North Camino Ramon Specific Plan
Draft Environmental Impact Report

State Clearinghouse No. 2010092014

City of San Ramon • February 10, 2012

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DRAFT
Environmental Impact Report
North Camino Ramon Specific Plan
San Ramon, Contra Costa County, California

State Clearinghouse No. 2010092014

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ACRONYMS AND ABBREVIATIONS

AADT	Annual Average Daily Traffic
ABAG	Association of Bay Area Governments
ACE	Altamont Commuter Express
Air Basin	San Francisco Bay Area Air Basin
AM Peak	Weekday morning peak hour (7 a.m. to 9 a.m.)
ARB	California Air Resources Board
AST	aboveground storage tank
ATCM	Airborne Toxic Control Measure
BAAQMD	Bay Area Air Quality Management District
BACT	Best Available Control Technology
BART	Bay Area Rapid Transit
BMP	Best Management Practice
BVOC	biogenic volatile organic compound
C	Celsius
CAAQS	California Ambient Air Quality Standards
Cal OSHA	California Occupational Health and Safety Administration
CalEPA	California Environmental Protection Agency
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CCCSD	Central Contra Costa Sanitary District
CCCTA	Central Contra Costa Transit Authority
CCTA	Contra Costa Transportation Authority
CDFG	California Department of Fish and Game
CEQA	California Environmental Quality Act

CESA	California Endangered Species Act
CFC	chlorofluorocarbon
CH_4	methane
CHL	California Historical Landmarks
CMP	congestion management plan
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2e	carbon dioxide equivalent
CPHI	California Points of Historical Interest
CPTED	Crime Prevention Through Environmental Design
CPUC	California Public Utilities Code
dB	decibel
DERWA	Dublin San Ramon Services District/East Bay Municipal Utility District Recycled Water Authority
DPM	diesel particulate matter
DSRSD	Dublin San Ramon Services District
DTSC	Department of Toxic Substances Control
EBMUD	East Bay Municipal Utility District
EIR	Environmental Impact Report
EMF	electromagnetic field
EPA	United States Environmental Protection Agency
ESA	Endangered Species Act
F	Fahrenheit
FAR	floor area ratio

FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
GWh/y	gigawatt-hours per year
HCM	Highway Capacity Manual
HFC	hydrofluorocarbon
HOV	high occupancy vehicle
HRA	Health Risk Assessment
HRI	California Historic Resources Inventory
HVAC	heating, ventilation, and air conditioning
I	Interstate
IPCC	United Nations Intergovernmental Panel on Climate Change
L_{dn}	day/night average sound level
L_{eq}	equivalent sound level
LID	low impact development
LOS	Level of Service
MBA	Michael Brandman Associates
MBTA	Migratory Bird Treaty Act
mgd	million gallons per day
MMI	Modified Mercalli Intensity
mph	miles per hour
MTC	Metropolitan Transportation Commission
$MTCO_2e$	metric tons of carbon dioxide equivalents
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emissions Standards for Hazardous Air Pollutants

NHPA	National Historic Preservation Act
NO_2	nitrogen dioxide
NOC	Notice of Completion
NOP	Notice of Preparation
NO_x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
O_3	ozone
OEHHA	California Office of Environmental Health Hazard Assessment
pc/mi/hr	passenger cars per mile per hour
PCB	polychlorinated biphenyl
pCi/l	picoCuries per liter
PFC	perfluorocarbon
PG&E	Pacific Gas and Electric Company
PM Peak	Weekday afternoon peak hour (4 p.m. to 6 p.m.)
PM_x	particulate matter
ppb	parts per billion
ppm	parts per million
PPV	peak particle velocity
PVC	polyvinyl chloride
RCRA	Federal Resource Conservation and Recovery Act
RMP	Risk Management Plan
ROG	reactive organic gases
RWQCB	Regional Water Quality Control Board
SF_6	sulfur hexafluoride

SO_2	sulfur dioxide
SWAT	Southwest Area Transportation Committee
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminants
TDM	transportation demand management
TDS	total dissolved solids
Tg	teragram
therms/y	therms per year
TMA	transportation management association
TSO	traffic service objective
TVTC	Tri Valley Transportation Council
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
UST	underground storage tank
v/c	volume-to-capacity
VMT	vehicle miles traveled
WDR	Waste Discharge Requirements

EXECUTIVE SUMMARY

Purpose

This Draft Environmental Impact Report (Draft EIR) is prepared in accordance with the California Environmental Quality Act (CEQA) to evaluate the potential environmental impacts associated with the implementation of the North Camino Ramon Specific Plan (State Clearinghouse No. 2010092014). This document is prepared in conformance with CEQA (California Public Resources Code, Section 21000, et seq.) and the CEQA Guidelines (California Code of Regulations, Title 14, Section 15000, et seq.).

The purpose of this Draft EIR is to inform decision-makers, representatives of affected and responsible agencies, the public, and other interested parties of the potential environmental effects that may result from implementation of the proposed project. This Draft EIR describes potential impacts relating to a wide variety of environmental issues and methods by which these impacts can be mitigated or avoided.

Project Summary

Project Location

The North Camino Ramon Specific Plan boundaries are located within the City of San Ramon, Contra Costa County, California. The Specific Plan boundaries encompass approximately 295 gross acres (255 net acres) in the northern portion of the City of San Ramon and are generally bounded by Interstate 680 (I-680) (west), Fostoria Way/Town of Danville (north), Iron Horse Trail and Alcosta Boulevard (east), and Executive Parkway and Norris Canyon Road (south).

Project Description

The North Camino Ramon Specific Plan seeks to facilitate the redevelopment of the Specific Plan area from an automobile-dominated, low-density commercial area to a transit- and pedestrian-oriented neighborhood that will be a community focal point with a mix of uses. Key aspects of the Specific Plan are to complement the San Ramon City Center project and support the large office population within the Bishop Ranch Business Park.

Development Potential

Table ES-1 summarizes the development potential of the Specific Plan. At buildout, the Specific Plan boundaries would contain 6.72 million square feet of commercial and residential uses, with approximately 5.98 million square feet consisting of new development.

Table ES-1: Specific Plan Development Summary

Category		Square Feet		
		Commercial	Residential	Total
Existing		3,395,577	—	3,395,000
Development Potential Prior to Specific Plan		4,902,000	1,236,400 (1,124 dwelling units)	6,138,400
North Camino Ramon Specific Plan	**Specific Plan Buildout**	**5,070,000**	**1,650,000 (1,500 dwelling units)**	**6,720,000**
	Net New	*4,386,000*	*1,650,000*	*5,975,000*

Notes:
"Existing Residential" category does not include St. James Place, as this was not occupied at the time of Draft EIR release.
Dwelling units are assumed to be an average of 1,100 square feet.
"Net New" assumes that 684,000 square feet of existing commercial uses would be retained.
Source: City of San Ramon, 2012.

Conceptual Plan Framework

The Specific Plan is a market driven plan and the area is expected to evolve over an extended number of years based on market forces and property owner needs. Development uses and building types will also evolve over time, and may be very different from current norms. The Specific Plan maintains the flexibility to respond to changing conditions and to take advantage of special development opportunities.

However, to assist property owners and future decision-makers to better understand the vision underlying the Specific Plan, the Concept Plan Framework, which is described in more detail below, provides an overview of the vision.

Park Commons

A one-way, local street loop with on-street parking will connect Crow Canyon Road to Norris Canyon Road and provide easy access to ground and upper floor retail, restaurant, commercial service, and office uses along its length. At the center of the Park Commons, a linear park will provide a strong and unique sense of place via soft, landscaped areas as well as areas that can be adapted for public uses, public art, and events for residents of the area and the community at large.

Transit Center

The existing Transit Center, currently located on Executive Parkway near Camino Ramon, may be moved to the Park Commons at Norris Canyon Road when demand warranted by development demand and service need. It will place all parcels within the Specific Plan area within a 10-minute walk, making access to jobs, stores, and restaurants in the area convenient and encouraging residents within the area to take public transit to their jobs elsewhere.

Mixed Use Core

Retail, restaurants and service commercial uses will line the Park Commons with outdoor cafes and merchandise displays, enlivening the street front and encouraging active pedestrian activity to make park-once-and-walk shopping possible and appealing. Residential units and/or other commercial uses will occupy the upper floors above the active ground floor uses to provide additional vitality, and to place residents, employees, and visitors close to a variety of goods, services, and activities.

Park Green

A multi-use park and public open space will front the Park Commons and provide a park plaza setting that will also serve as an activity and events area. It will be a designed as a gathering place with site amenities and landscape features.

Shared Parking/Garages

Shared parking is a central goal of the Specific Plan. It will reduce the overall number of parking spaces needed, reduce the cost of providing parking to individual property owners, and encourage one-stop shopping. An overall parking management plan will encourage the use of shared parking throughout the area to take advantage of the mix of uses.

Iron Horse Trail Open Space Link

Pedestrian and bicycle circulation will be enhanced by the provision of a broad landscaped path and open space linking the Iron Horse Trail to the Park Commons, Village Green, and Transit Center. It will also be designed to assist in capturing and filtering stormwater runoff.

Secondary Street Grid

Additional intermediate east-west streets will allow the large areas to evolve, utilizing smaller blocks with multiple commercial and residential frontages to improve vehicular, pedestrian, and bike circulation options.

Crow Canyon Place Extension

Crow Canyon Place on the north and Annabel Lane on the south will be connected to provide improved access and a proper environment for retail development opportunities along its length and at the current Toyota Parts Distribution Center site south of Norris Canyon Road.

Commercial Mixed Use

Additional commercial uses that complement those in the Mixed Use Core will provide a complete mix of uses to serve the needs of the community and residents in the area. Supermarkets, specialty markets, and drug stores may prefer the easy access provided by Camino Ramon, while larger office uses and smaller stores will increase the vitality of the central block. Private parking structures with ground floor retail and townhouse frontages will maintain the rich, visual diversity for pedestrians in the core area.

Destination Retail

Larger sites along the Crow Canyon Place extension and mid to large floor-plate uses north of Crow Canyon Road will accommodate new retail opportunities for stores and complexes that are currently missing in San Ramon, and to which residents now travel long distances by car. The vision includes an integration of these uses into the adjacent, pedestrian-oriented Park Commons through urban design improvements and by the adoption of the increasingly common use of structured parking below or above the ground floor retail uses.

Destination Retail Center

Larger retail complexes with a regional appeal will be accommodated, and integrated with the unique, mixed-use environment of the area. Innovative designs and mixes of uses that are beginning to emerge in the real estate industry will be encouraged to reduce the visual scale of larger buildings, and provide a well-landscaped pedestrian environment.

Bishop Ranch Consolidation

Relocation of the existing Bishop Ranch office space from other parcels within the Specific Plan area will be encouraged to allow more intensive development of other commercial and residential use that are supportive of the vision. The future development in this area will complement the San Ramon City Center, and be comparable to other mixed-use projects that have been constructed throughout the United States.

Multifamily Residential

A wide variety of workforce housing will be located throughout the area geared toward working professionals and people who desire to be close to convenient restaurants, shopping, and services. Loft units, apartments over retail stores, apartment and condominium buildings, townhouses, rowhouses, and live/work units will be encouraged to meet the needs of the community, and provide housing near the large number of jobs that currently exist within Bishop Ranch and at the San Ramon Regional Medical Center. Small commercial uses will be integrated into ground floors to provide nearby services for residents and to enliven major pedestrian routes to encourage walking throughout the Specific Plan area.

Mixed Use with Residential Emphasis

The vacant portion of the Toyota parcel will develop as a mixed-use parcel with ground floor spaces devoted to retail, restaurant, and commercial service uses.

Office Campus

The current collection of office and office-support uses will evolve over time as a single- or multi-user office complex within an integrated landscaped environment similar to other corporate office campuses in the nearby Bishop Ranch Business Park. Offering a unique and high-quality working

environment, the employees in these offices will be able to easily walk to the Park Commons for errands, lunchtime and after work dining without resorting to their automobiles.

Infill Development

Smaller parcels and parcels that already are relatively densely developed will evolve over time through parcel consolidations, land use changes, and structured parking to increase their land utilization efficiency and to bring additional uses to the community.

Iron Horse Trail Overcrossing

A pedestrian overcrossing at Crow Canyon Road along with a similar overcrossing at Bollinger Canyon Road will improve pedestrian and bicycle access to the North Camino Ramon Specific Plan area and the San Ramon City Center, minimize potential conflicts with vehicles, and reduce traffic congestion, while also enhancing recreation opportunities for those living in the area.

Project Objectives

The objectives of the proposed project are to:

- Enhance quality of life for residents and employees.
- Promote economic growth through new capital investment, the creation of new jobs, the development of new housing opportunities, and expansion of the tax base.
- Facilitate the redevelopment of the Specific Plan area from an automobile-dominated, low-density commercial area to a transit- and pedestrian-oriented neighborhood that will be a community focal point with a mix of uses.
- Complement the San Ramon City Center project and support the large office population within the Bishop Ranch Business Park.
- Expand the City's retail offerings by identifying sites for retail opportunities, as well as neighborhood-serving commercial uses.
- Enhance all modes of circulation within the plan area and connectivity to surrounding land uses.
- Facilitate the use of alternative modes of transportation through an enhanced circulation system, site planning, and design techniques.
- Emphasize the use of the Iron Horse Trail and connectivity between the Plan Area and other parts of the City.
- Provide workforce housing close to employment centers.
- Minimize adverse impacts to sensitive uses through the use of site planning and design techniques.

Significant Unavoidable Adverse Impacts

Implementation of the Specific Plan would not result in any significant unavoidable impacts.

Summary of Project Alternatives

Below is a summary of the alternatives to the proposed project considered in Section 5, Alternatives to the Specific Plan.

- **No Project Alternative:** The North Camino Ramon Specific Plan would not be implemented. The entire Specific Plan area would be designated "Mixed Use," pursuant to the General Plan 2030 land use diagram; however, there would be no Specific Plan to guide the transition of this area.
- **Office/Retail Intensification Alternative:** This alternative consists of a plan concept that emphasizes office and retail use intensification that would create a commercial district with a wide range of retail and support commercial uses, supported by nearby office campus and residential neighborhoods. This alternative would result in an additional 1,253,000 square feet of commercial uses and an additional 377 dwelling units relative to the proposed project. The Office/Retail Intensification Alternative is the Environmentally Superior Alternative.
- **Suburban Village Alternative:** This alternative consists of a plan concept that contemplates a fully integrated horizontal and vertical mixed-use suburban village with a vibrant commercial core, lifestyle residential neighborhoods, and abundant open park space amenities. This alternative would result in an additional 496,500 square feet of commercial uses and an additional 1,785 dwelling units relative to the proposed project.

Areas of Controversy

Pursuant to CEQA Guidelines Section 15123(b), a summary section must address areas of controversy known to the lead agency, including issues raised by agencies and the public, and it must also address issues to be resolved, including the choice among alternatives and whether or how to mitigate the significant effects.

A Notice of Preparation (NOP) for the proposed project was issued on September 8, 2010. The NOP described the project and issues to be addressed in the EIR was distributed to the State Clearinghouse, responsible agencies, and other interested parties for a 30-day public review period extending from September 8, 2010 through October 9, 2010. The NOP identified the potential for significant impacts on the environment related to the following topical areas:

- Aesthetics, Light, and Glare
- Air Quality and Greenhouse Gas Emissions
- Biological Resources
- Cultural Resources
- Geology, Soils, and Seismicity
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use
- Noise
- Population and Housing
- Public Services and Recreation
- Transportation
- Utility Systems

Public Review of the Draft EIR

Upon completion of the Draft EIR, the City of San Ramon filed a Notice of Completion (NOC) with the State Office of Planning and Research to begin the public review period (Public Resources Code, Section 21161). Concurrent with the NOC, this Draft EIR has been distributed to responsible and trustee agencies, other affected agencies, surrounding cities, and interested parties, as well as all parties requesting a copy of the Draft EIR in accordance with Public Resources Code 21092(b)(3). During the public review period, the Draft EIR, including the technical appendices, is available for review from the City of San Ramon. The address for each location is provided below.

City of San Ramon
Planning/Community Development Department
Planning Services Division
2401 Crow Canyon Road
San Ramon, CA 94583
Hours:
8:30 a.m. to 5 p.m., Monday–Friday

City of San Ramon
City Clerk's Office
2222 Camino Ramon
San Ramon, CA 94583
Hours:
8:30 a.m. to 5 p.m., Monday–Friday

San Ramon Library (Marketplace)
100 Montgomery Street
San Ramon, CA 94583
Hours:
10 a.m. to 8 p.m., Monday–Thursday
10 a.m. to 5 p.m., Friday and Saturday
1 p.m. to 5 p.m., Sunday

Dougherty Station Library
17017 Bollinger Canyon Road
San Ramon, CA 94582
Hours:
10 a.m. to 8 p.m., Monday and Thursday
12 p.m. to 8 p.m., Tuesday and Wednesday
10 a.m. to 5 p.m., Friday and Saturday

San Ramon Community Center
12501 Alcosta Boulevard
San Ramon, CA 94583

Alcosta Senior and Community Center
9300 Alcosta Boulevard
San Ramon, CA 94583

Dougherty Station Community Center
17011 Bollinger Canyon Road
San Ramon, CA 94582

The Draft EIR is also posted electronically in Adobe PDF format on the City of San Ramon's website: http://www.ci.san-ramon.ca.us/

Agencies, organizations, and interested parties have the opportunity to comment on the Draft EIR during the 45-day public review period. Written comments on this Draft EIR should be addressed to:

Mr. Lauren Barr, Senior Planner
City of San Ramon
Planning/Community Development Department
Planning Services Division
2401 Crow Canyon Road
San Ramon, CA 94583
Phone: 925.973.2560
Fax: 925.838.3231
Email: lbarr@sanramon.ca.gov

Submittal of electronic comments in Microsoft Word or Adobe PDF format is encouraged. Upon completion of the public review period, written responses to all significant environmental issues raised will be prepared and made available for review by the commenting agencies at least 10 days prior to the public hearing before the City of San Ramon on the project, at which the certification of the Final EIR will be considered. Comments received and the responses to comments will be included as part of the record for consideration by decision makers for the project.

Executive Summary Matrix

Table ES-2 below summarizes the impacts, mitigation measures, and resulting level of significance after mitigation for the relevant environmental issue areas evaluated for the proposed project. The table is intended to provide an overview; narrative discussions for the issue areas are included in the corresponding section of this EIR. Table ES-2 is included in the EIR as required by CEQA Guidelines Section 15123(b)(1).

Table ES-2: Executive Summary Matrix

Impacts	Mitigation Measures	Level of Significance After Mitigation
Section 3.1 - Aesthetics, Light, and Glare		
Impact AES-1: Development and land use activities contemplated by the Specific Plan would not degrade scenic resources within the viewshed of a State Scenic Highway.	No mitigation is necessary.	Less than significant impact.
Impact AES-2: Development and land use activities contemplated by the Specific Plan would not degrade the visual character of the Specific Plan area or its surroundings.	No mitigation is necessary.	Less than significant impact.
Impact AES-3: Development and land use activities contemplated by the Specific Plan would not create new sources of light and glare that may adversely affect views.	No mitigation is necessary.	Less than significant impact.
Section 3.2 - Air Quality and Greenhouse Gas Emissions		
Impact AIR-1: The Specific Plan would conflict with or obstruct implementation of the applicable air quality plan.	Implement Mitigation Measure AIR-4.	Less than significant impact.
Impact AIR-2: The Specific Plan would not violate any air quality standard or contribute substantially to an existing or projected air quality violation.	No mitigation is necessary.	Less than significant impact.
Impact AIR-3: The Specific Plan would 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 standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors).	Implement Mitigation Measure AIR-4.	Less than significant impact.

Table ES-2 (cont.): Executive Summary Matrix

Impacts	Mitigation Measures	Level of Significance After Mitigation
Impact AIR-4: The Specific Plan would expose sensitive receptors to substantial pollutant concentrations after incorporation of mitigation.	**MM AIR-4:** Prior to the final discretionary approval for any residential use that occur pursuant to the North Camino Ramon Specific Plan, the City of San Ramon shall determine the area of impact from toxic emissions from Interstate 680 and existing stationary sources that may potentially exceed the BAAQMD significance criteria for cancer or non-cancer Toxic Air Contaminant exposure. Emissions from Interstate 680 shall be estimated using the BAAQMD roadway screening tool. Impacts from stationary sources near the project shall be compared with the distance threshold recommended by California Air Resources Board's Land Use Handbook distance guidance. If residential projects are proposed within an area exceeding the threshold, the City shall require a Health Risk Assessment to determine the refined impact level and to identify design features such as high efficiency ventilation and cooling systems that shall be installed to reduce the impact to less than significant levels. The City shall prohibit the construction of any sensitive receptor land use within the an area of impact of Interstate 680 or stationary source as described above, unless the risk is less than the BAAQMD's significance criteria for TACs exposure.	Less than significant impact.
Impact AIR-5: The Specific Plan would create objectionable odors affecting a substantial number of people.	No mitigation is necessary.	Less than significant impact.
Impact AIR-6: The Specific Plan would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; the Specific Plan would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.	No mitigation is necessary.	Less than significant impact.
Impact AIR-7: The Specific Plan would not be significantly affected by climate change impacts, including increased wildfires, increased flooding, decreased water supply, or sea level rise.	No mitigation is necessary.	Less than significant impact.

Table ES-2 (cont.): Executive Summary Matrix

Impacts	Mitigation Measures	Level of Significance After Mitigation
Section 3.3 - Biological Resources		
Impact BIO-1: Development and land use activities contemplated by the North Camino Ramon Specific Plan may have an adverse effect on special-status wildlife species.	**MM BIO-1:** If suitable avian nesting habitat is intended to be removed during the nesting season (February 1 through August 31), a qualified biologist shall conduct a nesting bird survey to identify any potential nesting activity. If passerine birds are found to be nesting, or there is evidence of nesting behavior within 250 feet of the impact area, the biologist shall determine an appropriate buffer that shall be required around the nests. No vegetation removal or ground disturbance would occur within this buffer. For raptor species—birds of prey such as hawks and owls—this buffer would generally be 500 feet. A qualified biologist shall monitor the nests closely until it is determined that the nests are no longer active, at which time construction activities may commence within the buffer area. Construction activity may encroach into the buffer area at the discretion of the biological monitor. Tree or vegetation removal activities that occur outside of the nesting season (September 1 through January 31) are not subject to the requirements of this mitigation measure.	Less than significant impact.
Impact BIO-2: Development and land use activities contemplated by the Specific Plan would not conflict with any local policies or ordinances protecting biological resources.	No mitigation is necessary.	Less than significant impact.
Section 3.4 - Cultural Resources		
Impact CUL-1: Development and land use activities contemplated by the Specific Plan may have the potential to damage or destroy previously undiscovered historic resources.	**MM CUL-1:** If a potentially significant prehistoric or historic resource is encountered during subsurface activities, all construction within a 100-foot radius of the find shall cease until a qualified archaeologist determines whether the resource requires further study. The project applicant shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. Any previously undiscovered resources found during construction shall be recorded on appropriate California Department of Parks and Recreation (DPR) forms and evaluated for significance in terms of California Environmental Quality Act criteria by a qualified archaeologist. Potentially significant cultural resources consist of, but are not limited to, glass, ceramics, stone, bone, wood, and shell artifacts or features, including hearths, structural remains,	Less than significant impact.

Table ES-2 (cont.): Executive Summary Matrix

Impacts	Mitigation Measures	Level of Significance After Mitigation
	or historic dumpsites. If the resource is determined to be significant under CEQA, a qualified archaeologist shall prepare and implement a research design and archaeological data recovery plan, if necessary. The archaeologist shall also perform appropriate technical analyses, prepare a full written report and file it with the appropriate information center, and provide for permanent curation of the recovered resources.	
Impact CUL-2: Development and land use activities contemplated by the Specific Plan could potentially damage or destroy previously undiscovered prehistoric resources.	Implement Mitigation Measure CUL-1.	Less than significant impact.
Impact CUL-3: Development and land use activities contemplated by the Specific Plan could potentially damage or destroy previously undiscovered paleontological resources.	**MM CUL-3:** Prior to initiation of deep excavation procedures at depths greater than 10 feet, a qualified paleontological monitor will be retained to conduct an onsite monitoring program to ensure protection of previously unknown paleontological specimens. In the event a fossil is discovered during construction of the proposed project when the paleontological monitor is not present, excavation within 100 feet of the find shall be temporarily halted until the discovery is examined by a qualified paleontologist, in accordance with Society of Vertebrate Paleontology standards. The project applicant shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. The paleontologist shall notify the City and project applicant of the procedures that must be followed before construction is allowed to resume at the location of the find. If the find is determined to be significant and the City determines that avoidance is not feasible, the paleontologist shall design and carry out a data recovery plan consistent with the Society of Vertebrate Paleontology standards. The plan shall be submitted to the City for review and approval. Upon approval, the plan shall be incorporated into the project.	Less than significant impact.
Impact CUL-4: Development and land use activities contemplated by the Specific Plan could potentially damage or destroy previously undiscovered burial sites.	**MM CUL-4:** If human remains are encountered during earth-disturbing activities, all work within 100 feet of the find shall stop immediately and the Contra Costa County Coroner's office shall be notified. If the Coroner determines the remains are Native American in origin, the Native American Heritage Commission will be notified and, in turn, will notify the person	Less than significant impact.

Table ES-2 (cont.): Executive Summary Matrix

Impacts	Mitigation Measures	Level of Significance After Mitigation
	determined to be the Most Likely Descendent (MLD). The MLD will provide recommendations for treatment of the remains (CEQA Guidelines Section 15064.5; Health and Safety Code Section 7050.5; Public Resources Code Sections 5097.94 and 5097.98).	
Section 3.5 - Geology, Soils, and Seismicity		
Impact GEO-1: Development and land use activities contemplated by the Specific Plan may expose people or structures to potential substantial adverse effects associated with seismic hazards.	**MM GEO-1a:** Prior to issuance of building permits for new construction on any property within 500 feet of I-680, the project applicant shall retain a qualified geologist or geotechnical engineer to prepare a fault investigation study for the splay of the Calaveras Fault that may extend into the western portion of the Specific Plan boundaries. The study shall identify the location of the splay in relation to the property in question and, if warranted, identify appropriate building setbacks pursuant to the Alquist-Priolo Earthquake Fault Zoning Act. Any necessary setbacks shall be shown on building plans submitted to the City of San Ramon. The approved plans shall be incorporated into the proposed project. The fault investigation study may be performed as part of a design-level geotechnical study prepared pursuant to Mitigation Measure GEO-1b. **MM GEO-1b:** Prior to issuance of building permits for new construction on any property within the Specific Plan, the project applicant shall submit a design-level geotechnical study and building plans to the City of San Ramon for review and approval. The building plans shall demonstrate that they incorporate all applicable recommendations of the design-level geotechnical study and comply with all applicable requirements of the most recent version of the California Building Standards Code. A licensed professional engineer shall prepare the plans, including those that pertain to soil engineering and structural foundations. The approved plans shall be incorporated into the proposed project. All onsite soil engineering activities shall be conducted under the supervision of a licensed Geotechnical Engineer or Certified Engineering Geologist.	Less than significant impact.

Table ES-2 (cont.): Executive Summary Matrix

Impacts	Mitigation Measures	Level of Significance After Mitigation
Impact GEO-2: Development and land use activities contemplated by the Specific Plan have the potential to result in soil erosion or the loss of topsoil.	Implement Mitigation Measures HYD-1a and HYD-1b in Section 3.7, Hydrology and Water Quality.	Less than significant impact.
Impact GEO-3: Development and land use activities contemplated by the Specific Plan may expose persons or property to hazards associated with unstable geologic units or soils.	Implement Mitigation Measure GEO-1b.	Less than significant impact.
Impact GEO-4: Development and land use activities contemplated by the Specific Plan may result in unacceptable risks associated with expansive soils.	Implement Mitigation Measure GEO-1b.	Less than significant impact.
Section 3.6 - Hazards and Hazardous Materials		
Impact HAZ-1: Development and land use activities contemplated by the Specific Plan would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.	No mitigation is necessary.	Less than significant impact.
Impact HAZ-2: Development and land use activities contemplated by the Specific Plan may be exposed to undue risk as a result of prior contamination from past uses.	**MM HAZ-2a:** Prior to the issuance of demolition, grading, or building permits (whichever comes first) for new development or significant expansion of existing development within the block bounded by Camino Ramon (west), Fostoria Way (north), Iron Horse Trail (east), and Crow Canyon Road (south), the project applicant shall prepare and submit to the City of San Ramon a site-specific Phase I Environmental Site Assessment to assess the presence of hazards or hazardous materials. Recommendations from the site assessment shall be incorporated into development plans and implemented to the satisfaction of the City of San Ramon to ensure future land uses are not adversely affected by any identified onsite hazards. **MM HAZ-2b:** Prior to the issuance of demolition permits for any structure constructed prior to 1978, the property owner or applicant shall retain a qualified contractor to determine the presence or absence of asbestos-containing materials or lead-based paint. If either material is found to be present, the property owner or applicant shall retain a certified hazardous	Less than significant impact.

Table ES-2 (cont.): Executive Summary Matrix

Impacts	Mitigation Measures	Level of Significance After Mitigation
	waste contractor to properly remove and dispose of all materials containing asbestos or lead paint in accordance with federal and state law. The property owner or applicant shall submit documentation to the City of San Ramon demonstrating that this contractor has been retained as part of the demolition permit application. Upon completion of removal and disposal, the project applicant shall provide documentation to the City of San Ramon demonstrating that these activities were successfully completed.	
Impact HAZ-3: Development and land use activities contemplated by the Specific Plan would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	No mitigation is necessary.	Less than significant impact.
Section 3.7 - Hydrology and Water Quality		
Impact HYD-1: Development and land use activities contemplated by the Specific Plan may violate water quality standards or waste discharge requirements.	**MM HYD-1a:** Prior to the issuance of grading permits for areas larger than 1 acre within the Specific Plan area, the project applicant shall prepare and submit a Stormwater Pollution Prevention Plan (SWPPP) and Grading Plan to the City of San Ramon that identify specific actions and Best Management Practices (BMPs) to prevent stormwater pollution from construction sources. The plans shall identify a practical sequence for site restoration, BMP implementation, contingency measures, responsible parties, and agency contacts. The applicant shall include conditions in construction contracts requiring the plans to be implemented and shall have the ability to enforce the requirement through fines and other penalties. The plans shall incorporate control measures in the following categories: • Soil stabilization practices • Dewatering practices (if necessary) • Sediment and runoff control practices • Monitoring protocols • Waste management and disposal control practices Once approved by the City, the applicant's contractor shall be responsible throughout the duration of the project for installing, constructing,	

Table ES-2 (cont.): Executive Summary Matrix

Impacts	Mitigation Measures	Level of Significance After Mitigation
	inspecting, and maintaining the control measures included in the SWPPP and Grading Plan. **MM HYD-1b:** The City shall ensure that SWPPPs for projects within the Specific Plan area identify pollutant sources that could affect the quality of stormwater discharges from the construction site. Control practices shall include those that effectively treat target pollutants in stormwater discharges anticipated from project construction sites. To protect receiving water quality, the SWPPP shall include but not be limited to the following elements: • Temporary erosion control measures (such as fiber rolls, staked straw bales, detention basins, temporary inlet protection, check dams, geofabric, sandbag dikes, and temporary revegetation or other ground cover) shall be employed for disturbed areas. • No disturbed surfaces will be left without erosion control measures in place during the winter and spring months. • Sediment shall be retained onsite by a system of sediment basins, traps, or other appropriate measures. Of critical importance is the protection of existing catch basins that drain to San Ramon Creek. • The construction contractor shall prepare Standard Operating Procedures for the handling of hazardous materials on the construction site to eliminate or reduce discharge of materials to storm drains. • BMP performance and effectiveness shall be determined either by visual means where applicable (i.e., observation of above-normal sediment release), or by actual water sampling in cases where verification of contaminant reduction or elimination (inadvertent petroleum release), is required by the RWQCB to determine adequacy of the measure. • In the event of significant construction delays or delays in final landscape installation, native grasses or other appropriate vegetative cover shall be established on the construction site as soon as possible after disturbance, as an interim erosion control measure throughout the wet season.	

Table ES-2 (cont.): Executive Summary Matrix

Impacts	Mitigation Measures	Level of Significance After Mitigation
Impact HYD-2: Development and land use activities contemplated by the Specific Plan would not substantially deplete groundwater supplies, interfere substantially with groundwater recharge, or result in groundwater contamination.	No mitigation is necessary.	Less than significant impact.
Impact HYD-3: Development and land use activities contemplated by the Specific Plan would not create the potential for downstream flooding or substantial erosion or siltation on- or offsite as a result of alteration of drainage patterns.	No mitigation is necessary.	Less than significant impact.
Section 3.8 – Land Use		
Impact LU-1: The proposed Specific Plan would not divide an established community.	No mitigation is necessary.	Less than significant impact.
Impact LU-2: The proposed project would be consistent with applicable provisions of the City of San Ramon General Plan.	No mitigation is necessary.	Less than significant impact.
Impact LU-3: The Specific Plan would not conflict with any of the applicable provisions of the City of San Ramon Municipal Code.	No mitigation is necessary.	Less than significant impact.
Section 3.9 – Noise		
Impact NOI-1: Development and land use activities contemplated by the Specific Plan would not expose persons to excessive noise levels.	**MM NOI-1a:** All construction contractors shall adhere to the following noise attenuation requirements: • Construction activities shall be restricted from occurring Monday through Friday between the hours of 6:00 p.m. and 7:30 a.m. or on Saturday and Sunday between the hours of 6:00 p.m. and 9:00 a.m. or anytime on federal holidays. The City of San Ramon shall have the discretion to permit construction activities to occur outside of allowable hours if compelling circumstances warrant such an exception (e.g., weather conditions necessary to pour concrete). • Construction activities shall not exceed Occupational Safety and Health Administration noise standards of 90 dB over 8 continuous hours or	Less than significant impact.

Table ES-2 (cont.): Executive Summary Matrix

Impacts	Mitigation Measures	Level of Significance After Mitigation
	105 dB over 1 continuous hour at any nearby office or residential use. • All construction equipment shall use noise-reduction features (e.g., mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer. **MM NOI-1b:** An acoustical analysis shall be prepared for any development that will include residential uses within the Specific Plan area. The acoustical analysis shall analyze potential exterior noise impacts to any ground level yards or patios (upper level balconies shall be exempt from exterior noise standards) in order to determine compliance with the City's 60-dBA CNEL exterior noise standard. The acoustical analysis shall also analyze potential interior noise impacts to any habitable rooms in order to determine compliance with the City's 45-dBA CNEL interior noise standard. If the analysis determines an exceedance of noise standards will occur, then the analysis shall develop mitigation to reduce noise levels to within the standards.	
Impact NOI-2: Development and land use activities contemplated by the General Plan 2030 would not expose persons to excessive vibration levels.	**MM NOI-2a:** A vibration analysis shall be prepared for any development that would include construction activities located within 130 feet of an offsite sensitive receptor. The vibration analysis shall utilize industry-accepted methodologies that include the recommended vibration assessment procedure and thresholds provided by public agencies such as Caltrans or the Federal Highway Administration. **MM NOI-2b:** A vibration analysis shall be prepared for any residential development that will be located within 50 feet of any private loading area or truck route. The vibration analysis shall utilize industry-accepted methodologies that include the recommended vibration assessment procedure and thresholds provided by public agencies such as Caltrans or the Federal Highway Administration.	Less than significant impact.

Table ES-2 (cont.): Executive Summary Matrix

Impacts	Mitigation Measures	Level of Significance After Mitigation
Impact NOI-3: Development and land use activities contemplated by the Specific Plan would not expose persons to a permanent increase in ambient noise levels.	No mitigation is necessary.	Less than significant impact.
Impact NOI-4: Development and land use activities contemplated by the Specific Plan would not expose persons to temporary increases in ambient noise levels.	Implement Mitigation Measure NOI-1a.	Less than significant impact.
Section 3.10 – Population and Housing		
Impact POP-1: The proposed Specific Plan would not induce substantial population growth.	No mitigation is necessary.	Less than significant impact.
Section 3.11 – Public Services and Recreation		
Impact PSR-1: Development and land use activities contemplated by the Specific Plan may result in a need for new or expanded fire facilities or adverse impacts on fire protection.	No mitigation is necessary.	Less than significant impact.
Impact PSR-2: Development and land use activities contemplated by the Specific Plan would not result in a need for new or expanded police facilities that result in physical impacts on the environment.	No mitigation is necessary.	Less than significant impact.
Impact PSR-3: Development and land use activities contemplated by the Specific Plan would not result in a need for new or expanded school facilities or adverse impacts on education.	No mitigation is necessary.	Less than significant impact.
Impact PSR-4: Development and land use activities contemplated by the Specific Plan would not result in a need for new or expanded park, trail, or community facilities beyond those included in the Specific Plan.	No mitigation is necessary.	Less than significant impact.
Impact PSR-5: Development and land use activities contemplated by the Specific Plan would not result in a need for new or expanded library facilities or adverse impacts on related services.	No mitigation is necessary.	Less than significant impact.

Table ES-2 (cont.): Executive Summary Matrix

Impacts	Mitigation Measures	Level of Significance After Mitigation
Section 3.12 – Transportation		
Impact TRANS-1: Development and land use activities contemplated by the Specific Plan would increase traffic volumes and cause transportation facilities to degrade below acceptable standard levels under existing plus project conditions.	**MM TRANS-1a:** Following adoption of the Specific Plan, the City of San Ramon shall monitor the intersection of Crow Canyon Road/I-680 Northbound Ramps. When traffic monitoring determines that intersection operations are approaching unacceptable levels, the City shall install the improvements contemplated by the City's Capital Improvement Program. Those improvements consist of adding a northbound traffic lane and restriping the northbound approach for two left-turn lanes and two right-turn lanes. **MM TRANS-1b:** Following adoption of the Specific Plan, the City of San Ramon shall monitor the intersection of Crow Canyon Road/Crow Canyon Place. When traffic monitoring determines that intersection operations is approaching unacceptable levels, the City shall modify the signal operation to convert the north and south approaches from split to protected phasing. **MM TRANS-1c:** Following adoption of the Specific Plan, the City of San Ramon shall monitor the intersection of Bollinger Canyon Road/I-680 Northbound Ramps. When traffic monitoring determines that intersection operations are approaching unacceptable levels, the City shall install the improvements contemplated by the City's Capital Improvement Program. Those improvements consist of adding a third northbound right-turn lane.	Less than significant impact.
Impact TRANS-2: Development and land use activities contemplated by the Specific Plan would not increase traffic volumes and cause transportation facilities to degrade below acceptable standard levels under cumulative plus project conditions.	No mitigation is necessary.	Less than significant impact.
Impact TRANS-3: Development and land use activities contemplated by the Specific plan would not adversely affect response time for emergency service providers.	No mitigation is necessary.	Less than significant impact.

Table ES-2 (cont.): Executive Summary Matrix

Impacts	Mitigation Measures	Level of Significance After Mitigation
Impact TRANS-4: Development and land use activities contemplated by the Specific Plan would not result in hazardous roadway designs features or incompatible uses.	No mitigation is necessary.	Less than significant impact.
Impact TRANS-5: Development and land use activities contemplated by the Specific Plan would not conflict with plans for or access to public transit, bicycles, or pedestrians.	No mitigation is necessary.	Less than significant impact.
Section 3.13 – Utility Systems		
Impact US-1: Development and land use activities contemplated by the Specific Plan would not result in a need for additional water supplies or additional treatment capacity.	No mitigation is necessary.	Less than significant impact.
Impact US-2: Development and land use activities contemplated by the Specific Plan would not require or result in the construction of new water or wastewater treatment facilities or expansion of offsite existing facilities.	No mitigation is necessary.	Less than significant impact.
Impact US-3: Development and land use activities contemplated by the Specific Plan would not result in a need for new or expanded offsite storm drainage facilities.	No mitigation is necessary.	Less than significant impact.
Impact US-4: Development and land use activities contemplated by the Specific Plan would generate substantial amounts of solid waste that may result in the unnecessary use of regional landfill capacity.	**MM US-4a:** Prior to the issuance of demolition and construction permits, project applicants within the Specific Plan area shall submit a recycling plan to the City of San Ramon identifying the procedures by which construction and demolition would be salvaged and recycled to the maximum extent feasible. The plan shall include proof that a construction and demolition debris recycler is under contract to the applicant to perform this work. **MM US-4b:** Prior to the issuance of occupancy permits, project applicants within the Specific Plan area shall submit a Recycling and Waste Reduction Plan to the City of San Ramon identifying practices they and their tenants	Less than significant impact.

Table ES-2 (cont.): Executive Summary Matrix

Impacts	Mitigation Measures	Level of Significance After Mitigation
	would implement during project operations that demonstrate at least 50-percent diversion. Operation recycling and waste reduction practices shall include but not be limited to: • Contracting with one or more City-licensed commercial recycling providers to serve all project commercial uses. Recyclable materials collection containers shall be provided in common commercial tenant disposal areas and be equipped to accept aluminum, cardboard, glass, green waste, mixed paper, and plastic materials, and, where feasible, food scraps. • Compliance with City of San Ramon's 50-percent waste diversion ordinance. • Installation of common recycling facilities in all residential uses. These facilities shall be equipped to accept aluminum, cardboard, glass, mixed paper, and plastic materials and contain signage clearly identifying accepted materials. • Periodic notification of residents and commercial tenants about the location of recycling facilities and accepted materials. • Installation of recyclable materials receptacles in public places (along streets in the Plaza District, outside of City Hall, etc.). Recycling receptacles shall be of high-quality design and shall display signage clearly identifying accepted materials. • Common commercial and residential disposal areas shall be designed with sufficient space to accommodate separate containers for solid waste, recyclables, organics, and—for restaurants—tallow, subject to approval of the franchise waste provider and City of San Ramon. Plans should include adequate and safe access for solid waste and recycling vehicles to access and collect materials.	
Impact US-5: Development and land use activities contemplated by the Specific Plan would not result in the unnecessary, wasteful, or inefficient use of energy.	No mitigation is necessary.	Less than significant impact.

SECTION 1: INTRODUCTION

1.1 - Overview of the CEQA Process

This Draft Environmental Impact Report (Draft EIR) is prepared in accordance with the California Environmental Quality Act (CEQA) to evaluate the potential environmental impacts associated with the implementation of the North Camino Ramon Specific Plan (State Clearinghouse No. 2010092014). This document is prepared in conformance with CEQA (California Public Resources Code, Section 21000, et seq.) and the CEQA Guidelines (California Code of Regulations, Title 14, Section 15000, et seq.). This Draft EIR is intended to serve as an informational document for the public agency decision-makers and the public regarding the proposed Specific Plan.

1.1.1 - Overview

The North Camino Ramon Specific Plan seeks to facilitate the redevelopment of a 295-gross-acre developed area from an automobile-dominated, low-density commercial area to a transit- and pedestrian-oriented neighborhood that will be a community focal point with a mix of uses. Key aspects of the Specific Plan are to complement the San Ramon City Center project, provide retail and services opportunities current lacking in the City, support the large office population within the Bishop Ranch Business Park, and enhance the quality of life for those who live and work in San Ramon . The Specific Plan has a buildout potential of 5,070,000 square feet of commercial uses and 1,500 dwelling units. Section 2, Project Description provides a complete description of the project.

1.1.2 - Purpose and Authority

This Draft EIR provides a project-level analysis of the environmental effects of the North Camino Ramon Specific Plan. The environmental impacts of the proposed project are analyzed in the EIR to the degree of specificity appropriate, in accordance with CEQA Guidelines Section 15146. This document addresses the potentially significant adverse environmental impacts that may be associated with the planning or implementation of the Specific Plan. It also identifies appropriate and feasible mitigation measures and alternatives that may be adopted to significantly reduce or avoid these impacts.

CEQA requires that an EIR contain, at a minimum, certain specific elements. These elements are contained in this Draft EIR and include:

- Table of Contents
- Introduction
- Executive Summary
- Project Description
- Environmental Setting, Significant Environmental Impacts, and Mitigation Measures
- Cumulative Impacts

- Significant Unavoidable Adverse Impacts
- Alternatives to the Proposed Project
- Growth-Inducing Impacts
- Effects Found Not To Be Significant
- Areas of Known Controversy

1.1.3 - Lead Agency Determination

The City of San Ramon is designated as the lead agency for the project. CEQA Guidelines Section 15367 defines the lead agency as ". . . the public agency, which has the principal responsibility for carrying out or approving a project." Other public agencies may use this Draft EIR in the decision-making or permit process and consider the information in this Draft EIR along with other information that may be presented during the CEQA process.

This Draft EIR was prepared by Michael Brandman Associates, an environmental consultant. This Draft EIR reflects the independent judgment and analysis of the City of San Ramon as required by CEQA. Lists of organizations and persons consulted and the report preparation personnel are provided in Section 8, Persons and Organizations Consulted/List of Preparers, of this Draft EIR.

1.2 - Scope of the EIR

This Draft EIR addresses the potential environmental effects of the proposed project. The City of San Ramon issued a Notice of Preparation (NOP) for the proposed project on September 8, 2010, which circulated between September 8, 2010 and October 7, 2010 for the statutory 30-day public review period. In addition, the Zoning Administrator held a public hearing on September 23, 2010 to provide an overview of the proposed project solicit public comments for the preparation of the EIR. The scope of this Draft EIR includes the potential environmental impacts identified in the NOP and issues raised by agencies and the public in response to the NOP. The NOP is contained in Appendix A of this Draft EIR.

Six comment letters were received in response to the NOP. They are listed in Table 1-1 and provided in Appendix A of this Draft EIR.

Table 1-1: NOP Comment Letters

Status	Affiliation	Signatory	Date
Public Agencies	Governor's Office of Planning and Research, State Clearinghouse and Planning Unit	Scott Morgan, Director	September 8, 2010
	Contra Costa Health Services	Joseph G. Doser, REHS, Supervision Environmental Health Specialist	September 16, 2010

Table 1-1 (cont.): NOP Comment Letters

Status	Affiliation	Signatory	Date
Public Agencies (*cont.*)	East Bay Regional Parks District	Sean M. Dougan, Regional Trails Department	September 28, 2010
	East Bay Municipal Utility District	William R. Kirkpatrick, Manager of Water Distribution Planning	October 5, 2010
	California Department of Transportation, District 4	Lisa Carboni, District Branch Chief	October 7, 2010
Private Organization	Save Mount Diablo	Seth Adams, Director of Land Programs	September 23, 2010
Source: City of San Ramon, 2010.			

1.2.1 - Environmental Issues Determined Not To Be Significant

The NOP identified topical areas that were determined not to be significant. An explanation of why each area is determined not to be significant is provided in Section 7, Effects Found Not To Be Significant. These topical areas are as follows:

- Agricultural and Forestland Resources
- Mineral Resources

In addition, certain subjects with various topical areas were determined not to be significant. Other potentially significant issues are analyzed in these topical areas; however, the following issues are not analyzed:

- Scenic Vistas (Section 3.1, Aesthetics)
- Exposure of Sensitive Receptors to Pollutant Concentrations (Section 3.2, Air Quality)
- Riparian Habitat or Other Sensitive Natural Community (Section 3.3, Biological Resources)
- Federally Protected Wetlands (Section 3.3, Biological Resources)
- Native Resident or Migratory Fish or Wildlife Species (Section 3.3, Biological Resources)
- Habitat, Natural Community, or Other Conservation Plan (Section 3.3, Biological Resources)
- Septic or Alternative Wastewater Disposal Systems (Section 3.5, Geology, Soils, and Seismicity)
- Exposure of Schools to Hazardous Materials (Section 3.6, Hazards and Hazardous Materials)
- Airports (Section 3.6, Hazards and Hazardous Materials)
- Private Airstrips (Section 3.6, Hazards and Hazardous Materials)
- 100-Year Flood Hazards (Section 3.7, Hydrology and Water Quality)
- Levee or Dam Failure (Section 3.7, Hydrology and Water Quality)
- Seiches, Tsunamis, or Mudflows (Section 3.7, Hydrology and Water Quality)
- Division of an Established Community (Section 3.8, Land Use)
- Conservation Plans (Section 3.8, Land Use)

- Aviation Noise (Section 3.9, Noise)
- Displacement of Persons or Housing (Section 3.10, Population and Housing)
- Air Traffic Patterns (Section 3.13, Transportation)

An explanation of why each issue is determined not to be significant is provided in Section 7, Effects Found Not To Be Significant.

1.2.2 - Potentially Significant Environmental Issues

The NOP found that the following topical areas may contain potentially significant environmental issues that will require further analysis in the EIR. These sections are as follows:

- Aesthetics, Light, and Glare
- Air Quality and Greenhouse Gas Emissions
- Biological Resources
- Cultural Resources
- Geology, Soils, and Seismicity
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use
- Noise
- Population and Housing
- Public Services and Recreation
- Transportation
- Utility Systems

1.3 - Organization of the EIR

This Draft EIR is organized into the following main sections:

- **Section ES: Executive Summary.** This section includes a summary of the proposed project and alternatives to be addressed in the Draft EIR. A brief description of the areas of controversy and issues to be resolved, and overview of the Mitigation Monitoring and Reporting Program, in addition to a table that summarizes the impacts, mitigation measures, and level of significance after mitigation, are also included in this section.
- **Section 1: Introduction.** This section provides an introduction and overview describing the purpose of this Draft EIR, its scope and components, and its review and certification process.
- **Section 2: Project Description.** This section includes a detailed description of the proposed project, including its location, site, and project characteristics. A discussion of the project objectives, intended uses of the Draft EIR, responsible agencies, and approvals that are needed for the proposed project are also provided.
- **Section 3: Environmental Impact Analysis.** This section analyzes the environmental impacts of the proposed project. Impacts are organized into major topic areas. Each topic area includes a description of the environmental setting, methodology, significance criteria, impacts, mitigation measures, and significance after mitigation. The specific environmental topics that are addressed within Section 3 are as follows:

- **Section 3.1 - Aesthetics, Light, and Glare:** Addresses the potential visual impacts of development intensification and the overall increase in illumination produced by the project.
- **Section 3.2 - Air Quality:** Addresses the potential air quality impacts associated with project implementation, as well as consistency with the Bay Area Air Quality Management District's Air Quality Plans. In addition, the section also evaluates project emissions of greenhouse gases.
- **Section 3.3 - Biological Resources:** Addresses the project's potential impacts on habitat, vegetation, and wildlife; the potential degradation or elimination of important habitat; and impacts on listed, proposed, and candidate threatened and endangered species.
- **Section 3.4 - Cultural Resources:** Addresses potential impacts on known historical resources.
- **Section 3.5 - Geology, Soils, and Seismicity:** Addresses the potential impacts the project may have on soils and assesses the effects of project development in relation to geologic and seismic conditions.
- **Section 3.6 - Hazards and Hazardous Materials:** Addresses the potential for the presence of hazardous materials or conditions on the project site and in the project area that may have the potential to impact human health.
- **Section 3.7 - Hydrology and Water Quality:** Addresses the potential impacts of the project on local hydrological conditions, including drainage areas, and changes in the flow rates.
- **Section 3.8 – Land Use:** Addresses consistency with existing land use plans and regulations as a result of development and land use activities contemplated in the North Camino Ramon Specific Plan.
- **Section 3.9 - Noise:** Addresses the potential noise impacts during construction and at project buildout from mobile and stationary sources. The section also addresses the impact of noise generation on neighboring uses.
- **Section 3.10 – Population and Housing:** Addresses the potential impacts associated with growth inducement from both new employment opportunities and housing.
- **Section 3.11 – Public Services and Recreation:** Addresses the potential impacts upon public services providers, including fire protection, police protection, schools, libraries, parks, and community facilities.
- **Section 3.12 - Transportation:** Addresses the impacts on the local and regional roadway system, public transportation, bicycle, and pedestrian access.
- **Section 3.13 – Utility Systems:** Addresses the potential impacts upon utility services including water supply, wastewater, storm drainage, solid waste, and energy providers.

- **Section 4: Cumulative Effects.** This section addresses the cumulative effects associates with the development and land use activities contemplated by the North Camino Ramon Specific Plan, in conjunction with past, present, and future projects.
- **Section 5: Alternatives to the Proposed Project.** This section compares the impacts of the proposed project with three land-use project alternatives: the No Project Alternative, the Office/Retail Intensification Alternative, and the Suburban Village Alternative. An environmentally superior alternative is identified. In addition, alternatives initially considered but rejected from further consideration are discussed.
- **Section 6: Other CEQA Considerations.** This section provides a summary of significant environmental impacts, including unavoidable and growth-inducing impacts. This section discusses the cumulative impacts associated with the proposed project, including the impacts of past, present, and probable future projects. In addition, the proposed project's energy demand is discussed.
- **Section 7: Effects Found Not To Be Significant.** This section contains analysis of the topical sections not addressed in Section 3.
- **Section 8: Organizations and Persons Consulted/List of Preparers.** This section contains a full list of persons and organizations that were consulted during the preparation of this Draft EIR, as well as the authors who assisted in the preparation of the Draft EIR, by name and affiliation.
- **Section 9: References.** This section contains a full list of references that were used in the preparation of this Draft EIR.
- **Appendices:** This section includes all notices and other procedural documents pertinent to the Draft EIR, as well as all technical material prepared to support the analysis.

1.4 - Documents Incorporated by Reference

As permitted by CEQA Guidelines Section 15150, this Draft EIR has referenced several technical studies, analyses, and previously certified environmental documentation. Information from the documents, which have been incorporated by reference, has been briefly summarized in the appropriate section(s). The relationship between the incorporated part of the referenced document and the Draft EIR has also been described. The documents and other sources that have been used in the preparation of this Draft EIR include, but are not limited to:

- City of San Ramon General Plan 2030
- City of San Ramon General Plan 2030 Environmental Impact Report
- San Ramon Municipal Code
- East Bay Municipal Utility District 2010 Urban Water Management Plan

These documents are specifically identified in Section 9, References, of this Draft EIR. In accordance with CEQA Guidelines Section 15150(b the General Plan 2030, the General Plan 2030 EIR, and the referenced documents and other sources used in the preparation of the Draft EIR are available for review at the City of San Ramon Planning/Community Development Department at the address shown in Section 1.6 below.

1.5 - Documents Prepared for the Project

The following technical studies and analyses were prepared for the proposed project:

- Air Quality Modeling, prepared by Michael Brandman Associates (Appendix B)
- Hazardous Materials Record Search, prepared by Environmental Data Resources (Appendix C)
- Noise Modeling, prepared by Michael Brandman Associates (Appendix D)
- Traffic Impact Analysis, prepared by Kimley-Horn and Associates (Appendix E)
- Water Supply Assessment, prepared by East Bay Municipal Utility District (Appendix F)

1.6 - Review of the Draft EIR

Upon completion of the Draft EIR, the City of San Ramon filed a Notice of Completion (NOC) with the State Office of Planning and Research to begin the public review period (Public Resources Code, Section 21161). Concurrent with the NOC, this Draft EIR has been distributed to responsible and trustee agencies, other affected agencies, surrounding cities, and interested parties, as well as all parties requesting a copy of the Draft EIR in accordance with Public Resources Code 21092(b)(3). During the public review period, the Draft EIR, including the technical appendices, is available for review at the locations listed below. The address for each location is provided below:

City of San Ramon
Planning/Community Development Department
Planning Services Division
2401 Crow Canyon Road
San Ramon, CA 94583
Hours:
8:30 a.m. to 5 p.m., Monday–Friday

City of San Ramon
City Clerk's Office
2222 Camino Ramon
San Ramon, CA 94583
Hours:
8:30 a.m. to 5 p.m., Monday–Friday

San Ramon Library (Marketplace)
100 Montgomery Street
San Ramon, CA 94583
Hours:
10 a.m. to 8 p.m., Monday–Thursday
10 a.m. to 5 p.m., Friday and Saturday
1 p.m. to 5 p.m., Sunday

Dougherty Station Library
17017 Bollinger Canyon Road
San Ramon, CA 94582
Hours:
10 a.m. to 8 p.m., Monday and Thursday
12 p.m. to 8 p.m., Tuesday and Wednesday
10 a.m. to 5 p.m., Friday and Saturday

San Ramon Community Center
12501 Alcosta Boulevard
San Ramon, CA 94583

Alcosta Senior and Community Center
9300 Alcosta Boulevard
San Ramon, CA 94583

Dougherty Station Community Center
17011 Bollinger Canyon Road
San Ramon, CA 94582

The Draft EIR is also posted electronically in Adobe PDF format on the City of San Ramon's website: http://www.ci.san-ramon.ca.us/.

Agencies, organizations, and interested parties have the opportunity to comment on the Draft EIR during the 45-day public review period. Written comments on this Draft EIR should be addressed to:

Mr. Lauren Barr, Senior Planner
City of San Ramon
Planning/Community Development Department
Planning Services Division
2401 Crow Canyon Road
San Ramon, CA 94583
Phone: 925.973.2560
Fax: 925.838.3231
Email: lbarr@sanramon.ca.gov

Submittal of electronic comments in Microsoft Word or Adobe PDF format is encouraged. Upon completion of the public review period, written responses to all significant environmental issues raised will be prepared and made available for review by the commenting agencies at least 10 days prior to the public hearing at which the certification of the Final EIR will be considered. Comments received and the responses to comments will be included as part of the record for consideration by decision makers for the project.

SECTION 2: PROJECT DESCRIPTION

This Environmental Impact Report (EIR) analyzes the potential environmental effects of the proposed North Camino Ramon Specific Plan in San Ramon, California.

