Avenue/west of 2nd Avenue. The railroad tracks, and the parcels along the tracks, divide the neighborhoods. Two elementary schools and one community playground are located in North Fair Oaks. Approximately 13.8 acres in the community are vacant.

9. Description of Project:

(a) Project Location and Overview

The County of San Mateo (County) is proposing to adopt an updated North Fair Oaks Community Plan. Figures 1 and 2 illustrate the regional location and local boundaries of the approximately 798-acre Community Plan area. North Fair Oaks is an unincorporated part of San Mateo County in the nine-county San Francisco Bay Area. The community is bounded by the cities of Redwood City to the north, west and southwest, Atherton to the east, and Menlo Park to the northeast. The city of San Francisco is approximately 30 miles to the north, and the City of San Jose is about 20 miles to the south. North Fair Oaks is located four miles north of Stanford University. Though close to San Francisco Bay, community access to the shoreline is blocked by Highway 101 to the northeast.

Highway access to North Fair Oaks is provided by Highway 82 (El Camino Real) to the southwest, Highway 84 (Woodside Road) to the west, and Highway 101 (Bayshore Freeway) to the northeast. Southern Pacific Railroad (SPR) and Caltrain tracks divide the community into three separate neighborhoods (north, central, and south neighborhoods). Caltrain provides commuter rail service from San Francisco to San Jose. The closest rail station, in neighboring Redwood City, is connected to North Fair Oaks through the San Mateo County Transit Authority (SamTrans) bus lines. A proposed commuter rail service on the SPR alignment from the Redwood City Caltrain Station to Union City BART Station (in the East Bay) is currently being considered by regional agencies.

The updated Community Plan contains integrated goals, policies, and programs for the following areas: land use, circulation and parking, parks and recreation, infrastructure, health and wellness, housing, and economic development. The Plan also includes in community-wide development capacity assumptions based on the proposed land use densities, intensities, and policies (see [e], Development Capacity, below).

(b) Background

The first North Fair Oaks Community Plan was adopted in 1979. Key issues and opportunities in this 2011 Community Plan Update, which have become community priorities over the intervening years, include the following: neighborhood environmental quality, housing, community services and facilities, the local economy, transportation, and public health and safety.

(c) Updated Community Plan Goals, Policies, and Programs

The updated Community Plan's policy framework addresses the following topics: land use, circulation and parking, parks and recreation, infrastructure, health and wellness, housing, and economic development. Generally, the goals of the updated Plan are to: (1) encourage mixed-use development in appropriate areas; (2) promote revitalization of vacant and underutilized land; (3) amend land use categories to strengthen neighborhood and community character; (4) encourage transit-oriented development (TOD) around an area designated for potential multi-modal transit improvements and along major transit corridors; (5) create distinct gateways; (6) improve neighborhood and transit connectivity, including pedestrian/bicycle facilities; (7) improve parking efficiency; (8) improve and expand recreational opportunities; (9) improve utility infrastructure; (10) enhance community health and wellness through access to recreation and to daily goods and services, especially for families and children; (11) improve housing opportunities and conditions, and accommodate future housing demand; and (12) plan to accommodate potential demand for new non-residential development while expanding employment opportunities.

(d) Development Framework

The proposed land uses for the updated Community Plan are illustrated on Figure 3. Although the proposed land uses represent the potential changes most desired by the community--as expressed in ongoing community meetings--the land uses will remain subject to minor changes throughout the Plan and EIR preparation process, depending on additional community input, the EIR analysis, feasibility assessments, and other factors. Any revisions to the development framework are not expected to exceed the development capacities described in item (e) below.

Proposed land use and circulation concepts incorporated into the updated Community Plan are summarized below (see Figure 3).

(1) Land Use. To support a vibrant pedestrian-friendly community and promote a healthy mix of locally oriented uses, "Opportunity Areas" are identified throughout the community. These areas have the most potential for change in North Fair Oaks, given their location, mix and intensity of existing land uses, proximity to other land uses, and access to transportation and infrastructure. The new land use designations for neighborhood business, general commercial, and industrial uses in these Opportunity Areas would be as follows:

The land use designation along Middlefield Road from 1st Avenue to the western edge of North Fair Oaks, and along the railroad tracks from 5th Avenue to the western edge of the community, would be Commercial Mixed-Use,[1] which would allow a higher intensity mix of commercial, residential, public, and institutional uses. The designation would support transit-oriented development near a proposed future multi-modal transit station and support Middlefield Road's existing character as a primary commercial destination in the community.

- The land use designation along the railroad tracks from 5th Avenue to 12th Avenue would be Industrial Mixed-Use, which would allow a greater mix of light industrial, research and development, commercial, public, and institutional uses.
- The land use designation along the Hetch-Hetchy right-of-way from 12th Avenue to the eastern edge of the community would be Parks and Recreation.
- The land use designation along Middlefield Road from 1st Avenue to 8th Avenue would be Neighborhood Mixed-Use, which would allow a mix of medium density, locally oriented uses including smaller scale commercial, residential, and public uses.

[1]As shown on Figure 3, a portion of this area would be designated Industrial Mixed-Use and Multi-Family Residential.