2.1 - Project Location and Setting

2.1.1 - Location

The North Camino Ramon Specific Plan boundaries are located within the City of San Ramon, Contra Costa County, California (Exhibit 2-1). The Specific Plan boundaries encompass approximately 295 gross acres (255 net acres)[1] in the northern portion of the City of San Ramon and are generally bounded by Interstate 680 (I-680) (west), Fostoria Way/Town of Danville (north), Iron Horse Trail and Alcosta Boulevard (east), and Executive Parkway and Norris Canyon Road (south) (Exhibit 2-2). The Specific Plan boundaries are located on the Diablo, California, United States Geological Survey 7.5-minute quadrangle, Township 2 South, Range 1 West, Unsectioned (Latitude: 37°46’30” North; Longitude: 121°58’15” West).

2.1.2 - Land Use

The Specific Plan area contains more than 100 individual parcels ranging in area from less than 3,000 square feet to more than 1 million square feet. Most of the parcels are developed with existing commercial uses (office, retail, and service). Notable uses include Crow Canyon Commons Shopping Center; the Toyota parts distribution facility; the Bishop Ranch 6, 11, and 12 office complexes; Norris Technology Center; the Pacific Gas and Electric Company (PG&E) Conference Center; the Legacy Plaza office complex; the San Ramon Valley Unified School District Maintenance Facility; and the former RMC Pacific Materials cement plant site[2]. The area is served by several major arterial roadways, including Crow Canyon Road, Camino Ramon, Alcosta Boulevard, and Norris Canyon Road, with access provided to I-680 at Crow Canyon Road. The Iron Horse Trail, a Class I bicycle/pedestrian trail, traverses the area from north to south. Exhibit 2-3a and Exhibit 2-3b provide photographs of the Specific Plan area.

Table 2-1 summarizes the existing development within the Specific Plan boundaries. As shown in the table, there are approximately 3,395,000 square feet of existing buildings. Of this square footage, 14 percent is occupied by retail uses and the remaining 86 percent is occupied by non-retail uses (office, public facilities, etc.). Exhibit 2-4 depicts existing land use activities and Exhibit 2-5 illustrates existing development intensity within the Specific Plan boundaries.

[1] “Gross” acreage includes existing public right-of-ways; “net” acreage excludes existing public right-of-ways.
[2] At the time of Draft EIR release, this site is being redeveloped as a 125-unit residential development known as “St. James Place.”

Table 2-1: Existing Development Summary

Specific Plan Area		Current Building Area (square feet)	Floor Area Ratio
Net Acres	Square Feet		
254.6	11,089,072	482,093 (retail) 2,913,484 (non-retail) **3,395,577 (total)**	0.31

Notes:
Floor Area Ratio = Total Building Area/Specific Plan Area Square Feet
Source: City of San Ramon, 2012.

2.1.3 - Surrounding Land Uses

West

I-680 forms the western boundary of the Specific Plan area. The freeway consists of four travel lanes and an auxiliary lane in each direction, for a total of 10 lanes. West of I-680 is the San Ramon Valley Boulevard corridor, which generally consists of automobile-oriented commercial uses (vehicle repair and maintenance, gas stations, fast food restaurants with drive-thrus, etc.).

North

Fostoria Way, which demarcates the boundary between the City of San Ramon and the Town of Danville, forms the northern boundary of the Specific Plan area. The roadway is a divided four-lane facility with landscaped median between Crow Canyon Place/Camino Ramon (North) and Camino Ramon (South), and an undivided, two-lane facility east of Camino Ramon (South). Land uses to the north consist of the Castle Square shopping center (anchored by Costco) and medium-density residential (townhouse) uses.

East

The Iron Horse Trail, Alcosta Boulevard, and Camino Ramon form the eastern boundary of the Specific Plan area. The Iron Horse Trail, a Class I bicycle/pedestrian facility, demarcates the eastern boundary between Fostoria Way and Crow Canyon Road; Alcosta Boulevard, a divided four-lane roadway with landscaped median, forms the boundary between Crow Canyon Road and Norris Canyon Road; and Camino Ramon, an undivided four-lane roadway with a center, two-way left-turn lane, serves as the boundary between Norris Canyon Road and Executive Parkway. Land uses to the east consist of the PG&E Technological and Ecological Services Research Laboratory, residential uses, and the Bishop Ranch 9 office complex.

Source: Census 2000 Data, The CaSIL, MBA GIS 2012.

Michael Brandman Associates

NORTH

5 2.5 0 5 Miles

Exhibit 2-1
Regional Location Map

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CITY OF SAN RAMON • NORTH CAMINO RAMON SPECIFIC PLAN
ENVIRONMENTAL IMPACT REPORT

Source: State of CA NAIP, 2010.

Exhibit 2-2
Local Vicinity Map
Aerial Base

Michael Brandman Associates

NORTH

2,000 1,000 0 2,000 Feet

View of the Toyota parts distribution center from Bishop Drive.

View of Bishop Ranch 6.

View of UPS facility from Norris Canyon Road.

View of Crow Canyon Commons.

Source: Michael Brandman Associates, 2012.

Michael Brandman Associates

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Exhibit 2-3a
Site Photographs

View of Camino Ramon / Fostoria Way intersection, with the Extended Stay Hotel in the background.

View of Iron Horse Trail crossing at Crow Canyon Road.

View of Post Office and other commercial uses from Alcosta Boulevard.

View of Bishop Ranch 11 office complex.

Source: Michael Brandman Associates, 2012.

Michael Brandman Associates

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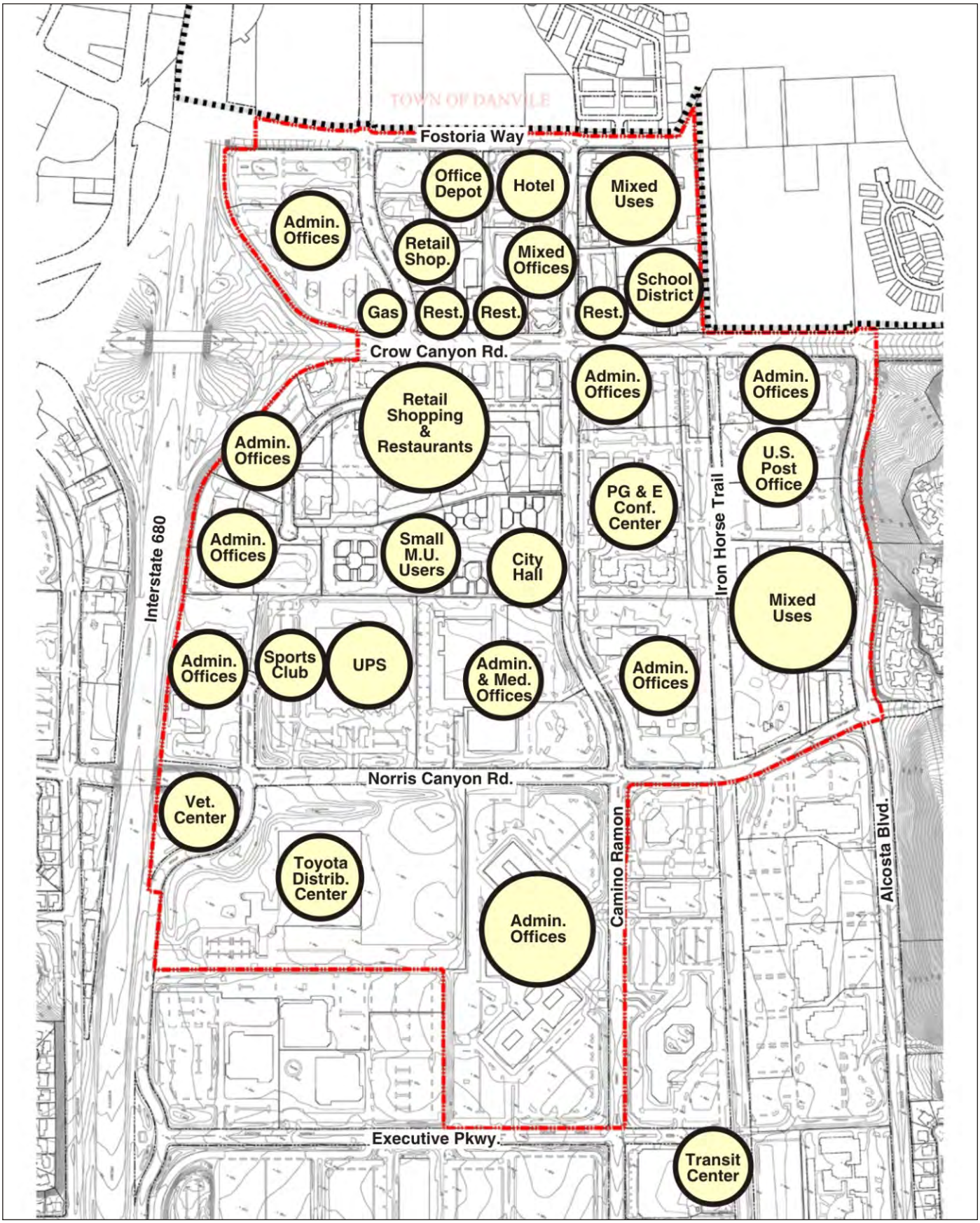
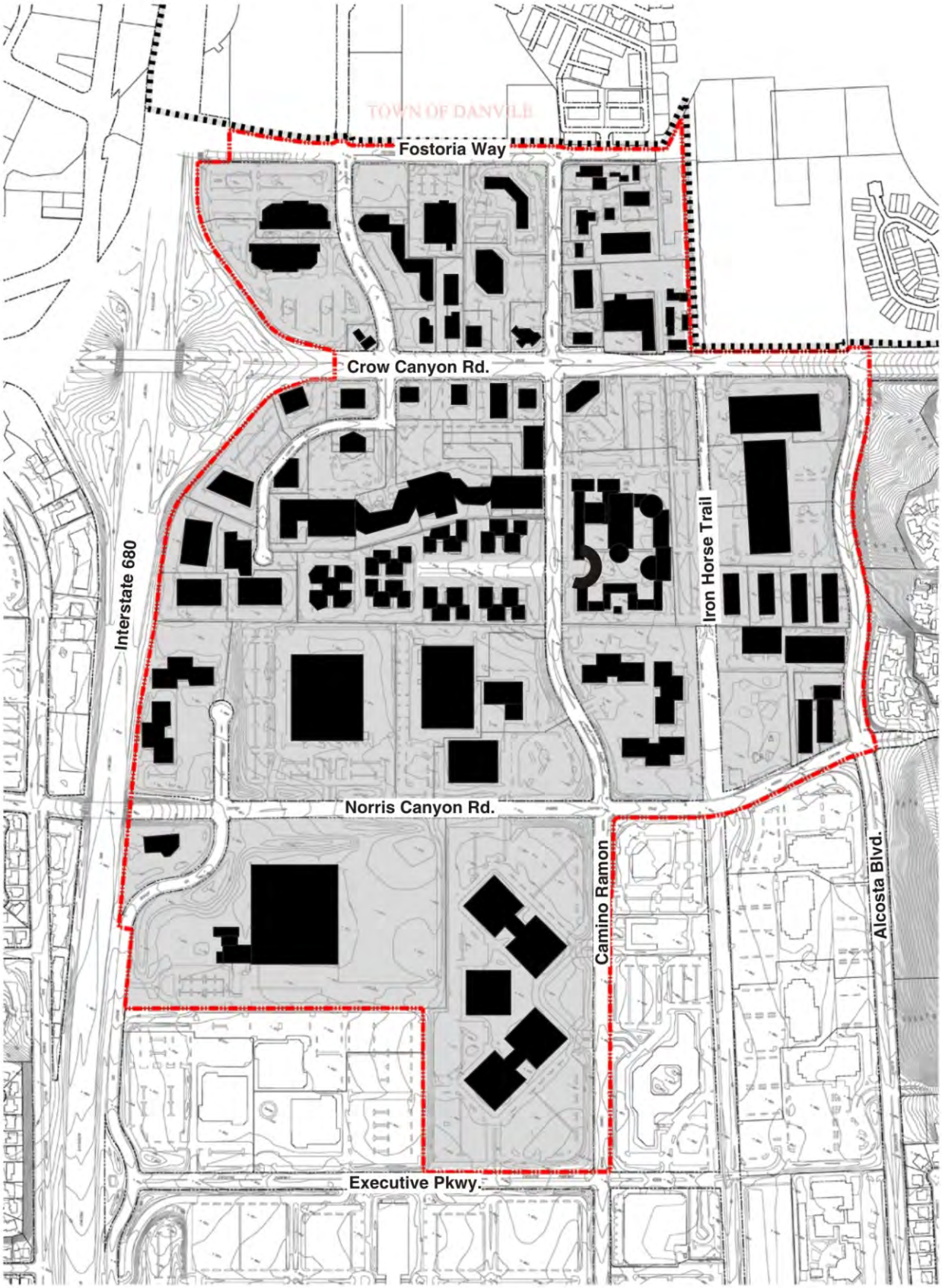
Exhibit 2-3b
Site Photographs



Source: NCRSP Internal Administrative Draft, December 6, 2011.

Michael Brandman Associates

Exhibit 2-4
Existing Land Use



Source: NCRSP Internal Administrative Draft, December 6, 2011.

Michael Brandman Associates

Exhibit 2-5
Existing Development Intensity

South

The Norris Canyon Road and Executive Parkway form the southern boundary of the Specific Plan area. Norris Canyon Road, an undivided four-lane facility, demarcates the boundary between Alcosta Boulevard and Camino Ramon; and Executive Parkway, a divided two-lane facility with landscaped median, forms the boundary between Camino Ramon and Bishop Drive. Land uses to the south consist of the Bishop Ranch 9 and Bishop Ranch 15 office complexes and the AT&T campus.

2.1.4 - Land Use Designations

General Plan

At the time of Notice of Preparation issuance in September 2010, San Ramon General Plan 2020 was the adopted land use plan for the City of San Ramon. General Plan 2020 designated properties within the Specific Plan area as "Commercial Service," "Manufacturing/Warehouse," "Mixed Use," "Multiple Family – Very High Density," "Office," and "Retail Shopping."

Since the issuance of the Notice of Preparation, the City of San Ramon completed a General Plan update. On April 26, 2011, the San Ramon City Council formally adopted General Plan 2030. Under General Plan 2030, properties within the Specific Plan area were re-designated "Mixed Use."

Zoning

The San Ramon Zoning Ordinance designates properties within the Specific Plan area as "Administrative Office," "Limited Office," "Manufacturing/Warehouse," "Mixed Use," and "Multiple Family – Very High Density Residential."

Note that the proposed North Camino Ramon Specific Plan would serve as the zoning for this area, if adopted.

2.2 - Project Characteristics

2.2.1 - Overview

The North Camino Ramon Specific Plan seeks to facilitate the redevelopment of the Specific Plan area from an automobile-dominated, low-density commercial area to a transit- and pedestrian-oriented neighborhood that will be a community focal point with a mix of uses. Key aspects of the Specific Plan are to complement the San Ramon City Center project, provide residents with opportunities for commercial retail and services currently lacking in the City, and support the large office population within the Bishop Ranch Business Park with additional retail, dining, and housing.

2.2.2 - Development Potential

Table 2-2 summarizes the development potential of the Specific Plan. Building on the approximately 3.4 million square feet of existing commercial uses, at buildout, the Specific Plan boundaries would contain 6.72 million square feet of commercial and residential uses, of which approximately 5.98 million square feet would consist of new development.

Table 2-2: Specific Plan Development Summary

Category		Square Feet		
		Commercial	Residential	Total
Existing		3,395,577	—	3,395,000
Development Potential Prior to Specific Plan		4,902,000	1,236,400 (1,124 dwelling units)	6,138,400
North Camino Ramon Specific Plan	**Specific Plan Buildout**	**5,070,000**	**1,650,000 (1,500 dwelling units)**	**6,720,000**
	Net New	*4,386,000*	*1,650,000*	*5,975,000*

Notes:
"Existing Residential" category does not include St. James Place, as this was not occupied at the time of Draft EIR release.
Dwelling units are assumed to be an average of 1,100 square feet.
"Net New" assumes that 684,000 square feet of existing commercial uses would be retained.
Source: City of San Ramon, 2012.

Development by Sub-Area

Table 2-3 summarizes development by sub-areas. Each sub-area is shown on Exhibit 2-6.

Table 2-3: Development Summary by Sub Area

Sub Area	Gross Area (Square Feet)	Commercial Uses			Residential Uses	
		New	To Remain	Total	Units	Square Feet
A	557,870	—	313,001	313,001	—	—
B	837,833	—	239,142	239,142	—	—
C	589,715	130,000	27,181	157,181	—	—
D1	846,879	535,000	—	535,000	—	—
D2	558,396	300,000	—	300,000	—	—
D3	539,342	235,000	—	235,000	50	55,000
D4	100,752	150,000	—	150,000	—	—
D5	61,192	295,000	—	295,000	100	110,000
D6	272,560	410,000	—	410,000	100	110,000
E1	823,738	410,000	—	410,000	—	—
E2	148,725	50,000	—	50,000	440	484,000
F1	599,212	450,000	90,326	540,326	—	—

Table 2-3 (cont.): Development Summary by Sub Area

Sub Area	Gross Area (Square Feet)	Commercial Uses			Residential Uses	
		New	To Remain	Total	Units	Square Feet
F2	630,633	40,000	—	40,000	350	385,000
G1	123,362	—	14,350	14,350	—	—
G2	931,443	270,000	—	270,000	—	—
G3	370,260	140,000	—	140,000	110	121,000
G4	1,351,666	971,000	—	971,000	350	385,000
Total	**11,089,072**	**4,386,000**	**684,000**	**5,070,000**	**1,500**	**1,650,000**
Source: City of San Ramon, 2012.						

Floor Area Ratios

The maximum average Floor Area Ratio (FAR) for the Specific Plan area as a whole is 0.70. The base FAR for individual properties is set at the maximum FAR pursuant to the City's Zoning Ordinance prior to adoption of the Specific Plan. Additional floor area above the base FAR is available from the Density Pool outlined as a part of the Plan's implementation program.

Additional FAR may be allowed on individual parcels based upon the following criteria:

- An additional floor area bonus above the base FAR may be allowed for projects covered by Development Agreements or that include infrastructure, parking and public amenity improvements.
- An additional floor area bonus of up to 1.0 FAR may be allowed for projects providing workforce housing in excess of the 25 percent (15 percent must build) outlined in Specific Plan Policy Vis-3.5.
- An additional floor area bonus of up to 1.25 FAR may be considered for exceptional projects that meet two or more of the following criteria:
  - Work force housing in excess of an additional 5 percent over the Specific Plan's minimum requirement.
  - Restaurant or support commercial uses in primarily residential projects equal to or greater than 3 percent of the total residential floor area, excluding parking and common facilities (e.g., community rooms and pool structures).
  - Significant public amenities.
  - Exceptional urban design and architectural design quality as determined by the City.

Structured parking will not be included in the FAR calculation when below grade, located at least 12 feet above grade, or ringed by commercial or residential building space to visually screen the structure from view.

Trip Budget

The City's intent is to allow a great deal of flexibility in the implementation of new development throughout the Plan Area, recognizing that Specific Plan implementation will occur over a relatively long span of time, and all future market opportunities and forces cannot be known at this time.

To provide this flexibility, while accommodating the amount of traffic generated by increased development intensity, a vehicular Trip Budget has been established for the Specific Plan area to allow development flexibility and provide the ability to monitor development over the broad Specific Plan area. Total weekday daily, weekday morning (AM), and weekday afternoon (PM) peak-hour trips have been established as shown in Table 2-4. These budgets will be used in evaluating individual development proposals and tracking traffic generation associated with the Plan Area.

Table 2-4: Specific Plan Trip Budget (Net New Trips)

Daily	AM Peak Hour	PM Peak Hour
49,250	1,855	4,156
Source: City of San Ramon, 2012.		

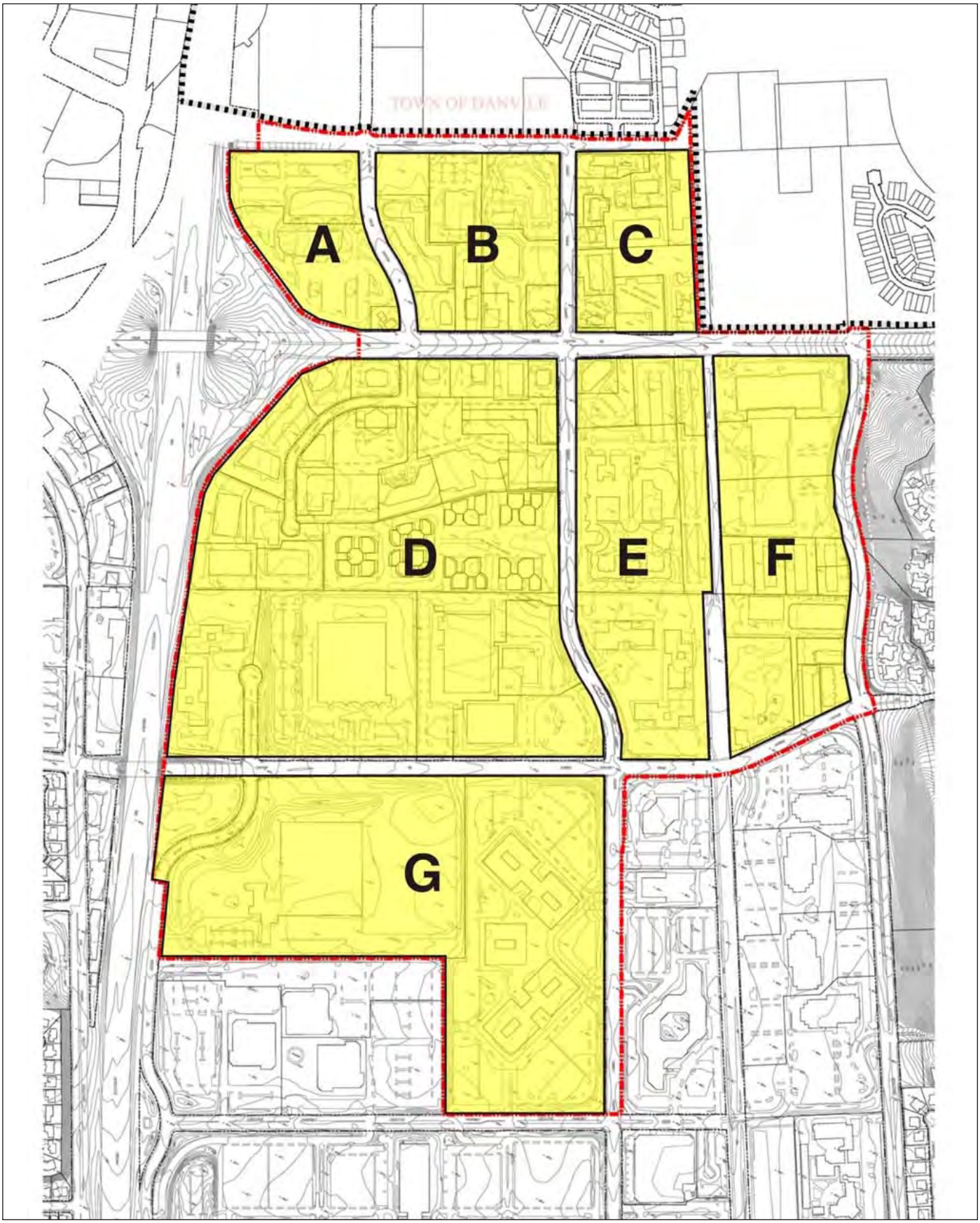
2.2.3 - Conceptual Plan Framework

The Specific Plan is a market-driven plan, and the area is expected to evolve over an extended number of years based on market forces and property owner needs.. Development uses and building types will also evolve over time, and may be very different from current norms. The Specific Plan maintains the flexibility to respond to changing conditions and to take advantage of special development opportunities.

However, to assist property owners and future decision-makers to better understand the vision underlying the Specific Plan, the Concept Plan Framework, which is described in more detail below, provides an overview of the vision. Exhibit 2-7 depicts the Concept Plan Framework.

Park Commons

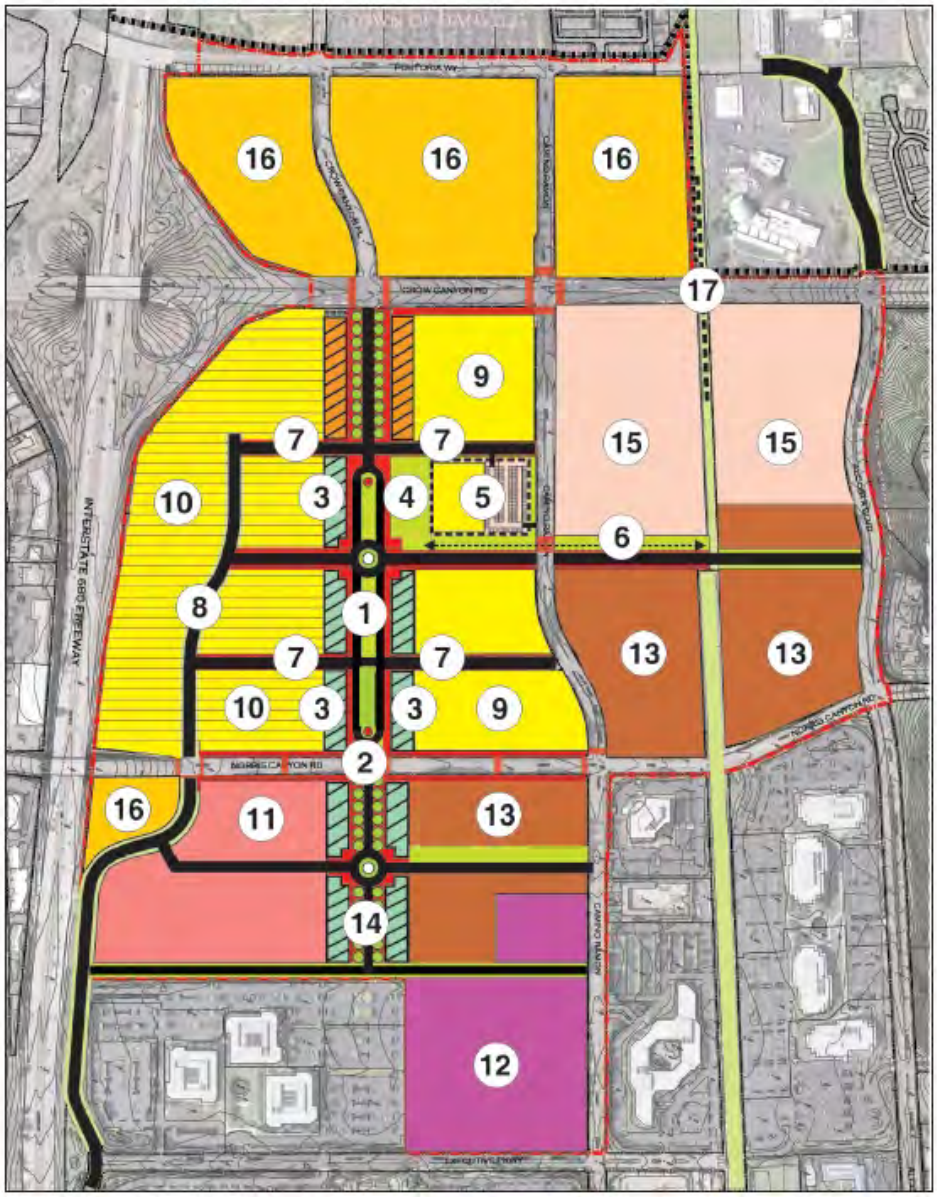
A one-way, local street loop with on-street parking will connect Crow Canyon Road to Norris Canyon Road and provide easy access to ground and upper floor retail, restaurant, commercial service, and office uses along its length. At the center of the Park Commons, a linear park will provide a strong and unique sense of place via soft, landscaped areas as well as areas that can be adapted for public uses, public art, and events for residents of the area and the community at large.



Source: NCRSP Internal Administrative Draft, December 6, 2011.

Michael Brandman Associates

Exhibit 2-6
Specific Plan Subareas



CONCEPT PLAN FRAMEWORK

1 The Commons
2 Transit Center
3 Mixed Use Core
4 Village Green
5 Shared Parking Garage
6 Iron Horse Trail Link
7 Secondary Street Grid
8 Crow Canyon Place Extension
9 Commercial Mixed Use
10 Mid- and large-floor plate retail
11 Destination Retail Center
12 Bishop Ranch Office
13 Multifamily Residential
14 Mixed Use with Residential Emphasis
15 Office Campus
16 Infill Development
17 Iron Horse Trail Overpass

Source: NCRSP Internal Administrative Draft, December 6, 2011.

Michael Brandman Associates

Exhibit 2-7
Concept Plan Framework

Transit Center

The existing Transit Center, currently located on Executive Parkway near Camino Ramon, may be moved to the Park Commons at Norris Canyon Road when demand is warranted by development demand and service needs. It will place all parcels within the Specific Plan area within a 10-minute walk, making access to jobs, stores, and restaurants in the area convenient and encouraging residents within the area to take public transit to their jobs elsewhere.

Mixed Use Core

Retail, restaurants and service commercial uses will line the Park Commons with outdoor cafes and merchandise displays, enlivening the street front and encouraging active pedestrian activity to make park-once-and-walk shopping possible and appealing. Residential units and/or other commercial uses will occupy the upper floors above the active ground floor uses to provide additional vitality, and to place residents, employees, and visitors close to a variety of goods, services, and activities.

Park Green

A multi-use park and public open space will front the Park Commons and provide a park plaza setting that will also serve as an activity and events area. It will be designed as a gathering place with site amenities and landscape features.

Shared Parking/Garages

Shared parking is a central goal of the Specific Plan. It will reduce the overall number of parking spaces needed, reduce the cost of providing parking to individual property owners, and encourage one-stop shopping. An overall parking management plan will encourage the use of shared parking throughout the area to take advantage of the mix of uses.

Iron Horse Trail Open Space Link

Pedestrian and bicycle circulation will be enhanced by the provision of a broad landscaped path and open space linking the Iron Horse Trail to the Park Commons, Village Green, and Transit Center. It will also be designed to assist in capturing and filtering stormwater runoff.

Secondary Street Grid

Additional intermediate east-west streets will allow the large areas to evolve, utilizing smaller blocks with multiple commercial and residential frontages to improve vehicular, pedestrian, and bike circulation options.

Crow Canyon Place Extension

Crow Canyon Place on the north and Annabel Lane on the south will be connected to provide improved access and a proper environment for retail development opportunities along its length and at the current Toyota Parts Distribution Center site south of Norris Canyon Road.

Commercial Mixed Use

Additional commercial uses that complement those in the Mixed Use Core will provide a complete mix of uses to serve the needs of the community and residents in the area. Supermarkets, specialty markets, and drug stores may prefer the easy access provided by Camino Ramon, while larger office uses and smaller stores will increase the vitality of the central block. Private parking structures with ground floor retail and townhouse frontages will maintain the rich, visual diversity for pedestrians in the core area.

Destination Retail

Larger sites along the Crow Canyon Place extension and mid to large floor-plate uses north of Crow Canyon Road will accommodate new retail opportunities for stores and complexes that are currently missing in San Ramon, and to which residents now travel long distances by car. The vision includes an integration of these uses into the adjacent, pedestrian-oriented Park Commons through urban design improvements and by the adoption of the increasingly common use of structured parking below or above the ground floor retail uses.

Destination Retail Center

Larger retail complexes with a regional appeal will be accommodated, and integrated with the unique, mixed-use environment of the area. Innovative designs and mixes of uses that are beginning to emerge in the real estate industry will be encouraged to reduce the visual scale of larger buildings, and provide a well-landscaped pedestrian environment.

Bishop Ranch Consolidation

Relocation of the existing Bishop Ranch office space from other parcels within the Specific Plan area will be encouraged to allow more intensive development of other commercial and residential use that are supportive of the vision. The future development in this area will complement the San Ramon City Center and will be comparable to other mixed-use projects that have been constructed throughout the United States.

Multifamily Residential

A wide variety of workforce housing will be located throughout the area geared toward working professionals and people who desire to be close to convenient restaurants, shopping, and services. Loft units, apartments over retail stores, apartment and condominium buildings, townhouses, rowhouses, and live/work units will be encouraged to meet the needs of the community, and provide housing near the large number of jobs that currently exist within Bishop Ranch and at the San Ramon Regional Medical Center. Small commercial uses will be integrated into ground floors to provide nearby services for residents and to enliven major pedestrian routes to encourage walking throughout the Specific Plan area.

Mixed Use with Residential Emphasis

The vacant portion of the Toyota parcel will develop as a mixed-use parcel with ground floor spaces devoted to retail, restaurant, and commercial service uses.

Office Campus

The current collection of office and office-support uses will evolve over time as a single- or multi-user office complex within an integrated landscaped environment similar to other corporate office campuses in the nearby Bishop Ranch Business Park. Offering a unique and high-quality working environment, employees in these offices will be able to easily walk to the Park Commons for errands, lunchtime, and after-work dining without resorting to their automobiles.

Infill Development

Smaller parcels and parcels that already are relatively densely developed will evolve over time through parcel consolidations, land use changes, and structured parking to increase their land utilization efficiency and to bring additional uses to the community.

Iron Horse Trail Overcrossing

A pedestrian overcrossing at Crow Canyon Road along with a similar overcrossing at Bollinger Canyon Road will improve pedestrian and bicycle access to the North Camino Ramon Specific Plan area and the San Ramon City Center, minimize potential conflicts with vehicles, and reduce traffic congestion, while also enhancing recreation opportunities for those living in the area.

2.2.4 - Land Use Plan Districts

The Specific Plan establishes Land Use Plan Districts to guide future development and land use activities with the Specific Plan area. Reflecting the underlying General Plan designation of "Mixed Use," all the Specific Plan Land Use Plan Districts are mixed use in nature but have a primary and secondary use concept that is consistent with the Vision of the Specific Plan. Descriptions of each Land Use Plan District are provided on the following pages; each district is shown in Exhibit 2-8.

The land use requirements only apply to changes in use and new development; however, existing uses have a right to remain and continue to operate as approved, and they are subject to the interim use and legal nonconforming standards discussed in the Specific Plan and within the Zoning Ordinance.

The Commons Mixed Use

The Commons Mixed Use District represents the Mixed Use Core of the Specific Plan area. Primary uses are for ground-floor retail, restaurant, and commercial services uses that lend themselves to a pedestrian-oriented environment along Crow Canyon Road, Camino Ramon, Norris Canyon Road, and Crow Canyon Place, as well as along The Commons (a future north-south street) and future east-west streets. Secondary uses on upper levels that are set behind the street front—such as residential, office, studio, and other services that support an active pedestrian streetscape—are encouraged. The

Transit Center, public spaces, and paseos are encouraged to enhance pedestrian experiences, and structured or centralized parking is encouraged to support the walkability within the District.

Destination Retail Mixed Use

Primary land uses in the Destination Retail Mixed Use District are envisioned as larger retail and commercial uses that serve both community and regional purposes. These uses are located in the western portion of the Plan Area along the Crow Canyon Place extension, both north and south of Norris Canyon Road. Restaurants and smaller commercial opportunities coupled with a combination of surface, on-street, and structured parking provided support for the destination retail components and added to the pedestrian realm. Secondary uses such as residential, office, and other services are encouraged on upper levels; however, they may also be permitted at the ground level, subject to findings of consistency with the land use, design, and economic goals of the Specific Plan.

Commercial Mixed Use

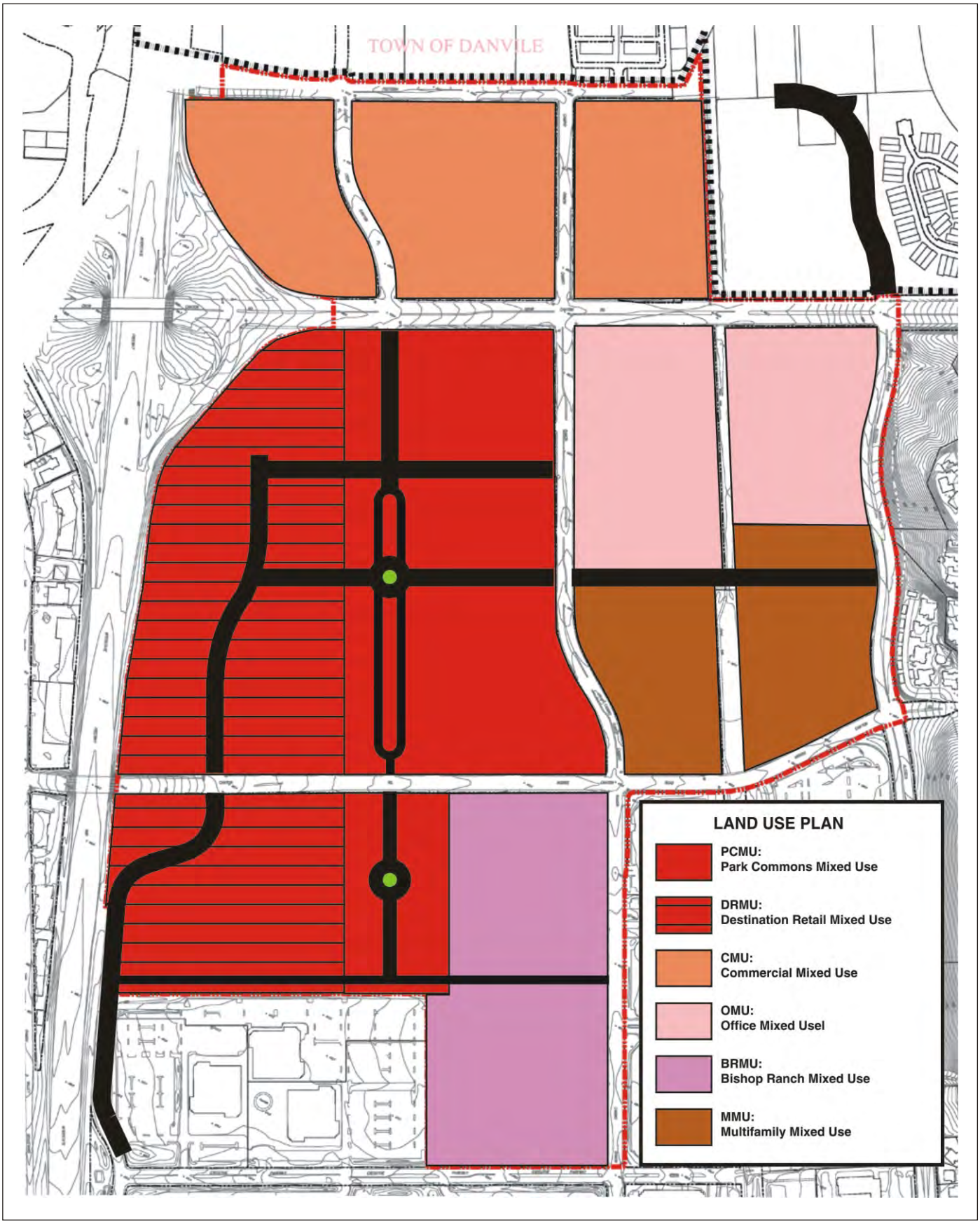
The Commercial Mixed Use District most closely resembles the Mixed Use Zoning designation within the Zoning Ordinance and recognizes the opportunities for infill development to be built at relatively high densities with efficient parking utilization north of Crow Canyon Road and south of Fostoria Way. Primary uses include general commercial and retail, with secondary uses supportive of office and residential. The existing Service Commercial presence within the area is supported as permitted and conditionally permitted uses within the District based on the prior CS zoning designation within the Zoning Ordinance.

Office Mixed Use

The Office Mixed Use District largely reflects the primary office and conference facilities already within the District with an understanding that there are additional opportunities for office park/office campus, uses in proximity to the Specific Plan's residential component and Mixed Use Core. Located on both sides of the Iron Horse Trail, south of Crow Canyon Road, and east of Camino Ramon, the District is within walking distance from residences immediate to the south and is adjacent to a future Iron Horse Trail overcrossing above Crow Canyon Road. Secondary uses include ground floor support retail and service uses with residential above. Ground floor residential may be considered when consistent with the land use, design, and economic goals of the Specific Plan.

Bishop Ranch Mixed Use

The Bishop Ranch Mixed Use District envisions a consolidation of existing Bishop Ranch resources into a more compact land use pattern, thus creating opportunities for additional development consistent with the Specific Plan Vision. Primary uses within the area will remain consistent with the office focus of Bishop Ranch with new opportunities for support retail, services, restaurants, and residential uses.



Source: NCRSP Internal Administrative Draft, December 6, 2011.

Michael Brandman Associates

Exhibit 2-8
Land Use Plan Districts

Both vertical and horizontal land use configurations can be considered, with an emphasis placed on the support for the daytime population of Bishop Ranch, adding housing opportunities for employees of Bishop Ranch, enhancing the pedestrian character of Camino Ramon streetscape and connectivity between the Plan's commercial core and City Center project.

Multifamily Mixed Use

The primary vision for the Multifamily Mixed use District is for housing with a range of product types, including lofts, condominiums, and apartments built at densities from 20 to 50 units per acre. Located on both sides of the Iron Horse Trail north of Norris Canyon Road, east of Camino Ramon, the area has nearby open space and recreation as well as commercial uses to serve residents and visitors. Live/work units are also an option for development as well as secondary ground-floor uses that provide services for residents and enliven pedestrian routes are encouraged. Office and studio uses may be permitted subject to findings of consistency with the economic goals of the Specific Plan. The existing Service Commercial presence along Alcosta Boulevard is supported as permitted and conditionally permitted uses within the District based on the prior CS zoning designation within the Zoning Ordinance.

2.2.5 - Parking

Parking Standards

The policies of the Specific Plan encourage a compact growth pattern, shared parking to reduce land area and financial resources devoted to parking, and the use of alternatives transportation movement within the Specific Plan area. The Specific Plan standards and policies have been specially tailored to the unique circumstances of the land use and circulation system of the Specific Plan Vision. Major objectives include:

- Avoidance of excessive parking that would encourage increased automobile travel
- Encouragement of shared parking
- Facilitation of park-once-and-walk shopping patterns
- Establishment of a parking district for the central block core area
- Encouragement of structured parking
- Minimization of the visual impact of parking lots and structures

Parking District

The City will work with property owners in the Mixed Use Core (Block D) to develop a Shared Parking Program that would fund land acquisition, construction, and operation of a public parking structure. Most of the land area within the Mixed Use Core is within an easy 5-minute walk of the identified location of the potential shared parking structure. The program will:

- Assess the relative benefits to each parcel of land; and
- Define one or more parking benefit zones; and

- Establish an in-lieu parking space standard and fee to allow a portion of the parking requirement for new development to be satisfied through funding of public parking/structure.

The percentage of the parking requirement that may be satisfied through the payment of an in-lieu fee will depend on the detail and funding of the Shared Parking Program. However, the goal of the City is to achieve a ratio of 25 to 33 percent, if possible, in order to encourage implementation of the Specific Plan goals, reduce the amount of land and structure devoted to parking, and encourage a park-once-and-walk environment.

The City will be open to working with property owners within surrounding areas to explore and implement additional parking districts and/or other mechanisms to further encourage shared parking.

On-Street Parking

Provisions will be made for on-street parking on new streets to provide convenient short term shared parking to serve the broad mix of uses in the area. Construction, maintenance, and management of these resources will be part of a Parking Management Program.

Motor Vehicle Parking Requirements

Each development project shall provide parking based on the requirements set forth in Specific Plan Table 4.4, except where:

- More spaces are required through the discretionary permit review.
- Reductions are granted in compliance with Section D-30 (Reduction of Parking Requirements) in the City of San Ramon Zoning Ordinance.
- Retail and commercial service uses are located within the Parking District as shown in Figure 4.41 and part of the in-lieu fee parking program.

Standards not covered in the Specific Plan parking tables or special circumstances shall be governed by Chapter III (Parking and Loading) in the City of San Ramon Zoning Ordinance.

Shared Parking

Joint use of up to 50 percent of required parking spaces may be permitted with a use permit for two or more uses located on the same parcel or adjacent parcels, provided that the developer can demonstrate that the uses will not substantially overlap in hours of operation or in demand for the shared spaces.

Any sharing of required parking spaces by uses located on different parcels shall be guaranteed by a legally binding agreement between the owner of the parking area and the owner of any use located on a different parcel and served by the parking area. The City shall be party to the agreement and approve the agreement to form, and the agreement shall be recorded on the property.

Bicycle Parking

Bicycle use is strongly encouraged to reduce vehicle miles traveled, and to enhance resident and worker health. Long- and short-term bicycle parking will be required to further those goals. Minimum requirements shall be as set forth in Specific Plan Table 4.5.

Bicycle Parking Location Requirements

- Short-Term Bicycle Parking: Short-term bicycle parking devices shall be clearly visible from the entrance of the building it serves, and located preferably within 50 feet, but no more than 120 feet away. Two-sided bicycle facilities require an aisle at least 5 feet wide between any structures to allow for bicycle maneuvering.
- Long-Term and Secure Bicycle Parking: Long-term and secure bicycle parking shall be located no more than 500 feet from a primary entrance of the building they serve, except for properties participating in the Parking District in-lieu program and utilizing common facilities located within the parking structure. On site bike parking may be restricted to use by employees, tenants, residents or others at the discretion of the property owner or management. Bicycle lockers shall comply with the City's development standards.
- Transit Station Bicycle Parking: A minimum of 15 short-term bicycle parking spaces plus a minimum of 8 long-term bicycle parking spaces shall be provided. Long-term bicycle parking spaces shall be in the form of storage lockers, an attended bicycle station, or within a parking structure.

2.2.6 - Development Standards

The Specific Plan sets forth the following development standards that pertain to all new development and land use activities that occur pursuant to the plan:

- Minimum Lot Size: 80,000 square feet (minimum width: 200 feet)
- Height Limit: 85 feet or five stores (whichever is less)
- Floor Area Ratio: Maximum of 0.70 average for entire Specific Plan area
- Residential Density: Minimum 20 units per acre

The Specific Plan sets forth development standards for each sub-area in Chapter 6.

2.2.7 - Design Guidelines

The Specific Plan establishes design guidelines to promote development and land use activities that reflect the Vision of the Specific Plan. The intent of these Design Guidelines is to:

- Encourage a diversity of project types and land use mixes.
- Avoid trendy designs in favor of timeless building styles.
- Emphasize ground floor interest and detail to encourage a pedestrian environment.

- Enhance a sense of inter-connectivity between buildings and neighborhoods within the Specific Plan area.
- Enhance the connectivity and visual relationships between buildings and public spaces.
- Encourage visual diversity.
- Emphasize a human scale.
- Encourage sustainability, Green Building design, and energy efficiency.

The Design Guidelines do not require a single architectural style; however, there is an expectation that design forms, materials, and details will be respectful of their neighbors, and that buildings will adhere to the Architectural Design Principles (see below). Architectural review will be required for all new development projects to ensure consistency with these Guidelines and overall Specific Plan Vision.

Architectural Design Principles

The architectural form and details of buildings are generally determined by the uses they are designed to accommodate their frontage orientation and parking needs.

The following basic architectural principles are applicable to new developments:

1. Building heights, window patterns, and colors shall be varied along any single block frontage.
2. Roof lines shall be varied along block frontages by height and/or roof form variation.
3. Building walls and details shall be organized into a clearly identifiable base, middle, and top.
4. Architectural forms, materials, and details shall be carried around all sides of a building.
5. Architectural scaling elements, such as banding, belt coursing, bay windows, balconies, sills, lintels, mullions, and changes in texture, and pattern, shall be used to break up the appearance of large building forms.
6. Facade depths shall be varied utilizing a combination of techniques, including projecting elements (e.g., pilasters and bay windows), wall plane offsets, and recessed windows.
7. High-quality materials along with special accent materials and design details shall be incorporated into all first-floor facades and paving areas abutting pedestrian walkways.
8. Exterior walls greater than 40 feet in length shall incorporate textures, details, or other architectural elements to avoid flat, monolithic facades.
9. Parking shall be visually screened from public view.
10. Trash enclosures, loading areas and utility structures shall be integrated into the building design using materials and details from the main structure palette.

11 All rooftop equipment shall be visually screened from public view with roofs or with parapets, walls, or enclosures utilizing materials drawn from the building's facade palette.

12. Integrate pedestrian and architectural lighting into the buildings and streetscape design to provide for pedestrian safety and accent architecture and landscape within the Plan Area.

The Specific Plan sets forth development standards for each end use in Chapter 7.

2.2.8 - Circulation and Transportation

Vehicular Circulation

The Specific Plan Area's roadway network is organized around the street classification system established in the City's General Plan. The vehicular circulation system is comprised of Routes of Regional Significance, arterials, collectors, and local streets. The Specific Plan relies on the existing system of streets for primary access and then overlays a new system of collector and local streets for internal multimodal (automobile, pedestrian, bicycle, transit, etc.) circulation.

The Specific Plan area is highly accessible by vehicle because it is situated within a grid of Routes of Regional Significance, arterials, and collector streets. The two freeway interchanges at Bollinger Canyon Road and Crow Canyon Road support regional mobility and provide access to the Plan Area from I-680 and the planned (but not constructed) high occupancy on- and off-ramps at Norris Canyon Road, and they will provide additional access to carpools, vanpools, and public transit. In addition to providing the Specific Plan area access, the freeway and major arterials provide visibility for the Specific Plan area to support Destination Retail uses fronting on the freeway and roadways.

Local access to the Plan Area is provided by the major arterial streets described above as well as Alcosta Boulevard, Fostoria Way, Camino Ramon, and Norris Canyon Road. Existing local streets, Executive Parkway, Bishop Drive, and Crow Canyon Place combined with the proposed streets will form the principal vehicular circulation system within the Specific Plan area.

Specific Plan Vehicular Circulation System

The existing roadway network within the Specific Plan area consists of high-capacity arterial and collector roadways in a conventional, widely spaced suburban grid. The Conceptual Plan proposes a grid of smaller, pedestrian-scaled blocks consisting of walkable local streets integrated with active commercial frontages, landscaping, streetscape features, public spaces, and other amenities. The smaller, pedestrian-scaled block system is intended to encourage walking, bicycling, and exploration of the Mixed Use Core and encourages a park-once, walk and shop environment. The street grid forms a framework for development of compact commercial and residential mixed-use buildings as well as flexibility for larger retailers, office complexes, and multifamily residential blocks. The vehicular circulation system also serves to provide emergency access to all parts of the Plan Area. All of the streets (and service corridors) are dimensioned to accommodate the San Ramon Valley Fire Protection District's travel way clearances. Exhibit 2-9 illustrates the Specific Plan street network.

The Plan vision is for the key streets, and their role in the vehicular circulation system are described below.

The Commons North

The Commons North is envisioned as a realignment of Crow Canyon Place through the Crow Canyon Commons Shopping Center (when redeveloped) to provide access into the north side of The Commons. As a primary entry point, with nearby freeway access, Crow Canyon Place needs to be effective as a high-volume roadway and aesthetically pleasing as a gateway to the Specific Plan area. This street will be the primary access to the retail and mixed-use Central Core (Development Block D) area. The divided, multi-lane street balances its emphasis on traffic movement and capacity with a broad landscape median and tree-lined sidewalks fronting on shops. Intersections on The Commons North will have traffic signals to control vehicle turning movements and provide controlled crossings for pedestrians.

The Commons

The Commons represents a prominent identifying feature of the Specific Plan area. The Commons is a broad pair of one-way streets on either side of a landscaped public space (Commons), and lined with mixed-use buildings and an active streetscape.

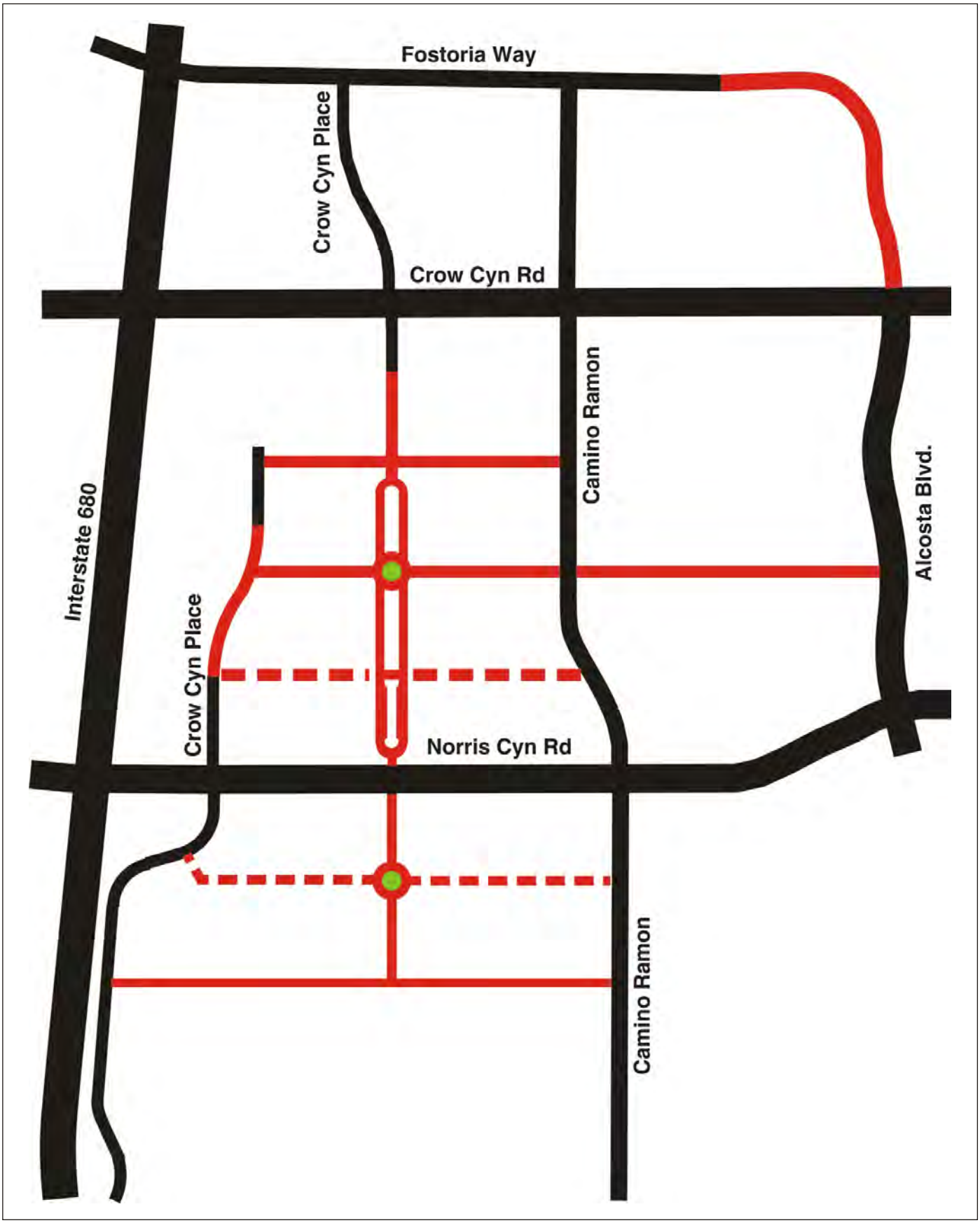
The Commons is the Plan Area's central, multi-modal access corridor accommodating vehicle traffic, providing on-street parking, bike lanes, and a substantial pedestrian realm while connecting The Commons North to Norris Canyon Road. The Commons emphasizes slower vehicular travel and frequent pedestrian crossings at stop-controlled intersections. Vehicular access to adjacent properties and parking will be primarily from the east-west secondary streets in order to maintain The Commons free of conflicts between vehicles and pedestrians at driveways.

Crow Canyon Place

Crow Canyon Place is proposed as a new four-lane street, parallel to The Commons, providing access to the more auto-oriented uses adjacent to I-680. It connects The Commons North to Norris Canyon Road, and may experience some level of through traffic. This street emphasizes traffic movement and capacity, but also provides a wide and attractive pedestrian realm serving an active commercial frontage. As a higher volume street, Crow Canyon Place will control intersections and pedestrian crossings with traffic signals.

The Commons South

The Commons South provides access to the Destination Retail and Bishop Ranch Mixed Use districts (Development Block G) south of Norris Canyon Road. This two-lane street is the continuation of The Commons and is part of the primary, multi-modal corridor with on-street parking, bike lanes, and a substantial pedestrian realm in the southern portion of the Plan Area.



Source: NCRSP Internal Administrative Draft, December 6, 2011.

Michael Brandman Associates

Exhibit 2-9
Street System

The transit center, as discussed later in this section, is expected to be relocated adjacent to The Commons South, immediately south of Norris Canyon Road, when demand warrants. The Commons South does not connect to Executive Parkway, but terminates at a new east-west street.

Norris Canyon Road

Norris Canyon Road is an existing collector street that connects the Westside of San Ramon to the Plan Area and terminates at Alcosta Boulevard. It crosses I-680 but does not currently provide an interchange with the freeway. As described earlier, high occupancy vehicle-only ramps to/from Norris Canyon Road are currently programmed for construction. Presently, a five-lane street (including a center turn lane), Norris Canyon Road is envisioned as a four-lane boulevard with a raised landscaped median and tree-lined setbacks buffering pedestrians and land uses from passing traffic.

Camino Ramon

Camino Ramon is currently the primary north-south collector street and is an important link between Crow Canyon Road and Bollinger Canyon Road. The Specific Plan does not propose changes to the street's cross-section; however, it envisions as many as four new intersections with the Plan's new east-west streets providing access to the area. Given the volume of traffic on Camino Ramon, some of the new intersections may require traffic signals to control traffic and provide safe pedestrian crossings, while others may have limited turning motions to avoid potential conflicts.

New East-West Streets

New east-west streets (Streets A, B, C, E, F) are relatively narrow local streets that connect the internal north-south streets and continue east to intersect Camino Ramon, and in the case of Street D, continue east to intersect Alcosta Boulevard. Street B West provides bike lanes to connect the bike lanes on Crow Canyon Place and Bishop Drive to the Iron Horse Trail. Street B West also provides a direct vehicular and pedestrian connection between the proposed shared parking structure and Crow Canyon Place. Street D West connects Camino Ramon to Alcosta Boulevard and provides access points to the large parcel along its southern edge. Street D West also connects the Iron Horse Trail and The Commons with a multi-use path.

Some of the new east-west streets provide direct access to property and parking that will be located behind buildings. The Specific Plan's Development Standards propose service corridors at the rear of buildings fronting the North and South Commons. The service corridors provide access for deliveries and trash removal as well as fire access associated with the residential and commercial uses.

Current Transit Service

The Plan Area is served by multiple bus routes. The Central Contra Costa Transit Authority (CCCTA/County Connection) provides regional bus service to the current Transit Center located at Executive Parkway and Camino Ramon as well as Bishop Ranch and other employment centers in the area. This regional bus service connects San Ramon to the Walnut Creek and Dublin/Pleasanton

BART stations, the Altamont Commuter Express (ACE) Pleasanton station, and various Park and Ride lots in the I-680 corridor; it also provides local bus service as some of these routes circulate through central San Ramon.

Relocated San Ramon Transit Center

The existing San Ramon Transit Center is located along the Iron Horse Trail adjacent to the intersection of Executive Parkway and Camino Ramon. The Transit Center contains a 54-space Park and Ride lot for commuters who utilize carpools, vanpools, or transit. Bike racks and covered bike lockers are available at the Transit Center.

Most of the routes serving the Plan Area use the current Transit Center. As the Plan Area develops and transit demand in the area increases, the existing Transit Center is proposed to be relocated along the Norris Canyon Road corridor within the Plan Area. This new location will create a centralized public transportation hub within the Plan Area (a 5- to 10-minute walk for the entire Plan Area), and has the potential to expedite transit travel because of its proximity to the programmed HOV ramps at Norris Canyon Road and I-680, and the planned Carpool Lane Gap Closure/I-680 Transit Enhancements that will extend the existing high occupancy vehicle lanes on I-680 to the north of San Ramon.

The HOV lanes and ramps will allow transit, carpool, and vanpool users to bypass congestion on I-680 and at the interchanges (Crow Canyon Road and Bollinger Canyon Road) and gain immediate access to the relocated Transit Center located about 0.25 mile from the HOV ramps. Furthermore, the new location benefits transit by placing the central transfer point, which encourages commuting by means other than the single-occupant vehicle.

The conceptual design of The Commons South includes bus turnouts near the Transit Center to provide operational flexibility such as staging and/or layover, route interlining, or capacity for additional routes. Relocation of the Transit Center and route revisions will be based on development levels and completion of infrastructure reaching an appropriate threshold to trigger the changes. The specific design of the Transit Center will be developed in cooperation with the CCCTA to ensure that the relocated facility continues to meet the existing and future operational needs of the service provider and community.

Transportation Demand Management

The General Plan 2030 includes policy direction calling for Transportation Demand Management (TDM) strategies to reduce total vehicle trips on the roads. The City of San Ramon TDM Program targets businesses, residences, and schools as a means to reduce traffic congestion and the associated air quality pollution and greenhouse gas emissions.

The goal of a TDM program is to change travel behavior, reduce the amount of vehicle traffic, and improve the efficiency of the transportation system in one of three ways:

- Encouraging travel by other than single occupant vehicles
- Encouraging travel during non-peak periods
- Eliminating the need to travel altogether

TDM strategies and measures are most effective when provided in managed programs consisting of multiple options that appeal to the diversity of travelers' needs. TDM can result in significant benefits, including reduced traffic congestion, driving and parking cost savings, reduced crash rates, reduced greenhouse gas and pollution emissions, improved health, increased worker productivity, and cost savings by reducing roadway maintenance costs and deferring the need for roadway capacity expansion projects.

The City actively promotes the Countywide 511 Contra Costa TDM programs for residents and businesses that include rideshare matching, trip planning, alternative transportation resources, and incentives for participation. The Bishop Ranch office complex is an example of a localized and focused TDM program that dramatically reduces single-occupant vehicle trips associated with the Bishop Ranch employment base. In addition to the benefits from the city and 511 Contra Costa TDM programs, the Bishop Ranch TDM program includes free transit passes, subsidized car and vanpools, express transit service to the Altamont Commuter Express (ACE) Pleasanton station and BART stations, as well as other local services and programs unique to Bishop Ranch.

There are many combinations of TDM strategies with a variety of results and effectiveness. TDM programs should offer a range of services, from improving commuter transportation options to providing financial incentives to change trip schedules or modes of transportation. Although individual TDM strategies may affect a small portion of total travel, the cumulative effects of a comprehensive TDM program can be considerable.

One of the most effective TDM strategies is to reduce the need for vehicular travel through efficient land use and transportation planning. The types of development encouraged in the Specific Plan—compact, mixed-use residential and commercial, high-density residential oriented towards transit—are proven to be effective in reducing automobile travel.

TDM for the Specific Plan Area

As discussed above, this Specific Plan establishes a limit on the number of vehicular trips that can be generated by development within the Plan Area. Once the buildings are built and land uses are established, there is little that will affect vehicular travel demand other than a TDM program. A TDM program is a constantly evolving enterprise that, once developed, needs to be monitored and continuously refined in order to meet and maintain the trip generation goals established under the program.

Transportation Management Association

Monitoring and managing the Specific Plan area's trip generation would be best accomplished through a Transportation Management Association (TMA), which would be formed by Specific Plan area stakeholders who are subject to vehicle trip limitations. The TMA would be operated by an executive director and a staff of transportation coordinators. Adoption of programs and decisions would be made by a board of directors chosen from Plan Area stakeholders such as property owners, homeowners associations, major tenants, and employers. The TMA's executive director and board determine the initial services and programs to offer to members. In coordination with the City of San Ramon, they will establish an annual monitoring program, a procedure to assess the Area's progress toward meeting the trip generation goals, and a process for refining and improving the TDM program if goals are not being achieved.

Pedestrian and Bicycle Circulation

Pedestrian Circulation

The present pedestrian system within the Plan Area comprises sidewalks on public streets and the Iron Horse Trail. Although widely spaced, the present sidewalk system is continuous without gaps such that the entire Plan Area is accessible to pedestrians via sidewalks, signalized crossings, and the Iron Horse Trail.

The quality of the pedestrian circulation system and how that system connects to the City's trail system is of fundamental importance to the success of the mixed-use environment and the park-once-and-walk goal of the Specific Plan. Pedestrian facilities within the Plan Area consist of sidewalks, walkways within public spaces or parks, crosswalks at intersections, street lighting, bus stops/shelters, urban design elements within the street right-of-way, and multi-use trails. Facilities for the disabled including curb ramps, audible pedestrian signals, and detectable surfaces are included as pedestrian facilities.

Signalized pedestrian crossings are typically located at intersections and consist of striped crosswalks, curb ramps, pedestrian signal heads with countdown timers, and pedestrian pushbuttons. Mid-block pedestrian crossings are rarely implemented in San Ramon; however, the Specific Plan area has one existing mid-block crossing located on Crow Canyon Place, north of Crow Canyon Road, between an office complex and a shopping center. Mid-block crossings should not be needed because the proposed pedestrian-scaled block system should result in reasonably spaced intersection crossings.

Proposed Pedestrian Circulation System

Whereas many suburban communities are designed such that all travel, even for short distances, requires an automobile, the compact land use pattern combined with the comprehensive pedestrian circulation system defined in the Specific Plan ensure safe and attractive walkable connections to employment, transit, parking, residences, and recreation destinations. The Specific Plan development standards enhance pedestrian circulation through the following design elements:

- Sidewalks and landscape buffers ranging in width from 10 feet to 25 feet or more in areas that are part of the public space network
- On-street parking on most streets that will buffer pedestrians from moving traffic
- A broad landscaped path and integrated public space linking The Commons, Village Green, and the Transit Center to The Iron Horse Trail
- In mixed-use districts, development is encouraged to provide active, ground-floor commercial with outdoor uses such as dining and gathering spaces
- "Flex Zones" on private property adjacent to sidewalks create areas between building faces and sidewalks where building elements may project into the zone for visual interest, and for the provision of amenities such as outdoor dining, landscaping, potted plants and trees, special paving, benches, and other pedestrian-friendly street furniture

Bicycle Circulation

The City of San Ramon has an extensive bicycle network comprising three types of facilities:

- Class I multi-use path
- Class II bike lanes on public streets
- Class III signed bike routes with shared travel lanes

The only Class I bicycle facility in the vicinity of the Plan Area is the Iron Horse Trail. This approximately 30-mile trail provides regional bicycle accessibility to the Specific Plan area.

Within the Plan Area there are Class II bike lanes on Fostoria Way between San Ramon Valley Boulevard and Crow Canyon Place, Norris Canyon Road, Bishop Drive, and Alcosta Boulevard. Nearby, there are Class II bike lanes on San Ramon Valley Boulevard and Crow Canyon Road, east of Alcosta Boulevard. There are no existing Class III bike routes within the Specific Plan area; however, nearby, there are designated Class III bike lanes on Norris Canyon Road between San Ramon Valley Boulevard and Bollinger Canyon Road, and on Bollinger Canyon Road between San Ramon Valley Boulevard and Canyon Lakes Drive.

Proposed Bicycle Circulation System

The Specific Plan's street standards ensure that bicycling remains a viable form of transportation for commuting, recreation and exercise, and everyday errands by providing a network of bicycle lanes and paths including new off-street connection from The Commons to the Iron Horse Trail. Specific bicycle facilities (paths) in the development standards include:

- A Class I multi-use urban path connecting The Commons area with the Iron Horse Trail along the new east-west Street D and Street B.

- A Class I multi-use urban path along Street E connecting Camino Ramon to Park Commons South.

The Specific Plan's street design standards include Class II bike lanes on Fostoria Lane, Street B, Street D, Crow Canyon Place, The Commons, and Street F.

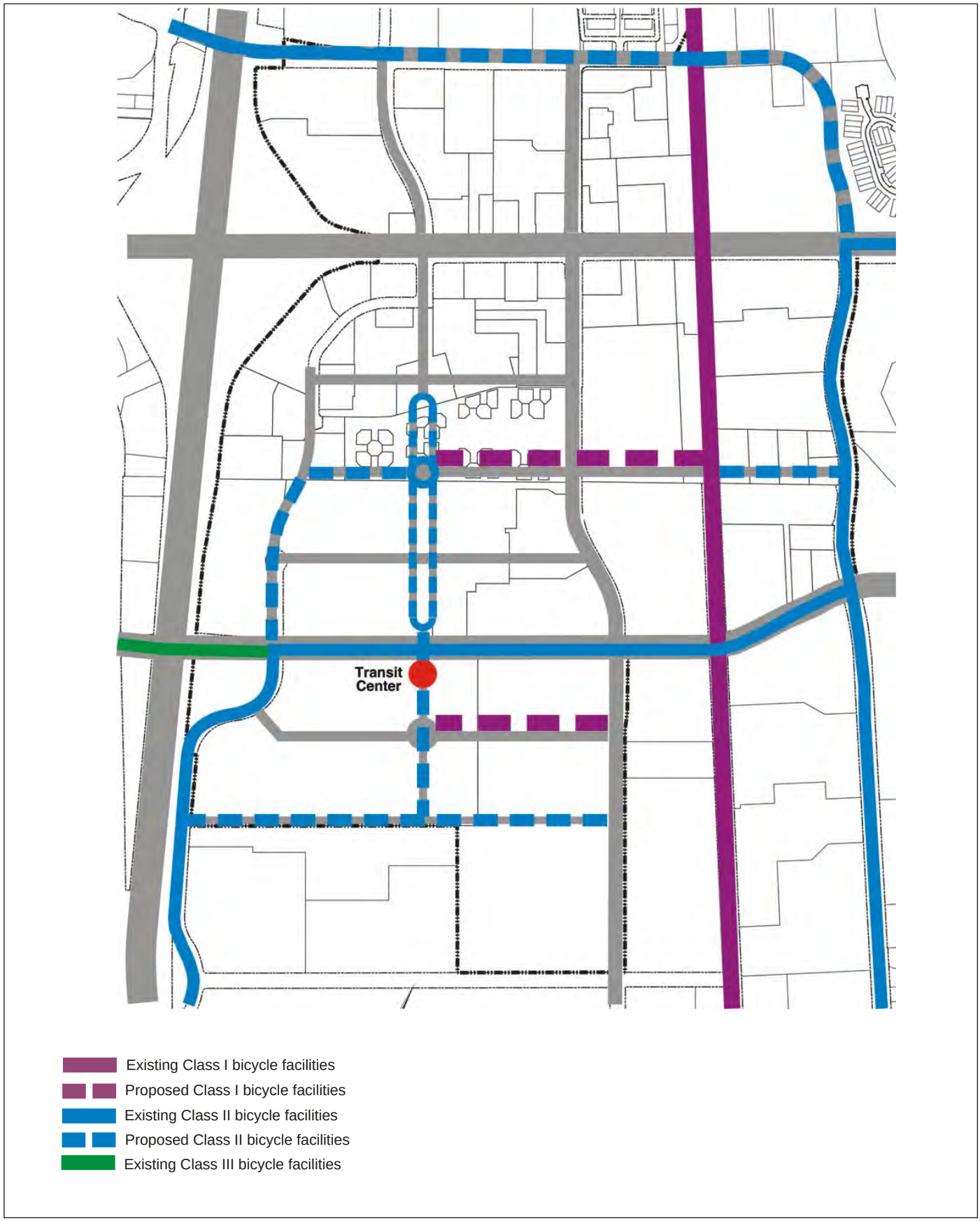
The new bicycle facilities listed above will be integrated with existing bicycle facilities, resulting in a comprehensive bicycle system connecting employment centers, residential neighborhoods, transit, shopping, local and regional parks, and other recreational facilities. Exhibit 2-10 illustrates existing and proposed bicycle facilities.

The bicycle circulation plan includes connections/transitions between two different types of facilities such as Class II bike lanes and Class I off-street paths where the bicyclist needs to shift from riding on the right side of the street to riding on an off-street path. This shift from one type of bike facility to another occurs on Street B at The Commons and Street E between Camino Ramon and The Commons South. The following implementation guidelines have been developed to ensure a safe and seamless shift between the Plan's bicycle circulation facilities:

- The shift between Class II bike lanes and Class I off-street paths need to occur at intersections where the travel of the bicyclists is naturally interrupted by negotiating the intersection.
- Transitions require that advance warning signs provide notice to bicyclists and motorists to expect a change. The transitions from Class II bike lanes to off-street paths typically use "End Bike Lane" signs at the terminus of the bike lanes prior to entering the intersection.
- Where the bike lane ends, the bicyclist transitions to a shared lane mode to ride through the intersection or becomes a pedestrian and walks his/her bike through the crosswalk.
- Where off-street paths intersect streets, transitions are standard trail end points with appropriate signing and markings and bollards or fencing to keep bicyclists from drifting into the street.
- Within the Specific Plan area, trail end point bollards or fencing should be enhanced to match the urban design theme of the street.
- Way-finding signs will inform bicyclists and pedestrians where to transition bike lanes to off-street paths and vice versa, as well as identify key destinations in San Ramon.

Iron Horse Trail

As described previously, the Iron Horse Trail is another important pedestrian/bicycle facility within the Specific Plan area. The Iron Horse Trail is a north-south multi-use trail, located within the abandoned Southern Pacific Railroad right-of-way that extends from Concord to Pleasanton.



Source: NCRSP Internal Administrative Draft, December 6, 2011.

Michael Brandman Associates

Exhibit 2-10
Existing and Proposed Bicycle Facilities

The trail has several street crossings within or adjacent to the Specific Plan area. Trail crossings at Crow Canyon Road, Norris Canyon Road, and Bollinger Canyon Road provide pedestrian-activated traffic signals. The trail also crosses Executive Parkway as an un-signalized pedestrian crossing. Crow Canyon Road and Bollinger Canyon Road are both under consideration and assessment for pedestrian/bicycle overcrossings. The addition of overcrossings at these major arterials improves safety by providing a grade separation between pedestrian/bicycles and automobiles. Additionally, the grade separation improves traffic flow along the arterials by eliminating traffic stoppages associated with signalized pedestrian and bicycle crossings at Iron Horse Trail intersections.

2.2.9 - Utilities

Potable Water

The East Bay Municipal Utility District (EBMUD) is the service provider for the Specific Plan area. EBMUD provides potable water supply and operates and maintains the existing potable water infrastructure within the Area. Potable water provided to the City of San Ramon is treated at the Walnut Creek Water Treatment Plant and conveyed south via transmission lines through Alamo and the Town of Danville. There are several existing, large-diameter water transmission lines within the right-of-way for Fostoria Way, Camino Ramon, and Norris Canyon Road. Exhibit 2-11 depicts the existing potable water infrastructure within the Specific Plan area.

Based on the existing EBMUD potable water infrastructure within the area, the need for new water infrastructure will be based on new roadway alignments and required fire flow. The San Ramon Valley Fire Protection District has reviewed the proposed land use plan and, based on an assumed 150,000-square-foot building with Type III construction and fire sprinklers, indicated that a maximum 4,000-gallon-per-minute (gpm) fire flow would be required. Although different pressure zones exist in the area, EBMUD has modeled the existing system and has shown that the existing water mains 12 inches or greater can provide the maximum 4,000-gpm fire flow. Because of EBMUD's velocity criteria, the existing 8-inch water mains will only provide approximately 3,000 gpm. All modeled fire flows noted were at a minimum of 20 psi residual pressure. Exhibit 2-12 illustrates the proposed potable water infrastructure within the Specific Plan area. The pipeline sizes shown on Exhibit 2-12 are approximate sizes only. Final pipe sizes will be determined by EBMUD based on the actual development scenario and densities to be constructed.

In accordance with California Water Code, Sections 10910-10915, EBMUD performed a Water Supply Assessment (WSA) dated November 24, 2010. EBMUD indicated in the WSA that the North Camino Ramon Specific Plan area water demands are accounted for in EBMUD's 2005 Urban Water Management Plan and that there is adequate water supply for the Specific Plan area. Refer to Section 3.13, Utility Systems for further discussion.

New development and redevelopment within the area will be required to adhere to the City's Ordinance No. 218 (Water Conservation and Landscape Ordinance) and the EBMUD/DERWA

development standards and requirements for recycled water. In addition, consistent with the WSA, the project should comply with the California Model Water Efficient Landscape Ordinance.

Recycled Water

EBMUD and the Dublin San Ramon Services District (DSRSD) jointly provide and distribute recycled municipal water in the City of San Ramon through the San Ramon Valley Recycled Water Program. The program is administered by a joint powers authority, the DSRSD-EBMUD Recycled Water Authority (DERWA). Treated effluent at the R1 tertiary treatment plant in Pleasanton is filtered and disinfected for appropriate irrigation reuse. Recycled water is conveyed to Camino Ramon via a backbone line located within the Iron Horse Trail right-of-way. In 2010, DERWA completed construction of a backbone recycled water line that extends north to Bollinger Canyon Road then runs east into the Dougherty Valley. Additionally, a recycled water line was extended from Bollinger Canyon Road north to Fire Station No. 34 on Alcosta Boulevard in 2011.

DERWA does not currently have recycled water infrastructure within the area. Future plans identify a network of recycled water lines serving both the Bishop Ranch Business Park and the North Camino Ramon Specific Plan area. DERWA is currently planning/designing recycled water pipelines in the roadways and locations within the area listed below. When completed, all proposed recycled water mains will be operated and maintained by DERWA:

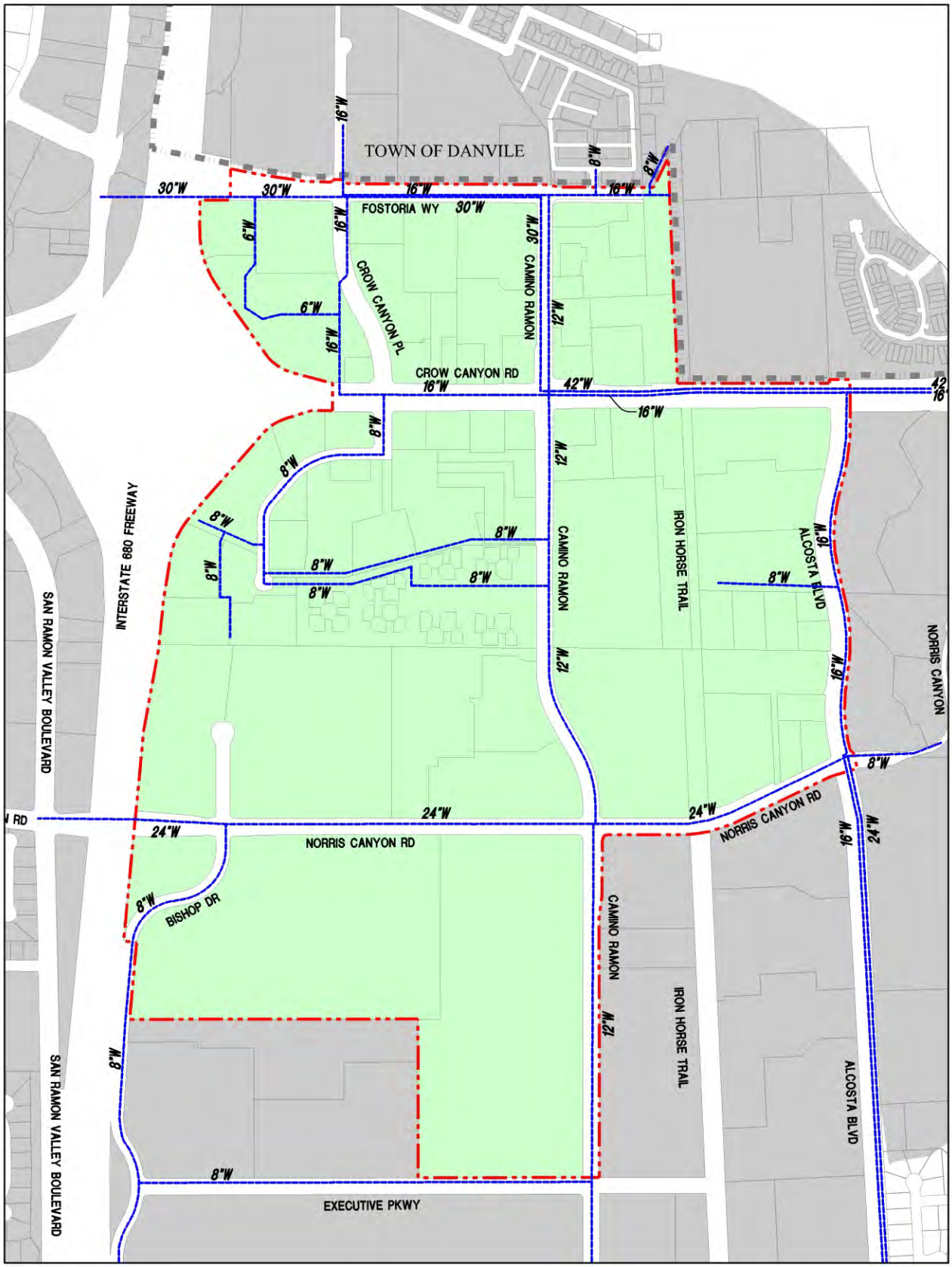
- Camino Ramon from Bollinger Canyon Road north to Crow Canyon Road
- Crow Canyon Road from the Camino Ramon Intersection east to the El Capitan Drive intersection
- Executive Parkway from Camino Ramon west to Bishop Drive
- Norris Canyon Road from Camino Ramon west to the Bishop Drive/Annabel Lane Intersection
- From Camino Ramon thru the existing private office development to Crow Canyon Place

Since the existing roadway network for the Specific Plan area will be modified, additional reclaimed water infrastructure will likely be required. Refer to Exhibit 2-13 for anticipated reclaimed water lines in additional to those currently planned by DERWA.

As the Specific Plan area develops, continued coordination with DERWA will be required for proper planning of the future recycled water system. New development and redevelopment within the area will be required to adhere to the City's Ordinance No. 218 (Water Conservation and Landscape Ordinance) and DERWA' s development standards for Recycled Water.

Sewer

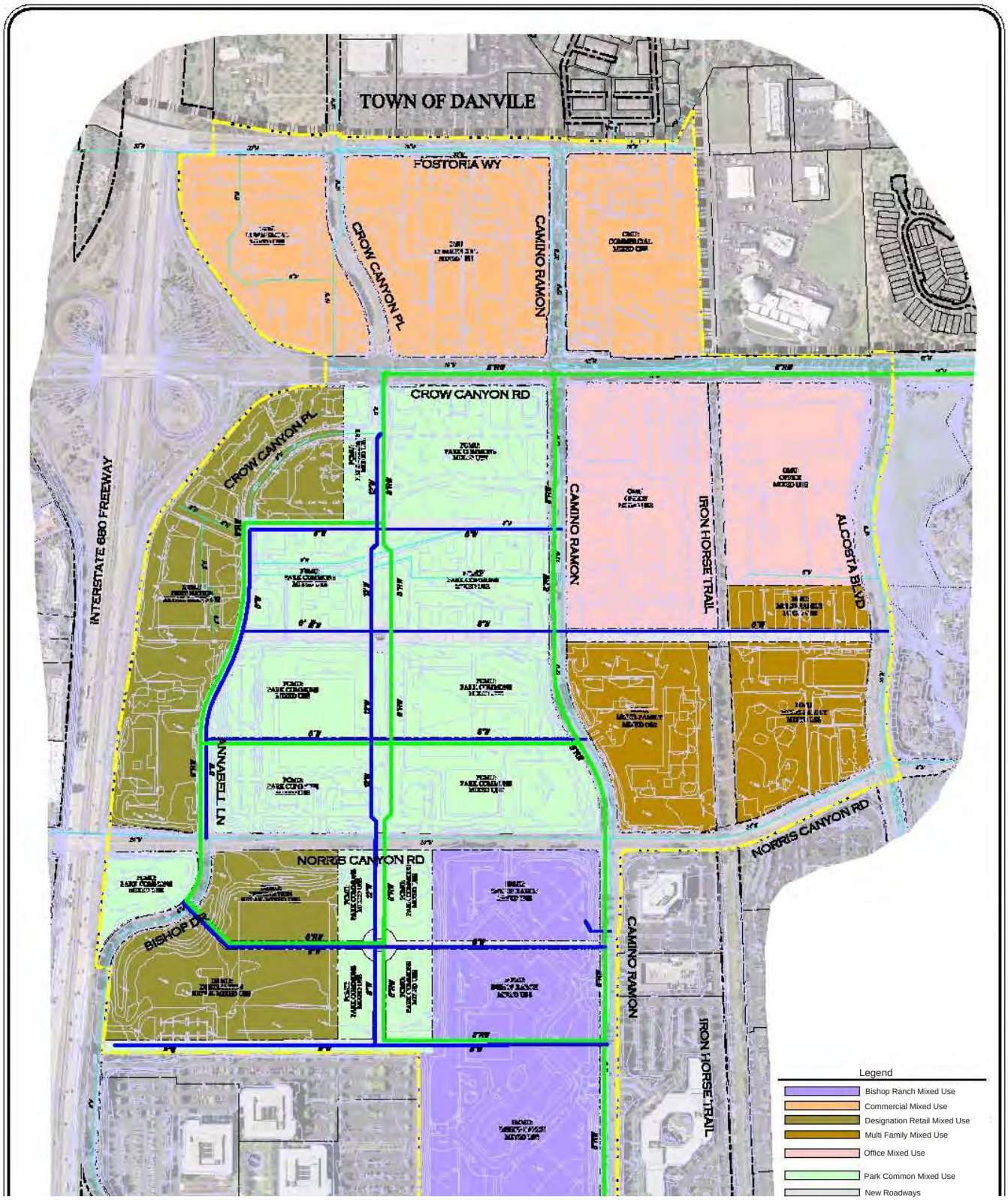
Central Contra Costa Sanitary District (CCCSD) provides wastewater collection and treatment to the northern portion of the City of San Ramon. Wastewater flows from San Ramon are conveyed north to CCCSD's wastewater treatment plant via the San Ramon Interceptor located within the Iron Horse Trail corridor.



Source: NCRSP Internal Administrative Draft, December 6, 2011.

Michael Brandman Associates

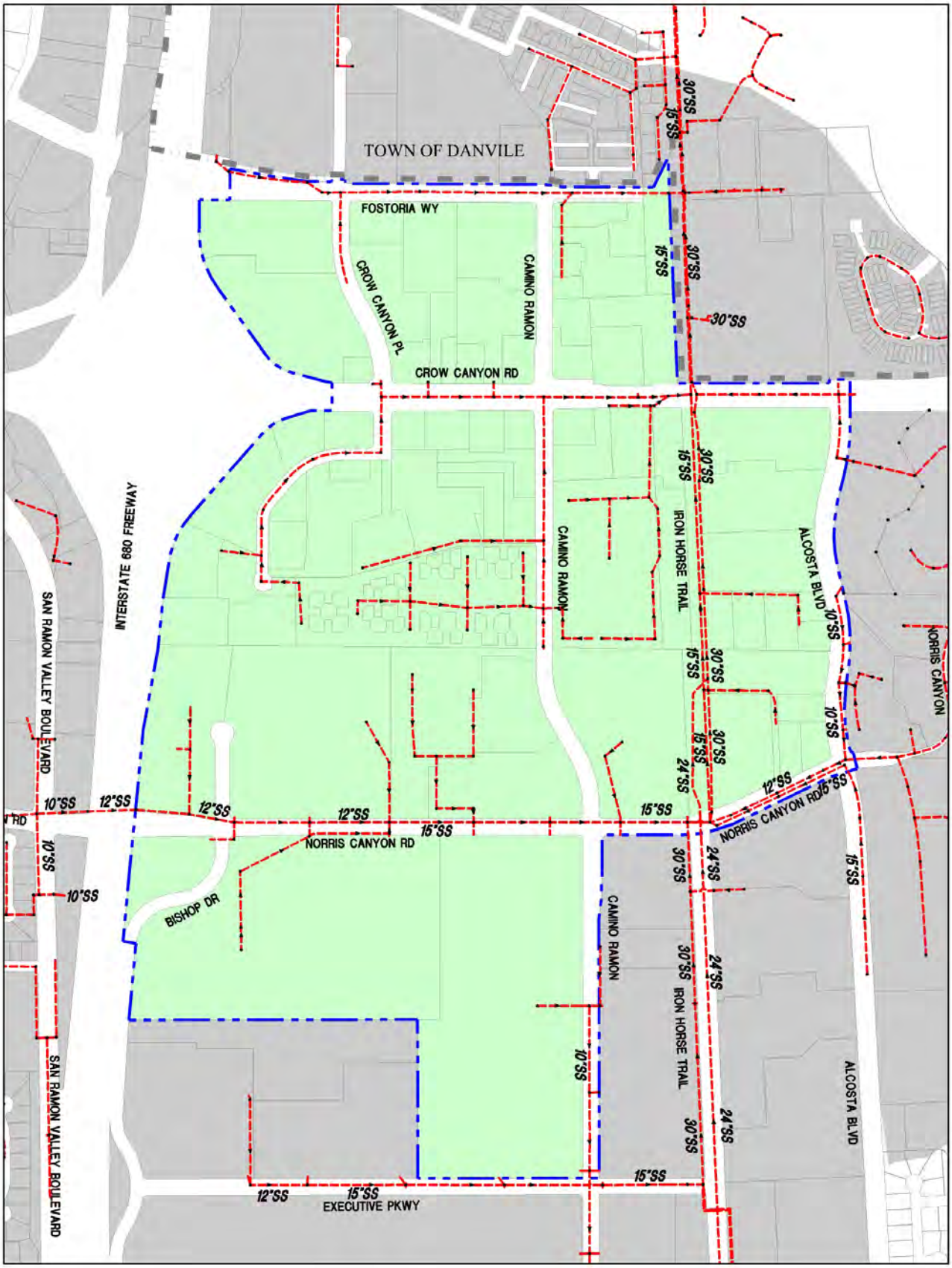
Exhibit 2-11
Existing Potable Water Facilities



Source: NCRSP Internal Administrative Draft, December 6, 2011.

Michael Brandman Associates

Exhibit 2-12
Proposed Water Supply Facilities



Source: NCRSP Internal Administrative Draft, December 6, 2011.

Michael Brandman Associates

Exhibit 2-13
Existing Sanitary Sewer Facilities

In 2003, CCCSD initiated a capacity improvement project for the interceptor between Norris Canyon Road in San Ramon and St. James Court in Danville in anticipation of increased wastewater flows from planned growth in San Ramon. The sewer analysis associated with the project identified a capacity deficiency in the interceptor for the 2040 20-year design event. As of 2011, a new 36-inch interceptor is planned to be constructed adjacent to the existing San Ramon Interceptor within the Iron Horse Trail corridor. CCCSD anticipates that the new 36-inch interceptor will be built sometime before 2015. All upgrades to the backbone interceptor will be paid for by fees collected on a CCCSD system-wide basis.

In addition to the San Ramon Interceptor within the Iron Horse Trail corridor, various existing collection mains ranging from 8 inches to 15 inches provide sewer service to existing users within the project area. In general, wastewater flows in an east or west direction via the existing sewer mains in Executive Parkway, Norris Canyon Road, Crow Canyon Road, and Fostoria Way to the existing 15-inch trunk main or the 24- to 30-inch interceptor, where it flows in a northerly direction to the treatment plant. Exhibit 2-14 depicts the existing sewer facilities within the Specific Plan area.

In November 2010, CCCSD issued a letter stating that the area would not create capacity deficiencies in the existing trunk system through a 2040 20-year design event, assuming the previously mentioned 36-inch interceptor is complete and operational. Additional discussions with CCCSD confirmed that adequate treatment plant capacity is available, but further modeling would be necessary to evaluate the capacity of the smaller sewer collection mains within the existing streets.

In January 2011, CCCSD modeled multiple points within the existing sewer system based on Exhibit 2-15 and the ultimate buildout densities proposed for the area. Based on the analysis, no deficiencies were identified within the sanitary system, and the existing sewer system will accommodate the proposed Specific Plan area buildout. As the Specific Plan area develops, continued coordination with CCCSD will be required for proper planning of the future sewer system. Refer to Section 3.13, Utility Systems for further discussion.

Storm Drainage

The City of San Ramon owns and maintains drainage facilities within the City limits. The project Area is divided into two major drainage basins. The northern portion of the site is drained by a network of storm drainpipes ranging from 15 inches to 48 inches. All runoff from this portion of the site eventually flows to a 60-inch storm drain located within the Iron Horse Trail corridor. This 60-inch storm drainpipe conveys runoff in a northerly direction into the drainage systems of Danville, Alamo, and Walnut Creek, ultimately discharging into Suisun Bay. The southern portion of the project area drains to the south via a network of storm drainpipes into a 72-inch storm drain located under Camino Ramon that transitions to an 84-inch-diameter pipe south of Bollinger Canyon Road and, ultimately, to a 96-inch-diameter pipeline located under the Bishop Ranch 1 surface parking areas. The 96-inch-diameter pipeline crosses Bishop Ranch 1 to the Iron Horse Trail corridor discharging into South San Ramon Creek and ultimately flows to the Lower San Francisco Bay.

Based on discussions with City staff, there are no known deficiencies within the existing drainage system. Exhibit 2-15 depicts the existing storm drainage infrastructure within the Specific Plan area.

The existing Specific Plan area is highly developed with a significant footprint of impervious surfaces (buildings, parking lots, and roadways). The proposed Specific Plan will alter development types in the area, but it is not anticipated to increase the quantity of impervious surfaces. In September 2009, the California Regional Water Quality Control Board, San Francisco Bay Region implemented a new Municipal Regional Permit. One key element of this permit is Provision C.3. In general, this Provision will require new development to employ Low Impact Development techniques to minimize site runoff and to treat the runoff for improved water quality. As the Specific Plan area develops, each "project" will be required to demonstrate that it:

- Adequately treats any site runoff to insure the proper quality of the runoff leaving the site.
- Does not increase the quantity, duration or peak flow of runoff from each site.
- Employs proper construction management techniques through the construction process to insure sediment and erosion control. This will be addressed through the required State General Construction Permit requirements.

The new Municipal Regional Permit provides guidelines and direction for calculating and selecting treatment and flow discharge techniques. Pursuant to Provision C.3, the goal of Low Impact Development (LID):

> . . . is to reduce runoff and mimic a site's predevelopment hydrology . . . by infiltrating, storing, detaining, evapotranspiring, and/or biotreating stormwater runoff close to its source. LID employs principles such as preserving and recreating natural landscape features and minimizing imperviousness to create a functional and appealing site drainage that treats stormwater as a resource, rather than a waste product.

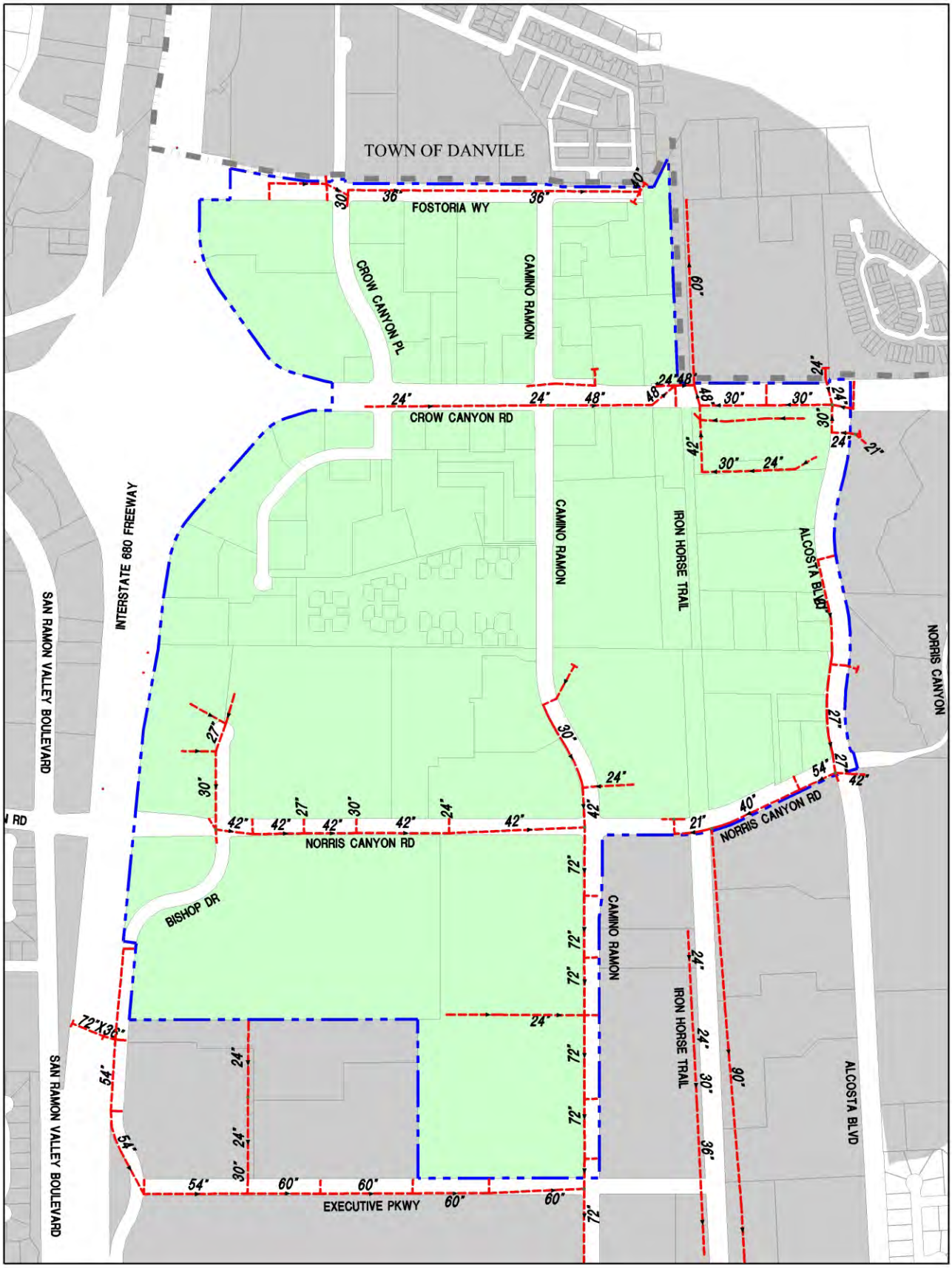
While there are multiple LID measures currently preferred, there should be no limit to the creativity of the ultimate designer. Alternatives may include the use of bio-treatment through rain gardens, permeable pavements, landscape bio-retention areas, green roofs, planter/tree boxes, rain barrels, and cisterns, among others.

Based on the new permit criteria, new development within the area will not increase flows within the existing drainage system. Therefore, new drainage infrastructure required by the proposed Specific Plan will be limited to that required for new roadways within the Specific Plan area. Exhibit 2-16 depicts the backbone storm drainage infrastructure anticipated within the Specific Plan area. In the design phase, these new drainage systems will be appropriately sized and modeled through the existing drainage system to insure proper sizing and no diversion of flows.

Source: NCRSP Internal Administrative Draft, December 6, 2011.

Michael Brandman Associates

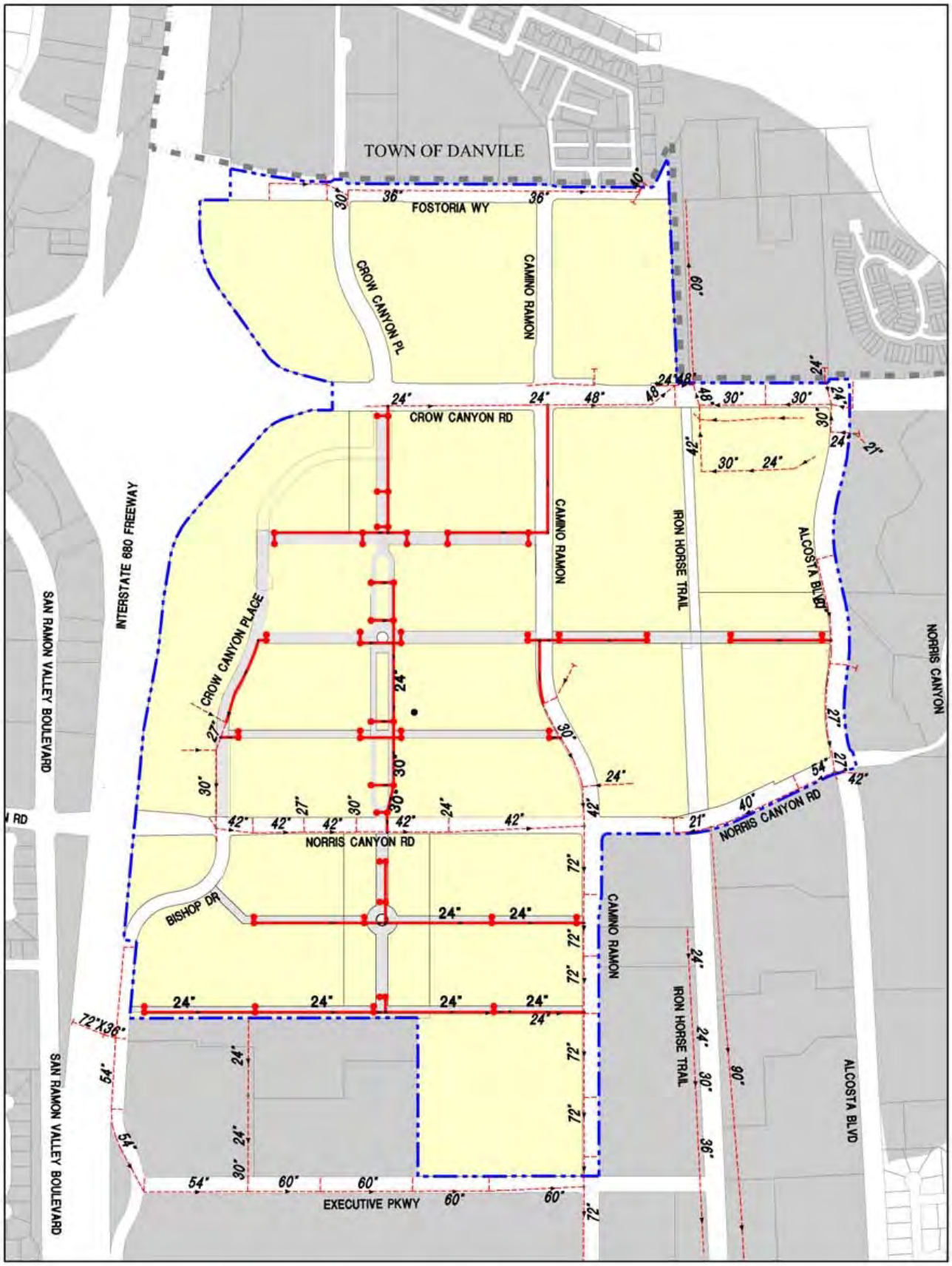
Exhibit 2-14
Proposed Sanitary Sewer Facilities



Source: NCRSP Internal Administrative Draft, December 6, 2011.

Michael Brandman Associates

Exhibit 2-15
Existing Storm Drainage Facilities



Source: NCRSP Internal Administrative Draft, December 6, 2011.

Michael Brandman Associates

Exhibit 2-16
Proposed Storm Drainage Facilities

Solid Waste

Solid waste collection and disposal in San Ramon is provided by Valley Waste Management, which is part of Waste Management, Inc. Valley Waste Management provides solid waste collection services under an exclusive franchise agreement with the City of San Ramon. These services include collection of solid waste from commercial, industrial, and residential customers, and collection of residential recyclables and yard trimmings. Commercial recycling services are currently provided by several companies that have been granted permits by the City of San Ramon, and they are available to all San Ramon businesses on a competitive basis. With the State's adoption of mandatory commercial recycling, the City will be looking at future options for franchise recycling services in addition to or as a replacement for the competitive process currently in place.

Valley Waste Management transports solid waste to the Vasco Road Sanitary Landfill in Livermore. Currently the landfill has capacity until 2025. As residential development typically generates more solid waste then commercial uses, development of new residential land uses with the Specific Plan area should include a City-approved recycling plan.

Energy and Franchise Utilities

Pacific Gas and Electric (PG&E) provides natural gas and electricity to the City of San Ramon and the Specific Plan area. Franchise utilities also provide telephone, cable, and communications to the existing users. Roadways within the Specific Plan area contain a variety of backbone joint utility trench infrastructure providing service to the individual parcels and users. Currently, there are no known capacity deficiencies that will significantly affect the redevelopment of the area. Intensification of land uses may require additional facility infrastructure. This will need to be evaluated with the utility providers as development progresses.

2.3 - Project Objectives

The objectives of the proposed project are to:

- Enhance quality of life for residents and employees.
- Promote economic growth through new capital investment, the creation of new jobs, the development of new housing opportunities, and expansion of the tax base.
- Facilitate the redevelopment of the Specific Plan area from an automobile-dominated, low-density commercial area to a transit- and pedestrian-oriented neighborhood that will be a community focal point with a mix of uses.
- Complement the San Ramon City Center project and support the large office population within the Bishop Ranch Business Park.
- Expand the City's retail offerings by identifying sites for retail opportunities, as well as neighborhood-serving commercial uses.

- Enhance all modes of circulation within the plan area and connectivity to surrounding land uses.
- Facilitate the use of alternative modes of transportation through an enhanced circulation system, site planning, and design techniques.
- Emphasize the use of the Iron Horse Trail and connectivity between the Plan Area and other parts of the City.
- Provide workforce housing close to employment centers.
- Minimize adverse impacts to sensitive uses through the use of site planning and design techniques.

2.4 - Intended Uses of This Draft EIR

This Draft EIR is being prepared by the City of San Ramon to assess the potential environmental impacts that may arise in connection with actions related to implementation of the proposed project. Pursuant to CEQA Guidelines Section 15367, the City of San Ramon is the lead agency for the proposed project and has discretionary authority over the proposed project and project approvals. The Draft EIR is intended to address all public infrastructure improvements and all future development that are within the parameters of the proposed project.

2.4.1 - Discretionary and Ministerial Actions

Discretionary approvals and permits are required by the City of San Ramon for implementation of the proposed project. The proposed project would require the following discretionary approval and action:

- Specific Plan Adoption – Planning Commission and City Council

Future development and land use activities that occur pursuant to the Specific Plan may require discretionary approvals such as but not limited to subdivision/parcel maps, use permits, and design review, and ministerial approvals such as but not limited to lot line adjustments and demolition, grading, and building permits. The intent of the EIR will be to provide sufficient coverage for development and land use activities contemplated by the Specific Plan such that no additional or only low-level environmental review (e.g., a Negative Declaration) would be necessary.

2.4.2 - Responsible and Trustee Agencies

A number of other agencies in addition to the City of San Ramon will serve as Responsible and Trustee Agencies, pursuant to CEQA Guidelines Section 15381 and Section 15386, respectively. This Draft EIR will provide environmental information to these agencies and other public agencies, which may be required to grant approvals or coordinate with other agencies, as part of project implementation.

These agencies may include but are not limited to the following.

- California Department of Transportation
- San Francisco Bay Regional Water Quality Control Board
- East Bay Municipal Utility District
- Central Contra Costa Sanitary District
- Central Contra Costa Transit Authority
- Dublin San Ramon Services District/East Bay Municipal Utility District Recycled Water Authority
- County of Contra Costa
- Town of Danville

Actions that are necessary to implement the project that must be taken by other agencies are:

- Obtain coverage under General Construction Stormwater Permit – State Water Resources Control Board/San Francisco Bay RWQCB. A Storm Water Pollution Prevention Plan must be submitted in order to obtain such coverage.
- Issuance of Encroachment Permits for roadway, trail, or utility improvements within facilities under the jurisdiction of the California Department of Transportation (Caltrans), the County of Contra Costa, or the Town of Danville.

SECTION 3: ENVIRONMENTAL IMPACT ANALYSIS

Organization of Issue Areas

This Draft Environmental Impact Report (Draft EIR) provides analysis of impacts for those environmental topics where it was determined in the Notice of Preparation, as provided in Appendix A, or through subsequent analysis that the proposed project would result in "potentially significant impacts." Sections 3.1 through 3.13 discuss the environmental impacts that may result with approval and implementation of the proposed project.

Issues Addressed in this EIR

The following environmental issues are addressed in Section 3:

- Aesthetics, Light, and Glare
- Air Quality and Greenhouse Gas Emissions
- Biological Resources
- Cultural Resources
- Geology, Soils, and Seismicity
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use
- Noise
- Population and Housing
- Public Services and Recreation
- Transportation
- Utility Systems

Each environmental issue area in Sections 3.1 through 3.13 contains a description of:

1. The environmental setting as it relates to the specific issue
2. The regulatory framework governing that issue
3. The methodology used in identifying the issues
4. The significance criteria
5. An evaluation of the project-specific impacts and identification of mitigation measures
6. A determination of the level of significance after mitigation measures are implemented

Level of Significance

Determining the severity of project impacts is fundamental to achieving the objectives of CEQA. CEQA Guidelines Section 15091 requires that decision makers mitigate, as completely as is feasible, the significant impacts identified in the Final EIR. If the EIR identifies any significant unmitigated impacts, CEQA Guidelines Section 15093 requires decision makers in approving a project to adopt a statement of overriding considerations that explains why the benefits of the project outweigh the adverse environmental consequences identified in the EIR.

The level of significance for each impact examined in this Draft EIR was determined by considering the predicted magnitude of the impact against the applicable threshold. Thresholds were developed using criteria from the CEQA Guidelines and checklist; state, federal, and local regulatory schemes; local/regional plans and ordinances; accepted practice; consultation with recognized experts; and other professional opinions.

Impact Analysis and Mitigation Measure Format

The format adopted in this EIR to present the evaluation of impacts is described and illustrated below.

Summary Heading of Impact

Impact AES-1:	**An impact summary heading appears immediately preceding the impact description (Summary Heading of Impact in this example). The impact abbreviation identifies the section of the report (AES for Aesthetics, Light, and Glare in this example) and the sequential order of the impact (1 in this example) within that section. To the right of the impact number is the impact statement, which identifies the potential impact.**

Impact Analysis

A narrative analysis follows the impact statement.

Significance Before Mitigation

This section identifies the level of significance of the impact before any mitigation is proposed.

Mitigation Measures

In some cases, following the impact discussion, reference is made to state and federal regulations and agency policies that would fully or partially mitigate the impact. In addition, policies and programs from applicable local land use plans that partially or fully mitigate the impact may be cited.

Project-specific mitigation measures, beyond those contained in other documents, are set off with a summary heading and described using the format presented below:

MM AES-1a Project-specific mitigation is identified that would reduce the impact to the lowest degree feasible. The mitigation number links the particular mitigation to the impact with which it is associated (**AES-1** in this example); the letter identifies the sequential order of that mitigation for that impact (**a** in this example).

Significance After Mitigation

This section identifies the resulting level of significance of the impact following mitigation.

Abbreviations used in the mitigation measure numbering are:

Code	Environmental Issue
AES	Aesthetics, Light, and Glare
AIR	Air Quality and Greenhouse Gas Emissions
BIO	Biological Resources
CUL	Cultural Resources
GEO	Geology, Soils, and Seismicity
HAZ	Hazards and Hazardous Materials
HYD	Hydrology and Water Quality
LU	Land Use
NOI	Noise
POP	Population and Housing
PSR	Public Services and Recreation
TRANS	Transportation
US	Utility Systems

3.1 - Aesthetics, Light, and Glare

3.1.1 - Introduction

This section describes the existing aesthetics, light, and glare setting and potential effects from the implementation of the Specific Plan within the Specific Plan area and its surroundings. Descriptions and analysis in this section are based on site reconnaissance by Michael Brandman Associates.

3.1.2 - Environmental Setting

Aesthetic Character

Regional Setting

The Specific Plan Area is located within the City of San Ramon within the San Ramon Valley in the East Bay region of the San Francisco Bay Area. The San Ramon Valley stretches from Alamo in the north to Dublin in the south and is characterized by low rolling foothills to the west and east. The valley bottom is mostly developed with urban uses, while significant portions of the hillsides and nearly all of the ridgelines have remained undeveloped. Mt. Diablo, elevation 3,849 feet above mean sea level, is the most prominent visual feature in the region and is located northeast of the San Ramon Valley. West of the City limits is Wiedemann Hill, elevation 1,850 feet above main sea level. Most of the prominent western slopes of Wiedemann Hill are undeveloped and contain clusters of oak woodlands. Within the city limits are the Dougherty Hills, which separate the San Ramon Valley from the Dougherty Valley to the east. The sides and ridgelines of the Dougherty Hills contain urban development, mostly notably the Canyon Lakes Golf Course and the Canyon Lakes commercial center. Additional development on the sides and ridgelines of the Dougherty Hills is associated with the Old Ranch area in the southern portion of the City limits. Other local topographic features include Las Trampas Ridge, the Sherbourne Hills, the Black Hills, and Highland Peak.

Local Setting

San Ramon is a suburban community of more than 73,000 residents, 26,000 dwelling units, and 16.4 million square feet of non-residential square footage. Urban development is generally concentrated within the city limits, which total 18.43 square miles, and it encompasses San Ramon Valley, Dougherty Valley, and the lower slopes of the Westside foothills and the Dougherty Hills.

Specific Plan Area

The Specific Plan area encompasses approximately 295 gross acres in the northern portion of the City of San Ramon. The Specific Plan area contains more than 100 individual parcels ranging in area from less than 3,000 square feet to more than 1 million square feet. Most of the parcels are developed with existing commercial uses (office, retail, and service). Notable uses include Crow Canyon Commons Shopping Center; the Toyota parts distribution facility; the Bishop Ranch 6, 11, and 12 office complexes; Norris Technology Center; the Pacific Gas and Electric Company (PG&E) Conference Center; the Legacy Plaza office complex; the San Ramon Valley Unified School District

Maintenance Facility; and the former RMC Pacific Materials cement plant site[1]. Within the Specific Plan boundaries, there are approximately 3,395,000 square feet of existing buildings. Exhibit 2-3a and 2-3b provide photographs of the Specific Plan area.

Surrounding Land Uses

West

Interstate 680 (I-680) forms the western boundary of the Specific Plan area. The freeway consists of four travel lanes and an auxiliary lane in each direction, for a total of 10 lanes. West of I-680 is the San Ramon Valley Boulevard corridor, which generally consists of automobile-oriented commercial uses (vehicle repair and maintenance, gas stations, fast food restaurants with drive-thrus, etc.).

North

Fostoria Way, which demarcates the boundary between the City of San Ramon and the Town of Danville, forms the northern boundary of the Specific Plan area. The roadway is a divided four lane facility with landscaped median between Crow Canyon Place/Camino Ramon (North) and Camino Ramon (South), and undivided two-lane facility east of Camino Ramon (South). Land uses to the north consist of the Castle Square shopping center (anchored by Costco) and medium-density residential (townhouse) uses.

East

The Iron Horse Trail, Alcosta Boulevard, and Camino Ramon form the eastern boundary of the Specific Plan area. The Iron Horse Trail, a Class I bicycle/pedestrian facility, demarcates the eastern boundary between Fostoria Way and Crow Canyon Road; Alcosta Boulevard, a divided four-lane roadway with landscaped median, forms the boundary between Crow Canyon Road and Norris Canyon Road; and Camino Ramon, an undivided four lane roadway with a center two-way left-turn lane, serves as the boundary between Norris Canyon Road and Executive Parkway. Land uses to the east consist of the PG&E Technological and Ecological Services Research Laboratory, residential uses, and the Bishop Ranch 9 office complex.