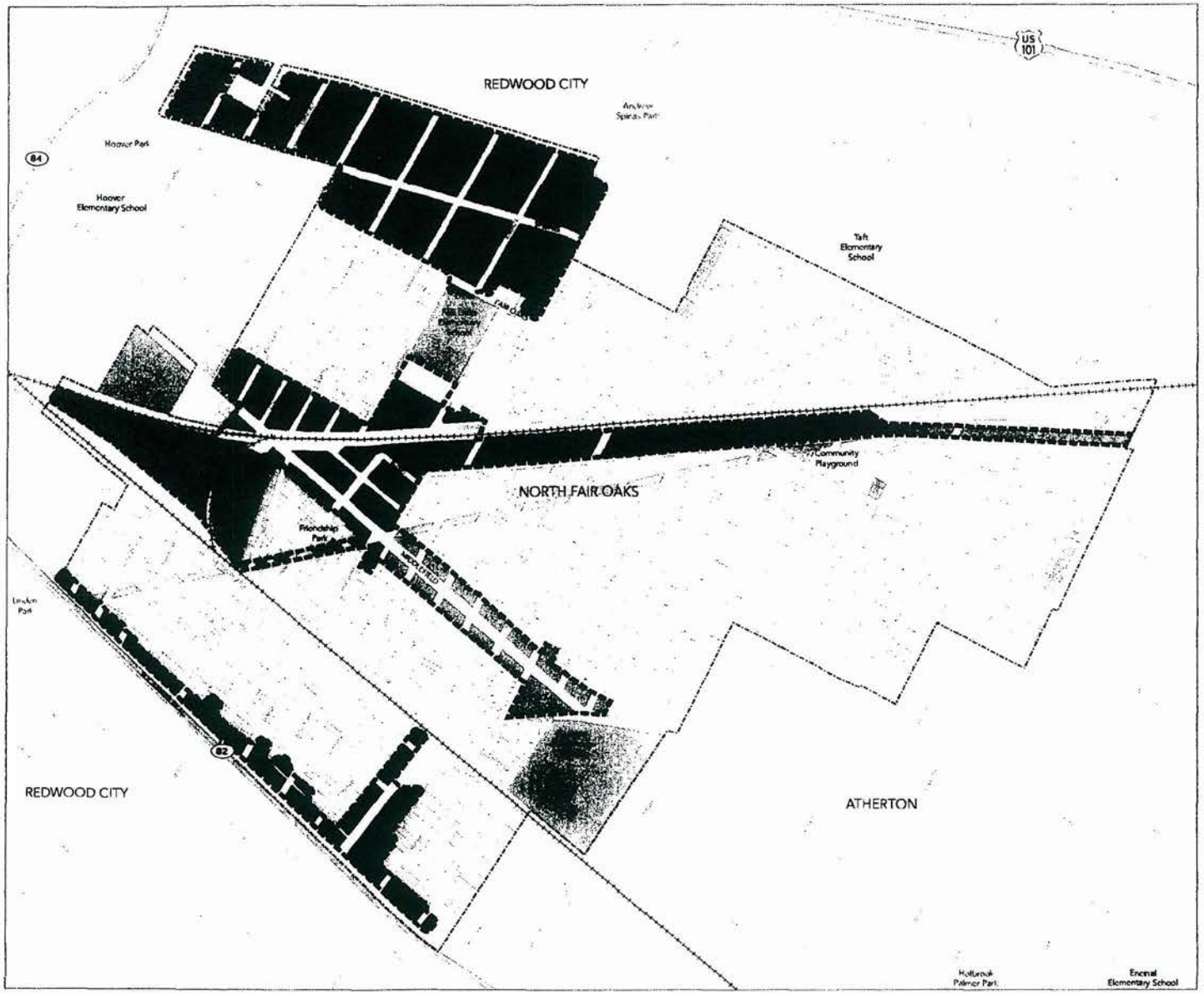


Figure 3

Proposed Land Use

NORTH FAIR OAKS COMMUNITY PLAN

- North Fair Oaks
- Opportunity Area
- Highway
- Rail Line

Residential

- Single-Family Residential
- Multi-Family Residential

Mixed-Use

- Neighborhood Mixed-Use (Medium Density): Commercial / Residential / Public
- Commercial Mixed-Use (Medium-High Density): Commercial / Residential / Public / Institutional / Industrial with approval
- Industrial Mixed-Use (Medium-High Density): Industrial / Commercial / Public / Institutional / Residential with approval

Industrial

- General Industrial

Public

- Community and Institutional
- Parks and Recreation

Land Uses in Neighboring Cities

- Residential
- Commercial
- Industrial
- Institutional
- Parks

- The land use designation along El Camino Real from Loyola Avenue to the western edge of North Fair Oaks, and along 5th Avenue between El Camino Real and the railroad tracks, would be Commercial Mixed-Use, which would allow a mix of higher density residential development and higher intensity locally and regionally oriented commercial uses.

- The land use designation for the existing industrial area bounded by 2nd Avenue, Willow Street, Fair Oaks Avenue, and Bay Road would be Industrial Mixed-Use, which would allow a greater mix of employment-generating uses including industrial, commercial, institutional, and public uses. The designation would also reserve the possibility, as a conditional use, of limited low-intensity residential uses that do not conflict with light industry.

(2) *Circulation.* Middlefield Road is recognized as the heart of North Fair Oaks, where a locally oriented mix of uses and community amenities would be concentrated. The crossing of Middlefield Road and 5th Avenue is identified as a "Neighborhood Activity Node," which is an ideal location for a community gathering space such as a plaza with outdoor seating, public art or water feature, and other amenities.

Six potential "Primary Gateways" into North Fair Oaks, which denote primary points of entry into the community, are proposed. The gateways could be distinguished by a combination of design elements (e.g., signage, special building forms, street trees, special sidewalk and crosswalk/ intersection treatments). The Primary Gateways would be:

- El Camino Real and 5th Avenue,
- Middlefield Road and 10th Avenue,
- Marsh Road and Florence Street,
- Bay Road and 5th Avenue,
- Spring Street and Charter Street, and
- Middlefield Road and Northside Avenue.

Also, a "Secondary Gateway" is proposed at Fair Oaks Avenue and Marsh Road, at the eastern edge of the community. This Secondary Gateway would not include signage but could integrate design elements (e.g., special crosswalks/intersections) and streetscape elements (e.g., special trees, street furniture, pedestrian lighting). These elements would demarcate entry into the neighborhood but would be less overt than Primary Gateway elements.

To provide greater connectivity throughout the community for all modes of transportation (especially bicycle and pedestrian), the following locations have been designated for potential new or improved connections between roadways:

- Marlborough Avenue at Berkshire Avenue,
- Berkshire Avenue, across the railroad tracks, and
- 8th Avenue and Fair Oaks Avenue, across the railroad tracks.

An area designated for potential multi-modal transit improvements and future transit-oriented development (TOD) is proposed for Middlefield Road at its crossing with the railroad tracks. The area would accommodate bus, bus rapid transit (BRT), and potentially passenger light rail service, in order to improve both local and regional transit connections and to act as a catalyst for TOD consistent with the land use designations described in (1) above. The TOD area designation indicates the preferred location for the TOD area, but the feasibility and timing, as well as design details, of an actual TOD project remain to be determined. Such a project would depend on actions of the transit service providers, City of Redwood City, and County Board of Supervisors, as well as on future development patterns and potential.

A preferred route for a potential light rail line is proposed for Middlefield Road and 5th Avenue. Intended to be coordinated with a proposed City of Redwood City light rail line, the North Fair Oaks route would run west-east along Middlefield Road from the western edge of the community to 5th Avenue, then north-south along 5th Avenue. Currently, the route is identified only as appro-

priate for a possible future light rail line, and the feasibility and timing, as well as the technical details, of an actual rail project remain to be determined. Such a project would depend on actions of the City of Redwood City as well as the County Board of Supervisors.