South

Norris Canyon Road and Executive Parkway form the southern boundary of the Specific Plan area. Norris Canyon Road, an undivided four-lane facility, demarcates the boundary between Alcosta Boulevard and Camino Ramon; and Executive Parkway, a divided two-lane facility with landscaped median, forms the boundary between Camino Ramon and Bishop Drive. Land uses to the south consist of the Bishop Ranch 9 and Bishop Ranch 15 office complexes and the AT&T campus.

Designated Resources

The San Ramon General Plan designates ridgelines above 500 feet and creeks as resources intended for protection. No such resources are located within the Specific Plan area.

[1] At the time of Draft EIR release, this site is being redeveloped as a 125-unit residential development known as St. James Place.

State Scenic Highways

The 29.9-mile segment of I-680 between Mission Boulevard in Fremont and State Route 24 in Walnut Creek is classified as an "Officially Designated" State Scenic Highway. The entire segment of I-680 that is located adjacent to the Specific Plan area is within this designation.

Generally, views of surrounding ridgelines and hillsides are available from I-680 near the Specific Plan area.

Light and Glare

The Specific Plan area contains numerous sources of light and glare. Examples of light and glare include streetlights, freestanding lights, building-mounted lights, illuminated signage, reflective building materials, and vehicular headlights. Areas surrounding the Specific Plan area also contain numerous sources of light and glare, similar to those of the Specific Plan area.

3.1.3 - Regulatory Framework

State

California Scenic Highway Program

The California Scenic Highway Program is intended to preserve and protect scenic highway corridors from change that would diminish the aesthetic value of lands adjacent to highways. A highway may be designated scenic depending upon how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view. A scenic corridor is the land generally adjacent to and visible from the highway and is identified using a motorist's line of vision. The corridor protection program seeks to encourage quality development that does not degrade the scenic value of the corridor. Minimum requirements for scenic corridor protection include:

- Regulation of land use and density of development
- Detailed land and site planning
- Control of outdoor advertising (including a ban on billboards)
- Careful attention to and control of earthmoving and landscaping
- Careful attention to design and appearance of structures and equipment

Local

City of San Ramon

General Plan 2030

The City of San Ramon General Plan 2030 sets forth the following guiding and implementing policies related to scenic vistas, visual character, and light and glare:

- **Implementing Policy 2.3.I-16:** Use development standards to minimize adverse visual effects of transportation infrastructure.

- **Guiding Policy 3.1-G-1:** Manage the City's growth in a way that balances existing and planned transportation facilities, protection of open space and ridgelines, provision of diverse housing options, and the preservation of high quality community facilities and services.
- **Implementing Policy 3.1-I-2:** Work with Contra Costa County and appropriate agencies to preserve, protect, and enhance open space and ridgelines within the City's Planning Area, and to establish contiguous open space areas along the edges of San Ramon.
- **Guiding Policy 4.6-G-1:** Foster a pattern of development that enhances the existing character of the City, and encourages land use concepts that contribute to the design of the community.
- **Implementing Policy 4.6-I-9:** Require residential development to employ creative site design and architectural quality that blends with the characteristics of each specific location and its surroundings, while incorporating 360-degree design principles.
- **Implementing Policy 4.6-I-16:** Ensure that neighborhood retail centers and commercial service buildings are compatible with the surrounding neighborhood while incorporating 360-degree design principles.
- **Implementing Policy 4.6-I-20:** Continue to refine design standards for mixed use development that will result in a high quality pedestrian-scaled environment, with one-to-four story buildings, integrated parking, street front windows and entries, and public and private open space or as provided under a separate Specific Plan process.
- **Guiding Policy 4.8-G-1:** Maintain and enhance San Ramon's identity.
- **Implementing Policy 4.8-I-1:** Continue to develop and refine community design documents such as the San Ramon Beautification Plan, the Creek Corridor Plan, Street Beautification Plan, Street Beautification Guidelines, Architectural Review guidelines and other guidance documents to provide comprehensive design guidelines for beautification, of streetscapes creek corridors, City signs, public art, and community entries in San Ramon.
- **Implementing Policy 4.8-I-2:** Ensure that the design, location, and size of new development blends with the environment and a site's natural features.
- **Implementing Policy 4.8-I-3:** Continue to refine citywide lighting standards to ensure appropriate illumination levels for residential, commercial, and industrial land uses, and that lighting is of a consistent character and quality while reducing light pollution.
- **Implementing Policy 4.8-I-4:** Ensure that parking facilities adequately address the community image, aesthetics and functional needs of the City.
- **Implementing Policy 4.8-I-8:** Use the development review process to ensure that new development minimizes impacts and preserves and/or enhances significant views of the natural landscape.
- **Implementing Policy 4.8-I-9:** Continue to implement landscaping guidelines for public roadways that improve their visual character.
- **Implementing Policy 4.8-I-10:** Continue to implement gateway treatments for City entries that help residents and visitors know they have arrived in San Ramon.

- **Implementing Policy 4.8-I-11:** Require new office and commercial development to provide outdoor art that is clearly visible to the public or contribute to a citywide public art program though the development of an in lieu fee program.
- **Implementing Policy 4.8-I-12:** Encourage attractive, drought-tolerant landscaping on private property that is suitable for San Ramon's climate.
- **Implementing Policy 4.8-I-13:** Require appropriate landscape treatment for public rights-of-way in all new residential, office, and commercial development.
- **Implementing Policy 4.8-I-14:** Ensure that businesses provide signs that are attractive and consistent with neighboring commercial uses, minimize visual clutter from roadways and other public areas, and, where possible, cannot be seen from residential neighborhoods.
- **Implementing Policy 4.8-I-15:** Maintain attractive and distinctive street identification signs for all areas of the City.
- **Implementing Policy 4.8-I-16:** Continue to refine urban design standards in the Zoning Ordinance as needed for large-scale office development to promote smart growth principles while minimizing negative impacts on adjacent properties.
- **Implementing Policy 4.8-I-17:** Modify the City Zoning Ordinance to include sun access plane requirements and provide provisions for encroachments into the sun access plane to allow architectural flexibility.
- **Implementing Policy 4.8-I-18:** As part of development proposals, encourage public access to creeks as scenic visual and passive recreational amenities in a manner consistent with need of applicable resource agencies to provide creek and habitat protection.
- **Implementing Policy 4.8-I-19:** Continue to provide park and recreational amenities that combine well designed buildings, recreational equipment and playing fields, and complementary landscaping at key locations throughout the City.
- **Implementing Policy 4.8-I-20:** Require all walls and fences to be designed to minimize visual monotony.
- **Implementing Policy 8.3-I-13:** Develop viewshed criteria to determine how to manage views of the natural hillsides surrounding San Ramon.
- **Implementing Policy 11.21-G-2:** Create safe and aesthetically pleasing neighborhoods, and provide adequate housing to meet the needs of all household types and income groups.
- **Implementing Policy 11.2-I-7:** Ensure that the design, scale, and buffering of housing retains the character of the surrounding neighborhood.

3.1.4 - Methodology

Michael Brandman Associates (MBA) evaluated potential project impacts on aesthetics, light, and glare through site reconnaissance and review of applicable plans and policies. MBA personnel visited the project site and surrounding area on multiple occasions between 2009 and 2011 to document the site conditions through photographs and notation. The City of San Ramon General Plan 2030 and the proposed North Camino Ramon Specific Plan were reviewed to determine applicable policies and design requirements for the proposed project. The assessment of visual and light and glare impacts

was largely guided by the standards set forth in the City's adopted documents, as well as MBA's experience with these analytical areas.

3.1.5 - Thresholds of Significance

According to Appendix G, Environmental Checklist of the CEQA Guidelines, aesthetics impacts resulting from the implementation of the proposed project would be considered significant if the project would:

a) Have a substantial adverse effect on a scenic vista? (Refer to Section 7, Effects Found Not To Be Significant.)

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic building within a state scenic highway?

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

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

3.1.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the project and provides mitigation measures where appropriate.

State Scenic Highways

Impact AES-1:	**Development and land use activities contemplated by the Specific Plan would not degrade scenic resources within the viewshed of a State Scenic Highway.**

Impact Analysis

I-680 is designated as an "officially designated" State Scenic Highway and serves as the Specific Plan's western boundary. Generally, views of surrounding ridgelines and hillsides are available from I-680. There are no billboards along I-680 along the western side of the Specific Plan area.

The Specific Plan would allow higher-density mixed-uses to be developed along the freeway. The Specific Plan boundaries contain existing urban development; therefore, redevelopment of these properties as contemplated by the plan would maintain the urban character of this area. The Specific Plan would allow buildings to be constructed to heights of 85 feet or five stories (whichever is less); however, there several multi-story buildings adjacent to the freeway (e.g., Legacy Plaza) that are of similar height and this would not represent a significant visual change to the freeway viewshed. Finally, the Specific Plan sets forth Design Guidelines (see discussion in Impact AES-2) that would ensure that the development contemplated by the Specific Plan implements a contemporary design that is compatible with I-680's status as a State Scenic Highway. As such, development and land use activities contemplated by the Specific Plan would not have significant adverse effects on State Scenic Highways. Impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Visual Character

Impact AES-2:	**Development and land use activities contemplated by the Specific Plan would not degrade the visual character of the Specific Plan area or its surroundings.**

Impact Analysis

The Specific Plan would facilitate the redevelopment of the 295-gross-acre plan area to support as much as 6,720,000 square feet of commercial and residential development. Buildout of the Specific Plan would fundamentally alter the visual character of the plan boundaries, although this change in itself is not considered significant unless the quality of viewscape is substantially diminished.

This impact analysis will assess the proposed project's potential visual character impacts in several ways, including assessment of the existing visual conditions, evaluation of the proposed Specific Plan's development standards and design guidelines for land use and development, and the visual compatibility of the project with its surroundings. Each subject will be discussed separately.

Existing Visual Conditions

As previously discussed, the Specific Plan area contains more than 100 individual parcels ranging in area from less than 3,000 square feet to more than 1 million square feet. Most of the parcels are developed with existing commercial uses (office, retail, and service). Notable uses include Crow Canyon Commons Shopping Center; the Toyota parts distribution facility; the Bishop Ranch 6, 11, and 12 office complexes; Norris Technology Center; the PG&E Conference Center; the Legacy Plaza office complex; the San Ramon Valley Unified School District Maintenance Facility; and the former RMC Pacific Materials cement plant site. In total, the Special Plan area contains close to 3.4 million square of existing commercial development, most of which was developed in the last four decades. More importantly, there are no significant natural features (creeks, ridgelines, forested areas, meadows, etc.) or significant historic resources within the Specific Plan boundaries. As such, the Specific Plan area can be characterized as fully committed to contemporary urban use.

Development Standards and Design Guidelines

The proposed Specific Plan sets forth development standards and design Guidelines that will apply to new development within the plan boundaries.

The following development standards pertain to all new development and land use activities that occur pursuant to the plan:

- Minimum Lot Size: 80,000 square feet (Minimum width: 200 feet)
- Height Limit: 85 feet or five stores (whichever is less)
- Floor Area Ratio: Maximum of 0.70 average for entire Specific Plan Area
- Residential Density: Minimum 20 units per acre

The Specific Plan sets forth development standards for each sub-area in Chapter 6.

The following design guidelines to promote development and land use activities that reflect the Vision of the Specific Plan. The intent of these Design Guidelines is to:

- Encourage a diversity of project types and land use mixes
- Avoid trendy designs in favor of timeless building styles
- Emphasize ground floor interest and detail to encourage a pedestrian environment
- Enhance a sense of inter-connectivity between buildings and neighborhoods within the Specific Plan Area
- Enhance the connectivity and visual relationships between buildings and public spaces
- Encourage visual diversity
- Emphasize a human scale
- Encourage sustainability, Green Building design, and energy efficiency

The Design Guidelines do not require a single architectural style; however, there is an expectation that design forms, materials, and details will be respectful of their neighbors, and that buildings will adhere to the Architectural Design Principles (see below). Architectural Review will be required for all new development projects to ensure consistency with these Guidelines and overall Specific Plan Vision.

The architectural form and details of buildings are generally determined by the uses they are designed to accommodate, their frontage orientation, and parking needs.

The following basic architectural principles are applicable to new developments:

1. Building heights, window patterns, and colors shall be varied along any single block frontage.
2. Roof lines shall be varied along block frontages by height and/or roof form variation.
3. Building walls and details shall be organized into a clearly identifiable base, middle, and top.
4. Architectural forms, materials, and details shall be carried around all sides of a building.

5. Architectural scaling elements, such as banding, belt coursing, bay windows, balconies, sills, lintels, mullions, and changes in texture, and pattern, shall be used to break up the appearance of large building forms.
6. Facade depths shall be varied utilizing a combination of techniques including projecting elements (e.g., pilasters and bay windows), wall plane offsets, and recessed windows.
7. High quality materials along with special accent materials and design details shall be incorporated into all first floor facades and paving areas abutting pedestrian walkways.
8. Exterior walls greater than 40 feet in length shall incorporate textures, details, or other architectural elements to avoid flat, monolithic facades.
9. Parking shall be visually screened from public view.
10. Trash enclosures, loading areas and utility structures shall be integrated into the building design using materials and details from the main structure palette.
11. All rooftop equipment shall be visually screened from public view with roofs or with parapets, walls, or enclosures utilizing materials drawn from the building's facade palette.
12. Integrate pedestrian and architectural lighting into the buildings and streetscape design to provide for pedestrian safety and accent architecture and landscape within the Plan Area.

The Specific Plan sets forth design guidelines for each end use in Chapter 7.

In sum, the Specific Plan sets forth comprehensive development standards and design guidelines that would ensure that new development and land use activities provide contemporary design that is visually compatible with the Specific Plan's vision for the project site and surrounding land uses.

Visual Compatibility with Surrounding Land Uses

The Specific Plan boundaries are surrounded by urban uses on all sides. Surrounding land uses include I-680 and the San Ramon Valley Boulevard corridor (west), the Castle Square retail center and residential uses located within the Town of Danville (north), residential uses and the San Ramon Regional Medical Center (east), and the Bishop Ranch Business Park (south). All of the surrounding land uses are characterized by contemporary development.

The proposed Specific Plan would maintain consistency with the surrounding commercial and residential uses in terms of end uses and design characteristics and, therefore, would be visually compatible.

Conclusion

Although the buildout of the Specific Plan would result in significant visual change to the plan area, the development and land use activities contemplated by the plan would achieve a high-quality design

that would be visually compatible with surrounding land uses. As such, impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Light and Glare

Impact AES-3:	**Development and land use activities contemplated by the Specific Plan would not create new sources of light and glare that may adversely affect views.**

Impact Analysis

The Specific Plan boundaries currently contain approximately 3.4 million square feet of development, which emit existing sources of light and glare, including sources that illuminated continuously during the nighttime hours (e.g., parking lot lighting). Generally, most land uses within the Specific Plan boundaries are illuminated during the nighttime hours, including nearly all surface parking areas.

The Specific Plan contemplates the redevelopment of the plan to support as much as 6.72 million square feet of commercial and residential development or a net increase of 3.32 million square feet relative to existing conditions. A potential benefit of the Specific Plan would be the replacement of surface parking lots—which generally involve the continuous illumination of large expanses of area with high-intensity lighting—with structured parking and on-street parking—which generally involve illumination of smaller areas with lower-intensity lighting. Additionally, the redevelopment of existing commercial properties to residential use would also be expected to result in net reductions in lighting intensity. As such, impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

3.2 - Air Quality and Greenhouse Gas Emissions

3.2.1 - Introduction

This section describes the existing air quality and greenhouse gas emissions and potential effects from project implementation on the site and its surrounding area. Michael Brandman Associates performed air quality analysis for the proposed project, which included carbon monoxide hotspot modeling, qualitative assessment of plan compliance, and greenhouse gas emissions modeling. URBEMIS 2007 Version 9.2.4 was used to quantify project-related emissions. The air quality analysis, including modeling output, is provided in Appendix B.

3.2.2 - Environmental Setting

San Francisco Bay Area Air Basin

The project is located in the City of San Ramon in Contra Costa County, which is within the San Francisco Bay Area Air Basin (Air Basin). The Air Basin consists of the entirety of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara counties; the western portion of Solano County; and the southern portion of Sonoma County. The Air Basin is characterized by complex terrain consisting of coastal mountain ranges, inland valleys, and bays. Elevations of 2,000 feet are common in the higher terrain of this area.

San Ramon Valley Climate

Air quality is a function of both the rate and location of pollutant emissions under the influence of meteorological conditions and topographic features. Atmospheric conditions, such as wind speed, wind direction, and air temperature gradients interact with the physical features of the landscape to determine the movement and dispersal of air pollutant emissions and, consequently, their effect on air quality.

The California Coast Range splits the Air Basin into a western and eastern range, with the San Francisco Bay between the two ranges. East of the eastern Coast Range lay the Diablo and San Ramon valleys, which have a northwest to southeast orientation. The northern portion is known as Diablo Valley (also referred to as Alamo Valley) and the southern portion as San Ramon Valley. The east side of the valleys is bordered by Mt. Diablo and its associated ridgelines. The City of San Ramon is located in the San Ramon Valley.

The Coast Range on the west side of these valleys is 1,500 to 2,000 feet high. This is sufficiently high to block much of the marine air from reaching the valleys. During the daytime, there are two weakly predominant airflow (flow) patterns: up-valley flow and westerly flow across the lower elevations of the Coast Range. On clear nights, a surface inversion sets up and separates the surface flow from the upper-layer flow. When this happens, the terrain channels the flow down-valley towards the Carquinez Strait. This down-valley drainage pattern can be observed all the way to Martinez at the end of the Valley.

Wind speeds in these valleys rank as some of the lowest in the Air Basin. For example, Danville, in the middle of the San Ramon Valley, reports annual average wind speeds of 5 miles per hour. However, winds can pick up in the afternoon near the City of San Ramon because it is located at the eastern end of the Crow Canyon gap. Through this gap, polluted air from cities near the Air Basin is able to travel across Hayward to the valley during the summer months.

Air temperatures are cooler in the winter and warmer in the summer, because these valleys are further from the moderating effect of large water bodies and because the Coast Range blocks marine air flow. In the Diablo Valley during the winter, Concord records daily maximum temperatures in the mid 50s. During the summer, average daily maximum temperatures are in the high 80s to 90 degrees Fahrenheit. Temperatures in the San Ramon Valley are similar to temperatures in Concord.

These valleys rarely experience fog during the summer. In the winter, however, tule fog is common at night. This phenomenon is named after the tule grass wetlands (tulares) of the Central Valley. Tule fog forms on cold, clear nights when winds are light and there is abundant moisture on the ground, similar to after a rainstorm. Alternatively, the tule fog can be advected from the Central Valley through the Carquinez Strait and Livermore Valley. This fog usually burns off during the day, but occasionally can last for a week or two before being dissipated by the next storm. Rainfall totals in the San Ramon are range from an average of 14 inches (Livermore) to 19 inches (Walnut Creek).

Pollution potential is relatively high in these valleys. On winter evenings, light winds combined with the surface-based inversions and terrain that restricts air flow can cause pollutant levels to build up. The San Ramon Valley can experience high pollution concentrations that are due to motor vehicle emissions and emissions from fireplaces and wood stoves. In the summer months, ozone and ozone precursors are often transported into the valleys from the Sacramento Valley Air Basin.

Contra Costa County Emissions Inventory

Background

An emissions inventory is an account of the amount of air pollution generated by various emissions sources. To estimate the sources and quantities of pollution, the California Air Resources Board (ARB), in cooperation with local air districts and industry, maintains an inventory of California emission sources. Sources are subdivided into the four major emission categories: mobile, stationary, areawide, and natural sources.

Mobile sources include on-road sources and off-road mobile sources. The on-road emissions inventory, which includes automobiles, motorcycles, and trucks, is an estimation of population, activity, and emissions of the on-road motor vehicles used in California. The off-road emissions inventory is an estimate of the population, activity, and emissions of various off-road equipment, including recreational vehicles, farm and construction equipment, lawn and garden equipment, forklifts, locomotives, commercial marine ships, and marine pleasure craft. ARB staff estimates mobile source emissions with assistance from districts and other government agencies.

Stationary sources are large, fixed sources of air pollution, such as power plants, refineries, and manufacturing facilities. Stationary sources also include aggregated point sources. These include many small point sources, or facilities, that are not inventoried individually but are estimated as a group and reported as a single-source category. Examples include gas stations and dry cleaners. Each of the local air districts estimates the emissions for the majority of stationary sources within its jurisdiction. Stationary source emissions are based on estimates made by facility operators and local air districts. Emissions from specific facilities can be identified by name and location.

Areawide sources include source categories associated with human activity, and these emissions take place over a wide geographic area. Consumer products, fireplaces, farming operations (such as tilling), and unpaved road dust are examples of areawide sources. ARB and local air district staffs estimate areawide emissions. Emissions from areawide sources may be either from small, individual sources, such as residential fireplaces, or from widely distributed sources that cannot be tied to a single location, such as consumer products and dust from unpaved roads.

Natural, or non-anthropogenic, sources include source categories with naturally occurring emissions such as geogenic (e.g., petroleum seeps), wildfires, and biogenic emissions from plants. ARB staff and the air districts also estimate natural sources.

Emissions Inventory

The 2008 emissions inventory for Contra Costa County is available in ARB's 2009 Almanac Emission Projection Data. Table 3.2-1 summarizes the estimated 2008 emissions for the main pollutants of concern in Contra Costa County.

Table 3.2-1: 2008 Contra Costa County Emissions Inventory

Emission Category	Tons per Day			
	ROG	NO_x	PM_{10}	$PM_{2.5}$
Stationary Sources	20.0	21.4	5.4	4.6
Areawide Sources	13.6	2.7	26.9	9.6
Mobile Sources	27.5	57.1	3.4	2.7
Natural Sources	11.4	0.0	0.0	0.0
Total Contra Costa County	72.4	81.2	35.6	16.9
Source: California Air Resources Board, 2011.				

ROG. Mobile sources contributed approximately 38 percent of the 2008 reactive organic gases (ROG) emissions, followed by stationary sources, which emitted 28 percent of the County's ROG inventory. Areawide sources accounted for approximately 19 percent of the 2008 emissions inventory.

NO_x. Mobile sources generated the majority of oxides of nitrogen (NO_x) emissions in Contra Costa County at approximately 80 percent of the total NO_x inventory.

PM_{10}. For particulate matter smaller than 10 microns in diameter (PM_{10}), areawide sources contributed more than 76 percent of the 2008 inventory. The main PM_{10}-generating areawide sources include paved road dust, residential fuel combustion, and construction and demolition. Stationary sources generated approximately 15 percent of the PM_{10} inventory.

$PM_{2.5}$. Areawide sources contributed approximately 57 percent of the 2008 inventory of particulate matter smaller than 2.5 microns in diameter ($PM_{2.5}$), and stationary sources generated approximately 27 percent of the inventory. The main $PM_{2.5}$-generating areawide source was residential fuel combustion.

Local Air Quality

Existing levels of ambient air quality and historical trends and projections of air quality in the project area are best documented from measurements made near the project site. The local air quality can be evaluated by reviewing relevant air pollution concentrations near the project area. BAAQMD and ARB operate 26 ambient air monitoring stations within the greater Bay Area.

The air quality monitoring station closest to the project is located in Hayward on La Mesa Drive, approximately 8.5 miles from the project site. However, the Hayward ambient monitor is not located within the San Ramon Valley, and would not be representative of air quality in the project vicinity. The two ambient air quality monitoring stations nearest the project site and located within the San Ramon/Diablo valleys are the Concord station and the Livermore station, located approximately 11.0 miles north and 11.2 miles southeast of the project site, respectively.

The Concord station measures ambient levels of carbon monoxide, sulfur dioxide (SO_2), nitrogen dioxide (NO_2), ozone, PM_{10}, and $PM_{2.5}$. The Livermore station measures NO_2, ozone, and $PM_{2.5}$. Table 3.2-2 summarizes 2008 through 2010 published monitoring data for the Concord station.

Table 3.2-2: Ambient Air Monitoring Data

Air Pollutant	Averaging Time	Averaging Time (Units)	2008	2009	2010
Ozone	1-hour	Max 1 hour (ppm)	0.119	0.106	0.103
		Days > CAAQS (0.09 ppm)	3	2	2
	8-hour	Max 8 hour (ppm)	0.089	0.088	0.087
		Days > CAAQS (0.07 ppm)	8	5	4
		Days > NAAQS (0.075 ppm)	6	2	1

Table 3.2-2 (cont.): Ambient Air Monitoring Data

Air Pollutant	Averaging Time	Averaging Time (Units)	2008	2009	2010
Carbon monoxide[1]	8-hour	Max 8 hour (ppm)	1.13	1.09	0.95
		Days > CAAQS Standard (9.0 ppm)	0	0	0
		Days > NAAQS Standard (9 ppm)	0	0	0
Nitrogen dioxide	Annual	Annual Average (ppm)	0.010	0.009	0.008
	1-hour	Max 1 hour (ppm)	0.050	0.040	0.042
		Days > CAAQS (0.18 ppm)	0	0	0
Sulfur dioxide	Annual	Annual Average (ppm)	0.000	0.000	0.000
	24-hour	Max 24 hour (ppm)	0.005	0.003	0.002
		Days > State Standard (0.04 ppm)	0	0	0
Particulate matter (PM_{10})	Annual	State Annual Average (µg/m^3)	17.5	14.7	13.7
	24-hour	Max 24 hour (µg/m^3)	50.5	32.5	41.3
		Days > CAAQS (50 µg/m^3)	1	0	0
		Days > NAAQS (150 µg/m^3)	0	0	0
Fine particulate matter ($PM_{2.5}$)	Annual	State Annual Average (µg/m^3)	9.5	8.4	7.1
	24-hour	Max 24 hour (µg/m^3)	60.3	39.0	36.4
		Estimated Days > NAAQS (35 µg/m^3)	7.0	1.0	1.0

Abbreviations:
> = exceed ppm = parts per million µg/m^3 = micrograms per cubic meter
* = insufficient/no data max = maximum
CAAQS = California Ambient Air Quality Standard NAAQS = National Ambient Air Quality Standard
[1] The ARB does not report 1-hour average CO concentrations in its database, only 8-hour CO concentrations. Therefore, the 1-hour CO concentration was derived by dividing the 8-hour concentration by 0.7.
Source: California Air Resources Board, 2012.

Local Sources of Air Pollution

Exhaust from cars and trucks are a local source of air pollutants. Heavily traveled roads have more cars and trucks, which result in more air pollution. Nearby sources of air pollution include Interstate 680 (I-680) immediately adjacent to the western boundary of the project, as well as stationary sources located within and near the Specific Plan. Table 3.2-3 summarizes the stationary sources of air pollution within the Specific Plan boundaries and within 1,000 feet of the Specific Plan's extent.

Table 3.2-3: Stationary Sources of Air Pollution

Company	Industrial Classification Code	Address	Pollutants of Concern	Distance to Project
Aerotest Operations, Inc	3844 – X-Ray Apparatus	3455 Fostoria Way	ROG	Within Specific Plan boundaries
Pacific Bell (note: this is now the AT&T campus; emissions are now assumed to be negligible now)	4813 – Telephone Communications	2600 Camino Ramon	ROG, NO_x, CO, benzene, formaldehyde	500-1,000 feet south of project
Bishop Ranch Veterinary Center	7261 – Crematories	2000 Bishop Drive	NO_x	Within Specific Plan boundaries
BioGenex Laboratories, Inc	FID 944, Plant #7523	4600 Norris Canyon Road, # 200	Hexane	Within Specific Plan boundaries
Crow Canyon Cleaners	FID 551, Plant No. 7642	2462 San Ramon Valley Boulevard	ROG	400 feet west of Specific Plan boundaries
Costco Wholesale	FID 716, Plant 16867	3150 Fostoria Way	Benzene, NO_x, formaldehyde	350 feet north of Specific Plan boundaries
Giga-tronics, Inc	3825 – Electrical Instruments	4650 Norris Canyon Road	Isopropyl alcohol	Within Specific Plan boundaries
Imperial Cleaners	7216 – Dry Cleaning Plants	2101 Camino Ramon, Ste 108	Perchloroethylene (310 pounds/year)	Within Specific Plan boundaries
Lucky #771	5411 – Grocery Store	3181 Crow Canyon Place	NO_x, CO	Within Specific Plan boundaries
Odyssey Thera, Inc.	2834 – Pharmaceutical Preparations	4550 Norris Canyon Road, Suite 140	Formaldehyde	Within Specific Plan boundaries
Pacific Gas and Electric	4931 – Electric & Other Services	3301 Crow Canyon Road	ROG, NO_x, CO, benzene, formaldehyde	Within Specific Plan boundaries
San Ramon Regional Medical Center	8062 – General Medical and Surgical Hospitals	6001 Norris Canyon Road	NO_x, benzene, formaldehyde	1,000 feet southeast of Specific Plan boundaries
Vonnies One Hour Cleaners	7216 Dry Cleaning Plants	2217J San Ramon Valley Boulevard	Perchloroethylene (1,210 pounds/ year)	900 feet north west of Specific Plan boundaries
Source: California Air Resources Board, 2012.				

Sensitive Receptors

Those who are sensitive to air pollution include children, the elderly, and persons with pre-existing respiratory or cardiovascular illness. For purposes of CEQA, the BAAQMD considers a sensitive receptor to be a location that houses or attracts children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants. Examples of sensitive receptors include hospitals, residences, convalescent facilities, and schools. The project would construct sensitive receptors within the project boundaries. Existing sensitive receptors include:

- San Ramon Regional Medical Center, southeast of Alcosta Boulevard/Norris Canyon Road Intersection.
- Foothills single-family residences, northeast of Alcosta Boulevard/Norris Canyon Road intersection.
- Fostoria Terrace attached single-family residences, northeast of Camino Ramon/Fostoria Way intersection in Danville.
- Iron Horse Crossing single-family residences, northeast of the Fostoria Way/Iron Horse Trail crossing in Danville.
- Rural residential (Borel Property), northwest of Crow Canyon Place/Fostoria Way intersection in Danville.

In addition, existing schools, daycares and other child-care facilities within 0.5 mile of the project boundary include:

- Montessori School of San Ramon (2400 Old Crow Canyon Road, #A3).
- Centerpoint Academy (18 Crow Canyon Court, Suite 225)
- Stopping Stones Learning Center (2691 Crow Canyon Road)
- Gymboree Play and Music of San Ramon (2551 San Ramon Valley Boulevard)
- San Ramon Child Care (2648 Durango Lane)
- Bollinger Canyon Elementary School (2300 Talavera Drive)
- Iron Horse Middle School (12601 Alcosta Boulevard)
- San Ramon Child Care (2648 Durango Lane)

Alternative Transit

Section 3.12, Transportation discusses public transit, bicycle infrastructure and the pedestrian network within and near the project. In addition, the North Camino Ramon Specific Plan traffic analysis, prepared by Kimley-Horn and Associates, Inc., the project is provided as Appendix E to this EIR. As discussed in Section 3.12, Transportation, the City of San Ramon has an extensive bicycle network, including the Iron Horse Trail, a Class I bikeway that runs through the Specific Plan area. In addition, bike lanes exist on Norris Canyon, Bishop Drive, and Alcosta Boulevard within the Specific Plan Area.

The County Connection buses provide service to San Ramon. Exhibit 3.12-5 shows the transit routes operating within the Specific Plan area and its vicinity. Currently, there are six routes operating within the Specific Plan Area and its vicinity.

The existing San Ramon Transit Center is located on Executive Parkway, adjacent to the Iron Horse Trail. The transit center provides commuters with 54 parking spaces to meet carpool, vanpool, or bus. These parking spaces are available on a first-come first-serve basis and are free of charge.

Covered and secure bike racks and lockers are also available at the Transit Center, and can be rented monthly, quarterly, or yearly.

Detailed discussions of bicycle, pedestrian, bus service and transit facilities are provided in Section 3.12, Transportation.

Climate Change

Climate change is a change in the average weather of the earth that is measured by changes in wind patterns, storms, precipitation, and temperature. These changes are assessed using historical records of temperature changes that have occurred in the past, such as during previous ice ages. Many of the concerns regarding climate change use this data to extrapolate a level of statistical significance specifically focusing on temperature records from the last 150 years (the Industrial Age) that differ from previous climate changes in rate and magnitude.

Natural processes and human activities emit greenhouse gases. The presence of greenhouse gases in the atmosphere affects the earth's temperature. Without the natural heat-trapping effect of greenhouse gases, the earth's surface would be about 34 degrees Centigrade (°C) cooler. However, it is believed that emissions from human activities, such as electricity production and vehicle use, have elevated the concentration of these gases in the atmosphere beyond the level of naturally occurring concentrations.

The United Nations Intergovernmental Panel on Climate Change (IPCC) constructed several emission trajectories of greenhouse gases needed to stabilize global temperatures and climate change impacts. The IPCC predicted that global mean temperature change from 1990 to 2100, given six scenarios, could range from 1.1°C to 6.4°C. Regardless of analytical methodology, global average temperatures and sea levels are expected to rise under all scenarios.

Greenhouse Gases

Gases that trap heat in the atmosphere are referred to as greenhouse gases. The effect is analogous to the way a greenhouse retains heat. Common greenhouse gases include water vapor, carbon dioxide, methane, nitrous oxides, chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, ozone, and aerosols. Natural processes and human activities emit greenhouse gases. The presence of greenhouse gases in the atmosphere affects the earth's temperature. It is believed that emissions from human activities, such as electricity production and vehicle use, have elevated the concentration of these gases in the atmosphere beyond the level of naturally occurring concentrations.

Climate change is driven by forcings and feedbacks. Radiative forcing is the difference between the incoming energy and outgoing energy in the climate system. Positive forcing tends to warm the surface while negative forcing tends to cool it. Radiative forcing values are typically expressed in watts per square meter. A feedback is a climate process that can strengthen or weaken a forcing. For example, when ice or snow melts, it reveals darker land underneath which absorbs more radiation and

causes more warming. The global warming potential is the potential of a gas or aerosol to trap heat in the atmosphere. The global warming potential of a gas is essentially a measurement of the radiative forcing of a greenhouse gas compared with the reference gas, carbon dioxide.

Individual greenhouse gas compounds have varying global warming potential and atmospheric lifetimes. Carbon dioxide, the reference gas for global warming potential, has a global warming potential of one. The global warming potential of a greenhouse gas is a measure of how much a given mass of a greenhouse gas is estimated to contribute to global warming. To describe how much global warming a given type and amount of greenhouse gas may cause, the carbon dioxide equivalent is used. The calculation of the carbon dioxide equivalent is a consistent methodology for comparing greenhouse gas emissions since it normalizes various greenhouse gas emissions to a consistent reference gas, carbon dioxide. For example, methane's warming potential of 21 indicates that methane has 21 times greater warming affect than carbon dioxide on a molecule per molecule basis. A carbon dioxide equivalent is the mass emissions of an individual greenhouse gas multiplied by its global warming potential. Greenhouse gases defined by Assembly Bill (AB) 32 (see the Climate Change Regulatory Environment section for a description) include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. They are described in Table 3.2-4.

Table 3.2-4: Description of Greenhouse Gases

Greenhouse Gas	Description and Physical Properties	Sources
Nitrous oxide	Nitrous oxide (laughing gas) is a colorless greenhouse gas. It has a lifetime of 114 years. Its global warming potential is 310.	Microbial processes in soil and water, fuel combustion, and industrial processes.
Methane	Methane is a flammable gas and is the main component of natural gas. It has a lifetime of 12 years. Its global warming potential is 21.	Methane is extracted from geological deposits (natural gas fields). Other sources are landfills, fermentation of manure, and decay of organic matter.
Carbon dioxide	Carbon dioxide (CO_2) is an odorless, colorless, natural greenhouse gas. Carbon dioxide's global warming potential is 1. The concentration in 2005 was 379 parts per million (ppm), which is an increase of about 1.4 ppm per year since 1960.	Natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources are from burning coal, oil, natural gas, and wood.
Chlorofluorocarbons	These are gases formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorine atoms. They are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth's surface). Global warming potentials range from 3,800 to 8,100.	Chlorofluorocarbons were synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. They destroy stratospheric ozone. The Montreal Protocol on Substances that Deplete the Ozone Layer prohibited their production in 1987.

Table 3.2-4 (cont.): Description of Greenhouse Gases

Greenhouse Gas	Description and Physical Properties	Sources
Hydrofluorocarbons	Hydrofluorocarbons are a group of greenhouse gases containing carbon, chlorine, and at least one hydrogen atom. Global warming potentials range from 140 to 11,700.	Hydrofluorocarbons are synthetic manmade chemicals used as a substitute for chlorofluorocarbons in applications such as automobile air conditioners and refrigerants.
Perfluorocarbons	Perfluorocarbons have stable molecular structures and only break down by ultraviolet rays about 60 kilometers above Earth's surface. Because of this, they have long lifetimes, between 10,000 and 50,000 years. Global warming potentials range from 6,500 to 9,200.	Two main sources of perfluorocarbons are primary aluminum production and semiconductor manufacturing.
Sulfur hexafluoride	Sulfur hexafluoride is an inorganic, odorless, colorless, and nontoxic, nonflammable gas. It has a lifetime of 3,200 years. It has a high global warming potential, 23,900.	This gas is manmade and used for insulation in electric power transmission equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas.
Sources: United Nations Intergovernmental Panel on Climate Change 2007.		

Other greenhouse gases include water vapor, ozone, and aerosols. Water vapor is an important component of our climate system and is not regulated. Ozone and aerosols are short-lived greenhouse gases; global warming potentials for short-lived greenhouse gases are not defined by the IPCC. Aerosols can remain suspended in the atmosphere for about a week and can warm the atmosphere by absorbing heat and cool the atmosphere by reflecting light. Black carbon is a type of aerosol that can also cause warming from deposition on snow.

Although there could be health effects resulting from changes in the climate and the consequences that can bring about, inhalation of greenhouse gases at levels currently in the atmosphere would not result in adverse health effects, with the exception of ozone and aerosols (particulate matter). The potential health effects of ozone and particulate matter are discussed in criteria pollutant analyses. At very high indoor concentrations (not at levels existing outside), carbon dioxide, methane, sulfur hexafluoride, and some chlorofluorocarbons can cause suffocation as the gases can displace oxygen.

Greenhouse Gas Emissions Inventory and Trends

Emissions worldwide were approximately 49,000 million metric tons of carbon dioxide equivalents ($MMTCO_2e$) in 2004, and greenhouse gas emissions in the United States were 7,074.4 million $MTCO_2e$.

California is the second largest contributor of greenhouse gases in the U.S. and the sixteenth largest in the world. In 2004, California produced 500 $MMTCO_2e$, including imported electricity and excluding combustion of international fuels and carbon sinks or storage, which is approximately 7

percent of U.S. emissions. According to the ARB's recent greenhouse gas inventory for the State, the single largest source of greenhouse gases in California is transportation, contributing 37 percent of the State's total greenhouse gas emissions in 2008. Electricity generation (both in and out of state) is the second largest source, contributing 25 percent of the State's greenhouse gas emissions. The inventory for California's greenhouse gas emissions between 2000 and 2008, by even years, is presented in Table 3.2-5.

Table 3.2-5: California Greenhouse Gas Inventory 2000-2008

Main Sector*	Emissions $MMTCO_2e$				
	2000	2002	2004	2006	2008
Agriculture & Forestry	25.63	28.61	29.01	30.08	28.25
Commercial	12.80	14.44	13.20	13.01	14.69
Electricity Generation (Imports)	44.31	56.00	62.92	51.68	61.58
Electricity Generation (In State)	60.76	51.57	58.09	56.99	55.74
Industrial	104.56	103.57	97.76	97.80	100.03
Not Specified	8.72	10.26	11.85	13.18	14.02
Residential	30.13	29.35	29.34	28.46	28.25
Transportation	171.13	180.36	181.71	184.11	174.99
Total	458.03	474.15	483.88	475.31	477.74

Notes:
* Excludes military sector, aviation, and international marine bunker fuel.
Summation is based on non-rounded inventory numbers.
Source: California Air Resources Board, 2010.

The BAAQMD has prepared a greenhouse gas emissions inventory for the Air Basin, as well as for each county, or portion of county, therein. The Greenhouse Gas Source Inventory estimates direct and indirect emissions for the base year of 2007 from sources within the BAAQMD's jurisdiction for the following gases: carbon dioxide, methane, nitrous oxides, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.

The activity data reflects current industrial activity, motor vehicle travel, and economic and population growth. Most of the methodologies for calculating emissions remain the same as the prior year 2002 inventory prepared by BAAQMD, with some exceptions. The Air Basin and Contra Costa County greenhouse gas inventories for 2007 are presented in Table 3.2-6.

The activity data reflects current industrial activity, motor vehicle travel, and economic and population growth. Most of the methodologies for calculating emissions remain the same as the prior year 2002 inventory prepared by BAAQMD, with some exceptions:

- Emissions from electricity consumed in the Bay Area but generated outside the region is now included;
- Emissions for high global warming potential gases such as hydrofluorocarbons and perfluorocarbons used as refrigerants etc. are now included;
- More complete oil refiner process emissions are included;
- Certain off-road equipment such as construction and industrial is now reported separately;
- Ship emissions are now calculated for travel within 100 miles of California's coastline rather than 3 miles to be consistent with the Air District's criteria pollutant inventory; and
- Biogenic CO_2 emissions are calculated but not included in the total CO_2 equivalent estimates for the region.

Table 3.2-6: Regional Greenhouse Gas Inventories by Sector 2007

Main Sector*	San Francisco Bay Area Air Basin		Contra Costa County	
	Emissions $MMTCO_2e$	Percent of Inventory	Emissions $MMTCO_2e$	Percent of Inventory
Agriculture/Farming	1.1	1	0.2	1
Industrial/Commercial	34.9	36	19.2	61
Electricity/Co-Generation (Regional and Imported)	15.2	16	5.7	18
Off-Road Equipment	2.9	3	0.4	1
Residential Fuel Usage	6.8	7	1.1	3
Transportation	34.9	36	5.0	16
Total	**958.8**	**100**	**31.5**	**100**
Source: Bay Air Quality Management District, 2010.				

The inventory found that the majority of greenhouse gas emissions in the Bay Area were generated by the transportation sector and industrial and commercial sector, with each contributing approximately 36 percent of the total emissions inventory. In 2007, Contra Costa County emitted 31.5 million $MTCO_2e$, which is 33 percent of the greenhouse gas emissions in the Air Basin.

The City of San Ramon completed a greenhouse gas inventory for the year 2008, as well as projected emissions for 2020 and 2030, as contained within the City of San Ramon Climate Action Plan. The City's 2008 greenhouse gas inventory is provided in Table 3.2-7. The table shows the majority of transportation-generated greenhouse gases within the City of San Ramon Planning Area, followed by energy use for both residential and commercial uses.

Table 3.2-7: San Ramon Greenhouse Gas Inventory by Community Sector 2008

Community Sector*	Emissions $MMTCO_2e$	Percent of Inventory
Energy Use: Residential	106,420	16
Energy Use: Commercial/Industrial	85,006	13
Transportation	426,161	65
Waste	8,862	1
Refrigerants	19,104	3
Energy Use: Water	7,063	1
Total	**652,615**	**100**
Source: City of San Ramon, 2011.		

Potential Environmental Effects

In California, climate change may result in consequences such as the following (from California Climate Change Center 2006 and Moser et al. 2009).

- **A reduction in the quality and supply of water from the Sierra snowpack.** If heat-trapping emissions continue unabated, more precipitation will fall as rain instead of snow, and the snow that does fall will melt earlier, reducing the Sierra Nevada spring snowpack by as much as 70 to 90 percent. This can lead to challenges in securing adequate water supplies. It can also lead to a potential reduction in hydropower.
- **Increased risk of large wildfires.** If rain increases as temperatures rise, wildfires in the grasslands and chaparral ecosystems of southern California are estimated to increase by approximately 30 percent toward the end of the 21st century because more winter rain will stimulate the growth of more plant "fuel" available to burn in the fall. In contrast, a hotter, drier climate could promote up to 90 percent more northern California fires by the end of the century by drying out and increasing the flammability of forest vegetation.
- **Reductions in the quality and quantity of certain agricultural products.** The crops and products likely to be adversely affected include wine grapes, fruit, nuts, and milk.
- **Exacerbation of air quality problems.** If temperatures rise to the medium warming range, there could be 75 to 85 percent more days with weather conducive to ozone formation in Los Angeles and the San Joaquin Valley, relative to today's conditions. This is more than twice the increase expected if rising temperatures remain in the lower warming range. This increase in air quality problems could result in an increase in asthma and other health-related problems.
- **A rise in sea levels resulting in the displacement of coastal businesses and residences.** During the past century, sea levels along California's coast have risen about seven inches. If emissions continue unabated and temperatures rise into the higher anticipated warming range, sea level is expected to rise an additional 22 to 35 inches by the end of the century. Elevations

of this magnitude would inundate coastal areas with salt water, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats.

- **An increase temperature and extreme weather events.** Climate change is expected to lead to increases in the frequency, intensity, and duration of extreme heat events and heat waves in California. More heat waves can exacerbate chronic disease or heat-related illness.
- **A decrease in the health and productivity of California's forests.** Climate change can cause an increase in wildfires, an enhanced insect population, and establishment of non-native species.

Inundation by Sea Level Rise

The Pacific Institute, with support from the California Energy Commission, California Department of Transportation, and the Ocean Protection Council, prepared impact maps showing the potential extent of coastal flooding and erosion under one scenario that involved a sea level rise of 1.4 meters (55 inches). This scenario represents the medium to high greenhouse gas emissions scenarios, but does not reflect the worst-case that could occur. The scenario estimates that the 1.4-meter sea-level rise would occur by 2100. The impact maps were prepared for and are available in the document, Impacts of Sea-Level Rise on the California Coast.

The impact maps extend as far as the Walnut Creek area to the north, and Hayward to the southwest; however, at an elevation of between approximately 140 meters and 150 meters above sea level, the Specific Plan Area is sufficiently elevated and not within an area of anticipated or projected sea level rise.

3.2.3 - Regulatory Framework

Criteria, Regional and Localized Pollutants

Air pollutants are regulated at the national, state, and air basin level; each agency has a different level of regulatory responsibility. The United States Environmental Protection Agency (EPA) regulates at the national level. The California Air Resources Board (ARB) regulates at the state level. The BAAQMD regulates at the air basin level.

National and State

The EPA is responsible for global, international, national, and interstate air pollution issues and policies. The EPA sets national vehicle and stationary source emission standards, oversees approval of all State Implementation Plans, provides research and guidance for air pollution programs, and sets National Ambient Air Quality Standards, also known as federal standards. There are federal standards for six common air pollutants, called criteria air pollutants, which were identified from provisions of the Clean Air Act of 1970. The criteria pollutants are:

- Ozone
- Nitrogen dioxide
- Lead
- Particulate matter (PM_{10} and $PM_{2.5}$)
- Carbon monoxide (CO)
- Sulfur dioxide

The federal standards were set to protect public health, including that of sensitive individuals; thus, the standards continue to change as more medical research is available regarding the health effects of the criteria pollutants. Primary federal standards are the levels of air quality necessary, with an adequate margin of safety, to protect the public health (California Air Resources Board 2010a).

A State Implementation Plan is a document prepared by each state describing existing air quality conditions and measures that will be followed to attain and maintain federal standards. The State Implementation Plan for the State of California is administered by the ARB, which has overall responsibility for statewide air quality maintenance and air pollution prevention. California's State Implementation Plan incorporates individual federal attainment plans for regional air districts— air districts prepare their federal attainment plan, which are sent to ARB to be approved and incorporated into the California State Implementation Plan. Federal attainment plans include the technical foundation for understanding air quality (e.g., emission inventories and air quality monitoring), control measures and strategies, and enforcement mechanisms.

The ARB also administers California Ambient Air Quality Standards (state standards) for the 10 air pollutants designated in the California Clean Air Act. The 10 state air pollutants are the six federal standards listed above as well visibility-reducing particulates, hydrogen sulfide, sulfates, and vinyl chloride. The federal and state ambient air quality standards, relevant effects, properties, and sources of the pollutants are summarized in Table 3.2-8.

Table 3.2-8: Description of Air Pollutants

Air Pollutant	Averaging Time	California Standard	Federal Standard[a]	Most Relevant Effects from Pollutant Exposure	Properties	Sources
Ozone	1-hour	0.09 ppm	—	(a) Decrease of pulmonary function and localized lung edema in humans and animals; (b) risk to public health implied by alterations in pulmonary morphology and host defense in animals; (c) increased mortality risk; (d) altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (e) vegetation damage; (f) property damage.	Ozone is a photochemical pollutant as it is not emitted directly into the atmosphere, but is formed by a complex series of chemical reactions between volatile organic compounds (VOC), NO_x, and sunlight. Ozone is a regional pollutant that is generated over a large area and is transported and spread by the wind.	Ozone is a secondary pollutant; thus, it is not emitted directly into the lower level of the atmosphere. The primary sources of ozone precursors (VOC and NO_x) are mobile sources (on-road and off-road vehicle exhaust).
	8-hour	0.070 ppm	0.075 ppm			
Carbon monoxide (CO)	1-hour	20 ppm	35 ppm	(a) Aggravation of angina pectoris (chest pain) and other aspects of coronary heart disease; (b) decreased exercise tolerance in persons with peripheral vascular disease and lung disease; (c) impairment of central nervous system functions; (d) possible increased risk to fetuses.	CO is a colorless, odorless, toxic gas. CO is somewhat soluble in water; therefore, rainfall and fog can suppress CO conditions. CO enters the body through the lungs, dissolves in the blood, replaces oxygen as an attachment to hemoglobin, and reduces available oxygen in the blood.	CO is produced by incomplete combustion of carbon-containing fuels (e.g., gasoline, diesel fuel, and biomass). Sources include motor vehicle exhaust, industrial processes (metals processing and chemical manufacturing), residential wood burning, and natural sources.
	8-hour	9.0 ppm	9 ppm			
Nitrogen dioxide[c] (NO_2)	1-hour	0.18 ppm	0.100 ppm	(a) Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; (b) risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes; (c) contribution to atmospheric discoloration.	During combustion of fossil fuels, oxygen reacts with nitrogen to produce nitrogen oxides - NO_x (NO, NO_2, NO_3, N_2O, N_2O_3, N_2O_4, and N_2O_5). NO_x is a precursor to ozone, PM_{10}, and $PM_{2.5}$ formation. NO_x can react with compounds to form nitric acid and related particles.	NO_x is produced in motor vehicle internal combustion engines and fossil fuel-fired electric utility and industrial boilers. NO_2 concentrations near major roads can be 30 to 100 percent higher than those at monitoring stations.
	Annual	0.030 ppm	0.053 ppm			

Table 3.2-8 (cont.): Description of Air Pollutants

Air Pollutant	Averaging Time	California Standard	Federal Standard[a]	Most Relevant Effects from Pollutant Exposure	Properties	Sources
Sulfur dioxide (SO_2)	1-hour	0.25 ppm	0.075 ppm[d]	Bronchoconstriction accompanied by symptoms which may include wheezing, shortness of breath and chest tightness, during exercise or physical activity in persons with asthma. Some population-based studies indicate that the mortality and morbidity effects associated with fine particles show a similar association with ambient sulfur dioxide levels. It is not clear whether the two pollutants act synergistically or one pollutant alone is the predominant factor.	Sulfur dioxide is a colorless, pungent gas. At levels greater than 0.5 ppm, the gas has a strong odor, similar to rotten eggs. Sulfur oxides (SO_x) include sulfur dioxide and sulfur trioxide. Sulfuric acid is formed from sulfur dioxide, which can lead to acid deposition and can harm natural resources and materials. Although sulfur dioxide concentrations have been reduced to levels well below state and federal standards, further reductions are desirable because sulfur dioxide is a precursor to sulfate and PM_{10}.	Human caused sources include fossil-fuel combustion, mineral ore processing, and chemical manufacturing. Volcanic emissions are a natural source of sulfur dioxide. The gas can also be produced in the air by dimethylsulfide and hydrogen sulfide. Sulfur dioxide is removed from the air by dissolution in water, chemical reactions, and transfer to soils and ice caps. The sulfur dioxide levels in the State are well below the maximum standards.
	3-hour[1]	—	0.5 ppm			
	24-hour	0.04 ppm	—			
Particulate matter (PM_{10})	24-hour	50 µg/m^3	150 µg/m^3	(a) Exacerbation of symptoms in sensitive patients with respiratory or cardiovascular disease; (b) declines in pulmonary function growth in children; (c) increased risk of premature death from heart or lung diseases in the elderly. Daily fluctuations in $PM_{2.5}$ levels have been related to hospital admissions for acute respiratory conditions, school absences, and increased medication use in children and adults with asthma.	Suspended particulate matter is a mixture of small particles that consist of dry solid fragments, droplets of water, or solid cores with liquid coatings. The particles vary in shape, size, and composition. PM_{10} refers to particulate matter that is between 2.5 and 10 microns in diameter, (1 micron is one-millionth of a meter). $PM_{2.5}$ refers to particulate matter that is 2.5 microns or less in diameter.	Stationary sources include fuel combustion for electrical utilities, residential space heating, and industrial processes; construction and demolition; metals, minerals, and petrochemicals; wood products processing; mills and elevators used in agriculture; erosion from tilled lands; waste disposal, and recycling. Mobile or transportation-related sources are from vehicle exhaust and road dust.
	Mean	20 µg/m^3	—			
Particulate matter ($PM_{2.5}$)	24-hour	—	35 µg/m^3			
	Annual	12 µg/m^3	15.0 µg/m^3			
Visibility reducing particles	8-hour	Extinction coefficient of 0.23 per kilometer; visibility of ten miles or more (0.07 - 30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70 percent.				
Sulfates	24-hour	25 µg/m^3	—	(a) Decrease in ventilatory function; (b) aggravation of asthmatic symptoms;	The sulfate ion is a polyatomic anion with the empirical formula $SO_4 2-$. Sulfates occur	Sulfates are particulates formed through the photochemical oxidation of sulfur dioxide. In

Table 3.2-8 (cont.): Description of Air Pollutants

Air Pollutant	Averaging Time	California Standard	Federal Standard[a]	Most Relevant Effects from Pollutant Exposure	Properties	Sources
				(c) aggravation of cardio-pulmonary disease; (d) vegetation damage; (e) degradation of visibility; (f) property damage.	in combination with metal and/or hydrogen ions. Many sulfates are soluble in water.	California, the main source of sulfur compounds is combustion of gasoline and diesel fuel.
Lead[b]	30-day	1.5 µg/m^3	—	Lead accumulates in bones, soft tissue, and blood and can affect the kidneys, liver, and nervous system. It can cause impairment of blood formation and nerve conduction, behavior disorders, mental retardation, neurological impairment, learning deficiencies, and low IQs.	Lead is a solid heavy metal that can exist in air pollution as an aerosol particle component. Leaded gasoline was used in motor vehicles until around 1970. Lead concentrations have not exceeded state or federal standards at any monitoring station since 1982.	Lead ore crushing, lead-ore smelting, and battery manufacturing are currently the largest sources of lead in the atmosphere in the United States. Other sources include dust from soils contaminated with lead-based paint, solid waste disposal, and crustal physical weathering.
	Quarter	—	1.5 µg/m^3			
	Rolling 3-month average	—	0.15 µg/m^3			
Vinyl chloride[b]	24-hour	0.01 ppm	—	Short-term exposure to high levels of vinyl chloride in the air causes central nervous system effects, such as dizziness, drowsiness, and headaches. Epidemiological studies of occupationally exposed workers have linked vinyl chloride exposure to development of a rare cancer, liver angiosarcoma, and have suggested a relationship between exposure and lung and brain cancers.	Vinyl chloride, or chloroethene, is a chlorinated hydrocarbon and a colorless gas with a mild, sweet odor. In 1990, ARB identified vinyl chloride as a toxic air contaminant and estimated a cancer unit risk factor.	Most vinyl chloride is used to make polyvinyl chloride plastic and vinyl products, including pipes, wire and cable coatings, and packaging materials. It can be formed when plastics containing these substances are left to decompose in solid waste landfills. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites.
Hydrogen sulfide	1-hour	0.03 ppm	—	High levels of hydrogen sulfide can cause immediate respiratory arrest. It can irritate the eyes and respiratory tract and cause headache, nausea, vomiting, and cough. Long exposure can cause pulmonary edema.	Hydrogen sulfide (H2S) is a flammable, colorless, poisonous gas that smells like rotten eggs.	Manure, storage tanks, ponds, anaerobic lagoons, and land application sites are the primary sources of hydrogen sulfide. Anthropogenic sources include the combustion of sulfur containing fuels (oil and coal).