Segments of the Hetch-Hetchy right-of-way, extending from Marsh Road west to the railroad tracks and from Middlefield Road east to the tracks, are designated for community parks, open space, and/or pedestrian and bicycle pathways.

(e) Development Capacity

Table 1 identifies the development capacity assumptions that will be used in the EIR. The updated North Fair Oaks Community Plan would provide for up to approximately 3.024 additional dwelling units, 180,000 additional square feet of retail uses, 155,000 additional square feet of office uses, 210,000 additional square feet of industrial (R&D and general) uses, 110,000 additional square feet of institutional (community and school) uses, and 3.8 additional acres of public (parks and recreation) uses. This development capacity includes development within the Opportunity Areas described above as well as infill development and redevelopment throughout the Community Plan area.

10. Required Approvals:

Implementation of the updated Community Plan would require the following County actions: (1) certification of the Final Environmental Impact Report (Final EIR) for the proposed updated Community Plan; (2) adoption of the updated Community Plan itself; and (3) approval of zoning amendments to reflect and implement the land uses, policies, development standards, programs, and regulations specified by the updated Community Plan.

Table 1

Updated Community Plan Development Capacity Assumptions			
Land Use	**Existing**	**Net New Development Capacity with Updated Community Plan**	**Total Development Capacity with Updated Community Plan**
Residential (dwelling units)	4,250	3,024	7,274
Retail (square feet)	500,000	180,000	680,000
Office (square feet)	180,000	155,000	335,000
Industrial (R&D, general) (square feet)	1,275,000	210,000	1,485,000
Institutional (community, school) (square feet)	675,000	110,000	785,000
Public (parks, recreation) (acres)	10.0	3.8	13.8
Source: Wagstaff/MIG and County of San Mateo, March 2011			

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☒ Aesthetics	☒ Greenhouse Gas Emissions	☒ Public Services
☐ Agricultural and Forestry Resources	☒ Hazards & Hazardous Materials	☒ Recreation
☒ Air Quality	☒ Hydrology/Water Quality	☒ Transportation/Traffic
☒ Biological Resources	☒ Land Use/Planning	☒ Utilities/Service Systems
☒ Cultural Resources	☐ Mineral Resources	☒ Mandatory Findings of Significance
☒ Geology/Soils	☒ Noise	
	☒ Population/Housing	

DETERMINATION:

On the basis of this initial evaluation:

☐ I find that the proposed project **COULD NOT** have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.

☐ I find that although the proposed project **COULD** have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A **MITIGATED NEGATIVE DECLARATION** will be prepared.

☒ I find that the proposed project **MAY** have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.

☐ I find that the proposed project **MAY** have a "potentially significant impact" or "potentially significant unless mitigated impact" on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets, if the effect is a "potentially significant impact" or "potentially significant unless mitigated impact." An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project **COULD** have a significant effect on the environment, because all potentially significant effects (1) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (2) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, **nothing further** is required.

Prepared by:

Signature: _____ Date: 4/27/11

John Wagstaff, Principal
Wagstaff/MIG

Reviewed by:

Signature: _____ Date: 4/27/11

William Gibson
Planner
County of San Mateo

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

ENVIRONMENTAL IMPACTS:

I. **AESTHETICS.** *Would the project:*

a) *Have a substantial adverse effect on a scenic vista?* ☒ ☐ ☐ ☐

The topography of North Fair Oaks is generally flat, with no significant natural features. Existing scenic vistas are limited by the flat terrain. Approximately two-thirds of all parcels in North Fair Oaks are occupied by low density to high density residential buildings, generally of one to three stories. Several miles away, portions of the western hills of Redwood City are visible from various vantage points within North Fair Oaks. Public vantage points in the western hills include Edgewood County Park, Easter Cross, Canada College, and Easter Bowl. Future development under the updated Community Plan may have an adverse effect on scenic vistas of and from the western hills. The EIR will evaluate potential impacts on scenic vistas.

b) *Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?* ☐ ☐ ☐ ☒

There are no designated state scenic highways in, adjacent to, or near North Fair Oaks. This issue will not be evaluated in the EIR.

c) *Substantially degrade the existing visual character or quality of the site and its surroundings?* ☒ ☐ ☐ ☐

Objectives of the updated Plan are intended, in part, to enhance the visual quality and distinct character of North Fair Oaks. Changes under the Plan could affect the visual character of the community and adjacent neighborhoods at the edges of North Fair Oaks, including the potential for shadow impacts. The EIR will evaluate the potential impacts of the Plan on the visual character and quality of North Fair Oaks and its surroundings.

d) *Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?* ☒ ☐ ☐ ☐

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Existing sources of nighttime light within and around North Fair Oaks include those common to urban areas, including street and freeway lights (nearby US 101), parking lot lighting, building lighting, signs, vehicle headlamps, and interior lighting visible through windows. Glare is created by the reflection of sunlight and artificial light off of windows, buildings and other surfaces in the day, and from inadequately shielded and improperly directed light sources at night. Development in accordance with the updated Plan could cause light and glare that may create a nuisance for residential uses or adversely affect community character. The EIR will evaluate potential light and glare impacts.

II. **AGRICULTURAL AND FORESTRY RESOURCES.** *(In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.) Would the project:*

a) *Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?*	☐	☐	☐	☒

The California Department of Conservation Farmland Mapping and Monitoring Program monitors the conversion of agricultural land to urban uses throughout the state, using classifications of important farmlands. Lands designated as Prime Farmland, Unique Farmland, or Farmland

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	of Statewide Importance are considered important farmlands for purposes of the California Environmental Quality Act (CEQA). North Fair Oaks is not assigned any of these designations. The updated Plan will have no impact on important farmlands. This issue will not be evaluated in the EIR.				
b)	*Conflict with existing zoning for agricultural use, or a Williamson Act contract?* North Fair Oaks and the surrounding area are urbanized, not zoned for agricultural use, and do not contain any lands under Williamson Act contracts. The updated Plan will have no impact on agricultural zoning or Williamson Act contracts. This issue will not be evaluated in the EIR.	☐	☐	☐	☒
c)	*Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?* North Fair Oaks and the surrounding area are urbanized and not zoned for forest land or timberland. There are no lands in the vicinity of North Fair Oaks that are planned, used, or managed for forest land or timber production. The updated Plan will have no impact on timberland or forest resources. This issue will not be evaluated in the EIR.	☐	☐	☐	☒
d)	*Result in the loss of forest land or conversion of forest land to non-forest use?* There is no forest land within or near North Fair Oaks. The updated Plan will have no impact on timberland or forest resources. This issue will not be evaluated in the EIR.	☐	☐	☐	☒
e)	*Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?*	☐	☐	☐	☒