Table 3.2-8 (cont.): Description of Air Pollutants

Air Pollutant	Averaging Time	California Standard	Federal Standard[a]	Most Relevant Effects from Pollutant Exposure	Properties	Sources
Volatile organic compounds (VOC)		There are no state or federal standards for VOCs because they are not classified as criteria pollutants.		Although health-based standards have not been established for VOCs, health effects can occur from exposures to high concentrations because of interference with oxygen uptake. In general, concentrations of VOCs are suspected to cause eye, nose, and throat irritation; headaches; loss of coordination; nausea; and damage to the liver, the kidneys, and the central nervous system. Many VOCs have been classified as toxic air contaminants.	Reactive organic gases (ROGs), or VOCs, are defined as any compound of carbon—excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate—that participates in atmospheric photochemical reactions. Although there are slight differences in the definition of ROGs and VOCs, the two terms are often used interchangeably.	Indoor sources of VOCs include paints, solvents, aerosol sprays, cleansers, tobacco smoke, etc. Outdoor sources of VOCs are from combustion and fuel evaporation. A reduction in VOC emissions reduces certain chemical reactions that contribute to the formulation of ozone. VOCs are transformed into organic aerosols in the atmosphere, which contribute to higher PM_{10} and lower visibility.
Benzene		There are no ambient air quality standards for benzene.		Short-term (acute) exposure of high doses from inhalation of benzene may cause dizziness, drowsiness, headaches, eye irritation, skin irritation, and respiratory tract irritation, and at higher levels, loss of consciousness can occur. Long-term (chronic) occupational exposure of high doses has caused blood disorders, leukemia, and lymphatic cancer.	Benzene is a VOC. It is a clear or colorless light-yellow, volatile, highly flammable liquid with a gasoline-like odor. The EPA has classified benzene as a "Group A" carcinogen.	Benzene is emitted into the air from fuel evaporation, motor vehicle exhaust, tobacco smoke, and from burning oil and coal. Benzene is used as a solvent for paints, inks, oils, waxes, plastic, and rubber. Benzene occurs naturally in gasoline at 1 to 2 percent by volume. The primary route of human exposure is through inhalation.
Diesel particulate matter (DPM)		There are no ambient air quality standards for DPM.		Some short-term (acute) effects of DPM exposure include eye, nose, throat, and lung irritation, coughs, headaches, light-headedness, and nausea. Studies have linked elevated particle levels in the air to increased hospital admissions, emergency room visits, asthma attacks, and premature deaths	DPM is a source of $PM_{2.5}$—diesel particles are typically 2.5 microns and smaller. Diesel exhaust is a complex mixture of thousands of particles and gases that is produced when an engine burns diesel fuel. Organic compounds account for 80 percent of the total particulate	Diesel exhaust is a major source of ambient particulate matter pollution in urban environments. Typically, the main source of DPM is from combustion of diesel fuel in diesel-powered engines. Such engines are in on-road vehicles such as diesel trucks, off-road construction

Table 3.2-8 (cont.): Description of Air Pollutants

Air Pollutant	Averaging Time	California Standard	Federal Standard[a]	Most Relevant Effects from Pollutant Exposure	Properties	Sources
				among those suffering from respiratory problems. Human studies on the carcinogenicity of DPM demonstrate an increased risk of lung cancer, although the increased risk cannot be clearly attributed to diesel exhaust exposure.	matter mass, which consists of compounds such as hydrocarbons and their derivatives, and polycyclic aromatic hydrocarbons and their derivatives. Fifteen polycyclic aromatic hydrocarbons are confirmed carcinogens, a number of which are found in diesel exhaust.	vehicles, diesel electrical generators, and various pieces of stationary construction equipment.

Notes:
ppm = parts per million (concentration) $\mu g/m^3$ = micrograms per cubic meter Annual = Annual Arithmetic Mean 30-day = 30-day average Quarter = Calendar quarter

a Federal standard refers to the primary national ambient air quality standard, or the levels of air quality necessary, with an adequate margin of safety to protect the public health. All standards listed are primary standards except for 3 hour SO_2, which is a secondary standard. A secondary standard is the level of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

b The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

c Effective April 12, 2010; the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 100 ppb, or 188 $\mu g/m^3$

d To attain this standard, the 3-year average of the 99th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 75 ppb.

Sources: South Coast Air Quality Management District 2007; California Environmental Protection Agency 2002; California Air Resources Board 2009; United States Environmental Protection Agency 2010.

California Air Resources Board Regulations

ARB Final Regulation Order, Requirements to Reduce Idling Emissions from New and In-Use Trucks. New 2008 and subsequent model-year heavy-duty diesel engines must be equipped with an engine shutdown system that automatically shuts down the engine after 300 seconds of continuous idling operation once the vehicle is stopped, the transmission is set to "neutral" or "park," and the parking brake is engaged. If the parking brake is not engaged, then the engine shutdown system shall shut down the engine after 900 seconds of continuous idling operation once the vehicle is stopped and the transmission is set to "neutral" or "park." Any project-related trucks manufactured after 2008 would be consistent with this rule, which would ultimately reduce air emissions.

ARB Regulation for In-Use Off-Road Diesel Vehicles. On July 26, 2007, the ARB adopted a regulation to reduce diesel particulate matter and NO_x emissions from in-use (existing) off-road heavy-duty diesel vehicles in California. Such vehicles are used in construction, mining, and industrial operations. The regulation imposed limits on idling, buying older off-road diesel vehicles, and selling vehicles beginning in 2008; requires all vehicles to be reported to ARB and labeled in 2009; and begins gradual requirements in 2010 to clean up fleets by getting rid of older engines, using newer engines, and installing exhaust retrofits. The regulation requires equipment to be retrofitted or retired. The regulation takes effect in phases, requiring compliance by the largest fleets by 2010, medium fleets by 2013, and smaller fleets by 2015.

ARB Airborne Toxic Control Measure (ATCM). In July 2001, the ARB approved an Air Toxic Control Measure (ATCM) for construction, grading, quarrying and surface mining operations to minimize emissions of naturally occurring asbestos. The regulation requires application of best management practices (BMPs) to control fugitive dust in areas known to have naturally occurring asbestos and requires notification to the local air district prior to commencement of ground-disturbing activities.

The ATCM establishes specific testing, notification and engineering controls prior to grading, quarrying, or surface mining in construction zones where naturally occurring asbestos is located on projects of any size. There are additional notification and engineering controls at work sites greater than one acre. These projects require the submittal of a "Dust Mitigation Plan" and approval by the BAAQMD prior to the start of the project.

Land Use Handbook. ARB adopted the Air Quality and Land Use Handbook: A Community Health Perspective (Land Use Handbook) in 2005. The Land Use Handbook provides information and guidance on siting sensitive receptors in relation to sources of toxic air contaminants. The sources of toxic air contaminants identified in the Land Use Handbook are high-traffic freeways and roads, distribution centers, rail yards, ports, refineries, chrome plating facilities, dry cleaners, and large gasoline-dispensing facilities. If the project involves siting a sensitive receptor or source of toxic air contaminant discussed in the Land Use Handbook, siting mitigation may be added to avoid potential land use conflicts, thereby reducing the potential for health impacts to the sensitive receptors.

Bay Area Air Quality Management District

The BAAQMD regulates air quality in the Air Basin. The BAAQMD is responsible for controlling and permitting industrial pollution sources (such as power plants, refineries, and manufacturing operations) and widespread, area wide sources (such as bakeries, dry cleaners, service stations, and commercial paint applicators), and for adopting local air quality plans and rules.

Attainment Status

Federal

The EPA has identified nonattainment and attainment areas for each criteria air pollutant. Under amendments to the federal Clean Air Act, the EPA has designated air basins or portions thereof as "attainment," "nonattainment," or "unclassifiable," based on whether or not the national standards have been achieved. Nonattainment areas must take steps towards attainment by a specific timeline. The Clean Air Act uses additional classification systems for areas designated nonattainment based on the severity of the pollution and to set realistic deadlines for reaching clean-up goals. If an air basin is not in federal attainment (that is, it does not meet federal standards) for a particular pollutant, the air basin is classified as a marginal, moderate, serious, severe, or extreme nonattainment area, based on the estimated time it would take to reach attainment.

State

The state designation criteria specify four categories: nonattainment, nonattainment-transitional, attainment, and unclassified. A nonattainment designation indicates one or more violations of the state standard have occurred. A nonattainment-transitional designation is a subcategory of nonattainment that indicates improving air quality, with only occasional violations or exceedances of the state standard. In contrast, an attainment designation indicates no violations of the state standard are available to evaluate attainment status. Finally, an unclassified designation indicates either no air quality data or an incomplete set of air quality data.

In addition, since attainment status is on a per-pollutant basis, if any averaging time standard is violated for a single pollutant, the area is out of attainment for that pollutant, even if the other averaging times are being met.

The current attainment designations for the Air Basin, shown in Table 3.2-9, indicate that the Air Basin is in nonattainment for the state ozone, PM_{10}, and $PM_{2.5}$ standards. The Air Basin is also nonattainment for the federal ozone standard.

Table 3.2-9: Bay Area Air Basin Attainment Status

Pollutant	State Status	Federal Status
Ozone	Nonattainment	Nonattainment
Carbon monoxide	Attainment	Attainment
Nitrogen dioxide	Attainment	Attainment

Table 3.2-9 (cont.): Bay Area Air Basin Attainment Status

Pollutant	State Status	Federal Status
Sulfur dioxide	Attainment	Attainment
PM_{10}	Nonattainment	Unclassifiable
$PM_{2.5}$	Nonattainment	Nonattainment
Lead	Attainment	Attainment
Sulfates	Attainment	No federal standards
Hydrogen sulfide	Unclassified	
Visibility-reducing particles	Unclassified	
Source: Bay Area Air Quality Management District, 2011.		

Current Air Quality Plans

As described above under federal and state regulatory agencies, a State Implementation Plan is a federal requirement; each state prepares a State Implementation Plan to describe existing air quality conditions and measures that will be followed to attain and maintain the NAAQS. In addition in California, state ozone standards have planning requirements. However, state PM_{10} standards have no attainment planning requirements, but air districts must demonstrate that all measures feasible for the area have been adopted.

Ozone Plans

Because the Air Basin is nonattainment for the federal and state ozone standards, the BAAQMD prepared an Ozone Attainment Demonstration Plan to satisfy the federal 1-hour ozone planning requirement and a Clean Air Plan to satisfy the state 1-hour ozone planning requirement.

As stated above in Attainment Status, the EPA revoked the 1-hour ozone standard and adopted an 8-hour ozone standard. The EPA is currently finalizing planning requirements for the new standard. The BAAQMD will address the new federal 8-hour ozone planning requirements once they are established.

On September 15, 2010, the BAAQMD adopted the final Bay Area 2010 Clean Air Plan, and certified its Final Environmental Impact Report. The 2010 Clean Air Plan was prepared by BAAQMD in cooperation with the Metropolitan Transportation Commission and the Association of Bay Area Governments. The 2010 Clean Air Plan builds from and incorporates components of the BAAQMD's 2005 Ozone Strategy, and identifies how the Air Basin will achieve compliance with the state 1-hour air quality standard for ozone as expeditiously as practicable and how the region will reduce transport of ozone and ozone precursors to neighboring air basins. The 2010 Clean Air Plan serves to:

- Update the Bay Area 2005 Ozone Strategy in accordance with the requirements of the California Clean Air Act to implement "all feasible measures" to reduce ozone.

- Provide a control strategy to reduce ozone, particulate matter (PM), air toxics, and greenhouse gases in a single, integrated plan.
- Review progress in improving air quality in recent years.
- Establish emission control measures to be adopted or implemented in the 2010 to 2012 timeframe.

Particulate Matter Plans

The Air Basin is designated nonattainment for the state PM_{10} and $PM_{2.5}$ standards, but it is currently in attainment for the federal PM_{10} standard. The EPA lowered the 24-hour $PM_{2.5}$ standard from 65 $\mu g/m^3$ to 35 $\mu g/m^3$ in 2006, and designated the Air Basin as nonattainment for the new $PM_{2.5}$ standard effective December 14, 2009. The BAAQMD has up to 3 years to prepare and submit a $PM_{2.5}$ attainment plan to the EPA. The State Implementation Plan for the new $PM_{2.5}$ standard must be submitted to the EPA by December 14, 2012.

The BAAQMD Board adopted the Particulate Matter Implementation Schedule, in response to requirements from Senate Bill (SB) 656, on November 9, 2005.

Rules and Regulations

The BAAQMD establishes and administers a program of rules and regulations that are air plans, as described above, to attain and maintain state and national air quality standards. The rules and regulations that apply to this project include but are not limited to the following:

- **Regulation 2, Rule 2**. New Source Review. This rule requires any new source resulting in an increase of any criteria pollutant to be evaluated for adherence to Best Available Control Technology (BACT) control technologies. For compression internal combustion engines, BACT requires that the generator be fired on "California Diesel Fuel" (fuel oil with a sulfur content less than 0.05 percent by weight and less than 20 percent by volume of aromatic hydrocarbons).

  All stationary internal combustion engines larger than 50 horsepower must obtain a Permit to Operate. If the engine is diesel fueled, then it must also comply with the BAAQMD-administered Statewide Air Toxics Control Measure for Stationary Diesel Engines.
- **Regulation 2, Rule 5.** New Source Review of Toxic Air Contaminants. This rule applies to preconstruction review of new and modified sources of toxic air contaminants, contains project health risk limits, and requires Toxics Best Available Control Technology.
- **Regulation 6, Rule 2.** Commercial Cooking Equipment. The purpose of this rule is to reduce emissions from commercial cooking equipment, and it applies to chain-driving or under-fired charbroilers.

- **Regulation 8, Rule 3.** Architectural Coatings. This rule governs the manufacture, distribution, and sale of architectural coatings and limits the ROG content in paints and paint solvents. Although this rule does not directly apply to the project, it does dictate the ROG content of paint available for use during the construction.
- **Regulation 8, Rule 15.** Emulsified and Liquid Asphalts. Although this rule does not directly apply to the project, it does dictate the ROG content of asphalt available for use during the construction through regulating the sale and use of asphalt and limits the ROG content in asphalt.

Local

City of San Ramon

General Plan 2030

The City of San Ramon General Plan 2030 sets forth the following guiding and implementing policies that are relevant to the proposed project:

- **Guiding Policy 12.3-G-1**: Improve and protect San Ramon's air quality and promote improvements in subregional air quality.
- **Implementing Policy 12.3-I-1**: Cooperate with other local, regional, and state agencies to achieve and maintain air quality standards.
- **Implementing Policy 12.3-I-2**: Establish a City Council-appointed body or other similar entity to assist in monitoring the City's progress in meeting greenhouse gas emissions targets.
- **Implementing Policy 12.3-I-3**: Analyze the air quality and climate change impacts of discretionary projects using applicable regulatory guidance; for example, the BAAQMD's CEQA Air Quality Guidelines.
- **Implementing Policy 12.3-I-4**: Use the City's environmental review process to impose appropriate mitigation measures on new development to reduce air quality and greenhouse gas emissions impacts.
- **Implementing Policy 12.3-I-5**: Work with the Bay Area Air Quality Management District (BAAQMD), the Metropolitan Transportation Commission (MTC), and transit providers to implement the regional Clean Air Plan.
- **Implementing Policy 12.3-I-6**: Educate residents on the linkage between land use, transportation, water and energy use and air pollution. Efforts should include measures that can be taken and resources that are available to improve air quality and reduce potential climate change impacts.
- **Guiding Policy 12.4-G-1**: Improve air quality by integrating air quality, land use, and transportation planning that incorporates appropriate project location, design, and application of best available technologies.
- **Implementing Policy 12.4-I-1**: Minimize air quality and climate change impacts through project review, evaluation, and conditions of approval when planning the location and design of land use projects and transportation system projects needed to accommodate expected City population growth.

- **Implementing Policy 12.4-I-2**: Support and encourage projects proposing infill, and mixed use development that creates walkable neighborhoods and communities and increases access to transit.
- **Implementing Policy 12.4-I-3**: Work with regional and local transit agencies to assess development project impacts on long-range transit plans and transit facilities during the planning stages of land use projects and ensure that potential impacts are avoided.
- **Guiding Policy 12.5-G-1**: Minimize exposure of the public to hazardous air pollutant emissions, particulates, and noxious odors from freeways, major arterial roadways, commercial and industrial uses with substantial truck trips, and other uses that produce toxic emissions through the use and handling of fuels and solvents.
- **Implementing Policy 12.5-I-1**: Locate sources of hazardous emissions at appropriate distances from existing and planned sensitive land uses in order to minimize or avoid potential health risks to people that might result from hazardous air pollutant emissions.
- **Implementing Policy 12.5-I-2**: Evaluate potential handling, storage, and transport of hazardous materials in new commercial and industrial developments to minimize public exposure to hazardous air pollutants.
- **Implementing Policy 12.5-I-3**: Require construction and grading activities to incorporate particulate emissions reduction measures.
- **Implementing Policy 12.5-I-4**: Require all new wood-burning stoves and fireplaces to comply with EPA- and BAAQMD-approved standards and provide informational handouts outlining low-emission alternatives to wood-burning fireplaces.
- **Guiding Policy 12.6-G-1**: Invest in more efficient and effective transportation infrastructure, City fleet management and support for trip reduction programs to reduce traffic congestion, vehicle trips and the need for costly new or expanded roadways.
- **Implementing Policy 12.6-I-1**: The City shall encourage participation in feasible, affordable, innovative and flexible employer-based trip reduction programs for their employees.
- **Implementing Policy 12.6-I-2**: City fleet vehicle operators shall be encouraged to develop and maintain a fiscally sound inventory and priority schedule to replace or convert existing conventional fuel vehicles with clean fuel vehicles as new vehicles are purchased and existing vehicles are retired from service.
- **Implementing Policy 12.6-I-3**: Encourage the development of state-of-the-art telecommunications infrastructure within the City, including satellite and neighborhood work centers for telecommuting to reduce vehicular commute travel and related emissions.
- **Implementing Policy 12.6-I-4**: Provide information to encourage the use of transportation modes that minimize motor vehicle use and resulting air pollution and greenhouse gas emissions.
- **Implementing Policy 12.6-I-5**: Construct infrastructure and facilities that support and encourages the use of alternative modes of travel, including a safe and comprehensive bicycle and pedestrian system that connects all parts of the City.

- **Guiding Policy 12.7-G-1**: Minimize air emissions and potential climate change impacts related to energy consumption in government operations and the community.
- **Implementing Policy 12.7-I-1**: Increase the use of energy conservation features, renewable sources of energy and low-emission equipment in new and existing development projects within the City.
- **Implementing Policy 12.7-I-2**: Encourage the use of solar-ready roofs into residential and commercial development. New residential development should include proper solar orientation (south-facing roof area sloped at 20° to 55° from the horizontal), clear access on the south sloped roof (no chimneys, heating vents, plumbing vents, etc.), electrical conduit installed for solar electric system wiring, plumbing installed for solar hot water systems, and space provided for a solar hot water storage tank. Roofs for commercial development should be designed to maximize potential area available for solar panels and provide electrical conduit to support future installation.
- **Implementing Policy 12.7-I-3**: Promote urban forestry projects that shade buildings, homes, streets, pedestrian walkways, and urban core areas to reduce surface and ambient temperatures and reduce energy required for cooling.
- **Implementing Policy 12.7-I-4**: Initiate and sustain on-going efforts with local water agencies, utility providers and developers to establish and implement voluntary incentive-based programs to encourage the use of energy and water efficient designs and equipment in new and existing development projects within the City.
- **Implementing Policy 12.7-I-5**: Reduce water use and related energy use by using reclaimed water for landscaping where appropriate, financially feasible, and allowed by water quality regulations. Require new development areas that will be served with recycled water to be plumbed with a "purple pipe" system to facilitate the future use of recycled water.
- **Implementing Policy 12.7-I-6**: Support ongoing efforts with the Green Affordable Housing Coalition (GAHC), building industry, water and utility districts and the BAAQMD to promote enhanced energy conservation and sustainable building standards for new construction.
- **Implementing Policy 12.7-I-7**: Work with local water and energy utilities and the building industry to develop or revise City design standards relating to solar orientation, water use, landscaping, use of cool paving surfaces, parking lot shading and such other measures oriented towards reducing energy demand.
- **Implementing Policy 12.7-I-8**: Provide recycling programs for construction and demolition debris, and for commercial and/or community recycling of plastic, paper, green waste, and food waste to reduce energy consumption and greenhouse gas emissions.

Greenhouse Gases

International

Climate change is a global issue; therefore, many countries around the world have made an effort to reduce greenhouse gases.

Intergovernmental Panel on Climate Change. In 1988, the United Nations and the World Meteorological Organization established the Intergovernmental Panel on Climate Change to assess the scientific, technical and socio-economic information relevant to understanding the scientific basis of risk of human-induced climate change, its potential impacts, and options for adaptation and mitigation.

United Nations. On March 21, 1994, the United States joined a number of countries around the world in signing the United Nations Framework Convention on Climate Change. Under the Convention, governments gather and share information on greenhouse gas emissions, national policies, and best practices; launch national strategies for addressing greenhouse gas emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries; and cooperate in preparing for adaptation to the impacts of climate change.

Kyoto Protocol. A particularly notable result of the United Nations Framework Convention on Climate Change efforts is a treaty known as the Kyoto Protocol, which went into effect on February 16, 2005. When countries sign the Kyoto Protocol, they demonstrate their commitment to reduce their emissions of greenhouse gases or engage in emissions trading. More than 170 countries are currently participating in the Kyoto Protocol. Industrialized countries are required to reduce their greenhouse gas emissions by an average of 5 percent below their 1990 levels by 2012. In 1998, United States Vice President Al Gore symbolically signed the Protocol; however, in order for the Kyoto Protocol to be formally ratified, the United States Senate must approve it. The Senate has never held a vote to ratify it. Recently, Canada, Japan, and Russia withdrew from the Kyoto Protocol, effectively ending the viability of this global agreement.

National

Greenhouse Gas Endangerment. *Massachusetts v. EPA* (Supreme Court Case 05-1120) was argued before the United States Supreme Court on November 29, 2006, in which it was petitioned that the EPA regulate four greenhouse gases, including carbon dioxide, under Section 202(a)(1) of the Clean Air Act. A decision was made on April 2, 2007, in which the Supreme Court found that greenhouse gases are air pollutants covered by the Clean Air Act. The Court held that the Administrator must determine whether emissions of greenhouse gases from new motor vehicles cause or contribute to air pollution that may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. On December 7, 2009, the EPA Administrator signed two distinct findings regarding greenhouse gases under section 202(a) of the Clean Air Act:

- Endangerment Finding: The Administrator finds that the current and projected concentrations of the six key well-mixed greenhouse gases—carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride—in the atmosphere threaten the public health and welfare of current and future generations.

- Cause or Contribute Finding: The Administrator finds that the combined emissions of these well-mixed greenhouse gases from new motor vehicles and new motor vehicle engines contribute to the greenhouse gas pollution, which threatens public health and welfare.

Clean Vehicles. Congress first passed the Corporate Average Fuel Economy law in 1975 to increase the fuel economy of cars and light duty trucks. The law has become more stringent over time. On May 19, 2009, President Obama put in motion a new national policy to increase fuel economy for all new cars and trucks sold in the United States. On April 1, 2010, the EPA and the Department of Transportation's National Highway Safety Administration announced a joint final rule establishing a national program that would reduce greenhouse gas emissions and improve fuel economy for new cars and trucks sold in the United States.

The first phase of the national program would apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. They require these vehicles to meet an estimated combined average emissions level of 250 grams of carbon dioxide per mile, equivalent to 35.5 miles per gallon if the automobile industry were to meet this carbon dioxide level solely through fuel economy improvements. Together, these standards would cut carbon dioxide emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012-2016). The EPA and the National Highway Safety Administration are working on a second-phase joint rulemaking to establish national standards for light-duty vehicles for model years 2017 and beyond.

On October 25, 2010, the EPA and the U.S. Department of Transportation proposed the first national standards to reduce greenhouse gas emissions and improve fuel efficiency of *heavy-duty trucks and buses*. For combination tractors, the agencies are proposing engine and vehicle standards that begin in the 2014 model year and achieve up to a 20 percent reduction in carbon dioxide emissions and fuel consumption by the 2018 model year. For heavy-duty pickup trucks and vans, the agencies are proposing separate gasoline and diesel truck standards, which phase in starting in the 2014 model year and achieve up to a 10 percent reduction for gasoline vehicles and 15 percent reduction for diesel vehicles by 2018 model year (12 and 17 percent respectively if accounting for air conditioning leakage). Lastly, for vocational vehicles, the agencies are proposing engine and vehicle standards starting in the 2014 model year, which would achieve up to a 10-percent reduction in fuel consumption and carbon dioxide emissions by 2018 model year.

Mandatory Reporting of Greenhouse Gases. The Consolidated Appropriations Act of 2008, passed in December 2007, requires the establishment of mandatory greenhouse gas reporting requirements. On September 22, 2009, the EPA issued the Final Mandatory Reporting of Greenhouse Gases Rule. The rule requires reporting of greenhouse gas emissions from large sources and suppliers in the United States, and is intended to collect accurate and timely emissions data to inform future policy decisions. Under the rule, suppliers of fossil fuels or industrial greenhouse gases,

manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons or more per year of greenhouse gas emissions are required to submit annual reports to the EPA.

New Source Review. The EPA issued a final rule on May 13, 2010 that establishes thresholds for greenhouse gases that define when permits under the New Source Review Prevention of Significant Deterioration and Title V Operating Permit programs are required for new and existing industrial facilities. This final rule "tailors" the requirements of these Clean Air Act permitting programs to limit which facilities will be required to obtain Prevention of Significant Deterioration and Title V permits. In the preamble to the revisions to the federal code of regulations, EPA states:

> This rulemaking is necessary because without it the Prevention of Significant Deterioration and Title V requirements would apply, as of January 2, 2011, at the 100 or 250 tons per year levels provided under the Clean Air Act, greatly increasing the number of required permits, imposing undue costs on small sources, overwhelming the resources of permitting authorities, and severely impairing the functioning of the programs. EPA is relieving these resource burdens by phasing in the applicability of these programs to greenhouse gas sources, starting with the largest greenhouse gas emitters. This rule establishes two initial steps of the phase-in. The rule also commits the agency to take certain actions on future steps addressing smaller sources, but excludes certain smaller sources from Prevention of Significant Deterioration and Title V permitting for greenhouse gas emissions until at least April 30, 2016.

EPA estimates that facilities responsible for nearly 70 percent of the national greenhouse gas emissions from stationary sources will be subject to permitting requirements under this rule. This includes the nation's largest greenhouse gas emitters—power plants, refineries, and cement production facilities.

State

Title 24. Although not originally intended to reduce greenhouse gases, California Code of Regulations Title 24 Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings, was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. All buildings for which an application for a building permit is submitted on or after January 1, 2011 must follow the 2008 standards. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases greenhouse gas emissions.

California Green Building Standards. On January 12, 2010, the State Building Standards Commission unanimously adopted updates to the California Green Building Standards Code, which went into effect on January 1, 2011. The Code is a comprehensive and uniform regulatory code for all residential, commercial and school buildings.

The California Green Building Standards Code does not prevent a local jurisdiction from adopting a more stringent code as state law provides methods for local enhancements. The Code recognizes that many jurisdictions have developed existing construction and demolition ordinances, and defers to them as the ruling guidance provided they provide a minimum 50-percent diversion requirement. The Code also provides exemptions for areas not served by construction and demolition recycling infrastructure. State building codes provide the minimum standards that buildings need to meet in order to be certified for occupancy. Enforcement is generally through the local building official.

The California Green Building Standards Code (code section in parentheses) requires:

- **Short-term bicycle parking.** If a commercial project is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5 percent of visitor motorized vehicle parking capacity, with a minimum of one two-bike capacity rack (5.106.4.1).
- **Long-term bicycle parking.** For buildings with over 10 tenant-occupants, provide secure bicycle parking for 5 percent of tenant-occupied motorized vehicle parking capacity, with a minimum of one space (5.106.4.2).
- **Designated parking.** Provide designated parking in commercial projects for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles as shown in Table 5.106.6.2 (5.106.5.2).
- **Recycling by Occupants.** Provide readily accessible areas that serve the entire building and are identified for the depositing, storage and collection of nonhazardous materials for recycling.
- **Construction waste.** A minimum 50-percent diversion of construction and demolition waste from landfills, increasing voluntarily to 65 and-75 percent for new homes and 80-percent for commercial projects. All (100 percent) of trees, stumps, rocks and associated vegetation and soils resulting from land clearing shall be reused or recycled.
- **Wastewater reduction.** Each building shall reduce the generation of wastewater by one of the following methods:
    1. The installation of water-conserving fixtures or
    2. Utilizing nonpotable water systems (5.303.4).
- **Water use savings.** 20-percent mandatory reduction in indoor water use with voluntary goal standards for 30, 35 and 40-percent reductions.
- **Water meters.** Separate water meters for buildings in excess of 50,000 square feet or buildings projected to consume more than 1,000 gallons per day.
- **Irrigation efficiency.** Moisture-sensing irrigation systems for larger landscaped areas.
- **Materials pollution control.** Low-pollutant emitting interior finish materials such as paints, carpet, vinyl flooring and particle board.

- **Building commissioning.** Mandatory inspections of energy systems (i.e. heat furnace, air conditioner, mechanical equipment) for nonresidential buildings over 10,000 square feet to ensure that all are working at their maximum capacity according to their design efficiencies.

Pavley Regulations. California AB 1493, enacted on July 22, 2002, required the ARB to develop and adopt regulations that reduce greenhouse gases emitted by passenger vehicles and light duty trucks. The regulation was stalled by automaker lawsuits and by the EPA's denial of an implementation waiver. On January 21, 2009, the ARB requested that the EPA reconsider its previous waiver denial. On January 26, 2009, President Obama directed that the EPA assess whether the denial of the waiver was appropriate. On June 30, 2009, the EPA granted the waiver request.

The standards phase in during the 2009 through 2016 model years. When fully phased in, the near term (2009-2012) standards will result in about a 22-percent reduction compared with the 2002 fleet, and the mid-term (2013-2016) standards will result in about a 30-percent reduction. Several technologies stand out as providing significant reductions in emissions at favorable costs. These include discrete variable valve lift or camless valve actuation to optimize valve operation rather than relying on fixed valve timing and lift as has historically been done; turbocharging to boost power and allow for engine downsizing; improved multi-speed transmissions; and improved air conditioning systems that operate optimally, leak less, and/or use an alternative refrigerant.

Executive Order S-3-05. California Governor Arnold Schwarzenegger announced on June 1, 2005, through Executive Order S-3-05, the following reduction targets for greenhouse gas emissions:

- By 2010, reduce greenhouse gas emissions to 2000 levels.
- By 2020, reduce greenhouse gas emissions to 1990 levels.
- By 2050, reduce greenhouse gas emissions to 80 percent below 1990 levels.

The 2050 reduction goal represents what scientists believe is necessary to reach levels that will stabilize the climate. The 2020 goal was established to be an aggressive, but achievable, mid-term target. The Climate Action Team's Report to the Governor in 2006 contains recommendations and strategies to help ensure the 2020 targets in Executive Order S-3-05 are met.

Low Carbon Fuel Standard - Executive Order S-01-07. The Governor signed Executive Order S-01-07 on January 18, 2007. The order mandates that a statewide goal shall be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020. In particular, the executive order established a Low Carbon Fuel Standard and directed the Secretary for Environmental Protection to coordinate the actions of the California Energy Commission, 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 California Energy Commission on December 24, 2007) and was submitted to ARB

for consideration as an "early action" item under AB 32. The ARB adopted the Low Carbon Fuel Standard on April 23, 2009.

SB 97 and the CEQA Guidelines Update. Passed in August 2007, SB 97 added Section 21083.05 to the Public Resources Code. The code states "(a) On or before July 1, 2009, the Office of Planning and Research shall prepare, develop, and transmit to the Resources Agency guidelines for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions as required by this division, including, but not limited to, effects associated with transportation or energy consumption. (b) On or before January 1, 2010, the Resources Agency shall certify and adopt guidelines prepared and developed by the Office of Planning and Research pursuant to subdivision (a)." Section 21097 was also added to the Public Resources Code. It provided CEQA protection until January 1, 2010 for transportation projects funded by the Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006 or projects funded by the Disaster Preparedness and Flood Prevention Bond Act of 2006, in stating that the failure to adequately analyze the effects of greenhouse gases would not violate CEQA.

On April 13, 2009, the Office of Planning and Research submitted to the Secretary for Natural Resources its recommended amendments to the CEQA Guidelines for addressing greenhouse gas emissions. On July 3, 2009, the Natural Resources Agency commenced the Administrative Procedure Act rulemaking process for certifying and adopting these amendments pursuant to Public Resources Code section 21083.05. Following a 55-day public comment period and two public hearings, the Natural Resources Agency proposed revisions to the text of the proposed Guidelines amendments. The Natural Resources Agency transmitted the adopted amendments and the entire rulemaking file to the Office of Administrative Law on December 31, 2009. On February 16, 2010, the Office of Administrative Law approved the Amendments, and filed them with the Secretary of State for inclusion in the California Code of Regulations. The Amendments became effective on March 18, 2010.

The CEQA Amendments provide guidance to public agencies regarding the analysis and mitigation of the effects of greenhouse gas emissions in CEQA documents. The CEQA Amendments fit within the existing CEQA framework by amending existing CEQA Guidelines to reference climate change.

A new section, CEQA Guidelines Section 15064.4, was added to assist agencies in determining the significance of greenhouse gas emissions. The new section allows agencies the discretion to determine whether a quantitative or qualitative analysis is best for a particular project. However, little guidance is offered on the crucial next step in this assessment process—how to determine whether the project's estimated greenhouse gas emissions are significant or cumulatively considerable.

Also amended were CEQA Guidelines Sections 15126.4 and 15130, which address mitigation measures and cumulative impacts respectively. Greenhouse gas mitigation measures are referenced in general terms, but no specific measures are championed. The revision to the cumulative impact discussion requirement (Section 15130) simply directs agencies to analyze greenhouse gas emissions

in an EIR when a project's incremental contribution of emissions may be cumulatively considerable, however it does not answer the question of when emissions are cumulatively considerable.

Section 15183.5 permits programmatic greenhouse gas analysis and later project-specific tiering, as well as the preparation of Greenhouse Gas Reduction Plans. Compliance with such plans can support a determination that a project's cumulative effect is not cumulatively considerable, according to proposed Section 15183.5(b).

In addition, the amendments revised Appendix F of the CEQA Guidelines, which focuses on Energy Conservation. The sample environmental checklist in Appendix G was amended to include greenhouse gas questions.

AB 32. The California State Legislature enacted AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires that greenhouse gases emitted in California be reduced to 1990 levels by the year 2020. "Greenhouse gases" as defined under AB 32 include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. ARB is the state agency charged with monitoring and regulating sources of greenhouse gases. AB 32 states the following:

> Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems.

The ARB Board approved the 1990 greenhouse gas emissions inventory of 427 million metric tons of carbon dioxide equivalent ($MMTCO_2e$) on December 6, 2007 (California Air Resources Board 2007). Therefore, emissions generated in California in 2020 are required to be equal to or less than 427 $MMTCO_2e$. Emissions in 2020 in a "business as usual" scenario are estimated to be 596 $MMTCO_2e$.

Under AB 32, the ARB published its Final Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California. Discrete early action measures are currently underway or are enforceable by January 1, 2010. The ARB has 44 early action measures that apply to the transportation, commercial, forestry, agriculture, cement, oil and gas, fire suppression, fuels, education, energy efficiency, electricity, and waste sectors. Of these early action measures, nine are considered discrete early action measures, as they are regulatory and enforceable by January 1, 2010. The ARB estimates that the 44 recommendations are expected to result in reductions of at least 42 $MMTCO_2e$ by 2020, representing approximately 25 percent of the 2020 target.

The ARB's Climate Change Scoping Plan (Scoping Plan) contains measures designed to reduce the State's emissions to 1990 levels by the year 2020 (California Air Resources Board 2008). The Scoping Plan identifies recommended measures for multiple greenhouse gas emission sectors and the associated emission reductions needed to achieve the year 2020 emissions target—each sector has a different emission reduction target. Most of the measures target the transportation and electricity sectors. As stated in the Scoping Plan, the key elements of the strategy for achieving the 2020 greenhouse gas target include:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards;
- Achieving a statewide renewables energy mix of 33 percent;
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system;
- Establishing targets for transportation-related greenhouse gas emissions for regions throughout California and pursuing policies and incentives to achieve those targets;
- Adopting and implementing measures pursuant to existing state laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard; and
- Creating targeted fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the State's long-term commitment to AB 32 implementation.

In addition, the Scoping Plan differentiates between "capped" and "uncapped" strategies. "Capped" strategies are subject to the proposed cap-and-trade program. The Scoping Plan states that the inclusion of these emissions within the cap-and trade program will help ensure that the year 2020 emission targets are met despite some degree of uncertainty in the emission reduction estimates for any individual measure. Implementation of the capped strategies is calculated to achieve a sufficient amount of reductions by 2020 to achieve the emission target contained in AB 32. "Uncapped" strategies that will not be subject to the cap-and-trade emissions caps and requirements are provided as a margin of safety by accounting for additional greenhouse gas emission reductions.[1]

[1] On March 17, 2011, the San Francisco Superior Court issued a final decision in *Association of Irritated Residents v. California Air Resources Board* (Case No. CPF-09-509562). While the Court upheld the validity of the ARB Scoping Plan for the implementation of AB 32, the Court enjoined ARB from further rulemaking under AB 32 until ARB amends its CEQA environmental review of the Scoping Plan to address the flaws identified by the Court. On May 23, 2011, ARB filed an appeal. On June 24, 2011, the Court of Appeal granted ARB's petition staying the trial court's order pending consideration of the appeal. In the interest of informed decision-making, on June 13, 2011, ARB released the expanded alternatives analysis in a draft Supplement to the AB 32 Scoping Plan Functional Equivalent Document. The ARB Board approved the Scoping Plan and the CEQA document on August 24, 2011.

SB 375. Passing the Senate on August 30, 2008, SB 375 was signed by the Governor on September 30, 2008. According to SB 375, the transportation sector is the largest contributor of greenhouse gas emissions, which emits over 40 percent of the total greenhouse gas emissions in California. SB 375 states, "Without improved land use and transportation policy, California will not be able to achieve the goals of AB 32." SB 375 does the following: (1) requires metropolitan planning organizations to include sustainable community strategies in their regional transportation plans for reducing greenhouse gas emissions, (2) aligns planning for transportation and housing, and (3) creates specified incentives for the implementation of the strategies. Concerning CEQA, SB 375, section 21159.28 states that CEQA findings determinations for certain projects are not required to reference, describe, or discuss (1) growth inducing impacts or (2) any project-specific or cumulative impacts from cars and light-duty truck trips generated by the project on global warming or the regional transportation network if the project:

1. Is in an area with an approved sustainable communities strategy or an alternative planning strategy that the ARB accepts as achieving the greenhouse gas emission reduction targets.
2. Is consistent with that strategy (in designation, density, building intensity, and applicable policies).
3. Incorporates the mitigation measures required by an applicable prior environmental document.

Executive Order S-13-08. Executive Order S-13-08 indicates that "climate change in California during the next century is expected to shift precipitation patterns, accelerate sea level rise and increase temperatures, thereby posing a serious threat to California's economy, to the health and welfare of its population and to its natural resources." Pursuant to the requirements in the order, the 2009 California Climate Adaptation Strategy (California Natural Resources Agency 2009) was adopted, which is the " . . . first statewide, multi-sector, region-specific, and information-based climate change adaptation strategy in the United States." Objectives include analyzing risks of climate change in California, identifying and exploring strategies to adapt to climate change, and specifying a direction for future research.

Renewable Electricity Standards. On September 12, 2002, Governor Gray Davis signed SB 1078 requiring California to generate 20 percent of its electricity from renewable energy by 2017. SB 107 changed the due date to 2010 instead of 2017. On November 17, 2008, Governor Arnold Schwarzenegger signed Executive Order S-14-08, which established a Renewable Portfolio Standard target for California requiring that all retail sellers of electricity serve 33 percent of their load with renewable energy by 2020. Governor Schwarzenegger also directed the ARB (Executive Order S-21-09) to adopt a regulation by July 31, 2010, requiring the state's load serving entities to meet a 33 percent renewable energy target by 2020. The ARB Board approved the Renewable Electricity Standard on September 23, 2010 by Resolution 10-23.

Bay Area Air Quality Management District

The BAAQMD has established a Climate Action Program in 2005 to integrate climate protection activities into existing BAAQMD programs. As part of this program, the BAAQMD developed the Climate Action Web Portal for local governments to access tools and resources for climate change activities, including best practices, case studies, and news and events from local governments. In addition, the BAAQMD prepared a greenhouse gas emissions inventory for the area under its jurisdiction, along with a county-level breakdown of greenhouse gas emissions in the basin.

In 2008, the BAAQMD approved a fee on stationary air pollution sources in its jurisdiction to help defray the costs associated with the BAAQMD's climate protection activities and programs, including environmental review, air pollution regulations, and emissions inventory development. Industrial facilities and businesses that are currently required to submit an air quality permit to operate will have a fee of 4.4 cents per metric ton of greenhouse gas emissions added to their permit bill.

In addition, the BAAQMD updated its California Environmental Quality Act Air Quality Guidelines in 2010 to include both numeric and qualitative greenhouse gas thresholds and recommended assessment methodologies for project- and plan-level analyses. However, an Alameda Superior Court ruled in January 2012 in *California Building Industry Association v. Bay Area Air Quality Management District*, that the BAAQMD had violated CEQA by adopting thresholds without appropriate CEQA review and documentation. The Court ruled that the new thresholds (including new thresholds for toxic air contaminants and $PM_{2.5}$) are considered a "project" under CEQA, and thus the BAAQMD should have prepared the required CEQA review and documentation. This ruling does not prohibit the application of the BAAQMD's recommended thresholds but requires BAAQMD to undertake due CEQA review of the thresholds.

Local

City of San Ramon

The City of San Ramon General Plan sets forth the following guiding and implementing policies that are relevant to greenhouse gas emissions:

- **Guiding Policy 12.8-G-1:** Reduce the City's proportionate contribution of greenhouse gas emissions and the potential impact that may result in climate change from internal governmental operations and land use activities within its authority.
- **Implementing Policy 12.8-I-1**: Strive to reduce greenhouse gas emissions from its internal governmental operations and land use activities within its authority by 15 percent below 2008 levels by the year 2020 pending adoption of revised targets for the City's Climate Action Plan. The City will also work with the MTC to ensure that the City receives its proportionate fair share reduction in greenhouse gas emissions as may be identified under the provisions of SB 375 (2008 Chapter 728) for any projects or activities requiring approval by MTC.
- **Implementing Policy 12.8-I-2**: The City will prepare and adopt a Climate Action Plan (CAP) as an implementation strategy of the General Plan 2030. The CAP shall include an inventory

of the 2008 level of greenhouse gas emissions within the City. The CAP shall set out specific policies and actions to be undertaken by the City to reduce greenhouse gas emissions under the control of the City. The CAP target will be determined during the process of preparing the CAP based upon the potential of available sources for control, the feasibility of control implementation, and potential for funding to pursue implementation.

- **Implementing Policy 12.8-I-3**: Include mechanisms to ensure regular review of progress towards greenhouse gas emission reduction targets established by the City's CAP, reporting progress and revising the plan as needed to achieve the plan's objectives.
- **Implementing Policy 12.8-I-4**: Work with other local and regional governments to assess federal and state programs and their impact on greenhouse gas emissions and mitigation efforts.
- **Implementing Policy 12.8-I-5**: Establish tiered significance thresholds for the evaluation of project greenhouse gas emissions impacts, the preparation of project level greenhouse gas emission inventories, and the identification and application of mitigation.
- **Implementing Policy 12.8-I-6**: Require businesses to minimize emissions of ozone-depleting compounds.

The City of San Ramon has prepared and adopted a Climate Action Plan as the primary implementation strategy for its greenhouse gas policies. The City adopted the Climate Action Plan as part of the General Plan 2030 adoption process. The Climate Action Plan contains:

- Baseline and future year emission inventories for the community and local government operations;
- Emission reduction estimates from potential reduction measures and strategies;
- Emission reduction targets for 2020 and 2030;
- Description of strategies selected to achieve targets; and
- Implementation Plan with mechanisms for monitoring and course corrections.

The BAAQMD has deemed the City's Climate Action Plan a "Qualified" plan under the criteria of its 2010-adopted California Environmental Quality Act Air Quality Guidelines.

3.2.4 - Methodology

The project's air quality impacts were evaluated in accordance with the guidance set forth by the BAAQMD's 2010 CEQA Air Quality Guidelines. The purpose of the Air Quality Guidelines is to assist lead agencies in evaluating air quality impacts of projects and plans proposed in the Air Basin. The Air Quality Guidelines contain guidance on how to conduct plan-level analysis, as well as how to determine the significance of a project's emissions of greenhouse gases. This analysis follows the guidance in the Air Quality Guidelines where appropriate.

3.2.5 - Thresholds of Significance

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, air quality impacts resulting from the implementation of the proposed project would be considered significant if the project would:

> 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?
>
> b.) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?
>
> c.) 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 standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?
>
> d.) Expose sensitive receptors to substantial pollutant concentrations?
>
> e.) Create objectionable odors affecting a substantial number of people?

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, greenhouse gas emissions impacts resulting from the implementation of the proposed project would be considered significant if the project would:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

3.2.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the project and provides mitigation measures where appropriate.

Air Quality Plan Consistency

Impact AIR-1:	**The Specific Plan may conflict with or obstruct implementation of the applicable air quality plan.**

Impact Criteria

The BAAQMD 2010 Clean Air Plan (2010 CAP) is the regional air quality management plan for the Air Basin. The 2010 CAP accounts for projections of population growth provided by Association of

Bay Area Governments and vehicle miles traveled provided by the Metropolitan Transportation Commission, and it identifies strategies to bring regional emissions into compliance with federal and state air quality standards.

BAAQMD's Guidance provides two criteria for determining if a plan-level project is consistent with the current air quality plan (AQP) control measures. The two criteria (and associated questions) are:

- Consistency with current air quality plan control measures:
  1) Does the project support the primary goals of the AQP?
  2) Does the project include applicable control measures from the AQP?
  3) Does the project disrupt or hinder implementation of any AQP control measures?

  and

- Projected vehicle miles traveled (VMT) or vehicle trips increase is less than or equal to projected population increase.

Criterion 1

The primary goals of the 2010 CAP, the current AQP to date, are to:

- Attain air quality standards;
- Reduce population exposure to unhealthy air and protecting public health in the Bay area; and
- Reduce greenhouse gas emissions and protect the climate.

The project supports the primary goals of the AQP by providing an infill, higher density, mixed-use, transit-oriented, pedestrian-oriented, and compact development. The Specific Plan would provide transit facilities, pedestrian connections, bicycle infrastructure, traffic calming, use of low-emission vehicles, transportation demand management, end of trip facilities and parking measures. The Specific Plan area is located within an existing urbanized area adjacent to transit and transportation infrastructure. In addition, the Specific Plan incorporates energy conservation (15 percent beyond current Title 24 Standards), water conservation, waste reduction and recycling, and regional cooperation measures. The project would have a mixed-use core, shared parking resources with an overall parking management plan, a centrally located transit center, and multi-family residential units.

The County Connection, operated by the Central Contra Costa Transit Authority (CCCTA), provides service to and surrounding the Specific Plan Area. Employees of the Bishop Ranch Business Park, which occupies a portion of the Specific Plan Area, are eligible for free bus passes. Currently, there are six routes operating within the Specific Plan Area and its vicinity. Detailed descriptions of these routes are contained within Section 3.12, Transportation, of this EIR.

As discussed in Impacts AIR-2 and AIR-3, the project would not create a localized violation of state or federal air quality standards, or significantly contribute to regional ozone violations. As discussed

in Impact AIR-4, the project may expose sensitive receptors to substantial pollutant concentrations, but would result in a less than significant impact after implementation of Mitigation Measure AIR-4. As discussed in Impact AIR-5, the project would not exposure a substantial number of people to objectionable odors. Further, Impact AIR-6, related to greenhouse gas and climate change impacts, shows that the project would not generate a significant amount of greenhouse gases and would not conflict with the applicable plans adopted for reducing the emission of greenhouse gases.

Criterion 2

The 2010 CAP contains 55 control measures aimed at reducing air pollution in the Bay Area. Along with the traditional stationary, area, mobile source, and transportation control measures, the 2010 CAP contains a number of new control measures designed to protect the climate and promote mixed use, compact development to reduce vehicle emissions and exposure to pollutants from stationary and mobile sources.

None of the 18 stationary source control measures are applicable to the project, as the Specific Plan does not contemplate uses that would be subject to such controls (such as industrial uses). In addition, none of the 10 mobile source measures or six land use and local impact measures applies to the project. Of the transportation control measures, TCM C – Encourage Sustainable Travel Behavior, TCM D – Support Focused Growth, and TCM E – Implement Pricing Strategies apply to the project. In addition, Energy & Climate Measures ECM 1: Energy Efficiency, ECM 2: Renewable Energy, ECM 3: Urban Heat Island Mitigation, and ECM-4: Shade Tree Planting apply to the project. The project's consistency with applicable 2010 Clean Air Plan control strategies is provided in Table 3.2-10. Additional details for the Specific Plan's design guidelines, development standards, sustainability guidelines, policies, and transportation components can be found in the North Camino Ramon Specific Plan. In summary, the project would meet all of the applicable Control Strategies contained in the 2010 CAP through project design features, design standards, and compliance with San Ramon Landscape Design Standards.

Table 3.2-10: 2010 Clean Air Plan Control Strategy Consistency Analysis

2010 Clean Air Plan Control Strategy	Supporting North Camino Ramon Plan Policy or Measure
TCM C – Encourage Sustainable Travel Behavior C-1: Voluntary Employer-Based Trip Reduction Program C-3: Rideshare Services & Incentives C-4: Conduct Public Outreach & Education	The project would include a centrally located transit center to support rideshare, vanpool, and alternative-transit use.
TCM D – Support Focused Growth D-1: Bicycle Access & Facilities Improvements D-2: Pedestrian Access & Facilities Improvements D-3: Local Land Use Strategies	Minimum requirements for bicycle parking and employee/tenant showers are set forth in North Camino Ramon Specific Plan Table 4.5, which requires short-term and long-term parking facilities for residential, retail and office land uses. In addition, retail and offices above 10,000 square feet of area are required to have showers for each gender.

Table 3.2-10 (cont.): 2010 Clean Air Plan Control Strategy Consistency Analysis

2010 Clean Air Plan Control Strategy	Supporting North Camino Ramon Plan Policy or Measure
	The Specific Plan Sustainability Guidelines include measures for providing preferential parking for carpool vehicles, secure and protected bicycle storage near building entrances, and places to change clothes and shower for those interested in biking or walking to work. Street Standards for Specific Plan requires sidewalks along all roadways, and bike lanes on The Commons, Crow Canyon Place, Street B West, Street B East, Street D West, Street D East, Norris Canyon Road, The Commons South Transit Center, the Commons South, Street E East, and Street F East. The project would construct an increased-density, mixed-use project with pedestrian, bicycle, and alternative transit infrastructure in an existing urbanized area, and contain both jobs and housing.
TCM E – Implement Pricing Strategies E-1: Value Pricing Strategies E-2: Promote Parking Pricing to Reduce Motor Vehicle Travel E-3: Implement Transportation Pricing Reform	**Goal PRK-1:** Manage parking resources to encourage pedestrian activity, reduce development costs and ensure adequate and efficient parking with in the Plan Area. **Policy PRK-1.1:** Establish a Parking District encompassing the properties within the Development Block D that allows for reduced off-street parking requirements with participating I the Parking District's in-lieu parking program. **Policy PRK-1.2:** Encourage the assemblage of land and construct a shared parking garage in Development Block D funded through a combination of City funds and developer participation in an in-lieu parking program.
ECM 1: Energy Efficiency	The Specific Plan Sustainability Guidelines include multiple measures, including but not limited to building orientation, daylighting, passive solar heating in winter, reducing summer cooling loads, sloped roofs for solar collector panels (solar-ready roofs), energy-efficient lighting, optimized lighting controls, use of recycled water for landscape irrigation, use of low-volume water-distribution devices, use of drought-resistant landscaping, and other techniques to minimize irrigation needs.
ECM 2: Renewable Energy	As stated for ECM 1, the Specific Plan Sustainability Guidelines include multiple measures, including but not limited to passive solar heating in winter, reducing summer cooling loads, and sloped roofs for solar collector panels (solar-ready roofs).
ECM 3: Urban Heat Island Mitigation	The Specific Plan Sustainability Guidelines include reducing paved areas to lessen heat buildup around the building that would add to cooling loads in the building.

Table 3.2-10 (cont.): 2010 Clean Air Plan Control Strategy Consistency Analysis

2010 Clean Air Plan Control Strategy	Supporting North Camino Ramon Plan Policy or Measure
ECM 4: Shade Tree Planting	The Specific Plan Sustainability Guidelines include designing bio-retention swales into the parking lot landscaping as part of the exterior water management and shading strategies. In addition, the project would comply with the City of San Ramon's Landscape Design Standards, which require landscaping plans. In parking lots, canopy tress are required to be provided throughout the parking area at the equivalent of one tree for every four spaces to provide shade.
Source: City of San Ramon, 2011; Michael Brandman Associates, 2012.	

Criterion 3

The project will not preclude extension of a transit line or bike path, propose excessive parking beyond parking requirements, or otherwise create an impediment or disruption to implementation of any AQP control measures. Indeed, as shown above, the project incorporates several AQP control measures as project design guidelines.

VMT Analysis

The final step to ensure that the project would not conflict with or obstruct the 2010 CAP is to show that the projected vehicle miles traveled or vehicle trips increase for the Specific Plan is less than or equal to the project population increase. The BAAQMD Air Quality Guidelines state that population estimates should be derived from the most recent issue of the Association of Bay Area Governments (ABAG) Projections publication.

When the 2010 CAP was developed, it utilized the most recent projections developed by ABAG and vehicle activity projected by the MTC. These projects are based on the most recent land use designations developed by cities and counties through local and regional planning processes. Future development under the North Camino Ramon Specific Plan would affect emissions of ozone precursors pollutants and particulate matter ($PM_{2.5}$ and PM_{10}), which affects regional air quality.

ABAG is responsible for making long-term forecasts for population, housing, and employment for the nine-county Bay Area. The forecast are published in Projections 2009, which contains the most current forecast. In recent updates to the Projections, the forecasts have presented a realistic assessment of growth in the region, taking into account trends in markets and demographics, and local policies that promote more compact infill- and transit-oriented development. In the summer of 2006, ABAG contacted every city and county in the region to acquire the current version of its General Plan and other available planning documents. The short-term forecasts rely heavily on the local plans. As the forecasts move into the long-term, policy-based assumptions come into greater play. ABAG assumes that cities will update their plans to provide fore more growth.

ABAG projects that San Ramon's average household size will be 2.58 in 2020. Therefore, the full buildout of the Specific Plan's 1,500 dwelling units would result in an increase in population of 3,870 persons from the current population of zero.

The vehicle miles traveled (VMT) under the existing conditions was calculated using the detailed daily trip generation contained in traffic impact analysis, prepared by Kimley-Horn Associates, and available in Appendix E. The adjusted daily trips from the traffic impact analysis were utilized to reflect the existing passby rate, internal capture, transit reduction, transportation demand management (TDM) reductions in VMT. The VMT for the proposed project was similarly calculated using the detailed adjusted daily trip generation contained in the traffic impact analysis. The default urban trip lengths for Contra Costa County were applied to the existing trip rates and proposed project trip rates.

Table 3.2-11 contains the calculation of population and VMT increase for the Specific Plan area. As shown in the table, the VMT would increase at a lower rate than the project population increase. Therefore, the project would meet this criterion. With an existing population of zero, however, the VMT/population would be significantly higher for the Specific Plan area than a development under the North Camino Ramon Specific Plan, which would add both commercial and office as well as an approximate population of 3,870 persons.

Table 3.2-11: Specific Plan Area Projected Development

Parameter	Existing	Proposed Plan	Increase Due to Project	Percent Increase
Vehicle Miles Traveled	394,812	766,510	371,698	94
Population	0 persons	3,870 persons	3,870 persons	—

Notes:
The St. James Place residential project currently under construction is excluded from the "existing" population total, as it does not support any residents at the time of Draft EIR release.
A number divided by zero is undefined; therefore, the percent increase in population cannot be calculated.
Source: City of San Ramon, 2011; Michael Brandman Associates, 2012.

In addition, the project is intended to provide infill and improved pedestrian and transit orientation that will reduce overall growth in VMT generation in the City by increasing use of alternative modes of travel in the Plan area. The project also meets many of the goals of the Bay Area-wide effort, "Focusing our Vision" (FOCUS) program, guided by the Joint Policy Committee, which seeks to strengthen existing city centers, locate more housing near existing and future rail stations and quality bus lines, encourage more compact and walkable suburbs, and protect regional open space. Growth in the Plan area will produce lower VMT per capita and per employee than would otherwise occur without the adoption of the North Camino Ramon Specific Plan.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Implement Mitigation Measure AIR-4.

Level of Significance After Mitigation

Less than significant impact.

Air Quality Standard Violation

Impact AIR-2:	**The Specific Plan would not violate any air quality standard or contribute substantially to an existing or projected air quality violation.**

Impact Criteria

This impact is related to localized criteria pollutant impacts because criteria pollutants are the pollutants with ambient air quality standards. Potential localized impacts would be exceedances of state or federal standards for $PM_{2.5}$, PM_{10}, or CO. For plan-level analysis, the BAAQMD provides recommended thresholds of significance for operational-generated criteria pollutants as a category, rather than the pollutant-based mass thresholds for project-level analysis. Pursuant to the BAAQMD, a project would be less than significant for criteria air pollutants and precursors if it meets the following criteria:

- Consistency with current air quality plan control measures
- Projected vehicle miles traveled (VMT) or vehicle trips increase is less than or equal to projected population increase.