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	There is no farmland or forest land within or near North Fair Oaks. The updated Plan does not involve any changes which could directly or indirectly result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest use. This issue will not be evaluated in the EIR.				
III.	**AIR QUALITY.** *(Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.) Would the project:*				
	a) *Conflict with or obstruct implementation of the applicable air quality plan?*	☒	☐	☐	☐
	According to the Bay Area Air Quality Management District (BAAQMD) CEQA Air Quality Guidelines, in order to meet the threshold of significance for operational-related criteria air pollutant and precursor emissions impacts for plans, a proposed plan must: (1) be consistent with current air quality plan control measures; and (2) result in a projected rate of increase in vehicle use less than or equal to its projected rate of increase in population.				
	The consistency of the updated Community Plan with the BAAQMD 2010 Clean Air Plan (CAP) and its transportation control measures, and the increase in vehicle trips or vehicle miles traveled relative to population growth under the Plan, will be evaluated in the EIR.				
	b) *Violate any air quality standard or contribute substantially to an existing or projected air quality violation?*	☒	☐	☐	☐
	Future development under the updated Community Plan could generate emissions of criteria air pollutants from mobile sources (increases in motor vehicle trips and changes in traffic congestion), area sources (water heaters, architectural coatings, landscaping maintenance equipment), and stationary sources (boilers, fueling stations) which exceed BAAQMD significance thresholds. The regulated regional air pollutants of greatest concern and potential impacts are fugitive dust or particulate matter 10 microns or smaller in diameter (PM_{10}) and 2.5 microns or smaller				

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	in diameter ($PM_{2.5}$), and the precursors to ozone, which are reactive organic gases (ROG) and nitrogen oxides (NO_X). Construction activities generate dust and exhaust emissions, and certain construction materials can evaporate and contribute to urban ozone. These issues will be evaluated in the EIR.				
c)	*Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is designated as "non-attainment" under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?* See item III.b above.	☒	☐	☐	☐
d)	*Expose sensitive receptors to substantial pollutant concentrations?* Construction vehicle and equipment exhaust, and construction dust, could cause short-term temporary localized health and nuisance impacts on residential and other sensitive receptors. Additionally, according to the BAAQMD, a project could have a significant impact related to localized carbon monoxide concentrations near congested intersections if it would increase traffic volumes at affected intersections to more than 44,000 vehicles per hour. Development under the updated Plan could also expose sensitive receptors to toxic air contaminants (TACs) and superfine inhalable particulate matter ($PM_{2.5}$) from US 101, El Camino Real, industrial uses, and diesel-fueled railroad operations. Residential uses and other sensitive receptors could be at an elevated health risk from these sources. Potential impacts and mitigation needs related to exposure of sensitive receptors to construction-period dust and exhaust, localized carbon monoxide concentrations, and elevated health risks due to toxic air contaminants will be evaluated in the EIR.	☒	☐	☐	☐
e)	*Create objectionable odors affecting a substantial number of people?* Development under the updated Community Plan could result in industrial	☒	☐	☐	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
activities, food service uses, or other odor-generating uses, close to residential and other odor-sensitive uses. Potential odor-related impacts will be evaluated in the EIR.				
IV. **BIOLOGICAL RESOURCES.** *Would the project:*				
a) *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?*	☒	☐	☐	☐
Special-status species are plants and animals that are legally protected under the State and/or federal Endangered Species Acts or other regulations, as well as other species that are considered rare enough by the scientific community and trustee agencies to warrant special consideration. Species with legal protection under the Endangered Species Acts may represent constraints to development, particularly when they are wide-ranging or highly sensitive to habitat disturbance and where proposed development would result in a "take" of these species. Bird nests in active use are protected under the federal Migratory Bird Treaty Act, and raptor nests are further protected under Section 3503.5 of the California Fish and Game Code when in active use. North Fair Oaks is significantly developed, with limited open space and no identified sensitive habitats. Potential for impacts on biological resources are expected to be minimal; however, special-status plant or wildlife species may potentially exist within the community. This issue will be evaluated in the EIR.				
b) *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?*	☐	☐	☐	☒

		Potentially Significant Impact	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
	The State of California recognizes some plant communities as sensitive natural communities if they are uncommon, regionally declining, or vulnerable. Among these communities are riparian habitat, coast live oak forest, freshwater seeps, freshwater marshes, and coastal salt marsh. There is no riparian habitat or other sensitive natural community within or adjacent to North Fair Oaks.[2] This issue will not be evaluated in the EIR.				
c)	*Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.)?*	☐	☐	☐	☒
	Although definitions vary, wetlands are generally considered to be areas that are periodically or permanently inundated by surface or groundwater, and support vegetation adapted to life in saturated soil. Wetlands are recognized as important features on a regional and national level due to their inherent value to fish and wildlife; use as storage areas for storm-water and floodwaters; and water recharge, filtration and purification functions.				
	Although a "freshwater emergent wetland" is mapped by the U.S. Fish and Wildlife Service (USFWS) between Middlefield Road and the railroad tracks on the western edge of North Fair Oaks,[3] this location is the paved parking lot of an existing big box retail store, with no natural soils or vegetation. This issue will not be evaluated in the EIR.				
d)	*Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*	☐	☐	☒	☐

[2]U.S. Fish and Wildlife Service, National Wetlands Inventory, www.fws.gov/wetlands, accessed March 18, 2011.

[3]U.S. Fish and Wildlife Service, National Wetlands Inventory, www.fws.gov/wetlands, accessed March 18, 2011.

		Potentially Significant Impact	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
	Wildlife use within North Fair Oaks is expected to be relatively low due to the absence of natural habitat, the proximity of streets and development, and the lack of protective cover. Birds (e.g., house sparrow, starling, crow, etc.) and wildlife such as opossums and small rodents typically associated with developed properties would be expected to occur. Due to its developed nature and its proximity to US 101 and roadways, North Fair Oaks is limited in its function as a wildlife movement corridor. Trees within the community could potentially provide nesting habitat for small songbirds; nesting birds are protected by the Migratory Bird Treaty Act and the California Fish and Game Code. Based on this information, the updated Plan would have a less-than-significant impact on wildlife movement or native wildlife nursery sites. This issue will not be evaluated in the EIR.				
e)	*Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?* North Fair Oaks is subject to the County Heritage Tree Ordinance (Ord. No. 2427) and the Significant Tree Ordinance (Ord. No. 3229). This issue will be evaluated in the EIR.	☒	☐	☐	☐
f)	*Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved, local, regional, or state habitat conservation plan?* There is no Habitat Conservation Plan, Natural Community Conservation Plan, or other adopted habitat conservation plan applicable to North Fair Oaks. This issue will not be evaluated in the EIR.	☐	☐	☐	☒
V.	**CULTURAL RESOURCES.** *Would the project:*				
a)	*Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines section 15064.5?* The State Office of Historic Preservation has determined that buildings, structures,	☒	☐	☐	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
and objects 45 years or older may be of historical value. Development under the updated Community Plan could result in a potentially significant impact on historic resources, as defined in CEQA Guidelines section 15064.5. The potential impact of the project on historic resources within and adjacent to North Fair Oaks will be evaluated in the EIR.				
b) *Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines section 15064.5?*	☒	☐	☐	☐
At the time of Euro-American contact, Native Americans in the Bay Area typically lived along alluvial terraces and the historic margins of San Francisco Bay. Ground-disturbing activities during previous development of North Fair Oaks would likely have disturbed archaeological resources that may have existed within the community. Despite the history of disturbance, Community Plan implementation could potentially disrupt, alter, or eliminate as-yet undiscovered archaeological sites, potentially including Native American remains. This issue will be evaluated in the EIR.				
c) *Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*	☒	☐	☐	☐
Ground-disturbing activities during previous development of North Fair Oaks would likely have disturbed, altered, or eliminated paleontological resources that may have existed within the community. Despite the history of disturbance, the project could potentially disrupt, alter, or eliminate as-yet undiscovered paleontological resources. This issue will be evaluated in the EIR.				
d) *Disturb any human remains, including those interred outside of formal cemeteries?*	☒	☐	☐	☐
There are no formal cemeteries located within North Fair Oaks. However, at the time of Euro-American contact, Native Americans in the Bay Area typically lived along alluvial terraces and the historic margins of San Francisco Bay. Despite the				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

history of disturbance within the area, the project could potentially disrupt, alter, or eliminate as-yet undiscovered archaeological sites, potentially including Native American remains. This issue will be evaluated in the EIR.

VI. **GEOLOGY AND SOILS.** *Would the project:*

a) *Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:*

i) *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? (Refer to Division of Mines and Geology Special Publication 42.)*	☐	☐	☒	☐

North Fair Oaks encompasses a portion of the San Andreas Fault Zone. Ground rupture is the actual breaking apart of the ground during an earthquake and generally occurs in the area directly above a fault. The Alquist-Priolo Earthquake Fault Zoning Act addresses the hazard of surface fault rupture by preventing the construction of buildings used for human occupancy over active faults. North Fair Oaks is not located in an Alquist-Priolo Fault Rupture Zone (i.e., over a known fault).[4] Therefore, the potential for fault rupture is considered minimal. This issue will not be evaluated in the EIR.

ii) *Strong seismic ground shaking?*	☒	☐	☐	☐

Ground shaking is the most widespread cause of earthquake damage. Most loss of life and injuries during an earthquake are related to the collapse of buildings and structures. The intensity of the ground shaking at a particular site depends on characteristics of the earthquake source (magnitude, location, and area of causative fault surface), distance from the fault, and amplification effects of local geologic deposits. Project improvements could

[4]San Mateo County General Plan, Natural Hazards map.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
be exposed to strong seismic ground shaking and related risk of loss or injury in the event of an earthquake on one of the active or potentially active faults in the region. Potential risks to life and property from these seismic hazards would be subject to existing laws, regulations and polices, including the California Building Codes and the County's development review procedures. The EIR will evaluate this potential impact.				
iii) *Seismic-related ground failure, including liquefaction?*	☒	☐	☐	☐
Soil liquefaction is a process that occurs in water-saturated, unconsolidated sediment due to ground shaking. During liquefaction, soils lose strength and ground failure may occur, affecting structures and improvements. Soils most susceptible to liquefaction are loose to medium dense, saturated granular soils with poor drainage, including Bay mud and artificial fill. Future development under the updated Community Plan could be exposed to risk of loss or injury related to liquefaction. Potential risks to life and property from these seismic hazards would be subject to existing laws, regulations and polices, including the California Building Codes and the County's development review procedures. The EIR will evaluate this potential impact.				
iv) *Landslides?*	☐	☐	☐	☒
The Plan area is flat and is not subject to landslides.[5] This issue will not be evaluated in the EIR.				
b) *Result in substantial soil erosion or the loss of topsoil?*	☒	☐	☐	☐
The potential for erosion during construction would be limited by the current substantially impervious conditions in the already developed Community Plan area, the flat terrain, and the best management practices routinely implemented by the County and required as a condition of				

[5]San Mateo County General Plan, Natural Hazards map.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	approval for new development. Nonetheless, construction could involve grading, excavation, or other activities that could temporarily expose disturbed soils to erosion. Construction erosion and water quality impacts are addressed in item IX.a below. The EIR will evaluate this potential impact.				
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, liquefaction, or collapse?* Expansive soils could be encountered within the Plan area, and differential settlement could result. Review and permitting of specific development projects would involve characterization and consideration of site-specific geologic and soils conditions, and implementation of individual project mitigations, where needed. Also, State and local planning, building, and engineering regulations address structures, excavation, foundations, retaining walls, and grading activities. The EIR will evaluate this potential impact.	☒	☐	☐	☐
d)	*Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?* Expansive soils possess a "shrink-swell" characteristic, the cyclic expansion and contraction that occurs in fine-grained clay sediments from the process of wetting and drying. Structural damage may result over a long period of time, usually the result of inadequate soil and foundation engineering or the placement of structures directly on expansive soils. Expansive soils might be encountered within the Plan area. Review and permitting of specific development projects would involve characterization and consideration of site-specific geologic and soils conditions, and implementation of individual project mitigations, where needed. Also, State and local planning, building, and engineering regulations address structures, excavation, foundations, retaining walls, and grading activities. The EIR will evaluate this potential impact.	☒	☐	☐	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) *Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?*	☐	☐	☐	☒
No use of septic tanks or alternative wastewater disposal systems is proposed within the Community Plan area. Therefore, the Plan would have no impact related to the capacity of local soils to effectively accommodate septic systems. This issue will not be evaluated in the EIR.				
VII. **GREENHOUSE GAS EMISSIONS.** *Would the project:*				
a) *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?*	☒	☐	☐	☐
Future development under the updated Community Plan could result in an increase in greenhouse gas emissions due primarily to potential increases in vehicle miles traveled, energy use, consumer products, and solid waste. The EIR will evaluate potential greenhouse gas emissions impacts.				
b) *Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*	☒	☐	☐	☐
Future development under the updated Community Plan could result in an increase in greenhouse gas emissions that would conflict with or impede the achievement of California Global Warming Solutions Act of 2006 (AB 32) greenhouse gas reduction goals. The EIR will evaluate potential greenhouse gas emissions impacts.				
VIII. **HAZARDS AND HAZARDOUS MATERIALS.** *Would the project:*				
a) *Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*	☒	☐	☐	☐
Hazardous substances may be generated, stored, transported, used, or disposed of in				