These two criteria were analyzed in Impact AIR-1, above. However, sufficient information is provided in the project's traffic impact analysis to determine the potential for the Specific Plan to generate or significantly contribute to a CO hotspot. In addition, the EIR for the 2030 General Plan contained an analysis for fugitive dust. Therefore, this EIR includes an analysis of construction-related fugitive dust emissions and operational CO hotspot generation.

The Air Quality Guidelines determine the significance for fugitive dust through application of Best Management Practices. The significance criteria for CO Hotspot are the ambient air quality standards of 9.0 ppm (8-hour average) and 20.0 ppm (1-hour average).

Impact Analysis

Consistency with 2010 Clean Air Plan

Impact AIR-1 contains the analysis of the project's consistency with the 2010 Clean Air Plan (CAP), and found the project is consistent with the CAP.

VMT Analysis

Impact AIR-1 contains the analysis of the project's increase in VMT relative to the increase in population, and found the project would not exceed the BAAQMD's criteria of significance for this impact.

Construction Fugitive Dust

The BAAQMD's Air Quality Guidelines contain only operational thresholds of significance for plan-level analysis. The Air Quality Guidelines do not have plan-level thresholds for construction activities. However, for the purposes of this EIR, the fugitive dust threshold for project-level analysis is applied.

Construction activities associated with development proposed in the North Camino Ramon Specific Plan would include grading, demolition, building construction, and paving. Generally, fugitive dust is primarily generated by site grading. If uncontrolled, these emissions could lead to both health and nuisance impacts. The project is required to comply with all applicable City General Plan policies. General Plan 2030 establishes Implementing Policy 11.5-I-3, which requires construction and grading activities to incorporate particulate matter reduction measures, and, therefore, satisfies the BAAQMD's dust abatement requirements.

Carbon Monoxide Hotspot

A localized carbon monoxide (CO) analysis is a tool to determine if the project's emissions of CO during operation would exceed ambient air quality standards. The main source of air pollutant emissions during operation are from offsite motor vehicles traveling on the roads surrounding the project site. A CO hotspot is a localized concentration of CO that is above the state or national 1-hour or 8-hour CO ambient air quality standards. Localized high levels of CO are associated with traffic congestion and idling or slow-moving vehicles, located around project-impacted intersections.

CO concentrations are estimated at the three intersections with the greatest potential for a CO hotspot. This analysis follows the CO Protocol prepared by Caltrans in 1997. According to the CO protocol, intersections with Level of Service (LOS) E or F require detailed analysis. In addition, intersections that operate under LOS D conditions in areas that experience meteorological conditions favorable to CO accumulation require a detailed analysis.

Using the CALINE4 model, potential CO hotspots are analyzed at the three intersections with LOS E identified in the Existing Plus Project conditions in the Specific Plan's traffic impact study. There are no intersections estimated to operate below LOS D in the Cumulative Plus Project conditions. The traffic volumes were obtained from the traffic study. The emission factors were generated using the EMFAC2007 model for year 2015 for the BAAQMD area.

As shown in Table 3.2-12, the estimated 1-hour and 8-hour average CO concentrations in combination with background concentrations (unmitigated) are below the state and national ambient air quality standards. Therefore, the mobile emissions of CO from the project are not anticipated to contribute substantially to an existing or projected air quality violation of CO. Impacts would be less than significant.

Table 3.2-12: Localized Carbon Monoxide Concentrations

Intersection	1-hour Estimated CO Concentration (ppm)	8-hour Estimated CO Concentration (ppm)	Significant Impact?
Crow Canyon Road/I-680 Northbound Ramps (PM hour)	3.5	2.5	No
Grow Canyon Road/Crow Canyon Place (PM hour)	3.4	2.4	No
Bollinger Canyon Road/I-680 Northbound Ramps (AM hour)	3.6	2.5	No

Notes:
ppm = parts per million
The 1-hour background concentration was calculated by dividing the 8-hour concentration of 1.13 (Table 3.2-2) by the persistence factor of 0.7.
The 8-hour project increment was calculated by multiplying the 1-hour CALINE4 output by 0.7 (persistence facto) then adding the 8-hour background concentration from Table 3.2-2.
The significance determination is by comparison of the 1-hour concentration to the state standard of 20 ppm, and the 8-hour concentration to the state/national standard of 9 ppm
Source: Michael Brandman Associates, 2012.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Cumulative Criteria Pollutants

Impact AIR-3: **The Specific Plan would 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 standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors).**

Impact Analysis

Section 15130(b) of the CEQA Guidelines states the following:

> The following elements are necessary to an adequate discussion of significant cumulative impacts: 1) Either
>
> (A) A list of past, present, and probably future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, or
>
> (B) A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified,

which described or evaluated regional or area wide conditions contributing to the cumulative impact.

In accordance with CEQA Guidelines 13130(b), this analysis of cumulative impacts incorporates a summary of projections based on the current air quality plan.

The geographic scope for cumulative criteria pollution from air quality impacts is the San Francisco Bay Area Air Basin, because that is the area in which the air pollutants generate by the sources within the Air Basin circulate and are often trapped. The BAAQMD is required to prepare and maintain a Clean Air Plan and a State Implementation Plan to document the strategies and measures to be undertaken to reach attainment of ambient air quality standards. While the BAAQMD does not have direct authority over land use decisions, it recognized that changes in land use and circulation planning are necessary to attain and maintain clean air. The BAAQMD evaluated the entire Air Basin when it developed the 2010 Clean Air Plan.

The Air Basin is in nonattainment for ozone, PM_{10}, and $PM_{2.5}$, which means the background levels of those pollutants are, at times, higher than the ambient air quality standards. The air quality standards were set to protect public health, including the health of sensitive individuals (such as the elderly, children, and the sick). Therefore, when the concentrations of those pollutants exceed the standard, it is likely that some sensitive individuals in the population would experience health effects that were described in Table 3.2-8. However, the health effects are a factor of the dose-response curve. Concentration of the pollutant in the air (dose), the length of exposure time, and the response of the individual are factors that determine the severity and nature of health impacts.

According to the analysis contained in Impact AIR-1, the project is consistent with the 2010 Clean Air Plan after implementation of Mitigation Measures AIR-4.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Implement Mitigation Measure AIR-4.

Level of Significance After Mitigation

Less than significant impact.

Sensitive Receptors

Impact AIR-4:	**The Specific Plan would expose sensitive receptors to substantial pollutant concentrations after incorporation of mitigation.**

Impact Analysis

This analysis addresses the potential impacts to sensitive receptors from toxic air contaminants, naturally occurring asbestos, and asbestos during demolition.

Toxic Air Contaminants

The BAAQMD has defined the following health risk thresholds:

- Maximum Incremental Cancer Risk: greater than 10 in 1 million at the nearest sensitive receptor or offsite worker; and
- Non-cancer Hazard Index (project increment) greater than 1.0.
- Ambient $PM_{2.5}$ increase of greater than 0.3 $\mu g/m^3$ annual average.

The BAAQMD Air Quality Guidelines indicate that for plans to have a les than significant impact with respect to potential toxic air contaminants (TACs), special overlay zones need to be established around existing and proposed land uses that emit TACs. The BAAQMD recommends that special overlay zones be included in proposed plan policies, land use maps, and implementing ordinances.

The threshold of significance with regard to community risk and hazard impacts are as follows:

1. The land use diagram must identify:
   a. Special overlay zones around existing and planned sources of TACs;
   b. Special overlay zones of at least 500 feet (or BAAMQD-approved modeled distance) on each side of all freeways and high-volume roadways
2. The plan must also identify goals, policies, and objectives to minimize potential impacts and create overlay zones for sources of TACs and receptors.

ARB's Land Use Handbook offers advisory recommendations for locating sensitive receptors near uses associated with TACs, such as freeways and high traffic roads, commercial distribution centers, rail yards, ports, refineries, chrome platers, dry cleaners, gasoline stations, and other industrial facilities, to reduce exposure of sensitive populations.

Table 3.2-3 contains the stationary sources of air pollution in the Specific Plan area and its vicinity. In addition, I-680 is a nearby highway for which BAAQMD has pre-calculated cancer and non-cancer risks at intervals from the highway. No other roadway in or around the Specific Plan area is considered a "high volume" roadway under BAAQMD's definition of 100,000 trips per day.

The specific locations of residential units have not been identified. Therefore, mitigation is applied to ensure that sensitive receptors are not located close to existing sources of TACs. Implementation of Mitigation Measure AIR-4 would reduce the potential for TACs impacts to less than significant.

Naturally Occurring Asbestos

Asbestos is a term used for several types of naturally occurring fibrous minerals that are a human health hazard when airborne. Asbestos is classified as a known human carcinogen by state, federal,

and international agencies. All types of asbestos are hazardous and may cause lung disease and cancer.

Construction in areas of rock formations that contain naturally occurring asbestos could release asbestos in to the air and pose a health hazard. As described in the Regulatory Setting, BAAQMD enforces ARB's air toxic control measures (ATCMs) at sites that contain ultramafic rock. The ATCM for Construction, Grading, Quarrying and Surface Mining Operations was signed into state law on July 22, 2002, and became effective in the Air Basin in November 2002. The purpose of this regulation is to reduce public exposure to naturally occurring asbestos.

The Department of Conservation, Division of Mines and Geology published A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos, dated August 2002, for generally identifying areas that are likely to contain naturally occurring asbestos. A review of the map containing areas more likely to have rock formations containing naturally occurring asbestos in California indicates that the Specific Plan area is not in an area likely to contain naturally occurring asbestos. Therefore, it can be reasonably concluded that naturally occurring asbestos is not present in the Specific Plan area. Impacts would be less than significant.

Asbestos During Demolition Activities

Structures to be demolished sometimes contains asbestos containing materials. Demolition of existing buildings and structures would be subject to BAAQMD Regulation 11, Rule 2 (Asbestos Demolition, Renovation, and Manufacturing). BAAQMD Regulation 11, Rule 2 is intended to limit asbestos emissions from demolition or renovation of structure and the associated disturbance of asbestos –containing waste material generated or handled during these activities. The rule addresses the national emissions standards for asbestos along with some additional requirements. The rule requires the Lead Agency and its contractors to notify BAAQMD of any regulated renovation or demolition activity. This notification includes a description of structures and methods utilized to determine whether asbestos-containing materials are potentially present. All asbestos-containing material found on the site must be removed prior to demolition or renovation activity in accordance with BAAQMD Regulation 11, Rule 2, including specific requirements for surveying, notification, removal, and disposal of asbestos-containing materials. Therefore, projects that comply with BAAQMD Regulation 11, Rule 2 would ensure that asbestos containing materials would be removed and disposed of appropriately and safely. By complying with BAAQMD Regulation 11, Rule 2, thereby minimizing the release of airborne asbestos emissions, demolition activity would not result in a significant impact to air quality.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM AIR-4 Prior to the final discretionary approval for any residential use that is proposed pursuant to the North Camino Ramon Specific Plan, the City of San Ramon shall determine the area of impact from toxic emissions from Interstate 680 and existing stationary sources that may potentially exceed the BAAQMD significance criteria for cancer or non-cancer Toxic Air Contaminant exposure. Emissions from Interstate 680 shall be estimated using the BAAQMD roadway screening tool. Impacts from stationary sources near the project shall be compared with the distance threshold recommended by California Air Resources Board's Land Use Handbook distance guidance. If residential projects are proposed within an area exceeding the threshold, the City shall require a Health Risk Assessment to determine the refined impact level and to identify design features such as high efficiency ventilation and cooling systems that shall be installed to reduce the impact to less than significant levels. The City shall prohibit the construction of any sensitive receptor land use within the an area of impact of Interstate 680 or stationary source as described above, unless the risk is less than the BAAQMD's significance criteria for TACs exposure.

Level of Significance After Mitigation

Less than significant impact.

Objectionable Odor

Impact AIR-5:	**The Specific Plan would create objectionable odors affecting a substantial number of people.**

Impact Analysis

The BAAQMD Air Quality Guidelines state that for plans to have a less than significant impact, special overlay zones need to be established around existing and proposed land uses that emit odors. Special overlay zones should include proposed plan policies, land use map, and implementing ordinances. BAAQMD established screening levels for project-level evaluation for sensitive receptors proposed to be located near different types of utilities, industrial, or other facilities known to generate odor. The Lead Agency should employ this guidance when evaluating whether the proposed Specific Plan includes adequate special overlay zone distances between odor sources and sensitive receptors.

The BAAQMD has odor screening distances in its Air Quality Guidelines. These screening distances include distances for repair and paint shops, wastewater treatment plants, sanitary landfills, and other typical sources of odor. A portion of the Specific Plan area is located within the screening distance for painting/coating operations. In particular, the Specific Plan area north of Norris Canyon and immediately south of Norris Canyon are located within 1 mile of three existing repair and paint shops.

For projects within the screening distances, the BAAQMD has the following threshold for project operations:

> An odor source with five (5) or more confirmed complaints per year averaged over three years is considered to have a significant impact on receptors within the screening distance shown in Table 3-3 [of the BAAQMD's guidance].

A request for existing odor complains within the 3 years prior to the writing of this document was submitted to the BAAQMD. BAAQMD records show no odor complaints for any of the facilities within the 3-year time frame. Therefore, the project would have a less than significant impact for odor exposure.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Greenhouse Gas Generation and Plan Consistency

Impact AIR-6:	**The Specific Plan would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; the Specific Plan would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.**

Impact Threshold

The BAAQMD provides multiple recommended thresholds in its 2010 Air Guidance for plan-level greenhouse gas generation from project operation. Prior to the 2010 Air Guidance document, the BAAQMD did not have an adopted threshold of significance for greenhouse gas emissions. The BAAQMD does not currently provide a construction-related greenhouse gas threshold. The thresholds suggested in BAAQMD's 2010 Guidance document for plan-level operational greenhouse gas generation are:

- Compliance with a qualified Greenhouse Gas Reduction Strategy, or
- 6.6 metric tons of CO_2 equivalent per service population (employees plus residents).

The applicable plan, as discussed in the Regulatory Setting, is the City of San Ramon's CAP, dated August 23, 2011. The City's CAP was deemed a qualified greenhouse gas reduction strategy by the BAAQMD. Therefore, compliance with the City's CAP will be applied as the threshold for the project's generation of greenhouse gases, as well as plan-consistency.

Climate Action Plan and North Camino Ramon Specific Plan

The CAP demonstrates that emissions from new development are reduced by more than 15 percent below 2008 levels, and that the City's plan efficiency is below the BAAQMD's recommended 6.6

metric tons of CO_2 equivalents ($MTCO_2e$) per service population per year. In addition, the CAP demonstrates that the reductions in the plan, when combined with reductions from state regulation and programs, will achieve the 26-percent reduction target from the 2020 business as usual inventory, which is consistent with state targets.

The CAP strategy is primarily based upon the land use, transportation, and conservation policies that are part of the General Plan 2030, recent specific plans, and major development plans in the City. The North Camino Ramon Specific Plan was anticipated by the CAP, and included in its analysis. The CAP identifies policies within the City's General Plan 2030 that would decrease greenhouse gas emission in the City. The CAP also lists implementation strategies that add more details and specific actions to the General Plan policies and clarify how the reductions would occur. The CAP demonstrates that the General Plan policies and CAP strategies would reduce emissions to the reduction target. The CAP includes strategies in the following categories:

- Land use: higher-density, mixed-use, transit-oriented, pedestrian-oriented, and compact development
- Transportation: provision of transit facilities, pedestrian connections, bicycle infrastructure, traffic calming, use of low emission vehicles, transportation demand management, end of trip facilities, and parking measures
- Energy conservation
- Water conservation
- Waste reduction and recycling
- Regional cooperation

The strategies listed above will be implemented in new development areas as projects are built in compliance with General Plan policies, development standards, conditions of approval, and CEQA mitigation measures.

The CAP states specifically of lists the North Camino Ramon Specific Plan under "Existing City Measures" for implementing Strategy LU-2, Encourage mixed use development in new development and redevelopment areas.

Specifically:

> The North Camino Ramon Specific Plan (NCRSP), which is currently being developed, will offer additional retail opportunities to meet the needs of San Ramon's residents and business community. Complementing the City Center project, the NCRSP would provide opportunities for neighborhood and regional retail and vertical and horizontal mixed-use development in proximity to new and existing jobs.

> The City Center Project and draft North Camino Ramon Specific Plan areas encourage mixed-use development with areas devoted to residential over commercial businesses and to high-density residential within walking distance of jobs and commercial services. The plans encourage vertical mixed use (projects with residential over commercial uses) and horizontal mixed uses (projects with residential uses adjacent or within a short walking distance of commercial uses).

The development of the North Camino Ramon Specific Plan was identified in General Plan Policy 2.3-I-18, which states:

> Prepare and develop the North Camino Ramon Specific Plan (NCRSP) area into a fiscally balanced, transit-oriented mixed-use area that provides for neighborhood and regional retail opportunities lacking in San Ramon and vertical and horizontal mixed-use development in proximity to new and existing jobs.

The Specific Plan is a key component of the Climate Action Plan by which the City plans to achieve its emission reduction goals, because of the infill, higher-density, mixed-use, transit-oriented, pedestrian-oriented and compact development design characteristics. In addition, the project is intended to provide infill and improved pedestrian and transit orientation that will reduce overall growth in VMT generation in the City by increasing use of alternative modes of travel in the Plan area. The project also meets many of the goals of the Bay Area-wide effort, "Focusing our Vision" (FOCUS) program, guided by the Joint Policy Committee, which seeks to strengthen existing city centers, locate more housing near existing and future rail stations and quality bus lines, encourage more compact and walkable suburbs, and protect regional open space. Growth in the Plan area will produce lower VMT per capita and per employee than would otherwise occur without the adoption of the North Camino Ramon Specific Plan.

As stated in the CAP, projects choosing to rely on compliance with the CAP to result in a less than significant impact must demonstrate a 15-percent reduction at year 2020 from the 2008 baseline emissions inventory. However, the CAP does not provide guidance on how a new development project should calculate the appropriate baseline inventory to be applied at a plan or project level. Because the site-based emissions for 2008 can be calculated for the project site using the existing land use trip generation and building sizes contained in the Traffic Impact Study, the emissions generated by existing land uses at year 2008 will be considered the baseline emissions inventory for the project. The project's emissions are calculated as the net increase attributable to the additional land uses proposed. Therefore, the project's emissions compared to the 2008 baseline will be utilized to determine potential significance.

Project Emissions Inventory

This analysis is restricted to greenhouse gases identified by AB 32, which include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. The project would generate a variety of greenhouse gases during construction and operation, including several defined by AB 32 such as carbon dioxide, methane, and nitrous oxide.

Certain greenhouse gases defined by AB 32 would not be emitted by the project. Perfluorocarbons and sulfur hexafluoride are typically used in industrial applications, none of which would be used by the project. Therefore, it is not anticipated that the project would emit perfluorocarbons or sulfur hexafluoride.

Greenhouse gas emissions from motor vehicles are assumed to remain the same over time because the emission factors used to estimate emissions from the motor vehicles that would access the project site are currently calculated as remaining constant. The on-road mobile inventory used the current version of the EMission FACtors model (EMFAC2007), and the off-road mobile inventory used the OFFROAD model for base emission factors. Both the EMFAC and OFFROAD Models develop carbon dioxide and methane emission estimates; however, they are not currently used as the basis for ARB's official greenhouse gas inventory, which is based on fuel usage information. It is important to note that the current versions of EMFAC and OFFROAD are not fuel-based, but apply a single carbon dioxide factor that is unchanged throughout future years. ARB is working to reconcile the emissions estimates from the fuel usage approach and the models. Implementation of adopted regulations (such as AB 1493) and anticipated regulations will reduce future motor vehicular emissions.

An inventory of greenhouse gas emissions generated by the project is presented below. The emissions are converted to metric tons of carbon equivalents ($MTCO_2e$) using the formula:

$$MTCO_2e = (\text{tons of gas}) \times (\text{global warming potential}) \times (0.9072 \text{ metric tons of gas})$$

Operational Emissions

Operational emissions were calculated the emissions scenarios listed in Table 3.2-14. The existing development at year 2008 is used as the baseline, as specified in the City's CAP. Existing development and the full proposed North Camino Ramon Specific Plan were modeled at year 2020 in order to determine the net increase of greenhouse gases at year 2020 that are attributable to the proposed project, as the project would include both the addition of land uses and the removal/replacement of existing land uses.

Table 3.2-13: Greenhouse Gas Analysis Scenario

Scenario (year)	Parameters
Existing Development/Baseline (2008)	• Existing conditions trip generation from the Traffic Impact Study, Appendix D (Project Trip Generation Calculations) • Transit reduction of 2 percent • Targeted TDM reductions ranging from 0 to 8 percent • Existing land uses square footage • URBEMIS and BGM model defaults for electricity, natural gas, water & wastewater and solid waste generation
Existing Development (2020)	• Existing conditions trip generation from the Traffic Impact Study, Appendix D (Project Trip Generation Calculations). • Transit reduction of 2 percent • Targeted TDM reductions ranging from 0 to 8 percent • Existing land uses square footage • URBEMIS and BGM model defaults for electricity, natural gas, water & wastewater and solid waste generation
North Camino Ramon Specific Plan (2020)	• Project conditions trip generation from the Traffic Impact Study, Appendix D (Project Trip Generation Calculations). • Transit reduction of 2 percent • Targeted TDM reductions ranging from 4 to 8 percent • Full North Camino Ramon Specific Plan land use square footage and dwelling units • URBEMIS and BGM model defaults for electricity, natural gas, water & wastewater and solid waste generation • 15 percent more energy efficient than current Title 24 Standards • Reduce operational solid waste generation[1] • Drought tolerant landscaping, climate sensitive irrigation systems, use of water efficient sprinkler heads[2]

Notes:
1. A minimum reduction of 10 percent waste diversion is assumed for a conservative analysis.
2. San Ramon City Code Division C4 Chapter VIII (Ordinance No. 218) requires that water conservation features be incorporated into landscaping plans. Details in Section 3.13, Utility Systems.

Source: Kimley-Horn and Associates, Inc., 2012; Michael Brandman Associates, 2012.

The existing development and proposed project scenarios used the land use-specific trip generation rates contained in the appendix to the Traffic Impact Study. The mixed-use internal capture reduction, transit reduction, TDM reduction and pass-by rates from the Traffic Impact Study were incorporated into the greenhouse gas emissions analysis. The emissions modeling for the proposed project incorporated the project design features as detailed in Section 2, Project Description and in the North Camino Ramon Specific Plan.

The Specific Plan's Sustainability Guidelines contain multiple measures for reducing energy consumption, promoting onsite alternative energy facility construction and use, and reducing water consumption. However, the degree of implementation is currently unknown. In addition, mitigation measures added in this document were not incorporated into the emissions analysis scenarios

described above. This EIR identifies MM US-4 requires a 50-percent diversion of operational waste, which would reduce operational greenhouse gas generation:

The URBEMIS and Bay Area Greenhouse Gas (BGM) model output are provided in Appendix B. The BGM contains adjustment to reflect reductions from adopted state regulations such as Pavley and the low carbon fuel standard. Therefore, no off-model adjustments are necessary to reflect the decline of future-year emissions due to implementation of state regulation. Please note that the BAAQMD does not provide guidance on the year to model in the BGM. Therefore, the year of analysis used for the significance determination is 2020, consistent with the first target year of the City's CAP.

The project's estimated operational greenhouse gas generation is provided in Table 3.2-14. As shown below, the project would generate approximately 58,405 $MTCO_2e$. The project's emissions relative to the 2008 baseline is provided in Table 3.2-15. The project's emissions would be approximately 49.6 percent of the baseline emissions, or a reduction of 50.4 percent. Therefore, the project meets the 15-percent reduction from baseline criterion and would result in a less than significant impact.

Table 3.2-14: Project Greenhouse Gas Emissions 2020

Sources	Emissions of Metric Tons Carbon Dioxide Equivalent per Year		
	Existing Development	Specific Plan Area	Project-Generated Increase
Transportation	50,468	97,878	47,410
Landscaping (an Area Source)	1	778	777
Electricity	27,272	33,069	5,797
Natural Gas	4,958	6,177	1,219
Water and Wastewater	413	692	279
Solid Waste	21,021	23,944	2,923
Total Annual Emissions	**104,132**	**162,538**	**58,405**

Notes:
Total Annual Emissions based on non-rounded source output numbers.
Source: Michael Brandman Associates, 2012.

Table 3.2-15: Project Greenhouse Gas Emissions Comparison to Baseline

Sources	Emissions of Metric Tons Carbon Dioxide Equivalent per Year	
	Existing Baseline	Project-Generated Increase
Transportation	64,134	47,410
Landscaping (an Area Source)	1	777
Electricity	27,272	5,797

Table 3.2-15 (cont.): Project Greenhouse Gas Emissions Comparison to Baseline

Sources	Emissions of Metric Tons Carbon Dioxide Equivalent per year	
	Existing Baseline	Project-Generated Increase
Natural Gas	4,958	1,219
Water and Wastewater	417	279
Solid Waste	21,027	2,923
Total Annual Emissions	**117,807**	**58,405**

Notes:
Total Annual Emissions based on non-rounded source output numbers.
Source: Michael Brandman Associates, 2012.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Climate Change Adaptation

Impact AIR-7: **The Specific Plan would not be significantly affected by climate change impacts, including increased wildfires, increased flooding, decreased water supply, or sea level rise.**

Impact Analysis

The Specific Plan area is located in an urbanized area and, therefore, is not exposed to the potential for wildfire impacts. In addition, the Specific Plan area is located at approximately 140 meters above sea level. Therefore, the Specific Plan area would not be inundated by predicted sea level rise. As described in Section 3.7, Hydrology and Water Quality, the project area is located within Zone X of the FEMA flood maps, meaning it is outside of both the 100-year and 500-year flood hazard area. There is currently no known literature that suggests an increase in flooding from climate change in the San Ramon area.

In addition, Impact HYD-2 analyzes the project's potential to adversely impact groundwater resources. As provided in Impact HYD-2, the water service provider holds a surplus of water in relation to existing demand; therefore, no new project-related demand for regional or local groundwater resources is anticipated. In addition, Section 3.13, Utility Systems discusses the results of a Water Supply Assessment performed by East Bay Municipal Utility District, which demonstrates adequate water supply for the Specific Plan area. Therefore, the project would not be significantly adversely affected by a reduction in water supply.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

3.3 - Biological Resources

3.3.1 - Introduction

This section describes the existing biological setting and potential effects from the implementation of the Specific Plan within the Specific Plan area and its surroundings. Descriptions and analysis in this section are based on information contained in the City of San Ramon General Plan 2030.

3.3.2 - Environmental Setting

Habitat

The entire Specific Plan area is heavily developed and is classified as "urban." Plant species within urban habitats are mostly or entirely non-native horticultural species commonly used in landscaping, including grasses, ornamental shrubs, and shade trees. Non-native species selected for landscapes tend to have low drought tolerance and require frequent supplemental summer watering. Within the Specific Plan area, landscaped areas occur largely in small patches in parking lots, adjacent to buildings, along streets, and within medians. The largest landscaped area is associated with the Toyota parcel.

Wildlife

Wildlife within the Specific Plan area is limited to birds and other wildlife adapted to urban environments, such as house sparrow (*Passer domesticus*), European starling (*Sturnus vulgaris*), house finch (*Carpodacus mexicanus*), rock dove (*Columba livia*), American crow (*Corvus brachyrhynchos*), American robin (*Turdus migratorius*), Virginia opossum (*Didelphus virginiana*), and fox squirrel (*Sciurus niger*).

Special-Status Species

The Specific Plan area contains no habitat suitable for any special-status plant species.

Nesting birds protected by the Migratory Bird Treaty Act may nest in mature trees. Aside from nesting birds, the Specific Plan area does not contain habitat suitable for special-status wildlife species.

Waterways

An ephemeral drainage is present along the west side of the Iron Horse Trail between Crow Canyon Road and Fostoria Way. At Fostoria Way, this feature enters a culvert. All other drainage facilities consist of inlets and underground piping that are part of the City's municipal storm drain system.

3.3.3 - Regulatory Framework

Federal

Clean Water Act

Section 404 of the Clean Water Act (CWA) of 1977 provides the basis for regulating the preservation of wetlands and riparian habitats. The legislation addresses water pollution, establishes regulations

and permit requirements regarding construction activities that affect stormwater, dredge and fill material operations, and water quality standards. This regulatory program requires that discharges to surface waters be controlled under the National Pollutant Discharge Elimination System permit program, which applies to sources of water runoff, private developments, and public facilities. Under Section 404 of the Clean Water Act, the United States Army Corps of Engineers (USACE) is responsible for regulating the discharge of fill material into waters of the United States. The term "waters" includes wetlands and non-wetland bodies of water that meet specific criteria as defined in the Code of Federal Regulations. All three of the identified technical criteria must be met for an area to be identified as a wetland under USACE jurisdiction, unless the area has been modified by human activity. In general, a permit must be obtained before fill can be placed in wetlands or other waters of the U.S. The type of permit depends on the amount of acreage and the purpose of the proposed fill, subject to USACE discretion.

Endangered Species Act

The USFWS and National Marine Fisheries Service (NMFS) have jurisdiction over species that are formally listed as threatened or endangered under the federal Endangered Species Act (ESA). The federal ESA is a complex law enacted in 1973 to protect and recover plant and animal species in danger of becoming extinct and to conserve their ecosystems, with an ultimate goal being the recovery of a species to the point where it is no longer in need of protection. An endangered plant or animal species is one that is considered in danger of becoming extinct throughout all or a significant portion of its range. A threatened species is one that is likely to become endangered within the foreseeable future. The USFWS also maintains a list of species proposed for listing as endangered or threatened, and a list of candidate species for which sufficient information is available to support issuance of a proposed listing rule. It is illegal to take any listed species without specific authorization. Any activity that could result in take of a federally listed species requires a Section 10 take permit authorization from the USFWS or NMFS. Should another federal agency be involved with permitting the project, such as the USACE under jurisdiction of the Clean Water Act, Section 7 of the ESA requires the federal lead agency to consult with the USFWS or NMFS before permitting any activity that may result in take of a listed species. Section 9 of the ESA and its applicable regulations restrict certain activities with respect to endangered and threatened plants. However, these restrictions are less stringent than those applicable to fish and wildlife species. The provisions prohibit the removal of, malicious damage to, or destruction of any listed plant species from areas under federal jurisdiction.

Migratory Bird Treaty Act

The Federal Migratory Bird Treaty Act (MBTA) provides for protection of migratory bird species, birds in danger of extinction, and their active nests. It is illegal to possess or take any bird protected under the act without a depredation permit from the USFWS, which includes protection of eggs, young, and nests in active use. Although the MBTA technically provides for protection of most bird

species, it is typically applied as a mechanism to protect active nests of raptors and colonial nesting species through the breeding and nesting season.

State

California Endangered Species Act

Signed into law in 1984, the California Endangered Species Act (CESA) prohibits the "take" of any species that the California Fish and Game Commission determines to be an endangered species or a threatened species. CESA defines a "take" as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." CDFG enforces CESA. The act allows for take incidental to otherwise lawful development projects. CESA emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate mitigation planning to offset project caused losses of listed species populations and their essential habitats.

Porter-Cologne Act

The Porter-Cologne Act established the California State Water Quality Resources Control Board and the Nine Regional Water Quality Control Boards (RWQCBs) in their current form. The RWQCBs regulate all activities, including dredging, filling, or discharge of materials into waters of the State that are not regulated by the USACE, due to a lack of connectivity with a navigable water body and/or lack of an ordinary high water mark (OHWM).

CDFG Section 1600 Regulations

The Fish and Game Code of California mandates that "it is unlawful for any person to substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated by the department, or use any material from the streambeds, without first notifying the department of such activity." CDFG's jurisdiction includes ephemeral, intermittent, and perennial watercourses (including dry washes) characterized by (1) the presence of hydrophytic vegetation; (2) the location of definable bed and banks; and (3) the presence of existing fish or wildlife resources.

Furthermore, CDFG jurisdiction is often extended to habitats adjacent to watercourses, such as oak woodlands in canyon bottoms or willow woodlands that function as part of the riparian system. Historic court cases have further extended CDFG jurisdiction to include watercourses that seemingly disappear, but re-emerge elsewhere. Under the CDFG definition, a watercourse need not exhibit evidence of an OHWM to be claimed as jurisdiction. However, CDFG does not regulate isolated wetlands; that is, those that are not associated with a river, stream, or lake.

Local

City of San Ramon

General Plan 2030

General Plan 2030 sets forth the following guiding and implementing policies related to biological resources:

- **Implementing Policy 8.1-G-1:** Protect and maintain the quality of biological resources in the San Ramon Planning Area, while also balancing the needs of growth and development.
- **Implementing Policy 8.1-I-1:** Continue to require new land use and development activities to comply with applicable laws and regulations concerning special status species.
- **Implementing Policy 8.1-I-2:** When special status species and/or critical habitat may be adversely affected by land use or development activities, require appropriate and feasible mitigation measures in accordance with regulatory agency guidance.
- **Implementing Policy 8.1-I-3:** Monitor and, as appropriate, engage regulatory agencies on any proposals to designate critical habitat and/or other special-status species protection designations within the Planning Area.
- **Implementing Policy 8.1-I-4:** Ensure that the rights of private property owners are considered during the biological review process and encourage mutually acceptable solutions to special status species and/or critical habitat protection.
- **Implementing Policy 8.3-G-1:** Acquire, preserve, and maintain open space and its natural resources for future generations.
- **Implementing Policy 8.3-I-1:** Preserve, protect, and maintain significant native oak woodlands.
- **Implementing Policy 8.3-I-2:** Enhance San Ramon's creeks and riparian corridors by requiring preservation or replacement of riparian vegetation, as appropriate and in conformity with regulatory requirements.
- **Implementing Policy 8.3-I-3:** Explore opportunities to preserve significant creek, riparian areas, sensitive natural communities, and prominent topographic features as open space.
- **Implementing Policy 8.3-I-4:** Require maintenance plans for open space areas, including identified natural resources such as ridges and waterways.
- **Implementing Policy 8.3-I-5:** Through the development review process, encourage wildlife corridors to provide connectivity between established open space areas, where deemed appropriate.
- **Implementing Policy 8.3-I-6:** New development shall dedicate open space, as appropriate, through the use of an irrevocable instrument.
- **Implementing Policy 8.3-I-7:** Confer with appropriate agencies and organizations to ensure that all development, including Dougherty Valley, the Westside subareas, and any other future development provides adequate mitigation for any impacts to special status species, wetlands, and significant natural biotic communities.
- **Implementing Policy 8.3-I-8:** Encourage public access to creek corridors, as appropriate.
- **Implementing Policy 8.3-I-9:** Consider alternatives to culverting or channelization of waterways during all stages of the review process.
- **Implementing Policy 8.3-I-10:** Promote maintenance and protection of waterways through the use of Geologic Hazard Abatement District(s), conservation easements, endowments, special assessments, or other appropriate mechanisms.

- **Implementing Policy 8.3-I-11:** Continue participation in the Contra Costa Clean Water Program to control stormwater pollution and protect the quality of the City's waterways.
- **Implementing Policy 8.3-I-12**: Monitor the condition of waterways within the city limits and take proactive measures to prevent degradation.
- **Implementing Policy 8.3-I-14:** Develop and adopt regulations for the protection and preservation of hillsides, creeks, and ridgelines.
- **Implementing Policy 8.4-I-5:** Priorities for open space preservation should be based on an evaluation of:
  - Biological or ecological significance
  - Historical significance
  - Visual quality, including preservation of significant ridgelines, viewsheds, and scenic vistas
  - Presence of significant waterways and associated riparian habitat
  - Recreation opportunities (e.g., hiking, photography, nature study, bicycling, horseback riding, bird watching, etc.)
- **Implementing Policy 8.4-I-9:** Preserve open space pursuant to Policy 8.4-I-5, on a priority basis as funds are available using the following criteria:
  - Lands currently for sale or that can be acquired under favorable terms or conditions;
  - Land with high biological and ecological value, including those that contain natural watersheds, wetlands, riparian corridors, sensitive natural communities, or occupied by special status plant and wildlife species;
  - Lands that are contiguous to existing open space properties or other public lands and that provide continuity with current uses and buffers; or
  - Lands that provide trail connections or other recreational opportunities.

San Ramon Municipal Code

San Ramon City Municipal Division C4 Chapter III sets forth tree preservation regulations for land development projects. The chapter requires that permits be obtained for the removal of any tree 30 inches or greater in circumference. Exceptions from the permitting requirements are allowed for tree removal associated with City-approved development plans, subdivision maps, or grading permits.

3.3.4 - Methodology

Michael Brandman Associates evaluated potential impacts on biological resources through review of the City of San Ramon General Plan 2030, aerial photographs, and site reconnaissance.

3.3.5 - Thresholds of Significance

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, biological resources impacts resulting from the implementation of the proposed project would be considered significant if the project 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, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? (Refer to Section 7, Effects Found Not To Be Significant.)

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? (Refer to Section 7, Effects Found Not To Be Significant.)

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 wildlife nursery sites? (Refer to Section 7, Effects Found Not To Be Significant.)

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

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? (Refer to Section 7, Effects Found Not To Be Significant.)

3.3.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the project and provides mitigation measures where appropriate.

Special-Status Species

Impact BIO-1:	**Development and land use activities contemplated by the North Camino Ramon Specific Plan may have an adverse effect on special-status wildlife species.**

Impact Analysis

Special-status plant and wildlife species typically occur in undeveloped areas, although it is possible for them to occur within developed areas as well. However, the Specific Plan area contains no habitat suitable for any special-status plant or wildlife species.

Nesting birds protected by the Migratory Bird Treaty Act may nest in mature trees. The Specific Plan area contains mature trees suitable for nesting birds protected by the MBTA. Implementation of the Specific Plan may include the removal of some of these trees, and, therefore, could result in adverse impacts to nesting birds if nests are present. Mitigation is proposed that would require a pre-construction nesting bird survey to be performed prior to any vegetation removal during the nesting

season, generally the period between February 1 and August 31. The implementation of this mitigation measure would reduce potential impacts to a level of less than significant. Vegetation removal that would occur outside of the nesting season, generally the period between September 1 and January 31, would not require mitigation.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM BIO-1 If suitable avian nesting habitat is intended to be removed during the nesting season (February 1 through August 31), a qualified biologist shall conduct a nesting bird survey to identify any potential nesting activity. If passerine birds are found to be nesting, or there is evidence of nesting behavior within 250 feet of the impact area, the biologist shall determine an appropriate buffer that shall be required around the nests. No vegetation removal or ground disturbance would occur within this buffer. For raptor species—birds of prey such as hawks and owls—this buffer would generally be 500 feet. A qualified biologist shall monitor the nests closely until it is determined that the nests are no longer active, at which time construction activities may commence within the buffer area. Construction activity may encroach into the buffer area at the discretion of the biological monitor. Tree or vegetation removal activities that occur outside of the nesting season (September 1 through January 31) are not subject to the requirements of this mitigation measure.

Level of Significance After Mitigation

Less than significant impact.

Local Policies or Ordinances Protecting Biological Resources

Impact BIO-2: Development and land use activities contemplated by the Specific Plan would not conflict with any local policies or ordinances protecting biological resources.

Impact Analysis

The City of San Ramon General Plan and the City Code contain several policies related to the protection of biological resources. Each is discussed below.

General Plan Policies 8.1-G-1, 8.1-I-1, and 8.1-I-2 require the protection and maintenance of biological resources, including special-status species and critical habitat. The Specific Plan area contains no habitat suitable for any special-status plant or wildlife species.

General Plan Policy 8.3-I-1 requires the preservation, protection, and maintenance of significant native oak woodlands. The Specific Plan area does not contain native oak woodlands.

General Plan Policies 8.3-I-2 and 8.3-I-3 call for the enhancement, preservation, and protection of significant creek corridors and riparian areas. General Plan Policy 8.3-I-8 encourages public access

to creek corridors. General Plan Policy 8.3-I-9 requires the consideration of alternatives to culverting or channelizing waterways. The Specific Plan area contains a single ephemeral drainage along the west side of the Iron Horse Trail between Crow Canyon Road and Fostoria Way. All other drainage facilities consist of inlets and underground piping that are part of the City's municipal storm drain system. The Specific Plan would not disrupt the ephemeral drainage or reduce public access. Therefore, the proposed project is consistent with these policies.

General Plan Policy 8.3-I-11 stipulates that the City shall continue to participate in the Contra Costa Clean Water Program to control stormwater pollution and protect the quality of the City's waterways. The Specific Plan would not adversely impact the ephemeral drainage along the Iron Horse Trail. In addition, development implemented under the Specific Plan would apply stormwater pollution controls during construction and operations to prevent the release of pollutants into local waterways, consistent with the policies of the Contra Costa Clean Water Program. Therefore, the proposed project is consistent with this policy.

San Ramon Municipal Code Division C4 Chapter III requires that permits be obtained for the removal of any tree that are 30 inches or greater in circumference. The Municipal Code exempts City-approved development plans, subdivision maps, or grading permits from the provisions of this policy. The Specific Plan would be considered a City-approved development plan and, therefore, would be granted an exemption from this policy. Therefore, the proposed project is consistent with this policy.

In summary, the proposed project would be consistent with all applicable General Plan and Municipal Code policies related to biological resources. Impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

3.4 - Cultural Resources

3.4.1 - Introduction

This section describes the existing cultural resources setting and potential effects from implementation of the Specific Plan on the Specific Plan area and its surroundings. Descriptions and analysis in this section are based on information contained in the City of San Ramon General Plan 2030.

3.4.2 - Environmental Setting

Overview

The term "cultural resources" encompasses historic, archaeological, and paleontological resources, and burial sites. Below is a brief summary of each component:

- **Historic Resources:** Historic resources are associated with the recent past. In California, historic resources are typically associated with the Spanish, Mexican, and American periods in the State's history and are generally less than 200 years old.
- **Archaeological Resources:** Archaeology is the study of prehistoric human activities and cultures. Archaeological resources are generally associated with indigenous cultures.
- **Paleontological Resources:** Paleontology is the study of plant and animal fossils.
- **Burial Sites:** Burial sites are formal or informal locations where human remains, usually associated with indigenous cultures, are interred.

Cultural Setting

Prehistory

The Prehistoric period is classified into three temporal ranges: the Early Horizon (3000 to 1000 B.C.), the Berkeley Pattern or Middle Horizon (1000 B.C. to A.D. 500), and the Augustine Pattern or Late Horizon (A.D. 500 to historic period). Brief descriptions of these temporal ranges and their unique characteristics follow.

Early Horizon

Characterized by the Windmiller Pattern, the Early Horizon was centered in the Cosumnes district of the Delta and emphasized hunting rather than gathering, as evidenced by the abundance of projectile points in relation to plant processing tools. Additionally, atlatl, dart, and spear technologies typically included stemmed projectile points of slate and chert but little obsidian. The large variety of projectile point types and faunal remains suggest hunting of numerous types of terrestrial and aquatic species. Burials occurred in cemeteries and intra-village graves, and they typically were ventrally extended, although some dorsal extensions are known, with westerly orientation, and a high number of grave goods. Trade networks focused on acquisition of ornamental and ceremonial objects in finished form rather than in raw material form. The presence of artifacts made of exotic materials

such as quartz, obsidian, and shell indicate an extensive trade network that possibly represents the arrival of Utian populations into central California. Also indicative of this period are rectangular Haliotis and Olivella shell beads, and usually perforated charm stones.

Middle Horizon

The Middle Horizon is characterized by the Berkeley Pattern, which displays considerable changes from the Early Horizon. This period exhibited a strong milling technology represented by minimally shaped cobble mortars and pestles, although metates and manos were still used. Dart and atlatl technologies during this period were characterized by non-stemmed projectile points made primarily of obsidian. Research suggests that the Berkeley Pattern marked the eastward expansion of Miwok groups from the San Francisco Bay Area. Compared with the Early Horizon, there is a higher proportion of grinding implements during the Middle Horizon, implying an emphasis on plant resources rather than on hunting. Typical burials occurred within the village with flexed positions, variable cardinal orientation, and some cremations. The practice of spreading ground ochre over the burial was common at this time. Grave goods are sparse and typically included only utilitarian items and a few ornamental objects. However, objects such as charm stones, quartz crystals, and bone whistles occasionally occur, suggesting the religious or ceremonial significance of the individual. Larger populations are suggested by the number and depth of sites compared with the Windmiller Pattern. It is believed that the Berkeley Pattern reflects gradual expansion or assimilation of different populations as well as a gradual shift in economic emphasis, rather than sudden population replacement.

Late Horizon

The Late Horizon is characterized by the Augustine Pattern, which represents a shift in general subsistence patterns. Changes include the introduction of bow and arrow technology and, most importantly, acorns as the predominant food resource. Trade systems expanded and included raw resources as well as finished products. There are more baked clay artifacts and extensive use of Haliotis ornaments of many elaborate shapes and forms. Burial patterns retained the use of flexed burials with variable orientation, but there was less use of ochre; evidence of cremation was widespread. Judging from the number and types of grave goods associated with the two types of burials, cremation seemed to have been reserved for individuals of higher status, whereas others were buried in flexed positions. Research suggests that the Augustine Pattern represents expansion of the Wintuan population from the north, which resulted in combining new traits with those established during the Middle Horizon.

Ethnography

At the time of European contact in the 18th century, the San Ramon area was occupied by the Ohlone tribe of California Native Americans. The Ohlone group designates a linguistic family consisting of eight different yet related languages. The eight Ohlone languages were quite different from one another, although each language was related to its geographically contiguous neighbors.

The arrival of Ohlone groups into the Bay Area appears to be temporally consistent with the appearance of the Late Period artifact assemblage in the archaeological record, as documented at sites such as the Emeryville Shellmound or the Ellis Landing Shellmound. It is probable that the Ohlone moved south and west from the delta region of the San Joaquin-Sacramento River region into the Bay Area. The tribal group that most likely occupied the project area is the Chochenyo language group, whose territory extended from the southern end of the Carquinez Strait south to Mission San Jose (present-day Fremont), east to present-day Livermore, and west to the San Francisco Bay.

The various Ohlone tribes subsisted as hunter-gatherers and relied on local terrestrial and marine flora and fauna for subsistence. The predominant plant food source was the acorn, but they also exploited a wide range of other plants, including seeds, buckeye, berries, and roots. Protein sources included grizzly bear, elk, sea lions, antelope, and black-tailed deer as well as smaller mammals such as raccoon, brush rabbit, ground squirrels, and wood rats. Waterfowl, including Canadian geese, mallards, green-winged teal, and American widgeon, were captured in nets using decoys to attract them. Fish also played an important role in the Chochenyo diet and included steelhead, salmon, and sturgeon.

The Ohlone constructed watercraft from tule reeds and possessed bow and arrow technology. They fashioned blankets from sea otter pelts, fabricated basketry from twined reeds of various types, and assembled a variety of stone and bone tools in their assemblages. Ohlone villages typically consisted of domed dwelling structures, communal sweathouses, dance enclosures, and assembly houses constructed from thatched tule reeds and a combination of wild grasses, wild alfalfa, and ferns.

The Ohlone were politically organized into autonomous tribelets that had distinct cultural territories. Individual tribelets contained one or more villages with a number of seasonal camps for resource procurement within the tribelet territory. The tribelet chief could be either male or female, and the position was inherited patrilineally, but approval of the community was required. The tribelet chief and council were essentially advisors to the community and were responsible for feeding visitors, directing hunting and fishing expeditions, ceremonial activities, and warfare on neighboring tribelets.

The first European contact with the Ohlone likely occurred in 1602, when Sebastian Vizcaíno's expedition moored in Monterey. The estimated Ohlone population in 1770, when the first mission was established in Ohlone territory, was approximately 10,000. By 1832, the population had declined to fewer than 2,000, mainly due to diseases introduced by the European explorers and settlers. When the Spanish mission system rapidly expanded across California, the Ohlone traditional way of life was irreversibly altered. The pre-contact hunter-gatherer subsistence economy was replaced by an agricultural economy, and the Spanish missionaries prohibited traditional social activities.

The Gold Rush brought further disease to the native inhabitants, and by the 1850s, nearly all of the Ohlone had adapted in some way or another to economies based on cash income. Hunting and

gathering activities continued to decline and were rapidly replaced with economies based on ranching and farming.

Historic Era

Spanish and Mexican Exploration and Settlement

Spanish exploration into the Central Valley dates back to the late 1700s, and Spanish mission records indicate that local Native American inhabitants were being taken to Mission San Jose until secularization of the missions in 1833. Many Native Americans were not willing converts, and there were numerous accounts of neophytes fleeing the missions and a series of "Indian Wars" broke out when the Spanish tried to return them to the missions. During this period, Native American populations were declining rapidly from an influx of Euro-American diseases. In 1832, a party of trappers from the Hudson's Bay Company, led by John Work, traveled down the Sacramento River unintentionally spreading a malaria epidemic to Native Californians.

The Mexican revolt against Spain in 1822 and the secularization of the missions in 1834 changed land ownership patterns in California. The Spanish philosophy of government was directed at the founding of presidios, missions, and secular towns with the land held by the Crown, whereas the later Mexican policy stressed individual ownership of the land. Following Mexico's independence from Spain in 1822, the vast mission lands were granted to private citizens. The last of the mission land holdings were relinquished in 1845, which led the way for the large ranchos common to California in the mid-1800s.

Mission San Jose was one of the most prosperous missions in California because of its fertile land, excellent water supply, large numbers of Native American laborers, and its proximity to San Francisco Bay. In 1824, when a map was drawn of the Mission San Jose territory, it included the San Ramon Valley, which at that time was called "Yngerto Canada," its original Spanish name.

During the Mexican Period, vast tracts of land, including former Mission lands that had reverted to public domain, were granted to individuals. The San Ramon Valley contained three large ranchos: San Ramon (Amador), 16,517 acres; San Ramon (Carpentier), 8,917 acres; and San Ramon (Norris), 4,451 acres. The project site is within the San Ramon (Norris) rancho.

American Period

Following the end of the Mexican-American War in 1847 and the ratification of the Treaty of Guadalupe in Hidalgo in 1848, California became a United States territory. California was formally admitted into the Union in 1850. Contra Costa County was one of the original 27 counties created at the time of statehood by the California legislature and included portions of present-day Alameda and Santa Clara counties. The county was originally named Mt. Diablo County, but the name was changed prior to incorporation to Contra Costa (Spanish for "opposite coast"), reflecting its geographical relationship to San Francisco.

The Gold Rush of 1848 brought a massive influx of immigrants to California from all parts of the world. California's 1848 population of less than 14,000 (exclusive of Native Americans) increased to 224,000 in four years. With the beginning of the American period, the population explosion resulting from the Gold Rush created a market for a wide range of agricultural products. As more and more gold seekers became discouraged with mining, they turned to farming as a livelihood. Farmers started to raise crops and livestock for sale, not just to be self-sufficient.

The population of Contra Costa County increased rapidly during the Gold Rush and, later, by the completion of Western Pacific Railroad between Stockton and Niles Junction in 1869 and the Santa Fe Railroad between Stockton and Richmond in 1896. The great rancheros of the Spanish period were divided and sold for agricultural uses, and intensively irrigated farming was made possible in some areas of the County by the development of canals that brought water from the eastern portions of the County to the central portions. Other areas, such as nearby Livermore Valley, used the more limited water available from local creeks and wells. Orchards dominated where abundant water was available, while seasonally dry areas were used for dry farming and cattle ranching. Walnuts were an especially attractive orchard crop in central portions of the County, with farmers using thin-shelled English walnut branches grafted to hardy and disease-resistant American walnut rootstock.

The first settlers to the San Ramon area were Leo and Mary Norris, who purchased 4,450 acres of land in 1850. Other early settlers included names that are recognizable from local street names and landmarks, such as Crow, Bollinger, and Glass. The first village was developed on the site of the present-day Outpost Bar and Grill at the intersection of Deerwood Road and San Ramon Valley Boulevard. San Ramon was known by a series of names in the nineteenth century: Brevensville, for a local blacksmith; Lynchville, for the early settler William Lynch; and Limerick, for the numerous Irish immigrants.

The Southern Pacific Railroad arrived in the San Ramon Valley in the 1890s. Dubbed the San Ramon Branch Line, the single-track line originally extended from a junction with the Oakland-Stockton main line near Martinez south to San Ramon, a distance of approximately 20 miles. Service commenced in June 1891. In 1909, the southern terminus of the San Ramon Branch Line was extended south to a junction with the Lathrop-Niles Junction main line near Pleasanton. San Ramon was served with a station, known as San Ramon Siding, near the present-day Iron Horse Trail crossing at Crow Canyon Road. By the mid-1970s, traffic on the line had dwindled to 125 carloads annually and the Southern Pacific Railroad petitioned the Interstate Commerce Commission to abandon the branch line. The line was formally abandoned in 1978 and the counties of Alameda and Contra Costa acquired ownership of the right-of-way within their respective jurisdictions. The Iron Horse Trail, an approximately 30-mile Class I bicycle/pedestrian trail, follows the alignment of the San Ramon Branch Line from Pleasanton to Concord.

Twentieth Century

The San Ramon Valley remained primarily an agricultural area up through the early 1960s. Following the completion of Interstate 680 (I-680) through the San Ramon Valley in the mid-1960s, the San Ramon area experienced rapid growth. The first residential subdivisions were developed in South San Ramon (also known as San Ramon Village) and Twin Creeks. In the early 1980s, Sunset Development began developing the Bishop Ranch Business Park. The most notable facilities in the Bishop Ranch Business Park are Chevron Park and the AT&T campus (formerly known as the Pacific Bell campus), both of which opened in the mid-1980s. Sunset Development continued to develop the Bishop Ranch Business Park through the 1980s and 1990s, and the newest complex, Bishop Ranch 1, opened in 2001.

With growth came the desire for greater control over land use and development. In March 1983, the City electorate voted to incorporate and the City of San Ramon came into existence on July 1 of that year. Since incorporation, the City has expanded its limits west to include the Westside area and portions of Norris Canyon; north to include the Crow Canyon area; northwest to include the Northwest Specific Plan; and east to include the Canyon Lakes, Dougherty Hills, and Dougherty Valley.

Historic Resources

The Specific Plan boundaries do not contain any resources that are listed on a national, state, or local historic register.

3.4.3 - Regulatory Framework

Federal

National Historic Preservation Act

The National Historic Preservation Act of 1966 (NHPA), as amended, established the National Register of Historic Places (NRHP), which contains an inventory of the nation's significant prehistoric and historic properties. Under 36 CFR 60, a property is recommended for possible inclusion on the NRHP if it is at least 50 years old, has integrity, and meets one of the following criteria:

- It is associated with significant events in history, or broad patterns of events.
- It is associated with significant people in the past.
- It embodies the distinctive characteristics of an architectural type, period, or method of construction; or it is the work of a master or possesses high artistic value; or it represents a significant and distinguishable entity whose components may lack individual distinction.
- It has yielded, or may yield, information important in history or prehistory.

Certain types of properties are usually excluded from consideration for listing in the NRHP, but they can be considered if they meet special requirements in addition to meeting the criteria listed above. Such properties include religious sites, relocated properties, graves and cemeteries, reconstructed properties, commemorative properties, and properties that have achieved significance within the past 50 years.

State

California Register of Historical Resources

As defined by Section 15064.5(a)(3)(A-D) of the CEQA Guidelines, a resource shall be considered historically significant if the resource meets the criteria for listing on the California Register of Historical Resources (CR). The California Register of Historical Resources and many local preservation ordinances have employed the criteria for eligibility to the NRHP as a model, since the NHPA provides the highest standard for evaluating the significance of historic resources. A resource that meets the NRHP criteria is clearly significant. In addition, a resource that does not meet the NRHP standards may still be considered historically significant at a local or state level.

California Environmental Quality Act

The CEQA Guidelines state that a resource need not be listed on any register to be found historically significant. The CEQA guidelines direct lead agencies to evaluate archaeological sites to determine if they meet the criteria for listing in the California Register. If an archaeological site is a historical resource, in that it is listed or eligible for listing in the California Register, potential adverse impacts to it must be considered. If an archaeological site is considered not to be an historical resource but meets the definition of a "unique archeological resource" as defined in Public Resources Code Section 21083.2, then it would be treated in accordance with the provisions of that section.

Local

City of San Ramon

General Plan 2030

General Plan 2030 establishes the following guiding and implementing policies related to cultural resources that are applicable to the proposed project:

- **Guiding Policy 8.7-G-1:** Identify, evaluate, and preserve the archaeological, paleontological, and historic resources that are found within the San Ramon Planning Area.
- **Implementing Policy 8.7-I-1:** Require that new development evaluate potential impacts to historic, archaeological, and paleontological resources and, if necessary, implement appropriate mitigation measures to protect the resources.
- **Implementing Policy 8.7-I-2:** Protect and maintain the integrity of officially listed historic resources.
- **Implementing Policy 8.7-I-3:** Closely review any proposals to nominate local resources for eligibility for listing on national or state historic registers.

- **Implementing Policy 8.7-I-4:** As a standard condition of approval, require all development projects involving grading and excavation to implement appropriate measures in the event that burial sites or human remains are encountered during earthwork activities.
- **Implementing Policy 8.7-I-5:** For projects involving a General Plan Amendment, the development of a Specific Plan (or amendment), or designating open space, provide for tribal consultation opportunities in accordance with state law.

3.4.4 - Methodology

Michael Brandman Associates evaluated potential impacts on cultural resources through review of the City of San Ramon General Plan 2030, federal and state historic registers, aerial photographs, and local historical documents.

3.4.5 - Thresholds of Significance

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, cultural resources impacts resulting from the implementation of the proposed project would be considered significant if the project would:

a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

d) Disturb any human remains, including those interred outside of formal cemeteries?

3.4.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the project and provides mitigation measures where appropriate.