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	association with future development and activities allowed under the updated Community Plan. Also, development under the Plan could involve the demolition or alteration of structures that may contain hazardous building materials (e.g., friable asbestos, lead paint). The EIR will evaluate this potential impact.				
b)	*Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?* See item VIII.a above.	☒	☐	☐	☐
c)	*Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?* There are four elementary schools and eight early childhood education centers in or near the Community Plan area. Development within the Plan area could involve the transport, storage, or use of common hazardous materials within ¼-mile of these schools and centers. The EIR will evaluate this potential impact.	☒	☐	☐	☐
d)	*Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?* Given the existence of various industrial or heavy commercial uses that potentially store and use hazardous materials, there may be sites within or adjacent to the Plan area that are included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5. Existing hazardous materials contamination sites could pose a risk to human health or the environment. The EIR will evaluate this potential impact.	☒	☐	☐	☐
e)	*For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people*	☐	☐	☐	☒

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	residing or working in the project area? The Plan area is not located within the San Carlos Airport Land Use Plan (ALUP) area.[6] No other airport is near the Community Plan area. This issue will not be addressed in the EIR.				
f)	*For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?* No private airstrip exists within or near the Community Plan area. This issue will not be evaluated in the EIR.	☐	☐	☐	☒
g)	*Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?* Traffic from future development under the updated Community Plan could create additional traffic congestion and thereby potentially interfere with an existing emergency response plan or emergency evacuation plan. Transportation improvements proposed in the Plan may have a beneficial impact on emergency response plans or emergency evacuation plans. This issue will be evaluated in the EIR.	☒	☐	☐	☐
h)	*Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?* The Community Plan area is not subject to wildland fire hazard.[7] This issue will not be evaluated in the EIR.	☐	☐	☐	☒

[6]San Carlos Airport Master Plan Update, Airport Modernization Project, Draft Environmental Impact Report; County of San Mateo Planning and Building Division, Environmental Services, June 2002.

[7]San Mateo County General Plan, Natural Hazards map.

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
IX. **HYDROLOGY AND WATER QUALITY.** *Would the project:*				
a) *Violate any water quality standards or waste discharge requirements?*	☒	☐	☐	☐

The Community Plan area lacks adequate drainage facilities; most of the area is served by overland flow through streets and gutters, and the two pump stations serving the area lack adequate capacity for the future. The San Francisco Bay Regional Water Quality Control Board (Water Board) and San Mateo County Countywide Water Pollution Prevention Program C.3 requirements apply to projects that create or replace more than 10,000 square feet of impervious area (5,000 square feet for certain types of projects). Project applicants must prepare and implement a Stormwater Management Plan containing treatment and source control measures that meet the "maximum extent practicable" standard as specified in the National Pollutant Discharge Elimination System (NPDES) permit and the C.3 Guidebook. Project applicants must also prepare a Stormwater Facility Operation and Maintenance Plan and execute agreements to ensure the stormwater treatment and flow-control facilities are maintained in perpetuity.

Construction activities disturbing one acre or more would be required to submit a Notice of Intent (NOI) to the Water Board to be covered by the State's General Construction Permit before beginning construction, which would require the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP) containing Best Management Practices (BMPs) that would be implemented during construction.

The EIR will evaluate potential construction and operational water quality impacts.

b) *Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not*	☐	☐	☐	☒

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	support existing land uses or planned uses for which permits have been granted)? The Plan area will not result in the need to use groundwater. Since the area is predominantly developed, no impact on groundwater resources is expected.				
c)	*Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?* Construction activities disturbing one acre or more would be required to submit a Notice of Intent (NOI) to the Water Board to be covered by the State's General Construction Permit before beginning construction, which would require the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP) containing Best Management Practices (BMPs) that would be implemented during construction. The EIR will evaluate the potential impacts of needed drainage improvements as well as the potential construction and operational water quality impacts.	☒	☐	☐	☐
d)	*Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?* See items IX.a and IX.c above.	☒	☐	☐	☐
e)	*Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?* Even though the Plan area is not located within a Federal Emergency Management Agency (FEMA) special flood hazard zone, there is potential for flooding to occur because of deficiencies in the local drainage system. The EIR will evaluate the potential impacts of needed drainage improvements. Also see item IX.a above.	☒	☐	☐	☐

		Potentially Significant Impact	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
f)	*Otherwise substantially degrade water quality?* See item IX.a above.	☒	☐	☐	☐
g)	*Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?* See item IX.e above. Additionally, regional sea level rise predictions for the San Francisco Bay region predict a 16-inch rise in sea level by mid-century and a 55-inch rise by the end of the century. Portions of the Community Plan area are expected to be vulnerable to flooding due to sea level rise associated with global climate change. This issue will be evaluated in the EIR.	☒	☐	☐	☐
h)	*Place within a 100-year flood hazard area structures which would impede or redirect flood flows?* See items IX.e and IX.g above.	☒	☐	☐	☐
i)	*Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?* The Community Plan area is not subject to flooding resulting from dam or levee failure.[8] The EIR will not address this issue.	☐	☐	☐	☒
j)	*Result in inundation by seiche, tsunami, or mudflow?* A seiche is a tidal change in an enclosed or semi-enclosed water body caused by sustained high winds or an earthquake. The Plan area is not located close enough to San Francisco Bay to be affected by a seiche.[9] A tsunami is a series of waves created when a body of water such as an ocean is rapidly displaced on a massive scale, most commonly as the result of an	☐	☐	☐	☒