Historic Resources

Impact CUL-1:	**Development and land use activities contemplated by the Specific Plan may have the potential to damage or destroy previously undiscovered historic resources.**

Impact Analysis

The Specific Plan boundaries do not contain any resources that are listed on a national, state, or local historic register. The nearest officially listed historic resources are associated with Forest Hill Farms, located more than 1 mile from the Specific Plan boundaries.

From a historic resources perspective, the land uses of most concern are those that contain structures that are at least 50 years old. Based on review of historic aerial photographs dating back to the 1940s,

the only land use within the Specific Plan boundaries that would meet this age criterion is the former Aerojet General facility, located east of Camino Ramon and north of Crow Canyon Road. The Aerojet General facility began operations in 1957, and aerial photographs indicate that substantial changes occurred to the site between the 1950s and the 1980s (such as demolition and new construction). Several structures associated with the former Aerojet General facility are still in use, including part of the San Ramon Valley Unified School District maintenance facility, and appear to have been substantially modified over the years. Generally, these structures are characterized as non-descript industrial buildings, lacking in any unique or significant architectural details. Based the previously mentioned characteristics, it would not be expected that these structures would meet federal or state criteria for historic eligibility. All other existing buildings within the Specific Plan boundaries were developed after the mid 1970s and, therefore, would not be old enough to be considered potentially historic resources.

Subsurface construction activities associated with development within the plan boundaries, such as trenching and grading, could potentially damage or destroy previously undiscovered historic resources. Accordingly, this is a potentially significant impact. Mitigation is proposed to reduce this potentially significant impact to a level of less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM CUL-1 If a potentially significant prehistoric or historic resource is encountered during subsurface activities, all construction within a 100-foot radius of the find shall cease until a qualified archaeologist determines whether the resource requires further study. The project applicant shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. Any previously undiscovered resources found during construction shall be recorded on appropriate California Department of Parks and Recreation (DPR) forms and evaluated for significance in terms of California Environmental Quality Act criteria by a qualified archaeologist. Potentially significant cultural resources consist of, but are not limited to, glass, ceramics, stone, bone, wood, and shell artifacts or features, including hearths, structural remains, or historic dumpsites. If the resource is determined to be significant under CEQA, a qualified archaeologist shall prepare and implement a research design and archaeological data recovery plan, if necessary. The archaeologist shall also perform appropriate technical analyses, prepare a full written report and file it with the appropriate information center, and provide for permanent curation of the recovered resources.

Level of Significance After Mitigation

Less than significant impact.

Prehistoric Resources

Impact CUL-2:	**Development and land use activities contemplated by the Specific Plan could potentially damage or destroy previously undiscovered prehistoric resources.**

Impact Analysis

The Specific Plan area contains mostly urban, built-up land uses. These properties were previously graded and soil engineered to support urban development; any prehistoric resources that may have been present have likely already been removed. Nonetheless, subsurface excavation beyond existing engineered soils could potentially damage or destroy previously unknown archeological resources. This is a potentially significant impact. Mitigation is proposed to reduce this potentially significant impact to level of less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Implement Mitigation Measure CUL-1.

Level of Significance After Mitigation

Less than significant impact.

Paleontological Resources

Impact CUL-3:	**Development and land use activities contemplated by the Specific Plan could potentially damage or destroy previously undiscovered paleontological resources.**

Impact Analysis

The Specific Plan boundaries contain mostly urban, built-up land uses. These properties were previously graded and soil engineered to support urban development; any fossils that may have been present have likely already been removed. Nonetheless, subsurface excavation beyond previously disturbed soils could potentially damage or destroy previously undiscovered paleontological resources. This is a potentially significant impact. Mitigation is proposed to reduce this potentially significant impact to a level of less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM CUL-3 Prior to initiation of deep excavation procedures at depths greater than 10 feet, a qualified paleontological monitor will be retained to conduct an onsite monitoring program to ensure protection of previously unknown paleontological specimens. In the event a fossil is discovered during construction of the proposed project when the paleontological monitor is not present, excavation within 100 feet of the find shall be temporarily halted until the discovery is examined by a qualified paleontologist, in accordance with Society of Vertebrate Paleontology standards. The project applicant

shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. The paleontologist shall notify the City and project applicant of the procedures that must be followed before construction is allowed to resume at the location of the find. If the find is determined to be significant and the City determines that avoidance is not feasible, the paleontologist shall design and carry out a data recovery plan consistent with the Society of Vertebrate Paleontology standards. The plan shall be submitted to the City for review and approval. Upon approval, the plan shall be incorporated into the project.

Level of Significance After Mitigation

Less than significant impact.

Burial Sites

Impact CUL-4:	**Development and land use activities contemplated by the Specific Plan could potentially damage or destroy previously undiscovered burial sites.**

Impact Analysis

The Specific Plan boundaries contain mostly urban, built-up land uses. These properties were graded and soil engineered to support urban development; therefore, any burial sites that may have been present have already been removed. Nonetheless, subsurface excavation beyond previously disturbed soils could potentially damage or destroy previously undiscovered burial sites. This is a potentially significant impact. Mitigation is proposed to reduce this potentially significant impact to a level of less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM CUL-4 If human remains are encountered during earth-disturbing activities, all work within 100 feet of the find shall stop immediately and the Contra Costa County Coroner's office shall be notified. If the Coroner determines the remains are Native American in origin, the Native American Heritage Commission will be notified and, in turn, will notify the person determined to be the Most Likely Descendent. The Most Likely Descendent will provide recommendations for treatment of the remains (CEQA Guidelines Section 15064.5; Health and Safety Code Section 7050.5; Public Resources Code Sections 5097.94 and 5097.98).

Level of Significance After Mitigation

Less than significant impact.

3.5 - Geology, Soils, and Seismicity

3.5.1 - Introduction

This section describes the existing geology, soils, and seismicity setting and potential effects from implementation of the Specific Plan on the Specific Plan area and its surroundings. Descriptions and analysis in this section are based information included in the City of San Ramon General Plan 2030.

3.5.2 - Environmental Setting

Regional Setting

The Specific Plan area is located within the San Ramon Valley, a portion of the California Coast Range geomorphic province. In general, the geologic structure and topography of the San Ramon Valley are characteristic of the San Francisco Bay Area. The region is generally defined by northwest-trending ridges and valleys that are generally parallel to the surrounding geologic structures, including the major fault systems. San Ramon Valley fill includes quaternary-aged alluvium up to approximately 300 feet in thickness. The valley is drained by both North and South San Ramon creeks that are actively cutting into the alluvial surface soils.

The San Ramon Valley is surrounded by the East Bay Hills. The hills were formed from younger rocks, uplifted between the Hayward and Calaveras fault zones. The San Ramon area is underlain by Tertiary (approximately 2 million to 62 million years ago) marine and non-marine sedimentary rocks. Sandstone bedrock crops out locally on ridge crests and underlies upper hill slopes at shallow depths.

Seismicity

The term seismicity refers to the location, frequency, magnitude, and other characteristics of earthquakes. To understand the implications of seismic events, a discussion of faulting and seismic hazards is provided below.

Faulting

Faults form in rocks when stresses overcome the internal strength of the rock, resulting in a fracture. Large faults develop in response to large regional stresses operating over a long time, such as those stresses caused by the relative displacement between tectonic plates. According to the elastic rebound theory, these stresses build up in the earth's crust until enough stress has built up to exceed the strength along a fault and cause a brittle failure. The rapid slip between the two stuck plates or coherent blocks generates an earthquake. Following an earthquake, stress will build once again until the occurrence of another earthquake. The magnitude of slip is related to the maximum allowable stress that can be built up along a particular fault segment. The greatest buildup in stress due to the largest relative motion between tectonic plates or fault blocks over the longest period will generally produce the largest earthquakes. The distribution of these earthquakes is a study of much interest for both hazard prediction and the study of active deformation of the earth's crust. Deformation is a complex process and strain caused by tectonic forces is not only accommodated through faulting, but also by folding, uplift, and subsidence, which can be gradual or in direct response to earthquakes.

Faults are mapped to determine earthquake hazards, since they occur where earthquakes tend to recur. A historic plane of weakness is more likely to fail under stress than a previously unbroken block of crust. Faults are, therefore, a prime indicator of past seismic activity, and faults with recent activity are presumed to be the best candidates for future earthquakes. However, since slip is not always accommodated by faults that intersect the surface along traces, and since the orientation of stress and strain in the crust can shift, predicting the location of future earthquakes is complicated. Earthquakes sometimes occur in areas with previously undetected faults or along faults previously thought inactive.

Local Faulting

There are several active faults in the immediate and surrounding areas that could affect the San Ramon area, including the Specific Plan area. The major active fault nearest to the Specific Plan area is the Calaveras Fault, which lies parallel to and just west of San Ramon Valley Boulevard, less than 0.5 mile west of the plan's western boundary paralleling the west side of I-680. The Calaveras Fault is a strike-slip fault with an estimated maximum credible earthquake magnitude of 7.5. An Alquist-Priolo Fault Hazard Zone is designated along the main thrust of the Calaveras Fault. The General Plan 2020 indicates that a splay of the Calaveras Fault extends into the western edge of Specific Plan boundaries near the Crow Canyon Road interchange; however, this feature is not overlain with an Alquist-Priolo Fault Hazard Zone designation. Note that the General Plan 2030 no longer includes this fault splay on Figure 9-1, Geotechnical Hazards map.

The California Legislature has established an Alquist-Priolo Earthquake Fault Zone along the Calaveras Fault, requiring detailed studies of rupture hazards prior to construction. The seismic activity, along with the approximate distance and direction of all known mapped active faults with the potential to affect San Ramon, is summarized in Table 3.5-1.

Table 3.5-1: Fault Summary

Fault/Fault Zone	Distance from Planning Area (miles)	Relationship to Project Site	Slip Rate (inches/year)	Maximum Moment Magnitude
Calaveras	0	Southwest	0.24	6.8
Concord-Green Valley	8	North	0.24	6.9
Hayward	9	Southwest	0.35	7.1
Greenville	10	Northeast	0.08	6.9
Great Valley	16	Northeast	0.06	6.7
San Andreas	27	Southwest	0.94	7.9
Monte Vista – Shannon	28	Southwest	0.02	6.5
Rodgers Creek	30	Northwest	0.35	7.0

Table 3.5-1 (cont.): Fault Summary

Fault/Fault Zone	Distance from Planning Area (miles)	Relationship to Project Site	Slip Rate (inches/year)	Maximum Moment Magnitude
San Gregorio	33	Southwest	0.20	7.3
West Napa	41	Northwest	0.04	6.5
Sargent	44	South	0.12	6.8
Ortigalita	49	Southeast	0.04	6.9
Point Reyes	59	Northwest	0.01	6.8
Source: MACTEC Engineering and Consulting, Inc., 2007.				

Seismic Hazards

Seismic hazards pose a substantial danger to property and human safety and are present because of the risk of naturally occurring geologic events and processes affecting human development. Therefore, the hazard risk is equally influenced by the condition and location of human development as by the frequency and distribution of major geologic events. Seismic hazards present in California include ground rupture along faults, strong seismic shaking, liquefaction, ground failure, and slope failure.

Fault Rupture

Fault rupture is a seismic hazard that affects structures sited above an active fault. The hazard from fault rupture is the movement of the ground surface along a fault during an earthquake. Typically, this movement takes place during the short time of an earthquake, but can also occur slowly over many years in a process known as creep. Most structures and underground utilities cannot accommodate the surface displacements of several inches to several feet commonly associated with fault rupture or creep.

Ground Shaking

The severity of ground shaking depends on several variables such as earthquake magnitude, epicenter distance, local geology, thickness, and seismic wave-propagation properties of unconsolidated materials, groundwater conditions, and topographic setting. Ground shaking hazards are most pronounced in areas near faults or with unconsolidated alluvium.

The most common type of damage from ground shaking is structural damage to buildings, which can range from cosmetic cracks to total collapse. The overall level of structural damage from a nearby large earthquake would likely be moderate to heavy, depending on the characteristics of the earthquake, the type of ground, and the condition of the building. Besides damage to buildings, strong ground shaking can cause severe damage from falling objects or broken utility lines. Fire and explosions are also hazards associated with strong ground shaking.

While Richter magnitude provides a useful measure of comparison between earthquakes, the moment magnitude is more widely used for scientific comparison, since it accounts for the actual energy released by the earthquake. Actual damage is due to the propagation of seismic or ground waves as a result of the earthquake, and the intensity of shaking is related to earthquake magnitude and distance as well as to the condition of underlying materials. Loose and soft materials tend to amplify long period vibrations, while hard rock can quickly attenuate them, causing little damage to overlying structures. For this reason, the Modified Mercalli Intensity (MMI) Scale provides a useful qualitative assessment of ground shaking. The MMI Scale is a 12-point scale of earthquake intensity based on local effects experienced by people, structures, and earth materials. Each succeeding step on the scale describes a progressively greater amount of damage at a given point of observation. Figure 9-1 of the General Plan indicates that the Specific Plan area is subject to Modified Mercalli Intensity (MMI) scale shaking of VII, which is categorized as "very strong." MMI VIII shaking corresponds to collapse of poorly designed buildings and considerable damage to ordinary buildings.

The MMI Scale is shown in Table 3.5-2 along with relative ground velocity and acceleration.

Table 3.5-2: Modified Mercalli Intensity Scale

Richter Magnitude	Modified Mercalli Intensity	Effects	Average Peak Ground Velocity (centimeters/ seconds)	Average Peak Acceleration
0.1–0.9	I	Not felt. Marginal and long-period effects of large earthquakes	—	—
1.0–2.9	II	Felt by only a few persons at rest, especially on upper floors of building. Delicately suspended objects may swing.	—	—
3.0–3.9	III	Felt quite noticeably indoors, especially on upper floors of building, but many people do not recognize it as an earthquake. Standing cars may rock slightly. Vibration like passing a truck.	—	0.0035–0.007 g
4.0–4.5	IV	During the day, felt indoors by many, outdoors by few. At night, some awakened. Dishes, windows, doors disturbed; walls make creaking sound. Sensations like heavy truck striking building. Standing cars rocked noticeably.	1–3	0.015–0.035 g
4.6–4.9	V	Felt by nearly everyone, many awakened. Some dishes, windows, broken; cracked plaster in a few places; unstable objects overturned. Disturbances of trees, poles, and other tall objects sometimes noticed. Pendulum clocks may stop.	3–7	0.035–0.07 g

Table 3.5-2 (cont.): Modified Mercalli Intensity Scale

Richter Magnitude	Modified Mercalli Intensity	Effects	Average Peak Ground Velocity (centimeters/ seconds)	Average Peak Acceleration
5.0–5.5	VI	Felt by all, many frightened and run outdoors. Some heavy furniture moved; a few instances of falling plaster and damaged chimneys. Damage slight.	7–20	0.07–0.15 g
5.6–6.4	VII	Everyone runs outdoors. Damage negligible in buildings of good design and construction; slight to moderate in well built, ordinary structures; considerable in poorly built or badly designed structures; some chimneys broken. Noticed by persons driving cars.	20–60	0.15–0.35 g
6.5–6.9	VIII	Damage slight in specially designed structures; considerable in ordinary substantial buildings with partial collapse; great in poorly built structures. Panel walls thrown out of frame structures. Fall of chimneys, factory stacks, columns, monument walls, and heavy furniture overturned. Sand and mud ejected in small amounts. Changes in well water. Persons driving in cars disturbed.	60–200	0.35–0.7 g
7.0–7.4	IX	Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb; great in substantial buildings, with partial collapse. Buildings shifted off foundations. Ground cracked conspicuously. Underground pipes broken.	200–500	0.7–1.2 g
7.5–7.9	X	Some well-built structures destroyed; most masonry and frame structures destroyed with foundations; ground badly cracked. Railway lines bent. Landslides considerable from riverbanks and steep slopes. Shifted sand and mud. Water splashed, slopped over banks.	≥ 500	>1.2 g
8.0–8.4	XI	Few, if any masonry structures remain standing. Bridges destroyed. Broad fissures in ground. Underground pipelines completely out of service. Earth slumps and land slips in soft ground. Rails bent greatly.	—	—
≥ 8.5	XII	Total damage. Waves seen on ground. Lines of sight and level distorted. Objects thrown into the air.	—	—

Source: United States Geologic Survey.

Ground Failure

Ground failure includes liquefaction and the liquefaction-induced phenomena of lateral spreading, and lurching.

Liquefaction is a process by which sediments below the water table temporarily lose strength during an earthquake and behave as a viscous liquid rather than a solid. Liquefaction is restricted to certain geologic and hydrologic environments, primarily recently deposited sand and silt in areas with high groundwater levels. The process of liquefaction involves seismic waves passing through saturated granular layers, distorting the granular structure, and causing the soil to densify.

Liquefaction can cause the soil beneath a structure to lose strength, which may result in the loss of foundation-bearing capacity and which could cause a structure to settle or tip. Liquefaction can also result in the settlement of large areas because of the densification of the liquefied deposit. Where structures are located within liquefied deposits, the liquefaction can result in the structure to rise as a result of buoyancy. The United States Geological Survey identifies the Specific Plan area as having a moderate potential for liquefaction susceptibility.

Lateral spreading is lateral ground movement, with some vertical component, as a result of liquefaction. In effect, the soil rides on top of the liquefied layer. Lateral spreading can occur on relatively flat sites with slopes less than 2 percent, under certain circumstances, and can cause ground cracking and settlement.

Lurching is the movement of the ground surface toward an open face when the soil liquefies. An open face could be a graded slope, stream bank, canal face, gully, or other similar feature.

Landslides and Slope Failure

Landslides and other forms of slope failure form in response to the long-term geologic cycle of uplift, mass wasting, and disturbance of slopes. Mass wasting refers to a variety of erosional processes from gradual downhill soil creep to mudslides, debris flows, landslides, and rock fall. These processes are commonly triggered by intense precipitation. Seismic activity can also trigger landslides and rockfalls.

Often, various forms of mass wasting are grouped together as landslides, which are generally used to describe the downhill movement of rock and soil. Geologists classify landslides into several different types that reflect differences in the type of material and type of movement. The four most common types of landslides are translational, rotational, earth flow, and rock fall. Debris flows and earth flows are another type of landslide that are characterized by soil and rock particles in suspension with water and which often move with considerable speed. Debris flows often refer to flows that contain coarser soil and rock materials while earth flows frequently refer to slides that are predominantly finer materials. Mudslide is a term that appears in non-technical literature to describe a variety of shallow, rapidly moving earth flows.

As indicated by the San Ramon General Plan, the majority of the Specific Plan area is not susceptible to landslides with the exception of minor areas adjacent to Alcosta Boulevard in the northeastern portion of the plan area where landslide density and surficial deposits are designated as "few landslides."

Soils

The United States Department of Agriculture, Natural Resources Conservation Service indicates that the Specific Plan boundaries contain four soil types: Botella Clay Loam, Clear Lake Clay, Conejo Clay Loam, and Diablo Clay. Each soil is summarized in Table 3.5-3. Generally, all four soils exhibit shrink-swell characteristics consistent with expansive soils.

Table 3.5-3: Soil Properties Summary

Soil	Soil Surface Texture	Infiltration Rate	Percent of Clay
Botella Clay Loam	Clay Loam	Moderate	32.5
Clear Lake Clay	Clay	Very Slow	48.7
Conejo Clay Loam	Clay Loam	Slow	31.0
Diablo Clay	Clay	Moderately High	45.0

Note:
Data obtained from the online Web Soil Survey: http://websoilsurvey.nrcs.usda.gov.
Source: Natural Resources Conservation Service, 2009.

Subsurface Soil Conditions

Most of the properties within the Specific Plan boundaries are developed and, therefore, have been previously graded and soil engineered. Fill would be expected to be encountered at depths of less than 10 feet below ground surface within most properties.

3.5.3 - Regulatory Framework

State

California Building Standards Code

The California Building Standards Code establishes building requirements for construction and renovation. The most recent version of the California Building Standards Code was adopted in 2010 by the California Building Standards Commission and took effect January 1, 2011, and it is based on the International Code Council's Building and Fire Codes. Included in the California Building Standards Code are the Electrical Code, Mechanical Code, Plumbing Code, Energy Code, and Fire Code.

The State of California provides minimum standards for building design through the California Building Standards Code (California Code of Regulations, Title 24). Where no other building codes apply, Chapter 29 regulates excavation, foundations, and retaining walls. Finally, the 2010 California Building Standards Code regulates grading activities, including drainage and erosion control and construction on unstable soils, such as expansive soils and areas subject to liquefaction.

California Seismic Hazards Mapping Act

The California Seismic Hazards Mapping Act of 1990 (California Public Resources Code Section 1690-2699.6) addresses seismic hazards other than surface rupture, such as liquefaction and induced landslides. The Seismic Hazards Mapping Act specifies that the lead agency for a project may withhold development permits until geologic or soils investigations are conducted for specific sites and mitigation measures are incorporated into plans to reduce hazards associated with seismicity and unstable soils.

Alquist-Priolo Earthquake Fault Zoning Act

In response to the severe fault rupture damage of structures by the 1971 San Fernando earthquake, the State of California enacted the Alquist-Priolo Earthquake Fault Zoning Act in 1972. This act required the State Geologist to delineate Earthquake Fault Zones along known active faults that have a relatively high potential for ground rupture. Faults that are zoned under the Alquist-Priolo Act must meet the strict definition of being "sufficiently active" and "well-defined" for inclusion as an Earthquake Fault Zones. The Earthquake Fault Zones are revised periodically, and they extend 200 to 500 feet on either side of identified fault traces. No structures for human occupancy may be built across an identified active fault trace. An area of 50 feet on either side of an active fault trace is assumed to be underlain by the fault, unless proven otherwise. Proposed construction in an Earthquake Fault Zone is permitted only following the completion of a fault location report prepared by a California Registered Geologist.

Local

General Plan 2030

The General Plan 2030 sets forth the following guiding and implementing policies that are relevant to geology, soils, and seismicity:

- **Implementing Policy 8.3-I-10:** Promote maintenance and protection of waterways through the use of Geologic Hazard Abatement District(s), conservation easements, endowments, special assessments, or other appropriate mechanisms.
- **Implementing Policy 8.3-I-16:** Develop and adopt slope methodology standards to implement the resource management policies.
- **Implementing Policy 8.4-I-10:** Continue planning and managing ridgelines, agricultural lands, and open space acquired by the City or other Open Space areas through the Geologic Hazard Abatement District(s) and the Dougherty Valley Open Space Management Plan.
- **Implementing Policy 9.1-I-1:** Maintain and update the City's Emergency Operations Plan, as required by State and Federal laws, to minimize the risk to life and property of seismic and geologic hazards, hazardous materials and waste, and fire.
- **Guiding Policy 9.2-G-1:** Minimize risks of personal injury and property damage posed by geologic and seismic hazards.
- **Implementing Policy 9.2-I-1:** Review proposed development sites during the planning process to identify and mitigate any potential geologic or seismic hazards.

- **Implementing Policy 9.2-I-2:** Require the preparation of a fault investigation study to identify appropriate setbacks for any proposed structure intended for human occupancy within 50 feet of an active fault trace.
- **Implementing Policy 9.2-I-3:** Where appropriate, require an independent registered engineering geologist or geotechnical engineer to review geotechnical reports submitted by applicants on sites in seismically hazardous areas.
- **Implementing Policy 9.2-I-4:** Require comprehensive geologic and engineering studies of critical structures regardless of location.
- **Implementing Policy 9.2-I-5:** Require geotechnical field review during the construction phase of any new development as determined by the City Engineer.
- **Implementing Policy 9.2-I-6:** Require preparation of a soils report as part of the development review and/or building permit process.
- **Implementing Policy 9.2-I-7:** Limit cut-and-fill slopes to 3:1 (33 percent slope) except where an engineering geologist or geotechnical engineer can establish to the satisfaction of the City Engineer that a steeper slope would not pose undue risk to people and property.
- **Implementing Policy 9.2-I-8:** Blend cut-and-fill slopes with existing contours to avoid the appearance of artificial slopes.
- **Implementing Policy 9.2-I-9:** Provide information and establish incentives for property owners to rehabilitate existing buildings using construction techniques to protect against seismic hazards.
- **Implementing Policy 9.2-I-10:** Control erosion of graded areas with revegetation or other acceptable methods.
- **Implementing Policy 9.2-I-12:** Encourage continued investigation by State agencies of geologic conditions within the City's Planning Area to promote public awareness of potential geologic and seismic hazards.
- **Implementing Policy 9.2-I-13:** Review and update, as appropriate, City Code requirements for excavation, grading and filling to ensure that they conform to currently accepted standards.

San Ramon Municipal Code

The San Ramon Municipal Code Division C7 establishes requirements related to grading and erosion control. The division sets forth rules and regulations to control excavation, grading, and earthwork construction, including fills and embankments, and establishes administrative requirements for issuance of permits and approval of plans and inspection of grading construction in accordance with the requirements for grading and excavation. All projects within the City limits involving earthwork activities must obtain a grading permit and adhere to the requirements stipulated in the Municipal Code.

3.5.4 - Methodology

Michael Brandman Associates evaluated potential impacts on geology, soils, and seismicity through review of the City of San Ramon General Plan 2030, seismic hazard mapping, and the Natural Resources Conservation Service Web Soil Survey.

3.5.5 - Thresholds of Significance

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, geology, soils, and seismicity impacts resulting from the implementation of the proposed project would be considered significant if the project would:

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.

   ii. Strong seismic ground shaking?

   iii. Seismic-related ground failure, including liquefaction?

   iv. 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?

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?

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? (Refer to Section 7, Effects Found Not To Be Significant.)

3.5.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the project and provides mitigation measures where appropriate.

Seismic Hazards

Impact GEO-1:	**Development and land use activities contemplated by the Specific Plan may expose people or structures to potential substantial adverse effects associated with seismic hazards.**

Impact Analysis

The Specific Plan area is located in an area of high seismicity, as is all of the San Francisco Bay Area. Potential seismic hazards include fault rupture, strong ground shaking, and seismic-related ground failure or liquefaction. Each is discussed separately.

Fault Rupture

The Specific Plan area does not contain an Alquist-Priolo Earthquake Fault Zone. However, an Alquist-Priolo Earthquake Fault Zone associated with the Calaveras Fault is present less than 0.5 mile to the west of the Specific Plan boundary. In addition, a splay of the Calaveras Fault may extend into the western edge of the Specific Plan boundaries near the Crow Canyon Road interchange; however, this feature is not assigned an Alquist-Priolo Fault Hazard Zone designation. Nonetheless, further investigation of fault rupture may be warranted for properties located near I-680. Mitigation GEO-1a is proposed that would require development within 500 feet of I-680 to prepare a fault investigation study to determine the location of the splay and, if warranted, identify appropriate setbacks pursuant to the Alquist-Priolo Earthquake Fault Zoning Act. This measure provides certainty that the development within the Specific Plan area would not be at risk from fault rupture.

Seismic Ground Shaking

A major seismic event on one of the faults listed in Table 3.5-1 may result in strong ground shaking within the Specific Plan area. To reduce the potential for exposure of persons and property to harm, development within the plan boundaries would be required to meet the applicable seismic design standards of the California Building Standards Code. These design standards are intended primarily to protect public safety and secondly to minimize property damage. Compliance with the seismic design standards of the California Building Standards Code and implementation of GEO-1b would ensure that potential impacts are less than significant.

Seismic-Related Ground Failure

The United States Geological Survey identifies the Specific Plan area as having a moderate potential for liquefaction susceptibility. However, development within the plan boundaries would comply with all applicable California Building Standards Code seismic design standards. In addition, implementation of Mitigation Measure GEO-1b would require a design-level geotechnical study, which would include analysis of the potential for ground failure. Compliance with standards and mitigations would ensure that the proposed structures would not expose persons to seismic-related ground failure hazards including liquefaction. Impacts would be less than significant.

Landslides and Slope Failure

The Specific Plan area and immediate vicinity is generally characterized by flat relief with slopes of less than 5 percent. Some areas of moderate slope occur, specifically near the northeastern portion of the plan area; however, the most of these slopes are minor and have been engineered to ensure stability. This condition precludes the possibility of earthquake-induced landsliding occurring onsite. Impacts would be less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM GEO-1a Prior to issuance of building permits for new construction on any property within 500 feet of I-680, the project applicant shall retain a qualified geologist or geotechnical engineer to prepare a fault investigation study for the splay of the Calaveras Fault that may extend into the western portion of the Specific Plan boundaries. The study shall identify the location of the splay in relation to the property in question and, if warranted, identify appropriate building setbacks pursuant to the Alquist-Priolo Earthquake Fault Zoning Act. Any necessary setbacks shall be shown on building plans submitted to the City of San Ramon. The approved plans shall be incorporated into the proposed project. The fault investigation study may be performed as part of a design-level geotechnical study prepared pursuant to Mitigation Measure GEO-1b.

MM GEO-1b Prior to issuance of building permits for new construction on any property within the Specific Plan, the project applicant shall submit a design-level geotechnical study and building plans to the City of San Ramon for review and approval. The building plans shall demonstrate that they incorporate all applicable recommendations of the design-level geotechnical study and comply with all applicable requirements of the most recent version of the California Building Standards Code. A licensed professional engineer shall prepare the plans, including those that pertain to soil engineering and structural foundations. The approved plans shall be incorporated into the proposed project. All onsite soil engineering activities shall be conducted under the supervision of a licensed Geotechnical Engineer or Certified Engineering Geologist.

Level of Significance After Mitigation

Less than significant impact.

Erosion or Topsoil Loss

Impact GEO-2:	**Development and land use activities contemplated by the Specific Plan have the potential to result in soil erosion or the loss of topsoil.**

Impact Analysis

The development of land uses as envisioned in the Specific Plan would require grading and excavation. During these activities, there would be the potential for surface water to carry sediment from onsite erosion into the stormwater system and local waterways. Soil erosion may occur during construction in areas where temporary soil storage is required.

Construction activities associated with the development of land uses would involve vegetation removal, grading, and excavation activities that could expose barren soils to sources of wind or water, resulting in erosion and sedimentation on and off the project site. National Pollutant Discharge Elimination System (NPDES) Phase II stormwater permitting programs regulate stormwater quality from construction sites, which includes erosion and sedimentation. Under the NPDES permitting program, the preparation and implementation of Stormwater Pollution Prevention Programs (SWPPPs) are required for construction activities more than 1 acre in size. The SWPPP must identify potential sources of erosion or sedimentation that may be reasonably expected to affect the quality of stormwater discharges as well as identify and implement BMPs that ensure the reduction of these pollutants during stormwater discharges. Typical BMPs intended to control erosion include sand bags, detention basin, silt fencing, landscaping, hydroseeding, storm drain inlet protection, street sweeping, and monitoring of water bodies.

Prior to construction grading, the applicant must file a Notice of Intent to comply with the General NPDES Permit issued to the RWQCB and prepare the SWPPP, which addresses the measures that would be included in the project to minimize and control construction and post-construction runoff to the "maximum extent practicable." In addition, development within the Specific Plan area would be required to comply with the City Code requirements pertaining to grading and excavation.

Once completed, development projects within the Specific Plan area would be required to implement long-term pollution prevention measures.

The implementation of the above requirements (including the preparation and implementation of an SWPPP and compliance with City Code requirements) would reduce potential construction-related erosion impacts to a level of less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Implement Mitigation Measures HYD-1a and HYD-1b in Section 3.7, Hydrology and Water Quality.

Level of Significance After Mitigation

Less than significant impact.

Unstable Geologic Units or Soils

Impact GEO-3:	**Development and land use activities contemplated by the Specific Plan may expose persons or property to hazards associated with unstable geologic units or soils.**

Impact Analysis

As previously discussed, the Specific Plan area contains areas potentially susceptible to liquefaction and minor areas susceptible to landsliding as a result of underlying geologic conditions. Existing development within the Specific Plan area mitigated the potential for adverse impacts from unstable geologic units and soils through compliance with building code requirements, retaining walls, and landscaping.

Future development as envisioned in the Specific Plan would also be required to comply with building code requirements to mitigate and minimize liquefaction and landslide hazards. Furthermore, implementation of Mitigation Measure GEO-1b would require a geotechnical study to be completed, which would include preventative measures for liquefaction and landsliding. As such, impacts related to unstable geologic units or soils would be less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Implement Mitigation Measure GEO-1b.

Level of Significance After Mitigation

Less than significant impact.

Expansive Soils

Impact GEO-4:	**Development and land use activities contemplated by the Specific Plan may result in unacceptable risks associated with expansive soils.**

Impact Analysis

Expansive soils, also known as shrink-swell soils, refer to the potential of soil to expand when wet and contract when dry. The Specific Plan area contains four soil types, all of which exhibit shrink-swell characteristics consistent with expansive soils. Implementation of Mitigation Measure GEO-1b would determine the presence of expansive soils and indicate where further grading, excavation, and soil engineering should be performed. Implementation of mitigation would ensure impacts related to expansive soils would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

Implement Mitigation Measure GEO-1b.

Level of Significance After Mitigation

Less than significant impact.

3.6 - Hazards and Hazardous Materials

3.6.1 - Introduction

This section describes the existing hazards and hazardous materials setting and potential effects from the implementation of the Specific Plan on the Specific Plan area and its surroundings. Descriptions and analysis in this section are based on the City of San Ramon General Plan 2030 and a database search performed by Environmental Data Resources, Inc. included in this EIR as Appendix C.

3.6.2 - Environmental Setting

Hazardous Materials

Hazardous materials, as defined by the California Code of Regulations, are substances with certain physical properties that could pose a substantial present or future hazard to human health or the environment when improperly handled, disposed, or otherwise managed. Hazardous materials are grouped into the following four categories, based on their properties:

- Toxic – causes human health effects.
- Ignitable – has the ability to burn.
- Corrosive – causes severe burns or damage to materials.
- Reactive – causes explosions or generates toxic gases.

A hazardous waste is any hazardous material that is discarded, abandoned, or slated to be recycled. The criteria that define a material as hazardous also define a waste as hazardous. If improperly handled, hazardous materials and hazardous waste can result in public health hazards if released into the soil or groundwater or through airborne releases in vapors, fumes, or dust. Soil and groundwater having concentrations of hazardous constituents higher than specific regulatory levels must be handled and disposed of as hazardous waste when excavated or pumped from an aquifer. The California Code of Regulations, Title 22, Sections 66261.20-24 contains technical descriptions of toxic characteristics that could cause soil or groundwater to be classified as hazardous waste.

Record Search

Environmental Data Resources (EDR) conducted record searches in June 2009 of federal, state, and local databases associated with hazardous materials usage. The search yielded numerous records for properties within the Specific Plan boundaries. Many of the records reflected low-level or routine activities (e.g., a facility that is on file with the Contra Costa County Hazardous Waste Generator Program & Business Plan database). Table 3.6-1 summarizes selected sites that are notable in terms of hazardous materials activities or release events.

Table 3.6-1: Selected Hazardous Materials Sites

Source	Address	Database(s)	Remarks
Electro Test	3470 Fostoria Way	CERCLIS NFRAP, RCRA CORRACTS, RCRA non-CORRACTS TSD, LUST, RCRA-NonGen, HIST CORTESE	National Priorities List site; Corrective Action Site; leaking UST; case closed in 1997.
Toyota Motor Distributors	2451 Bishop Drive	RCRA-SQG, HIST UST, SWEEPS UST, CONTRA COSTA CO.	Small-quantity generator of hazardous wastes; USTs present onsite; no spills or leaks reported
Biogenex Laboratories	4600 Norris Canyon Road	RCRA-SQG, CONTRA COSTA CO.	Small-quantity generator of hazardous wastes; no spills or leaks reported
San Ramon Valley Imaging	3160 Crow Canyon Road	RCRA-SQG	Small-quantity generator of hazardous wastes; no spills or leaks reported
Shell Service Station (a.k.a. BP)	3048 Crow Canyon Road	RCRA-SQG, HIST UST, SWEEPS UST, CONTRA COSTA CO.	Small-quantity generator of hazardous wastes; leaking UST; case active
San Ramon Unified School District	3280 Crow Canyon Road	RCRA-SQG, LUST, AST, SWEEPS UST, HIST CORTESE, CONTRA COSTA CO.	Small-quantity generator of hazardous wastes; leaking UST; case closed in 2008
BPS Ramon	2230 Camino Ramon	RCRA-SQG	Small-quantity generator of hazardous wastes; no spills or leaks reported
Aerotest Operations	3455 Fostoria Way	RCRA-SQG	Small-quantity generator of hazardous wastes; no spills or leaks reported
Thornally Property	3333 Crow Canyon Road	LUST, HIST UST, SWEEPS UST, HIST CORTESE, CONTRA COSTA CO.	Leaking UST; case closed in 1993
Rhodes & Jamieson (former RMC cement plant site)	4700 Norris Canyon Road	LUST, SWEEPS UST, HIST CORTESE	Leaking UST; case closed in 1997
United Parcel Service	4500 Norris Canyon Road	UST, SWEEPS UST, RCRA-NonGen, CONTRA COSTA CO.	USTs present onsite; no spills or leaks reported

Table 3.6-1 (cont.): Selected Hazardous Materials Sites

Source	Address	Database(s)	Remarks
Notes: UST = Underground storage tank CERCLIS NFRAP = Comprehensive Environmental Response, Compensation, and Liability Information System. The U.S. Environmental Protection Agency (EPA) has determined that no further steps will be taken to list this site on the National Priorities List (NPL). RCRA CORRACTS = Resource Conservation and Recovery Act Corrective Action Sites RCRA non-CORRACTS = Resource Conservation and Recovery Act Non-Corrective Action Sites RCRA-SQG = Resource Conservation and Recovery Act Small Quantity Generator. Small-quantity generator of hazardous wastes governed by RCRA. LUST = Leaking Underground Fuel Tank Report. Contains records of reported leaking underground storage tank incidents. UST = Underground Storage Tank. Regulated under Subtitle I of the RCRA. AST = Aboveground Petroleum Storage Tank Facilities. Registered aboveground storage tanks. HIST UST = Hazardous Substance Storage Container Database. Historical listing of underground storage tank sites. SWEEPS UST = Statewide Environmental Evaluation and Planning System. Lists underground storage tank locations. No longer updated. HIST CORTESE = Hazardous Waste & Substance Site List. Cross-listed with LUST database. CONTRA COSTA CO. = Contra Costa County. Sites are from the Underground Tank Program, Hazardous Waste Generator Program & Business Plan 12185 Program. Source: Environmental Data Resources, 2009.			

The information in the table above indicates that there are a number of properties within the Specific Plan boundaries that currently use or formerly used reportable quantities of hazardous materials. Of these properties, the ones of most concern are those with reported spills and leaks, specifically, the five sites that contained leaking underground storage tanks (USTs). Note that four of the cases are closed and one is the subject of ongoing remediation. None of the other sites listed in the table have reported spill or leak incidents.

Past Uses

Based on aerial photographs, topographical maps, and the EDR record searches, Michael Brandman Associates identified past land uses that were present within the Specific Plan boundaries that may be of concern as they relate to hazards and hazardous materials. The land uses are listed below.

- **San Ramon Branch Line:** The Southern Pacific Railroad San Ramon Branch Line formerly occupied the Iron Horse Trail corridor. The single-track line originally extended from Martinez to Pleasanton and was in service between 1891 and 1978. San Ramon was served with a station, known as San Ramon Siding, near the present-day Iron Horse Trail crossing at Crow Canyon Road. The line was formally abandoned in 1978, and the counties of Alameda and Contra Costa acquired ownership of the right-of-way within their respective jurisdictions. The Iron Horse Trail was later developed within the right-of-way in the 1990s. Hazardous materials are commonly found in soils surrounding railroad lines.
- **Aerojet General/Aerotest Facility:** The Aerojet General facility occupied the block bounded by Camino Ramon (west), Fostoria Way (north), Iron Horse Trail (east), and Crow Canyon Road (south). The Aerojet General facility opened in 1957 and engaged in atomic research.

Aerial photographs indicate that the facility had changed over time, and by the early 1990s, much of the site was occupied by different uses, including the San Ramon Valley Unified School District maintenance facility, various automotive-related uses (e.g., maintenance, repair, and sales), fast food, and other retail and service uses. Aerotest, a corporate affiliate of Aerojet General, occupies a small portion of this site. Several uses within the former Aerojet General site are recorded on hazardous materials databases for spills, leaks, and clean-up activities (e.g., Electrotest, the school district maintenance facility).

- **RMC Pacific Materials Cement Plant:** The former RMC Pacific Materials (CEMEX) cement plant was located at 4700 Norris Canyon Road. As indicated in Table 3.6-1, the site contained a leaking UST. The case was closed in 1997. The facility was demolished in 2008; at the time of this writing, the site is currently be redeveloped as a residential development.

Nearby Uses

The PG&E Technological and Ecological Services Research laboratory, located at 3400 Crow Canyon Road, is immediately adjacent to the Specific Plan boundaries. The PG&E facility was developed in the late 1960s and is used for equipment testing. The EDR record search indicates that the PG&E facility is listed on several databases, including those pertaining to large-quantity hazardous materials generators and hazardous materials spills and leaks.

Radon

Radon is a carcinogenic, radioactive gas resulting from the natural breakdown of uranium in soil, rock, and water. The EPA has established a safe radon exposure threshold of 4 picoCuries per liter of air (pCi/l).

The California Department of Health Services indicates that indoor radon tests in the 95483 zip code, which encompasses the Specific Plan boundaries, found that one of 35 samples (3 percent) contained radon concentrations above 4.0 pCi/l. The California Department of Public Health classifies zip codes with 0 to 6 percent of samples exceeding 4.0 pCi/l to be areas of low radon potential.

Electromagnetic Fields

Electromagnetic fields (EMFs) have been alleged to cause cancer, although scientific research has never conclusively established such a link. High voltage power lines are the most common source of EMFs in urban settings. An existing 230-kilovolt PG&E power line is located within the Iron Horse Trail corridor. The line serves the PG&E research facility.

Jet Fuel Pipeline

A 10-inch-diameter, underground, pressurized, jet fuel pipeline is located within the Iron Horse Trail corridor. The pipeline is owned by Kinder-Morgan Energy Partners and links Concord and San Jose.

Emergency Operations Plan

The City of San Ramon has an existing Emergency Operations Plan, which was updated in 2011. The plan identifies the appropriate actions to take when an event occurs due to a major earthquake, hazardous materials incident, flood, national security emergency, wildfire, landslide, and other events. The Emergency Operations Plan identifies the City's emergency planning, organizational, and response policies and procedures, while integrating and coordinating these with other governmental levels when required. The Emergency Operations Plan institutes the Incident Command System, the Standardized Emergency Management System, and the National Incident Management System, which provide a common system that is recognized throughout the State of California as a basis for managing large emergency incidents that could involve multiple agencies and jurisdictions.

3.6.3 - Regulatory Framework

Federal

Comprehensive Environmental Response, Compensation, and Liability Act

Discovery of environmental health damage from disposal sites prompted the U.S. Congress to pass the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or Superfund). The purpose of CERCLA is to identify and clean up chemically contaminated sites that pose a significant environmental health threat. The Hazard Ranking System is used to determine whether a site should be placed on the National Priorities List for cleanup activities.

Superfund Amendments and Reauthorization Act

The Superfund Amendments and Reauthorization Act pertains primarily to emergency management of accidental releases. It requires formation of state and local emergency planning committees, which are responsible for collecting material handling and transportation data for use as a basis for planning. Chemical inventory data is made available to the community at large under the "right-to-know" provision of the law. In addition, the Superfund Amendments and Reauthorization Act also requires annual reporting of continuous emissions and accidental releases of specified compounds. These annual submissions are compiled into a nationwide Toxics Release Inventory.

Hazardous Materials Transportation Act

The Hazardous Materials Transportation Act is the statutory basis for the extensive body of regulations aimed at ensuring the safe transport of hazardous materials on water, rail, highways, through air, or in pipelines. It includes provisions for material classification, packaging, marking, labeling, placecarding, and shipping documentation.

State

California Hazardous Waste Control Law

The Hazardous Waste Control Law is the primary hazardous waste statute in the State of California. The Hazardous Waste Control Law implements RCRA as a "cradle-to-grave" waste management system in the State of California. The law specifies that generators have the primary duty to determine whether their waste is hazardous and to ensure their proper management. The Hazardous

Waste Control Law also establishes criteria for the reuse and recycling of hazardous waste used or reused as raw materials. The law exceeds federal requirements by mandating source reduction planning, and a much broader requirement for permitting facilities that treat hazardous waste. It also regulates a number of types of waste and waste management activities that are not covered by federal law with RCRA.

Local

City of San Ramon

General Plan 2030

General Plan 2030 sets forth the following guiding and implementing policies that are relevant to hazards and hazardous materials:

- **Implementing Policy 7.5-I-7:** Provide options for the safe disposal of hazardous waste and materials.
- **Implementing Policy 7.5-I-5:** Comply with State requirements for proper handling and storage of solid waste, recyclables, and hazardous materials, diversion of solid waste from landfills, and provision of programs to make these activities feasible.
- **Guiding Policy 9.3-G-1:** Minimize the risk of property damage and personal injury resulting from the production, use, storage, disposal, or transportation of hazardous materials.
- **Implementing Policy 9.3-I-1:** Promote the reduction, recycling, and safe disposal of household hazardous wastes through public education and awareness.
- **Implementing Policy 9.3-I-2:** Continue to investigate options for establishing household hazardous waste drop off locations that are convenient to San Ramon residents.
- **Implementing Policy 9.3-I-3:** Require the clean-up of sites contaminated with hazardous substances.
- **Implementing Policy 9.3-I-4:** Support and implement policies contained in the Contra Costa County Hazardous Waste Management Plan that encourage and assist the reduction of hazardous waste from businesses and homes in San Ramon.
- **Implementing Policy 9.3-I-5:** Require businesses generating hazardous waste to pay necessary costs for local implementation of programs specified in the County Hazardous Waste Management Plan, as well as the costs associated with emergency response services for a hazardous materials release.
- **Implementing Policy 9.3-I-6:** Work with the San Ramon Valley Fire Protection District to minimize potentially dangerous conditions from storing, dispensing, using and handling of hazardous materials.
- **Guiding Policy 9.5-G-1:** Minimize the risks to lives, property, and natural environment due to fire hazards.
- **Implementing Policy 9.5-I-1:** Require site design features, which are based on a wildfire risk assessment, and fire retardant building materials to reduce the risk of fire within the City.

- **Implementing Policy 9.5-I-2:** Require the completion of a Fire Protection Plan for new development adjacent to a Fire Hazard Area in order to determine which mitigation measures are appropriate to minimize fire hazard.
- **Implementing Policy 12.5-I-2:** Evaluate potential handling, storage, and transport of hazardous materials in new commercial and industrial developments to minimize public exposure to hazardous air pollutants.

Contra Costa County Hazardous Materials Program

Contra Costa County's Hazardous Materials program serves area residents by responding to emergencies and monitoring hazardous materials. The 2005 Contra Costa County Hazardous Materials Area Plan is a comprehensive document that includes the identification of hazardous materials incident planning, operations, organization, and responsibilities for handling a hazardous materials incident that may impact Contra Costa County. It also provides support for hazardous materials management in Contra Costa County, including the coordination of data management, business plans, and facility inspections. The Plan is a dynamic document designed to protect human health and the environment through hazardous materials emergency planning and community right-to-know programs within the County.

The Contra Costa Health Services - Hazardous Materials Programs (CCHS-HazMat) is authorized by the California Environmental Protection Agency to be the Certified Unified Program Agency (CUPA) for all cities and unincorporated areas within Contra Costa County. As the CUPA, CCHS-HazMat is the local agency responsible for administering the six elements of the Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program).

3.6.4 - Methodology

Michael Brandman Associates evaluated potential impacts on hazards and hazardous materials through review of the City of San Ramon General Plan 2030 and the EDR database search (Appendix C).

3.6.5 - Thresholds of Significance

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, hazards and hazardous materials impacts resulting from the implementation of the proposed project would be considered significant if the project 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 likely 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? (Refer to Section 7, Effects Found Not To Be Significant.)

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?

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 residing or working the project area? (Refer to Section 7, Effects Found Not To Be Significant.)

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? (Refer to Section 7, Effects Found Not To Be Significant.)

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

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? (Refer to Section 7, Effects Found Not To Be Significant.)

3.6.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the project and provides mitigation measures where appropriate.

Routine Use/Risk of Upset

Impact HAZ-1:	**Development and land use activities contemplated by the Specific Plan would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.**

Impact Analysis

The Specific Plan area contains numerous reported users of hazardous materials. Generally, nearly all users handle, store, and dispose of hazardous materials in accordance with federal and state regulations such that public safety is not exposed to undue risk.

Short-Term Impacts

Buildout of the Specific Plan would facilitate the redevelopment of the plan boundaries to support higher density mixed uses. Projects constructed as a result of the Specific Plan may involve the use and transport of hazardous materials. These materials may include fuel, oils, mechanical fluids, and other chemicals used during construction. Transportation, storage, use, and disposal of hazardous materials during construction activities would be required to comply with applicable federal, state,

and local statutes and regulations. Compliance would ensure that human health and the environment are not exposed to hazardous materials. No significant impacts would occur during construction activities.

Long-Term Impacts

Hazardous Materials

The commercial, office, and residential uses envisioned by the Specific Plan would not be large-quantity users of hazardous materials. Small quantities of hazardous materials would likely be used within the plan area by individual businesses, including cleaning solvents (e.g., degreasers, paint thinners, and aerosol propellants), paints (both latex- and oil-based), acids and bases (such as many cleaners), disinfectants, and fertilizers. The use of such substances must occur in compliance with applicable storage, handling, usage, and disposal requirements. The potential risks posed by the use and storage of these hazardous materials are primarily limited to the immediate vicinity of the materials. Transport of these materials would be performed by commercial vendors who would be required to comply with various federal and state laws regarding hazardous materials transportation. As such, they are not expected to expose human health or the environment to undue risks associated with their use.

Businesses that store or intend to store 55 gallons of hazardous materials as liquid, 500 pounds of hazardous materials as solids, or 200 cubic feet of hazardous materials as gas onsite within the Specific Plan area would be required to submit a Hazardous Materials Business Plan to the Contra Costa Health Services Hazardous Materials Program. Furthermore, compliance with the CUPA program would be a part of building permit and fire clearance review for proposed uses within the plan boundaries.

Electromagnetic Fields

An existing 230-kilovolt PG&E power line is located within the Iron Horse Trail corridor within the Specific Plan area. The line is located within an easement, and the Specific Plan does not contemplate new development within this area.

There are no required or recommended buffering distances for residential or non-residential development from high-voltage power lines. There are numerous local examples of where power lines of similar or higher voltage exist close to residential or non-residential development without any known adverse affects. Therefore, it is reasonable to conclude that the uses contemplated by the Specific Plan would not be at greater risk for risk of upset associated with EMFs than any other similar land use in the project vicinity.

Jet Fuel Pipeline

A 10-inch-diameter, underground, pressurized jet fuel pipeline is located within the Iron Horse Trail corridor. The line is located within an easement, and the Specific Plan does not contemplate new development within this area.

There are no required or recommended buffering distances for residential or non-residential development from pressurized pipelines. There are numerous local examples of where pressurized pipelines exist close to residential or non-residential development without any known adverse affects. Therefore, it is reasonable to conclude that the uses contemplated by the Specific Plan would not be at greater risk for adverse impacts associated with risk of upset from pressurized pipelines than any other similar land use in the project vicinity.

Conclusion

In summary, the proposed project would not have the potential to create a significant hazard to the public or the environment from routine transport, use, or disposal of hazardous materials or through the reasonably foreseeable upset and accident conditions. Impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Prior Contamination

Impact HAZ-2:	**Development and land use activities contemplated by the Specific Plan may be exposed to undue risk as a result of prior contamination from past uses.**

Impact Analysis

Buildout of the Specific Plan would facilitate higher-density mixed uses within the plan boundaries. Projects constructed as a result of the Specific Plan may be exposed to existing contamination.

A number of land uses within the Specific Plan area currently use or formerly used hazardous materials. Most of these activities involve infrequent use or small quantities of materials and do not pose a threat to human health and the environment; only a few properties have reported spill or leak incidents. Those with reported spills and leaks, specifically, the five sites that contained underground strange tanks (USTs), may present contamination issues during redevelopment of the Specific Plan area if proper remediation actions have not occurred.

Government Code Section 65962.5

Several properties within the Specific Plan boundaries are listed on hazardous materials sites compiled pursuant to Government Code Section 65962.5. This includes the following properties: Electrotest, San Ramon Unified School District, the Thornally property, the RMC cement plant site, and the Shell Service Station. As shown in Table 3.6-1, the first four properties are listed as “Case Closed,” which signifies that all necessary remediation has been completed. Therefore, they are not considered risks to public health or safety.

The remaining site (Shell Service station) is listed as "Active" and remediation efforts are ongoing. The San Francisco Bay Regional Water Quality Control Board (RWQCB) is overseeing the remediation efforts with this property. The most recent action that occurred with this property involved RWQCB approval of a Soil Vapor Investigation Work Plan in June 2011. The property owner is legally responsible for completing the remediation efforts to the satisfaction of the RWQCB. The remediation of contamination associated with this site is independent of the proposed Specific Plan and will continue to occur whether the plan is adopted or not. Therefore, there is certainty that the proposed project would not interfere with remediation of this site.

Other Sites of Concern

Other sites of concern identified within or near the Specific Plan area include the former San Ramon Branch Line, the Aerojet General/Aerotest Facility, and the PG&E Technological and Ecological Services Research Laboratory. Each is discussed separately.

The San Ramon Branch Line railroad formerly occupied the Iron Horse Trail corridor located within the Specific Plan area. Residue from hazardous materials is sometimes found in soils surrounding railroad lines. However, in this case, railroad activities ceased in the late 1970s and all railroad-related equipment (rails, ties, switches, etc) was removed. Furthermore, significant disturbance has occurred within the Iron Horse Trail corridor, including the development of the trail and installation of utilities, landscaping, and fencing since the cessation of railroad activities. Because of the passage of time and the disturbance that has occurred within the trail corridor, it is unlikely that significant quantities of hazardous materials residue are present.

The Aerojet General/Aerotest Facility originally housed atomic research facilities and other uses, including the San Ramon Valley Unified School District maintenance facility, various automotive related uses, fast food, and other retail and service uses. Several uses within the former Aerojet General site are recorded on hazardous materials databases for spills, leaks, and clean-up activities (Electrotest, the school district maintenance facility, etc.). Given such past activities, the block bounded by Camino Ramon (west), Fostoria Way (north), Iron Horse Trail (east), and Crow Canyon Road (south) is an area of concern related to hazardous materials. As such, mitigation is proposed that would require a site-specific Phase I Environmental Site Assessment to be conducted for any development proposed within this area.

The PG&E Technological and Ecological Services Research Laboratory is immediately adjacent to the Specific Plan boundaries, northeast of the Crow Canyon Road and Iron Horse Trail intersection. The PG&E facility is listed on several databases, including those pertaining to large-quantity hazardous materials generators and hazardous materials spills and leaks. However, the Specific Plan does not propose any commercial or residential development immediately adjacent to this facility. Additionally, the nearest commercial contemplated by the Specific Plan would be located at least 100 feet from the property line, and the nearest residential uses would be located at least 500 feet from the property line. In addition, these uses would be physically separated from the facility by the Iron

Horse Trail Corridor and Crow Canyon Road. Although not required by any federal, state, or local regulation, these buffering distances would generally be adequate to protect development and land use activities associated with the Specific Plan from adverse impacts associated with this facility.

Asbestos and Lead

A number of structures within the Specific Plan boundaries pre-date the federal bans on asbestos-containing building materials and lead-based paint, which were instituted in the late 1970s. As such, removal of structures that were constructed prior to this time period has the potential to result in exposure to these materials. Mitigation is proposed requiring structures constructed prior to 1978 to be evaluated for the potential presence of asbestos-containing building materials and lead-based paint. If such materials are determined to be presence, the mitigation measure requires proper removal and disposal in accordance with federal and state regulations.

Conclusion

In summary, implementation of mitigation would ensure that development within the Specific Plan would not be exposed to undue risk as a result of prior contamination from past uses. As such, impacts would be less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM HAZ-2a Prior to the issuance of demolition, grading, or building permits (whichever comes first) for new development or significant expansion of existing development within the block bounded by Camino Ramon (west), Fostoria Way (north), Iron Horse Trail (east), and Crow Canyon Road (south), the project applicant shall prepare and submit to the City of San Ramon a site-specific Phase I Environmental Site Assessment to assess the presence of hazards or hazardous materials. Recommendations from the site assessment shall be incorporated into development plans and implemented to the satisfaction of the City of San Ramon to ensure future land uses are not adversely affected by any identified onsite hazards.

MM HAZ-2b Prior to the issuance of demolition permits for any structure constructed prior to 1978, the property owner or applicant shall retain a qualified contractor to determine the presence or absence of asbestos-containing materials or lead-based paint. If either material is found to be present, the property owner or applicant shall retain a certified hazardous waste contractor to properly remove and dispose of all materials containing asbestos or lead paint in accordance with federal and state law. The property owner or applicant shall submit documentation to the City of San Ramon demonstrating that this contractor has been retained as part of the demolition permit application. Upon completion of removal and disposal, the project applicant shall

provide documentation to the City of San Ramon demonstrating that these activities were successfully completed.

Level of Significance After Mitigation

Less than significant impact.