[8]San Mateo County General Plan, Hazards map.
[9]San Mateo County General Plan, Hazards map.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
earthquake. The Plan area is not subject to tsunami inundation.[10] The Plan area is flat and far from hillsides, and is not subject to risk from mudflow. The project would have no impact related to seiche, tsunami, or mudflow. The EIR will not address this issue.				
X. **LAND USE AND PLANNING.** *Would the project:*				
a) *Physically divide an established community?* Development under the updated Community Plan is intended to physically unify the Plan area through: (1) encouraging mixed-use development to integrate a range of amenities in close proximity to surrounding residential neighborhoods; (2) improving overall neighborhood connectivity through improved multi-modal safety and access across the railroad tracks; (3) improving existing, and providing new, pedestrian/bike facilities and connectivity throughout the community; (4) strengthening local and regional transit connectivity; and (5) enhancing access to parks and playgrounds. This issue will be evaluated in the EIR.	☒	☐	☐	☐
b) *Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance), adopted for the purpose of avoiding or mitigating an environmental effect?* The updated Community Plan will serve as the North Fair Oaks component of the San Mateo County General Plan. The EIR will evaluate the proposed Plan's consistency with other applicable, adopted local and regional plans and regulations (e.g., County zoning, County Housing Element Update, regional FOCUS Program).	☒	☐	☐	☐
c) *Conflict with any applicable habitat conservation plan or natural community conservation plan?*	☐	☐	☐	☒

[10] San Mateo County General Plan, Hazards map.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	No Habitat Conservation Plan or Natural Community Conservation Plan is applicable to the Plan area. The EIR will not address this issue.				
XI.	**MINERAL RESOURCES.** *Would the project:*				
	a) *Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?*	☐	☐	☐	☒
	There are no known mineral resources in the Plan area. This issue will not be evaluated in the EIR.				
	b) *Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?*	☐	☐	☐	☒
	See item XI.a above.				
XII.	**NOISE.** *Would the project result in:*				
	a) *Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standard of other agencies?*	☒	☐	☐	☐
	Occupants of the Community Plan area could be exposed to noise levels that exceed the County's General Plan land use/noise compatibility guidelines and State Title 24 noise standards due to traffic noise levels along US 101, El Camino Real, and the railroad tracks. This potential impact will be evaluated in the EIR.				
	b) *Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?*	☒	☐	☐	☐
	Demolition and construction activities associated with future development under the updated Community Plan could generate excessive groundborne vibration. Occupants of the area could be exposed to excessive groundborne vibration exceeding Federal Transit Administration thresholds of significance for frequent events due to railroad operations. The EIR will evaluate these potential groundborne vibration impacts.				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) *A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?* Traffic generated by development in accordance with the updated Community Plan could increase traffic noise levels along certain streets and thereby affect residential, school, or other noise-sensitive uses. Also, new industrial and commercial uses next to or below residential uses in mixed-use development could cause noise impacts. The EIR will evaluate these potential noise impacts.	☒	☐	☐	☐
d) *A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?* Plan implementation would generate short-term temporary construction noise. The effects of noise resulting from construction depend on the noise generated by various pieces of construction equipment, the timing and duration of noise-generating activities, and the distance between construction noise sources and noise-sensitive receptors. The EIR will evaluate construction noise impacts.	☒	☐	☐	☐
e) *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?* The Plan area is not located within the San Carlos Airport Land Use Plan (ALUP) area.[11] No other airport is near the Community Plan area. This issue will not be addressed in the EIR. However, ambient noise levels will be evaluated in the EIR, as described in items XII.a through XII.d above.	☐	☐	☐	☒
f) *For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to*	☐	☐	☐	☒

[11]San Carlos Airport Master Plan Update, Airport Modernization Project, Draft Environmental Impact Report; County of San Mateo Planning and Building Division, Environmental Services, June 2002.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
excessive noise levels? No private airstrip is located within or near the Community Plan area. This issue will not be evaluated in the EIR.				
XIII. **POPULATION AND HOUSING.** *Would the project:*				
a) *Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?* The updated Community Plan could result in up to approximately 3,024 additional dwelling units, 180,000 additional square feet of retail uses, 155,000 additional square feet of office uses, 210,000 additional square feet of industrial (R&D and general) uses, 110,000 additional square feet of institutional (community and school) uses, and 3.8 additional acres of public (parks and recreation) uses. This growth would not in itself constitute a significant adverse environmental impact. However, new economic activity and growth both inside and outside the Plan area may in turn increase traffic, air quality, noise, utility, and public service impacts. These and associated potential growth inducement impacts will be evaluated in identified sections of the EIR.	☒	☐	☐	☐
b) *Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?* The updated Community Plan does not propose the displacement of existing housing or people. The Plan proposes an increase of up to approximately 3,024 new residential units. However, redevelopment of properties within the Plan area could over time result in the demolition and loss of housing and the associated displacement of people. The EIR will evaluate potential displacement impacts.	☒	☐	☐	☐

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
c) *Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?*	☒	☐	☐	☐
See item XIII.b above.				

XIV. **PUBLIC SERVICES.**

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

a) *Fire protection?*	☒	☐	☐	☐
Future development under the updated Community Plan could increase demand for fire and emergency medical service, police protection, parks, or other public services. The increased demand may require new or expanded facilities in order to maintain acceptable service ratios or response times, the construction of which could cause significant environmental impacts. This potential impact will be evaluated in the EIR.				
b) *Police protection?*	☒	☐	☐	☐
See item XIV.a above.				
c) *Schools?*	☒	☐	☐	☐
Future development under the updated Plan could increase demand for local public school services. Under current statutes and case law, payment of the required school impact fees would address the impact of the Plan on school facilities to the furthest extent permitted by law. The duty of a lead agency to mitigate school impacts beyond the State-mandated fees arises only where there is a physical environmental impact involved beyond the mere addition of students to a school. This issue will be evaluated in the EIR.				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) *Parks?*	☒	☐	☐	☐
See item XIV.a above and item XV below.				
e) *Other public facilities?*	☒	☐	☐	☐
See item XIV.a above.				

XV. **RECREATION.**

a) *Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*	☒	☐	☐	☐
See item XIV.a above. Existing data indicates that North Fair Oaks is deficient in parks and recreational opportunities, existing parks and playgrounds may be inadequately maintained, and there are barriers to access to parks and playgrounds. Residents and occupants of future development under the updated Community Plan could generate an additional demand for parks and recreational facilities, which could cause or accelerate physical deterioration of parks and recreational facilities, and create a requirement for additional maintenance and additional facilities to meet new demand. The construction of new park and recreational space could also have environmental impacts. The EIR will evaluate the potential impacts of the Plan on existing park and recreational space and on the need for new space, as well as the potential impacts of creation of new park space resulting from the Plan.				
b) *Does the project include recreational facilities, or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?*	☒	☐	☐	☐
See item XV.a above.				

XVI. **TRANSPORTATION/TRAFFIC.** *Would the project:*

a) *Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all*	☒	☐	☐	☐

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?				
	The updated Community Plan is intended to encourage pedestrian activity, public transit use, and trip internalization. The Plan proposes a number of roadway, transit, bicycle, pedestrian, and parking improvements and changes.				
	Development under the Plan could increase traffic congestion. The EIR will evaluate potential traffic impacts following guidelines of the City/County Association of Governments of San Mateo County (C/CAG). Specifically, the EIR will analyze AM and PM peak hour traffic conditions under existing conditions, existing plus project conditions, and 2030 General Plan buildout conditions with and without the project.				
	The EIR will also analyze the effect of the updated Plan on transit, bicycle, and pedestrian facilities in terms of conflicts with existing or planned facilities and the potential for unsafe conditions.				
b)	*Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?*	☒	☐	☐	☐
	See item XVI.a above.				
c)	*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?*	☐	☐	☐	☒
	The Plan area is not located within an airport land use plan area (see item VIII.e above). The updated Community Plan would not result in any change in air traffic patterns. The project would have no impact on air traffic patterns. This issue will not be discussed in the EIR.				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) *Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*	☒	☐	☐	☐
See item XVI.a above.				
e) *Result in inadequate emergency access?*	☒	☐	☐	☐
Traffic from future development under the updated Community Plan could create additional traffic congestion and thereby potentially interfere with an existing emergency response plan, emergency evacuation plan, or emergency access. Transportation improvements proposed in the Plan may have a beneficial impact on emergency response plans or emergency evacuation plans. This issue will be evaluated in the EIR.				
f) *Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?*	☒	☐	☐	☐
See item XVI.a above.				
XVII. **UTILITIES AND SERVICE SYSTEMS.** *Would the project:*				
a) *Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?*	☒	☐	☐	☐
Sanitary sewer service to North Fair Oaks is provided by the Fair Oaks Sewer Maintenance District (FOSMD) and Redwood City facilities for transporting wastewater flows, then South Bayside System Authority (SBSA) facilities for treating the wastewater. The area's sanitary sewer system has conveyance and treatment limitations. The impacts of proposed land use changes and intensification under the updated Community Plan on wastewater conveyance and treatment will be assessed in the EIR. Plan-proposed sanitary sewer improvements and other necessary mitigation measures will be described.				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) *Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?* The water distribution system in the majority of North Fair Oaks is owned and operated by Cal Water; the northern portion of the community is served by the City of Redwood City. Cal Water has planned to implement a water pipe replacement program in North Fair Oaks. The impacts of proposed land use changes and intensification under the updated Community Plan on water distribution and treatment will be assessed in the EIR. Plan-proposed water system improvements and other necessary mitigation measures will be described.	☒	☐	☐	☐
c) *Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?* Storm drainage for North Fair Oaks is provided by the County of San Mateo. The Plan area lacks adequate drainage facilities; most of the area is served by overland flow through streets and gutters, and the two pump stations serving the area lack adequate future capacity. Even though the Plan area is not located within a FEMA special flood hazard zone, there is potential for flooding due to the inadequate local drainage system. The impacts of proposed land use changes and intensification under the updated Community Plan on the storm drainage system will be assessed in the EIR. Plan-proposed storm drainage improvements and other necessary mitigation measures will be described.	☒	☐	☐	☐
d) *Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?* Implementation of the updated Community Plan is expected to increase water demand over existing conditions. The EIR will	☒	☐	☐	☐

		Potentially Significant Impact	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
	compare projected water demand under the Plan with applicable forecasts of Cal Water and the City of Redwood City, the two water service providers to North Fair Oaks.				
e)	*Result in a determination by the waste-water treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?*	☒	☐	☐	☐
	See item XVII.a above.				
f)	*Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?*	☒	☐	☐	☐
	Future development under the updated Community Plan could generate additional solid waste, which in turn could affect landfill capacity. The EIR will evaluate potential impacts related to solid waste disposal capacity.				
g)	*Comply with federal, state, and local statutes and regulations related to solid waste?*	☐	☐	☐	☒
	Future development in accordance with the updated Plan would need to comply with and participate in applicable demolition/ construction and household/commercial solid waste recycling regulations and programs. The EIR will not evaluate this issue.				
XVIII.	**MANDATORY FINDINGS OF SIGNIFICANCE.**				
a)	*Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?*	☒	☐	☐	☐
	Pertaining to the quality of the environment, biological resources, and California history/ prehistory, this Initial Study has				

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	determined that impacts in the following environmental areas could be significant: aesthetics, air quality, biological resources, cultural resources, geology/soils, greenhouse gas emissions, hazards/hazardous materials, hydrology/water quality, land use/planning, noise, population/housing, public services, recreation, transportation/traffic, and utilities/service systems.				
b)	*Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?* This Initial Study has determined that some project impacts (e.g., air quality, traffic) could be cumulatively considerable. The EIR will evaluate the potential cumulative impacts of the proposed project in conjunction with other pending and anticipated development in the project vicinity.	☒	☐	☐	☐
c)	*Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?* Project effects identified in this Initial Study as having possible substantial adverse impacts on human beings, either directly or indirectly, include aesthetics, air quality, biological resources, cultural resources, geology/soils, greenhouse gas emissions, hazards/ hazardous materials, hydrology/ water quality, land use/planning, noise, population/housing, public services, recreation, transportation/ traffic, and utilities/ service systems, as described under items I, III, IV, V, VI, VII, VIII, IX, X, XII, XIII, XIV, XV, XVI, and XVII, respectively.	☒	☐	☐	☐

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APPENDIX 21.3:

CEQA STANDARDS FOR EIR ADEQUACY

According to section 15151 of the CEQA Guidelines, the standards for Adequacy of an EIR are as follows:

An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection but for adequacy, completeness, and a good faith effort at full disclosure.

APPENDIX 21.4:

CEQA DEFINITION OF "MITIGATION"

According to section 15370 of the CEQA Guidelines, the term "mitigation" includes:

(a) Avoiding the impact altogether by not taking a certain action or parts of an action.

(b) Minimizing impacts by limiting the degree of 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 impacts by replacing or providing substitute resources or environments.

APPENDIX 21.5 EIR CONSULTANTS

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