Emergency Response and Evacuation

Impact HAZ-3:	**Development and land use activities contemplated by the Specific Plan would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.**

Impact Analysis

The City's existing Emergency Operations Plan addresses emergency response and evacuation procedures during events such as earthquakes, hazardous materials incidents, floods, national security emergencies, wildfires, and landslides. The Specific Plan area is located in an area where existing emergency response times for police and fire meet adopted standards. The Specific Plan does not contain any characteristics that would impair or otherwise interfere with emergency response, evacuation, or the policies of the Emergency Operations Plan. Moreover, the Specific Plan includes plans for an additional network of streets that would increase circulation in the area, thereby increasing potential emergency vehicle access and evacuation routes. As such, the Specific Plan's development and land use activities would not impair implementation of or physically interfere with the emergency plan. Impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

3.7 - Hydrology and Water Quality

3.7.1 - Introduction

This section describes the existing hydrology and water quality setting and potential effects from the implementation of the Specific Plan on the affected area and its surroundings. Descriptions and analysis in this section are based on the City of San Ramon General Plan 2030 and information provided by the California Department of Water Resources.

3.7.2 - Environmental Setting

Climate

San Ramon is characterized by a Mediterranean climate, with mild winters and warm summers. Temperatures range from an average low of 36.7 degrees Fahrenheit (°F) in January to an average high of 89.0°F in July. Average rainfall is 14.24 inches. Table 3.7-1 summarizes local meteorology, as measured at Livermore Municipal Airport.

Table 3.7-1: Meteorological Summary

Month	Temperature (°F)		Precipitation (inches)
	Average Minimum	Average Maximum	
January	36.7	56.7	2.99
February	39.4	61.2	2.48
March	41.3	65.2	2.15
April	43.6	70.4	0.99
May	47.6	76.3	0.44
June	51.6	83.1	0.11
July	54.2	89.0	0.02
August	54.0	88.2	0.04
September	52.5	85.9	0.22
October	47.7	77.7	0.67
November	41.1	66.4	1.55
December	37.0	57.5	2.58
Annual Average	**45.6**	**73.1**	**14.24**

Notes:
Measurements taken at Livermore Municipal Airport, the nearest weather station to the Specific Plan area.
Period of Record: January 1, 1903 through October 31, 2011.
Source: Western Regional Climate Center, 2012.

Watersheds and Drainage

The Specific Plan boundaries are located within both the San Ramon Creek watershed and the Watson Canyon Drainage watershed. Crow Canyon Road serves as the boundary between the two watersheds. Each watershed is discussed below.

San Ramon Creek

San Ramon Creek runs south to north and drains the northern portion of the City of San Ramon, as well as much of Danville and Alamo. The creek originates in the hills northwest of San Ramon and skirts around the northwestern portion of the Specific Plan boundaries. The drainage meanders northward through Danville, Alamo, and ultimately joins Walnut Creek, which discharges into Suisun Bay near Martinez.

Drainage Features

North of Crow Canyon Road, an ephemeral drainage parallels the west side of the Iron Horse Trail before entering a culvert under Fostoria Way. This drainage ultimately outlets into San Ramon Creek in Danville. All other drainage features consist of inlets and underground piping associated with the City's municipal storm drain system.

Watson Canyon Drainage

Watson Canyon Drainage originates in the hills to the east of the Specific Plan area and runs south, draining the Bishop Ranch area before joining South San Ramon Creek. The drainage is located within and parallel to the Iron Horse Trail corridor from Executive Parkway south to its confluence with South San Ramon Creek near Montevideo Elementary School. South San Ramon Creek conveys flows south to Alamo Canal in Dublin, then to Arroyo De La Laguna in Pleasanton and ultimately to Alameda Creek, which outlets to San Francisco Bay in Fremont.

Drainage Features

Aside from landscaped swales located within various properties, all other drainage features consist of inlets and underground piping associated with the City's municipal storm drain system.

Water Quality

The State Water Resources Control Board indicates that three downstream water bodies from San Ramon are designated as impaired water bodies on the United States Environmental Protection Agency 2010 Clean Water Act Section 303(d) List of Water Quality Limited Segments. The water bodies are summarized in Table 3.7-2. Note that no water bodies within the Specific Plan area are on the 303(d) List.

Table 3.7-2: Impaired Water Body Summary

Watershed	Downstream Water Body	Pollutant/Stressor	Source
San Ramon Creek	Walnut Creek	Diazinon	Urban Runoff/Sewers
Watson Canyon Drainage	Arroyo De La Laguna	Diazinon	Urban Runoff/Sewers
	Alameda Creek	Diazinon	Urban Runoff/Sewers
Source: State Water Resources Control Board, 2012.			

Groundwater

Groundwater Basin

The Specific Plan boundaries overlie the San Ramon Valley Groundwater Basin. The California Department of Water Resources indicates that the groundwater basin encompasses 11 square miles and is bounded by Las Trampas Ridge (west), Stone Valley (north), the Mt. Diablo foothills (east), and the Livermore Valley Groundwater basin (south). The groundwater basin is not a domestic water supply source for the East Bay Municipal Utility District (EBMUD), the water supplier to the Specific Plan area.

Groundwater Depth

Groundwater is reported to occur at relatively shallow depths in the San Ramon area. Borings drilled within the San Ramon City Center project site, less than 1 mile from the Specific Plan boundaries, indicated that groundwater occurred at depths of 7 to 20 feet below ground surface.

Groundwater Quality

Leaking underground storage tanks (USTs) are the principle source of groundwater contamination within the City of San Ramon. The following discusses leaking UST sites within the Specific Plan Area.

Leaking Underground Storage Tanks

The State Water Resources Control Board indicates that there are five recorded leaking UST sites within the Specific Plan boundaries. The sites are summarized in Table 3.7-3. As indicated in the table, four of the cases are closed and the remaining one is the subject of ongoing remediation.

Table 3.7-3: Leaking Underground Storage Tank Summary

Source	Address	Contaminant	Year Discovered	Status
San Ramon Valley Unified School District Maintenance Facility	3280 Crow Canyon Road	Gasoline	1999	Case Closed (2008)
Shell Station (a.k.a. BP No. 11136)	3048 Crow Canyon Road	Gasoline	1992	Open – Remediation

Table 3.7-3 (cont.): Leaking Underground Storage Tank Summary

Source	Address	Contaminant	Year Discovered	Status
Thornally Property	3333 Crow Canyon Road	Gasoline	1991	Case Closed (1993)
Electro Test	3470 Fostoria Way	Gasoline	1986	Case Closed (1997)
Rhodes & Jamieson (former cement plant)	4700 Norris Canyon Road	Diesel	1987	Case Closed (1997)

Note:
Information obtained from GeoTracker website: http://geotracker.swrcb.ca.gov
Source: State Water Resources Control Board, 2009.

Flood Mapping

Flood Insurance Rate Map Community Panel Numbers 060710 0001 – 0004 indicate that the Specific Plan area is designated as Zone X, which consists of areas outside of both the 100-year and 500-year flood hazard areas.

3.7.3 - Regulatory Framework

Federal

Clean Water Act

Section 303 of the 1972 Federal Clean Water Act (CWA) requires states to adopt water quality standards for all surface waters of the United States. Water quality standards are typically numeric, although narrative criteria based upon biomonitoring methods may be employed where numerical standards cannot be established or where they are needed to supplement numerical standards. (See a description of State Porter-Cologne Water Quality Control Act, below.) Standards are based on the designated beneficial use(s) of the water body. Where multiple uses exist, water quality standards must protect the most sensitive use.

Section 402 of the CWA mandates that certain types of construction activity comply with the requirements of the National Pollutant Discharge Elimination System (NPDES) stormwater program. The Phase II Rule, issued in 1999, states that construction activities that disturb land equal to or greater than 1 acre require permitting under the National Pollutant Discharge Elimination System (NPDES) program. Currently, more stringent requirements apply, as outlined in the Stormwater Municipal Regional Permit issued by the Regional Water Quality Control Board. In California, permitting occurs under the General Permit for Stormwater Discharges Associated with Construction Activity, issued to the SWRCB and implemented and enforced by the nine RWQCBs. The Planning Area is within the boundaries of the San Francisco Bay RWQCB.

This General Permit requires all dischargers, where construction activity disturbs one (1) or more acres, or as amended by the RWQCB, to take the following measures:

1. Develop and implement a Stormwater Pollution Prevention Plan (SWPPP), which specifies Best Management Practices (BMPs) that will prevent all construction pollutants from contacting stormwater and with the intent of keeping all products of erosion from moving off site into receiving waters.
2. Eliminate or reduce non-stormwater discharges to storm sewer systems and other waters of the nation.
3. Perform inspections of all BMPs.

To obtain coverage, the landowner must file a Notice of Intent (NOI) with the SWRCB. The NOI is required to include the requirements listed above. When project construction is completed, the landowner must file a notice of termination.

The law requires that a permit (Section 404) be obtained from the United States Army Corps of Engineers (USACE) for any dredge or fill materials into wetlands or waters of the United States.

State

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act of 1969 authorized the SWRCB to provide comprehensive protection for California's waters through water allocation and water quality protection. The SWRCB implements the requirement of the Clean Water Act Section 303, indicating that water quality standards have to be set for certain waters by adopting water quality control plans under the Porter-Cologne Act. The Porter-Cologne Act established the responsibilities and authorities of the nine RWQCBs, which include preparing water quality plans for areas in the region, identifying water quality objectives, and issuing NPDES permits and Waste Discharge Requirements (WDRs). Water quality objectives are defined as limits or levels of water quality constituents and characteristics established for reasonable protection of beneficial uses or prevention of nuisance. The Porter-Cologne Act was later amended to provide the authority delegated from the Environmental Protection Agency (EPA) to issue NPDES permits.

Section 303(d) of the CWA requires that the SWRCB identify surface water bodies within California that do not meet established water quality standards. Once identified, the affected water body is included in the SWRCB's "303(d) Listing of Impaired Water Bodies," and a comprehensive program must then be developed to limit the amount of pollutant discharges into that water body. This program includes the establishment of "total maximum daily loads" (TMDL) for pollutant discharges into the designated water body. The most recent 303(d) listing for California was approved by the EPA in 2010.

Local

City of San Ramon

General Plan 2030

General Plan 2030 sets forth the following guiding and implementing policies that are relevant to hydrology and water quality:

- **Implementing Policy 8.3-I-11:** Continue participation in the Contra Costa Clean Water Program to control stormwater pollution and protect the quality of the City's waterways.
- **Implementing Policy 8.3-I-12:** Monitor the condition of waterways within the city limits and take proactive measures to prevent degradation.
- **Guiding Policy 8.6-G-1:** Promote the implementation of water quality and conservation programs and measures by San Ramon employers, residents, and public agencies.
- **Implementing Policy 8.6-I-1:** Require new development projects to implement indoor water conservation and demand management measures.
- **Implementing Policy 8.6-I-2:** Require new development projects to implement outdoor water conservation and demand management measures.
- **Implementing Policy 8.6-I-3:** New development in areas where recycled water service exists or is planned shall be plumbed with "purple pipe" and other measures necessary to accommodate non-potable water service.
- **Implementing Policy 8.6-I-4:** Require new development to meet the State Model Water Efficient Landscape Ordinance (MWELO).
- **Implementing Policy 8.6-I-5:** Collaborate with DERWA (Dublin San Ramon Services District and East Bay Municipal Utilities District Recycled Water Authorities) to expand the recycled water distribution system in an efficient and timely manner.
- **Implementing Policy 8.6-I-6:** Continue implementation of the City of San Ramon Stormwater Management Program to reduce storm water pollution, provide public education, and to protect the water quality of the City's local creeks and streams.
- **Implementing Policy 8.6-I-7:** Promote the protection of groundwater resources by collaborating with agencies that monitor and oversee clean-up efforts at existing sources of pollution.
- **Guiding Policy 9.4-G-1:** Protect the community from risks to lives and property posed by flooding and stormwater runoff.
- **Implementing Policy 9.4-I-1:** Reduce hazards caused by local flooding through improvements and ongoing maintenance to the storm drain system and/or creek corridors.
- **Implementing Policy 9.4-I-2:** Require new development to prepare hydrologic studies to assess storm runoff impacts on the local and subregional storm drainage systems and/or creek corridors. New development shall implement all applicable and feasible recommendations from the studies.

- **Implementing Policy 9.4-I-3:** Require new development to provide a funding mechanism for ongoing maintenance of drainage facilities and other stormwater control measures. Maintenance may be by the City under contract, or by a private entity.
- **Implementing Policy 9.4-I-7:** All new developments shall not increase runoff to the 100-year peak flow in the City's flood control channels or to local creeks and shall be substantially equal to pre-development conditions. All new storm water systems shall be in compliance with the requirements of the City's Stormwater Municipal Regional Permit issued by the San Francisco Regional Water Quality Control Board.
- **Implementing Policy 9.4-I-8:** New development shall be required to locate buildings above the 100-year floodplain and outside the special flood hazard area to minimize potential flood damages.

3.7.4 - Methodology

Michael Brandman Associates evaluated potential impacts on hydrology and water quality through review of the City of San Ramon General Plan 2030, aerial photographs, the State Water Resources Control Board 303(d) list, the California Department of Water Resources Bulletin 118, and flood hazard area mapping.

3.7.5 - Thresholds of Significance

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, hydrology and water quality impacts resulting from the implementation of the proposed project would be considered significant if the project 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 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 or amount of surface runoff in a manner, which would result in flooding on- or off-site?

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?

f) Otherwise substantially degrade water quality?

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? (Refer to Section 7, Effects Found Not To Be Significant.)

h) Place within a 100-year flood hazard area structures, which would impede or redirect flood flows? (Refer to Section 7, Effects Found Not To Be Significant.)

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? (Refer to Section 7, Effects Found Not To Be Significant.)

j) Inundation by seiche, tsunami, or mudflow? (Refer to Section 7, Effects Found Not To Be Significant.)

3.7.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the project and provides mitigation measures where appropriate.

Water Quality

Impact HYD-1:	**Development and land use activities contemplated by the Specific Plan may violate water quality standards or waste discharge requirements.**

Impact Analysis

The City of San Ramon implemented a Stormwater Program to reduce pollution of stormwater as it enters the local creeks and the San Francisco Bay. The City of San Ramon also participates in the Contra Costa Clean Water program as a means of protecting water quality in local streams and the San Francisco Bay. New development contemplated by the implementation of the proposed Specific Plan may result in construction activities that could have the potential to create polluted runoff. These pollutants could be conveyed offsite and potentially affect the water quality within the local streams and the San Francisco Bay. Generally, construction activities and possibly an increase in impervious surfaces could generate pollutants such as increased silts, ground rubber, oils from automobiles, debris, litter, chemicals, dust, and dissolved solids related to grading, excavating, dredging, building construction, and painting.

Any development resulting from the implementation of the Specific Plan would be required to abide by General Plan policies 8.3-I-11, 8.3-I-12, and 8.6-I-6, which require participation in clean water programs, monitoring waterways to prevent degradation, and the continued implementation of the City of San Ramon Stormwater Management Program.

The State Construction General Permit regulates stormwater quality from construction sites. Under the State Construction General Permit, the preparation and implementation of SWPPPs are required for construction activities more than 1 acre in size. The SWPPP must identify potential sources of

pollution that may be reasonably expected to affect the quality of stormwater discharges as well as identify and implement BMPs that ensure the reduction of these pollutants during construction.

Prior to the commencement of construction grading for any development within the Specific Plan area, the applicant must file an Notice of Intent to comply with the General NPDES Construction Permit issued to the RWQCB and prepare the SWPPP, which addresses the measures that would be included in the project to minimize and control construction and post-construction runoff to the "maximum extent practicable." However, without these documents available for review as part of the DEIR, the City is unable to determine their adequacy in achieving applicable water quality standards. For this reason, the implementation of the prescribed mitigation would be required to ensure that each project SWPPP and Grading Plan within the Specific Plan area include measures necessary to minimize water quality impacts as a result of construction.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM HYD-1a Prior to the issuance of grading permits for areas larger than 1 acre within the Specific Plan area, the project applicant shall prepare and submit a Stormwater Pollution Prevention Plan (SWPPP) and Grading Plan to the City of San Ramon that identify specific actions and Best Management Practices (BMPs) to prevent stormwater pollution from construction sources. The plans shall identify a practical sequence for site restoration, BMP implementation, contingency measures, responsible parties, and agency contacts. The applicant shall include conditions in construction contracts requiring the plans to be implemented and shall have the ability to enforce the requirement through fines and other penalties. The plans shall incorporate control measures in the following categories:

- Soil stabilization practices
- Dewatering practices (if necessary)
- Sediment and runoff control practices
- Monitoring protocols
- Waste management and disposal control practices

Once approved by the City, the applicant's contractor shall be responsible throughout the duration of the project for installing, constructing, inspecting, and maintaining the control measures included in the SWPPP and Grading Plan.

MM HYD-1b The City shall ensure that SWPPPs for projects within the Specific Plan area identify pollutant sources that could affect the quality of stormwater discharges from the construction site. Control practices shall include those that effectively treat target pollutants in stormwater discharges anticipated from project construction sites. To

protect receiving water quality, the SWPPP shall include but not be limited to the following elements:

- Temporary erosion control measures (such as fiber rolls, staked straw bales, detention basins, temporary inlet protection, check dams, geofabric, sandbag dikes, and temporary revegetation or other ground cover) shall be employed for disturbed areas.
- No disturbed surfaces will be left without erosion control measures in place during the winter and spring months.
- Sediment shall be retained onsite by a system of sediment basins, traps, or other appropriate measures. Of critical importance is the protection of existing catch basins that drain to San Ramon Creek.
- The construction contractor shall prepare Standard Operating Procedures for the handling of hazardous materials on the construction site to eliminate or reduce discharge of materials to storm drains.
- BMP performance and effectiveness shall be determined either by visual means where applicable (i.e., observation of above-normal sediment release), or by actual water sampling in cases where verification of contaminant reduction or elimination (inadvertent petroleum release), is required by the RWQCB to determine adequacy of the measure.
- In the event of significant construction delays or delays in final landscape installation, native grasses or other appropriate vegetative cover shall be established on the construction site as soon as possible after disturbance, as an interim erosion control measure throughout the wet season.

Level of Significance After Mitigation

Less than significant impact.

Groundwater

Impact HYD-2:	**Development and land use activities contemplated by the Specific Plan would not substantially deplete groundwater supplies, interfere substantially with groundwater recharge, or result in groundwater contamination.**

Impact Analysis

Groundwater Supplies

Water service for the uses contemplated by the Specific Plan would be provided by EBMUD. As discussed in Section 3.13, Utility Systems, EBMUD obtains the majority of its water from surface water sources; the agency does not rely on groundwater from the San Ramon Valley Groundwater Basin. This condition precludes the possibility of the proposed project depleting local groundwater supplies.

Groundwater Recharge

The Specific Plan area consists of mostly urban, built-up land uses that is served by the City of San Ramon's municipal storm drainage system. As such, limited groundwater recharge occurs within the Specific Plan area. The Specific Plan emphasizes Low Impact Development principles, which include stormwater management practices that employ infiltration and percolation. Such practices would contribute to groundwater recharge. Accordingly, impacts related to groundwater recharge would be less than significant.

Groundwater Contamination

Leaking USTs are the primary source of groundwater contamination within the City of San Ramon. As shown in Table 3.7-3, five leaking UST sites exist within the Specific Plan area. Of the five sites, four are listed as "Closed," signifying that remediation has occurred to the satisfaction of the Regional Water Quality Control Board.

The remaining site (Shell Service station) is listed as "Active" and remediation efforts are ongoing. The San Francisco Bay Regional Water Quality Control Board (RWQCB) is overseeing the remediation efforts with this property. The most recent action that occurred with this property involved RWQCB approval of a Soil Vapor Investigation Work Plan in June 2011. The property owner is legally responsible for completing the remediation efforts to the satisfaction of the RWQCB. The remediation of contamination associated with this site is independent of the proposed Specific Plan and will continue to occur whether the plan is adopted or not. Therefore, there is certainty that the proposed project would not interfere with remediation of this site. As such, impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Alterations to Existing Drainage Pattern

Impact HYD-3:	**Development and land use activities contemplated by the Specific Plan would not create the potential for downstream flooding or substantial erosion or siltation on- or offsite as a result of alteration of drainage patterns.**

Impact Analysis

The existing Specific Plan area is highly developed with a significant footprint of impervious surfaces (buildings, parking lots, and roadways). The Specific Plan would alter development types in the area, but it is not anticipated to increase the quantity of impervious surfaces. Accordingly, while existing

drainage patterns may be altered, stormwater would continue to be directed towards the City's networks of storm drains.

As required by General Plan Policy 9.4-I-7, development within the Specific Plan boundaries would be required to comply with the City's Stormwater Municipal Regional Permit issued by the San Francisco Regional Water Quality Control Board. A key element of the permit would require new development to employ "Low Impact Development" techniques to minimize and treat stormwater runoff. According to the Regional Water Quality Control Board, the goal of Low Impact Development is to "reduce runoff and mimic a site's predevelopment hydrology . . . by infiltrating, storing, detaining, evapotranspiring, and/or biotreating stormwater runoff close to its source." As such, each development within the plan boundaries would be required to demonstrate that it adequately treats any site runoff to insure the proper quality of the runoff leaving the site; does not increase the quantity, duration, or peak flow of runoff from a site; and employs proper construction management techniques through the construction process to insure sediment and erosion control (addressed through the required state NPDES requirements).

New drainage infrastructure required by the Specific Plan would be limited to that required for new roadways and would be appropriately sized and modeled through the existing drainage system to insure proper sizing to handle stormwater flows. With the implementation of the NPDES permit, new development within the Specific Plan boundaries would not create the potential for downstream flooding or substantial erosion or siltation on- or offsite as a result of alteration of drainage patterns and resulting impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

3.8 - Land Use

3.8.1 - Introduction

This section describes the existing land use and potential effects from project implementation on the site and its surrounding area. Descriptions and analysis in this section are based on site reconnaissance of the Specific Plan area, review of the City of San Ramon General Plan 2030, the San Ramon Municipal Code, and the North Camino Ramon Specific Plan.

3.8.2 - Environmental Setting

Land Use

Specific Plan Area

The Specific Plan area contains more than 100 individual parcels ranging in area from less than 3,000 square feet to more than 1 million square feet. Most of the parcels are developed with existing commercial uses (office, retail, and service). Notable uses include Crow Canyon Commons Shopping Center; the Toyota parts distribution facility; the Bishop Ranch 6, 11, and 12 office complexes; Norris Technology Center; the Pacific Gas and Electric Company (PG&E) Conference Center; the Legacy Plaza office complex; the San Ramon Valley Unified School District Maintenance Facility; and the former RMC Pacific Materials cement plant site[1]. The area is served by several major arterial roadways, including Crow Canyon Road, Camino Ramon, Alcosta Boulevard, and Norris Canyon Road, with access provided to I-680 at Crow Canyon Road. The Iron Horse Trail, a Class I bicycle/pedestrian trail, traverses the area from north to south.

There are approximately 3,395,000 square feet of existing buildings within the Specific Plan boundaries. Of this square footage, 14 percent is occupied by retail uses and the remaining 86 percent is occupied by non-retail uses (office, public facilities, etc.).

Surrounding Area

West

I-680 forms the western boundary of the Specific Plan area. The freeway consists of four travel lanes and an auxiliary lane in each direction, for a total of 10 lanes. West of I-680 is the San Ramon Valley Boulevard corridor, which generally consists of automobile-oriented commercial uses (vehicle repair and maintenance, gas stations, fast food restaurants with drive-thrus, etc.).

North

Fostoria Way, which demarcates the boundary between the City of San Ramon and the Town of Danville, forms the northern boundary of the Specific Plan area. The roadway is a divided four-lane facility with landscaped median between Crow Canyon Place/Camino Ramon (North) and Camino Ramon (South), and an undivided two-lane facility east of Camino Ramon (South). Land uses to the

[1] At the time of Draft EIR release, this site is being redeveloped as a 125-unit residential development known as "St. James Place."

north consist of the Castle Square shopping center (anchored by Costco) and medium-density residential (townhouse) uses.

East

The Iron Horse Trail, Alcosta Boulevard, and Camino Ramon form the eastern boundary of the Specific Plan area. The Iron Horse Trail, a Class I bicycle/pedestrian facility, demarcates the eastern boundary between Fostoria Way and Crow Canyon Road; Alcosta Boulevard, a divided four-lane roadway with landscaped median forms the boundary between Crow Canyon Road and Norris Canyon Road; and Camino Ramon, an undivided four lane roadway with center two-way left-turn lane, serves as the boundary between Norris Canyon Road and Executive Parkway. Land uses to the east consist of the PG&E Technological and Ecological Services Research Laboratory, residential uses, and the Bishop Ranch 9 office complex.

South

The Norris Canyon Road and Executive Parkway form the southern boundary of the Specific Plan area. Norris Canyon Road, an undivided four-lane facility, demarcates the boundary between Alcosta Boulevard and Camino Ramon; and Executive Parkway, a divided two-lane facility with landscaped median, forms the boundary between Camino Ramon and Bishop Drive. Land uses to the south consist of the Bishop Ranch 9 and Bishop Ranch 15 office complexes, and the AT&T campus.

Land Use Designations

Project Site

At the time of Notice of Preparation issuance in September 2010, San Ramon General Plan 2020 was the adopted land use plan for the City of San Ramon. General Plan 2020 designated properties within the Specific Plan area as “Commercial Service,” “Manufacturing/Warehouse,” “Mixed Use,” “Multiple Family – Very High Density,” “Office,” and “Retail Shopping.”

Since the issuance of the Notice of Preparation, the City of San Ramon completed a General Plan update. On April 26, 2011, the San Ramon City Council formally adopted General Plan 2030. Under General Plan 2030, properties within the Specific Plan area were re-designated “Mixed Use.”

Surrounding Land Uses

Table 3.8-1 summarizes surrounding land use designations.

Table 3.8-1: Surrounding Land Use Designations

Land Use	Relationship to Specific Plan	Jurisdiction	Land Use Designation	
			General Plan	Zoning
San Ramon Valley Boulevard commercial corridor (south of Crow Canyon Road)	West	City of San Ramon	Mixed Use	Mixed Use
San Ramon Valley Boulevard commercial corridor (north of Crow Canyon Road)	West	City of San Ramon	Mixed Use	Crow Canyon Specific Plan
Agricultural/Residential	North	Town of Danville	Commercial*	Agricultural (A-4)
Castle Square Retail Center	North	Town of Danville	Commercial*	Planned Unit (P-1)
Fostoria Terrace	North	Town of Danville	Multiple-Family Medium Density*	Planned Unit (P-1)
PG&E Technological and Ecological Services Research Laboratory	North/East	Town of Danville	Controlled Manufacturing*	Light Industrial (L-1)
Single Family Residential	East	City of San Ramon	Single-Family-Low Medium Density	Single Family Residential (RS-10)
Multiple Family Residential	East	City of San Ramon	Multiple-Family-High Density	Medium Density Residential (RM)
San Ramon Regional Medical Center	East	City of San Ramon	Public and Semipublic	Health Facility (M-1, M-2)
Bishop Ranch 15	East/South	City of San Ramon	Office	Administrative Office, Height Overlay (OA-H)
Bishop Ranch 9	East/South	City of San Ramon	Office	Administrative Office (OA)
AT&T Campus	South	City of San Ramon	Office	Administrative Office, Height Overlay (OA-H)

Notes:
* The Town of Danville is undertaking a General Plan Update. However, process was not complete at the time of Draft EIR release; therefore, the Town of Danville 2010 General Plan was used for land use designations.
Source: City of San Ramon, 2011; Town of Danville, 1999.

3.8.3 - Regulatory Framework

Local

City of San Ramon

General Plan

The City of San Ramon General Plan 2030 provides a blueprint for anticipated growth and how to accommodate it within the San Ramon City limits. The San Ramon City Council adopted General

Plan 2030 on April 26, 2011. The General Plan contains 11 topical elements: Economic Development, Growth Management, Land Use, Traffic and Circulation, Parks and Recreation, Public Facilities and Utilities, Open Space and Conservation, Safety, Noise, Housing, and Air Quality and Greenhouse Gas. Each element establishes goals and implementing policies to guide future land use activities and development within the City limits.

Mixed Use Land Use Designation

General Plan 2030 designates the entire Specific Plan area as "Mixed Use." Below is an excerpt from the Land Use Element describing the intended uses and development standards of the "Mixed Use" designation.

> Integrated mix of non-residential uses—retail, service, office—and residential uses at intensities of up to 0.70 FAR. Such development should reflect high quality design with integrated open space and recreational and/or cultural amenities, and opportunities for workforce housing. Structure parking may be necessary. Additional FAR may be allowed for projects that provide more than the required 25 percent of total units as workforce housing.

North Camino Ramon Specific Plan

The General Plan 2030 also sets forth various implementing policies that pertain to the North Camino Ramon Specific Plan:

- **Implementing Policy 2.3-I-18:** Prepare and develop the North Camino Ramon Specific Plan (NCRSP) area into a fiscally balanced, transit-oriented mixed-use area that provides for neighborhood and regional retail opportunities lacking in San Ramon and vertical and horizontal mixed-use development in proximity to new and existing jobs.
- **Implementing Policy 4.7-I-4:** Prepare and implement a North Camino Ramon Specific Plan (NCRSP) as framework for infill development that is pedestrian/bicycle friendly, mixed use, transit oriented and based on the smart growth principles. The plan shall retain and provide opportunities for existing businesses, complement the City Center Project, and incorporate flexibility to encourage innovative designs. The Plan envisions an average Plan Area floor area ratio (FAR) of up to 0.7. Projects providing community benefit consistent with the Specific Plan will be able to obtain maximum FAR densities. Additional FAR increases based on workforce housing incentives may be considered. The major components in the plan area shall provide opportunities for mid to large floorplate retail, vertical and horizontal mixed-use development including workforce housing, in proximity to new and existing jobs. This specific plan should include as a minimum the following elements:
  - Land Use Program, including an interim use and transitional land use provisions.
  - Provide opportunities for the continuation of Service Commercial uses within the Plan Area.
  - Open Space/Public Space Plan.

- Design Guidelines, which may include a Form Based Code approach that regulates size mass and standard design elements to streamline implementation.
- Implementation program, including cost of and responsibility for necessary capital and other improvements, financing measures, plan administration and enforcement, etc.
- Develop a workforce housing program affordable to a combination of extremely low, very low, low, or moderate-income households.
- Consistency with the redevelopment plan in those overlapping plan areas.

- **Implementing Policy 5.6-I-14:** Consider the construction of public parking facilities in the City Center, North Camino Ramon Specific Plan, or other commercial areas to serve projected parking demand, while carefully balancing the need for adequate parking against the desire to minimize traffic growth and create a pedestrian/bicycle friendly environment using Complete Streets design concepts.
- **Implementing Policy 5.5-I-16:** Explore opportunities for the location or relocation of a transit center to North Camino Ramon Specific Plan Area to better geographically balance the public transit needs for the City.

San Ramon Municipal Code

The San Ramon Municipal Code sets forth regulations to ensure that development and land use activities protect and promote the health, safety, comfort, convenience, prosperity, and general welfare of residents and businesses in the City. The San Ramon Municipal Code consists of all ordinances adopted by the San Ramon City Council. The Plan is divided into four titles: General and Administration; Regulations; Construction, Development and Land Use; and Zoning.

3.8.4 - Methodology

Michael Brandman Associates (MBA) evaluated the potential for land use impacts through site reconnaissance and review of applicable land use policy documents. MBA personnel performed site reconnaissance on the project site and surround land uses on various dates in 2009, 2010, and 2011. Photographs were taken of the project site and surrounding land uses to document existing conditions. MBA reviewed the City of San Ramon General Plan 2030 and the San Ramon Municipal Code to identify applicable policies and provisions that pertain to the proposed Specific Plan. Finally, MBA reviewed the North Camino Ramon Specific Plan for consistency with General Plan 2030.

3.8.5 - Thresholds of Significance

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, land use impacts resulting from the implementation of the proposed project would be considered significant if the project would:

a) Physically divide an established community?

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?

c) Conflict with any applicable habitat conservation plan or natural communities conservation plan? (Refer to Section 7, Effects Found Not To Be Significant.)

3.8.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the project and provides mitigation measures where appropriate.

Division of an Established Community

Impact LU-1: The proposed Specific Plan would not divide an established community.

Impact Analysis

The Specific Plan boundaries encompass 295 gross acres and contain primarily developed commercial uses (approximately 3.4 million square feet). Aside from the under-construction St. James Place project, no residential uses are located within the Specific Plan boundaries. The only publicly owned facilities within the Specific Plan boundaries are San Ramon City Hall, the San Ramon Post Office, the San Ramon Valley Unified School District Maintenance Facility, and the Iron Horse Trail.

Redevelopment of the privately owned commercial properties within the Specific Plan boundaries would not constitute the division of an establishment community, because these land uses are not occupied for residential use and are also not used for "community purposes" (such as a park). Likewise, the three publicly owned facilities within the Specific Plan boundaries are used for administrative, operational, and maintenance purposes; therefore, removal of these facilities would not divide an established community. (Note that San Ramon City Hall is proposed for relocation to the City Center complex.)

The under-construction St. James Place project is designated on land contemplated for residential development by the Specific Plan. As such, this project is consistent with the Specific Plan's land use vision for this property and would not conflict with the plan. Therefore, division of this future residential community is not considered foreseeable.

The Specific Plan envisions the Iron Horse Trail serving as a backbone pedestrian/bicycle facility within the plan boundaries and seeks to increase accessibility to this linkage. The Specific Plan would not impair or impede access to this facility and, therefore, would not divide any established communities that rely on the Iron Horse Trail as linkage.

Finally, the intent of the Specific Plan is to guide the transition of the plan area from a low-density, auto-oriented commercial area to transit- and pedestrian-oriented mixed-use district. In this sense, the

Specific Plan seeks to establish a "community" within the Specific Plan boundaries and appropriately support it with commercial offerings and infrastructure.

Impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

General Plan Consistency

Impact LU-2:	**The proposed project would be consistent with applicable provisions of the City of San Ramon General Plan.**

Impact Analysis

This impact addresses the potential for the North Camino Ramon Specific Plan to conflict with the City of San Ramon General Plan.

General Plan Land Use Designation Consistency Analysis

The City of San Ramon General Plan 2030 designates the entire Specific Plan area as "Mixed Use." General Plan 2030 contemplates an "Integrated mix of non-residential uses—retail, service, office—and residential uses at intensities of up to 0.70 FAR" within the Mixed Use designation and calls for such development to be of high-quality design and incorporate open space, recreational, or cultural amenities, and opportunities for workforce housing.

At buildout, the Specific Plan boundaries would contain 6.72 million square feet of commercial and residential uses. As such, the Specific Plan area would have an FAR of 0.61 (6.72 million square feet divided by 254.6 acres [11.09 million square feet]), which is within the maximum allowable average FAR of 0.70 established in the General Plan for the Mixed-Use land use designation.

Implementation of the Specific Plan would be in accordance with the General Plan's Implementing Policies 2.3-I-18 and 4.7-I-4 regarding the preparation and implementation of the Specific Plan as a transit-oriented, mixed-use area that is pedestrian/bicycle friendly and provides neighborhood and regional retail opportunities lacking in San Ramon, and vertical and horizontal mixed-use development in proximity to new and existing jobs.

The Specific Plan's proposed use of shared parking resources and a centralized parking structure would be consistent with Implementing Policy 5.6-I-16.

In addition, the Specific Plan envisions the relocation of the existing Transit Center to a central location within a 10-minute walk from all parcels within the Specific Plan area, thereby obtaining the goal of Implementing Policy 5.5-I-16 regarding a geographically balanced transit center location.

General Plan Goals and Policies Consistency Analysis

Table 3.8-2 summarizes the Specific Plan's consistency with all applicable goals and policies of General Plan 2030. As shown in the table, the Specific Plan would be consistent with all applicable goals and policies of the General Plan. Impacts would be less than significant.

Table 3.8-2: General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
2 – Economic Development	Guiding Policy 2.3-G-1	Foster a climate in which businesses can prosper.	**Consistent:** The Specific Plan seeks to guide the redevelopment of the North Camino Ramon area to create a vibrant mixed-use district with new retail, office, and residential uses. A key aspect of the Specific Plan is to complement the San Ramon City Center project and support the large office population within the Bishop Ranch Business Park. These characteristics are consistent with the objective of fostering a climate in which businesses can prosper.
	Implementing Policy 2.3-I-5	Provide expedited permit review processing for development proposals meeting City goals.	**Consistent:** This EIR is intended to provide sufficient coverage for land use and development activities contemplated by the Specific Plan, thereby allowing expedited permit review processing for subsequent development proposals.
	Implementing Policy 2.3-I-6	Encourage housing for San Ramon's resident workforce to improve the match between local employment and local workers.	**Consistent:** The Specific Plan would allow as many as 1,500 dwelling units to be developed, with a minimum of 25 percent dedicated to workforce housing. These dwelling units would be in proximity to major employment centers in San Ramon, including the Bishop Ranch Business Park and the San Ramon Regional Medical Center.
	Implementing Policy 2.3-I-7	Work with private sector entities to identify and implement technologically advanced infrastructure improvements to enable the City to remain competitive with other localities.	**Consistent:** The Specific Plan contemplates the development of telecommunication networks within the plan area to allow uses to be served by technologically advanced services.

Table 3.8-2 (cont.): General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
	Implementing Policy 2.3-I-8	Promote San Ramon as a location for business.	**Consistent:** The Specific Plan seeks to guide the redevelopment of the North Camino Ramon area to create a vibrant mixed-use district with new retail, office, and residential uses. The Specific Plan identifies desired commercial end uses (mid and large floor plate retail; commercial mixed uses, etc.) and, in this sense, promotes San Ramon as a potential location for these types of businesses.
	Guiding Policy 2.3-G-2	Provide adequate land use designations to accommodate planned development, with business and commercial areas complementing residential and public development in location/access, mix of uses, attractiveness, and environmental quality.	**Consistent:** The Specific Plan would implement planned, mixed-use development that has been designed to integrate business/commercial uses with residential and public uses while providing complementary location/ access and mix of uses. The Specific Plan includes design guidelines that would ensure future development adheres to site planning, architectural design, signage, and sustainability measures.
	Implementing Policy 2.3-I-10	Continue to refine development standards that allow for better utilization of sites already developed for employment uses (e.g., through height and/or floor area ratio increases in combination with structured parking).	**Consistent:** The Specific Plan facilitates the redevelopment of the Specific Plan area, allows for increased floor area ratios, and encourages the use of structured parking.
	Implementing Policy 2.3-I-12	Promote and encourage public transit, carpool and vanpool opportunities into San Ramon's business areas including Bishop Ranch, Crow Canyon business area, and the San Ramon Valley Boulevard business area.	**Consistent:** Implementation of the Specific Plan would redevelop the Specific Plan area to a transit- and pedestrian-oriented neighborhood that facilitates the use of alternative modes of transportation through site planning and design techniques.
	Implementing Policy 2.3-I-13	Encourage and facilitate non-motorized means of transportation to business areas.	**Consistent:** The Specific Plan allows for the development of a transit- and pedestrian-oriented neighborhood that would encourage and facilitate non-motorized means of transportation to business areas.
	Implementing Policy 2.3-I-14	Encourage retail development in mixed-use areas to accommodate local and regional demand.	**Consistent:** The Specific Plan would broaden the range of commercial building types by encouraging a variety of commercial, restaurant, and retail uses as well as larger floor

Table 3.8-2 (cont.): General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
			plate uses in a mixed-use area readily accessible by regional traffic, thereby accommodating local and regional demand.
	Implementing Policy 2.3-I-15	Implement the approved City Center project into a cultural, recreational, and vibrant mixed-use lifestyle center.	**Consistent:** A key aspect of the Specific Plan is to complement the San Ramon City Center project.
	Implementing Policy 2.3-I-16	Use development standards to minimize adverse visual effects of transportation infrastructure.	**Consistent:** The Specific Plan includes design guidelines and transportation policies that would minimize adverse visual effects of transportation infrastructure.
	Implementing Policy 2.3-I-17	Pursue alternative funding sources to secure and maintain open space and park facilities in San Ramon.	**Consistent:** The Specific Plan includes policies that would require private developments to provide for open space and park facilities, thereby allowing alternative funding sources to secure and maintain such facilities.
	Implementing Policy 2.3-I-18	Prepare and develop the North Camino Ramon Specific Plan (NCRSP) area into a fiscally balanced, transit-oriented mixed-use area that provides for neighborhood and regional retail opportunities lacking in San Ramon and vertical and horizontal mixed-use development in proximity to new and existing jobs.	**Consistent:** The Specific Plan seeks to guide the redevelopment of the North Camino Ramon area to create a vibrant mixed-use district that is transit- and pedestrian-oriented with new retail, office, and residential uses that would create jobs and provide both neighborhood and regional retail opportunities.
	Implementing Policy 2.3-I-19	Encourage businesses to promote the use of commute alternatives among their employees by implementing the City's Transportation Demand Management (TDM) programs.	**Consistent:** The Specific Plan includes the implementation and management of a TDM program that would encourage businesses to promote the use of commute alternatives.
	Guiding Policy 2.3-G-3	Ensure the fiscal and financial health of the City.	**Consistent:** New commercial and residential uses developed pursuant to the Specific Plan would pay development fees and participate in benefits districts. As such, these uses would contribute to maintaining the fiscal and financial health of the City of San Ramon.
	Implementing Policy 2.3-I-20	Evaluate the ability of new development to pay for its infrastructure, its share of public and	**Consistent:** The Specific Plan includes goals and policies that would ensure new development is

Table 3.8-2 (cont.): General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
		community facilities, and the incremental operating costs it imposes.	responsible for required infrastructure and community and public facility expansion and operation costs. Additionally, new commercial and residential uses developed pursuant to the Specific Plan would pay development fees and participate in benefits districts.
	Implementing Policy 2.3-I-22	Encourage diverse and complementary economic growth within the City, particularly in the retail sector.	**Consistent:** The Specific Plan would expand the City's retail offerings by identifying sites for large- and mid-floor plate retail uses, as well as neighborhood-serving commercial uses. As such, diverse and complementary economic growth would be encouraged.
3 – Growth Management	Guiding Policy 3.1-G-1	Manage the City's growth in a way that balances existing and planned transportation facilities, protection of open space and ridgelines, provision of diverse housing options, and the preservation of high quality community facilities and services.	**Consistent:** The North Camino Ramon Specific Plan seeks to facilitate the redevelopment of the Specific Plan area from an automobile-dominated, low-density commercial area to a transit- and pedestrian-oriented neighborhood that will be a community focal point with a mix of uses. As such, the proposed project would assist in the goal of balanced growth. There are no open space areas or ridgelines within the Specific Plan area.
	Implementing Policy 3.1-I-1	Allow urban development only if traffic from that development can be accommodated within acceptable traffic levels of service.	**Consistent:** The proposed project would implement roadway improvements to ensure that acceptable traffic level of service is met. Refer to Section 3.12, Transportation for further discussion.
	Implementing Policy 3.1-I-3	Provide a variety of diverse housing options to accommodate the local employment base, including public service employees.	**Consistent:** The proposed project would provide up to 1,500 dwelling units consisting of a wide variety of workforce housing including loft units, apartments over retail stores, apartment and condominium buildings, townhouses, rowhouses, and live/work units, thereby providing diverse housing options.
	Implementing Policy 3.1-I-4	Allocate the number of new housing units according to the City's ability to provide public services and housing needs through the use of	**Consistent:** Future development of housing units would be required to ensure that public services meet adopted performance standards as

Table 3.8-2 (cont.): General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
		adopted performance standards. Refer to Table 3.2-1.	indicated in Table 3.2-1 of General Plan 2030.
	Implementing Policy 3.1-I-5	Use growth management policies to encourage the construction of workforce housing necessary to meet local housing needs.	**Consistent:** The proposed project would include a wide variety of workforce housing, thereby providing for local housing needs.
	Implementing Policy 3.1-I-7	Allow urban development only within the City's Urban Growth Boundary (see Implementing Policies 4.6-I-1 through 4.6-I-5) and only in accord with a plan for full urban services (police, fire, parks, water, sanitation, streets and storm drainage) to which all providers are committed.	**Consistent:** The proposed project is located within the City's Urban Growth Boundary. The project site is already provided for by full urban services.
	Guiding Policy 3.2-G-1	Ensure the attainment of public facility and service standards through the City's development review process, Capital Improvement Program (CIP), and a variety of funding mechanisms to maintain existing facilities and help fund expansion.	**Consistent:** Individual projects implemented within the Specific Plan area would be required to demonstrate public facility and service standards are maintained and required expansions are funded.
	Implementing Policy	3.2-I-1 Adopt "Findings of Consistency" that ensure new projects will comply with the City's performance standards through its development review process.	**Consistent:** Individual projects implemented within the Specific Plan area would be required to demonstrate consistency with the City's performance standards through the development review process.
	Implementing Policy 3.2-I-3	Require new development to fund public facilities and infrastructure that is deemed necessary to mitigate the impact of that new development.	**Consistent:** The Specific Plan area is currently served by public facilities and infrastructure.
	Implementing Policy 3.2-I-4	Levy local, sub-regional, and regional mitigation fees for public facilities and infrastructure improvements in proportion to a new development's impact.	**Consistent:** The Specific Plan includes policies specific to the provision of public facilities and infrastructure. Refer to Section 3.11, Public Services and Recreation for further discussion.
	Implementing Policy 3.2-I-5	Use other funding mechanisms to augment developer and/or mitigation fees, when appropriate.	**Consistent:** Development proposed within the Specific Plan area would be reviewed by the City of San Ramon prior to implementation, thereby allowing for the levying of other funding mechanisms as necessary as a result of review.

Table 3.8-2 (cont.): General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
	Guiding Policy 3.3-G-1	Maintain acceptable traffic level-of-service on City streets and roadways through implementation of Transportation Demand Management (TDM), Growth Management, the Capital Improvement Program, and traffic engineering operational measures.	**Consistent:** The Specific Plan would implement roadway improvements to ensure that acceptable traffic level of service standards are met. Refer to Section 3.12, Transportation for further discussion.
	Implementing Policy 3.3-I-1	Strive to maintain traffic LOS C or better as the standard at all intersections with a maximum LOS D during a.m. and p.m. peak periods.	**Consistent:** The Specific Plan would implement roadway improvements to ensure that acceptable traffic level of service standards are met. Refer to Section 3.12, Transportation for further discussion.
	Implementing Policy 3.3-I-2	Accept LOS D during a.m. and p.m. peak periods with the possibility of intersections at or closely approaching the limits of LOS D (Volume/Capacity < 0.90), only on arterial routes bordered by non-residential development where improvements to meet the City's standard would be prohibitively costly or disruptive.	**Consistent:** The Specific Plan would implement roadway improvements to ensure that acceptable traffic level of service standards are met. Refer to Section 3.12, Transportation for further discussion.
	Implementing Policy 3.3-I-3	Require traffic impact studies for all proposed new development projected to generate 50 or more net new peak hour vehicle trips or as requested by the City Traffic Engineer.	**Consistent:** Kimley-Horn and Associates prepared a traffic impact analysis for the Specific Plan. Refer to Section 3.12, Transportation for further discussion.
	Implementing Policy 3.3-I-4	Proposed development expected to generate 50 or more peak hour vehicle trips will not be approved, unless it can be shown that its impact can be mitigated and the City's traffic and circulation standards can be maintained. The City also will not approve any proposed development expected to generate over 100 peak hour vehicle trips, unless "Findings of Consistency" can be made.	**Consistent:** Kimley-Horn and Associates prepared a traffic impact analysis for the Specific Plan. Refer to Section 3.12, Transportation for further discussion.
	Implementing Policy 3.3-I-5	Identify and implement circulation improvements on the basis of detailed traffic studies.	**Consistent:** Kimley-Horn and Associates prepared a traffic impact analysis for the Specific Plan. Refer to Section 3.12, Transportation for further discussion.

Table 3.8-2 (cont.): General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
	Implementing Policy 3.3-I-6	Support regional and local neighborhood transit options to reduce the use of the automobile and maintain acceptable traffic levels of service.	**Consistent:** The Specific Plan would redevelop the Camino Ramon area to be a transit- and pedestrian-oriented neighborhood, thereby reducing the use of automobiles and maintaining acceptable traffic levels of service.
	Implementing Policy 3.3-I-7	Develop and implement, Findings of Special Circumstances for any intersection on Non-Regional Routes that does not meet the City's traffic and circulation standards.	**Consistent:** Kimley-Horn and Associates prepared a traffic impact analysis for the Specific Plan. Refer to Section 3.12, Transportation for further discussion.
	Guiding Policy 3.4-G-1	Utilize Transportation Demand Management (TDM) strategies as an integral component of the City's transportation program to reduce total vehicle trips on San Ramon roadways and reduce the corresponding vehicle emissions that promote regional air quality improvements.	**Consistent:** The Specific Plan would employ TDM strategies through the inclusion of a Transit Center that would serve as a convenient, centralized location for public transit providers. It would also promote the use of pedestrian and bicycle modes of transportation and encourage trip reduction through its connection and adjacency to the Iron Horse Trail, and its mixed use of residential, office, and commercial land uses.
	Implementing Policy 3.4-I-1	Continue to implement the City's TDM Program to reduce trip generation.	**Consistent:** The Specific Plan includes the implementation of a TDM program, thereby continuing to implement the City's TDM Program.
	Implementing Policy 3.4-I-3	Cooperate with regional and local service providers and other jurisdictions to promote local and regional public transit service.	**Consistent:** The Specific Plan would develop the Transit Center in cooperation with the Central Contra Costa Transit Authority to ensure that the relocated facility continues to meet the existing and future operational needs of the service provider and community.
	Implementing Policy 3.4-I-4	Support local feeder transit service to and from current and future regional transit lines.	**Consistent:** The Specific Plan would develop the Transit Center in cooperation with the Central Contra Costa Transit Authority, which provides regional bus service connections to Bay Area Rapid Transit (BART) and Altamont Commuter Express (ACE). As such, local feeder transit service to and from regional transit lines would be supported.

Table 3.8-2 (cont.): General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
	Implementing Policy 3.4-I-5	Preserve options for future transit use when designing improvements for roadways.	**Consistent:** The Specific Plan would guide future development to be designed in accordance with future transit plans within the plan boundaries.
	Implementing Policy 3.4-I-7	Improve and expand the bicycle routing system in San Ramon.	**Consistent:** The Specific Plan includes the extension of bicycle routes throughout the plan area and contemplates installing an overcrossing for the Iron Horse Trail at Crow Canyon Road. Implementation of such facilities would be consistent with improving and expanding San Ramon's bicycle routing system.
	Guiding Policy 3.5-G-1	Participate in regional cooperative and multi-jurisdictional transportation planning for the maintenance of regional mobility and air quality standards as required by the Measure J Growth Management Program and the Contra Costa Congestion Management Plan (CMP).	**Consistent:** The proposed project's Transit Center is intended to provide a centralized and convenient location for local bus service that would serve neighboring communities, as well as the Dublin/Pleasanton and Walnut Creek BART stations. In addition, the proposed project would promote the use of pedestrian and bicycle modes of transportation through its proximity and link to the Iron Horse Trail. This is consistent with regional mobility and air quality improvement programs.
	Implementing Policy 3.5-I-3	Participate in programs to mitigate regional traffic congestion, including implementation of regional and sub-regional traffic impact fees on new development.	**Consistent:** Development within the Specific Plan area would be required to submit traffic impact fees as appropriate to mitigate regional traffic congestion.
	Implementing Policy 3.5-I-4	Emphasize regional transportation demand management and trip reduction strategies as alternatives to increased roadway capacity.	**Consistent:** The proposed project would employ trip reduction strategies through the inclusion of a Transit Center that would serve as a convenient, centralized location for public transit providers. It would also promote the use of pedestrian and bicycle modes of transportation and encourage trip reduction through its adjacency and link to the Iron Horse Trail, and its siting of residential and office uses near shopping, dining, and entertainment. These reductions would reduce the need for increased roadway capacity.

Table 3.8-2 (cont.): General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
	Implementing Policy 3.5-I-5	Continue to address the impacts of land use decisions on regional and local transportation facilities by applying the Contra Costa Transportation Authority (CCTA) travel demand model and technical procedures during project analysis. Additionally, help maintain CCTA's travel demand modeling system by providing information on proposed improvements to the transportation system and future developments and long-range plans within San Ramon.	**Consistent:** This EIR considered the Contra Costa Transportation Authority travel demand model and technical procedures when analyzing the Specific Plan's impacts on transportation facilities. Furthermore, the proposed project would implement roadway improvements to ensure that acceptable intersection and arterial roadway levels of service meet adopted performance standards. Refer to Section 3.12, Transportation for further discussion.
	Guiding Policy 3.6-G-1	Promote the opportunity to both work and live in San Ramon through implementation of the Housing Element.	**Consistent:** The Specific Plan would redevelop the Camino Ramon area under the Mixed-Use land use designation, thereby implementing the General Plan Housing Element and allowing for opportunities to both work and live in San Ramon.
	Implementing Policy 3.6-I-1	Develop and implement housing programs that emphasize the availability of housing for people who work in local jobs.	**Consistent:** The Specific Plan would provide a wide variety of workforce housing, thereby providing housing for people who work in local jobs.
	Implementing Policy 3.6-I-4	As part of the development review process, support the accommodation of public transit, bicycle, and pedestrian access for new development.	**Consistent:** The Specific Plan would redevelop the Camino Ramon area to be a transit- and pedestrian-oriented neighborhood, thereby supporting the accommodation of public transit, bicycle, and pedestrian access.
4 – Land Use	Guiding Policy 4.6-G-1	Foster a pattern of development that enhances the existing character of the City, and encourages land use concepts that contribute to the design of the community.	**Consistent:** The Specific Plan would enhance the North Camino Ramon area through redevelopment from an automobile-dominated, low-density commercial area to a transit- and pedestrian-oriented neighborhood containing a mix of uses and thereby contributing to the design of the community.
	Implementing Policy 4.6-I-9	Require residential development to employ creative site design and architectural quality that blends with the characteristics of each specific location and its surroundings, while incorporating 360-degree design principles.	**Consistent:** The Specific Plan includes development standards and design guidelines that would ensure residential development is appropriately designed to blend with surrounding areas.

Table 3.8-2 (cont.): General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
	Implementing Policy 4.6-I-10	Provide a wide range of housing opportunities for current and future residents.	**Consistent:** The Specific Plan would provide a wide variety of housing products including loft units, apartments over retail stores, condominiums, townhouses, rowhouses, and live/work units.
	Implementing Policy 4.6-I-11	Provide high quality public facilities, services, and other amenities within close proximity to residents.	**Consistent:** The Specific Plan includes policies that would ensure high-quality public facilities and services are provided and maintained. Refer to Section 3.11, Public Services and Recreation for further discussion.
	Implementing Policy 4.6-I-12	Ensure that all residential development provide adequate parking.	**Consistent:** Residential development within the Specific Plan area would be required to provide adequate parking as determined by the Zoning Ordinance.
	Implementing Policy 4.6-I-15	Maintain neighborhood and community shopping centers of sizes and at locations that provide convenience and minimize the need for longer/multiple automobile trips while providing a variety of goods and services while sustaining a strong retail base for the City.	**Consistent:** The Specific Plan would add 4.32 million square feet of commercial space that would provide a variety of neighborhood and community shopping centers located in an area that is transit- and pedestrian-oriented and thereby minimizing the need for longer/ multiple automobile trips.
	Implementing Policy 4.6-I-16	Ensure that neighborhood retail centers and commercial service buildings are compatible with the surrounding neighborhood while incorporating 360-degree design principles.	**Consistent:** The Specific Plan includes development standards and design guidelines that would ensure retail and commercial development is appropriately designed to blend with surrounding areas.
	Implementing Policy 4.6-I-17	Provide sufficient sites to meet the need for commercial services that can be supported by local residents, businesses, and workers.	**Consistent:** The Specific Plan would add 4.32 million square feet of commercial space availability for a variety of uses that would be supported by local residents, businesses, and workers.
	Implementing Policy 4.6-I-18	Allow for a mix of complementary office uses and commercial service businesses in commercial service areas that is balanced and encourages economic vitality.	**Consistent:** A key aspect of the Specific Plan is to complement the San Ramon City Center project and support the large office population within the Bishop Ranch Business Park. As such, the Specific Plan would allow for complementary office and commercial services uses

Table 3.8-2 (cont.): General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
			that would provide a balanced and vital economy.
	Implementing Policy 4.6-I-19	Promote the revitalization and infill development in existing retail shopping centers, which are identified as mixed use centers on the General Plan Diagram, to provide opportunities for housing and other compatible non-retail uses.	**Consistent:** The Specific Plan area is designated as Mix Use on the General Plan Diagram. Implementation of the Specific Plan would redevelop the existing retail and commercial uses through the addition of 4.32 million square feet of commercial space and 1,500 dwelling units, thereby providing housing and opportunities for non-retail uses.
	Implementing Policy 4.6-I-20	Continue to refine design standards for mixed use development that will result in a high quality pedestrian-scaled environment, with one-to-four story buildings, integrated parking, streetfront windows and entries, and public and private open space or as provided under a separate Specific Plan process.	**Consistent:** The Specific Plan has defined design standards for mixed use development that includes multiple-story buildings, integrated parking, streetfront windows, and entries and public and private open spaces. A main goal of the Specific Plan is to provide a transit- and pedestrian-oriented neighborhood.
	Implementing Policy 4.6-I-21	Promote incentives that will provide for density and FAR bonuses for mixed-use development that includes amenities for public benefit, such as workforce housing, pedestrian-oriented facilities (outdoor seating, plazas, weather protection, transit waiting areas), historic preservation, cultural facilities, public art and water features, and open space preservation.	**Consistent:** Projects within the Specific Plan area would provide workforce housing, pedestrian-oriented facilities, and a Transit Center and, therefore, would be eligible for the FAR bonus provided in the Mixed Use zoning district of 1.0.
	Implementing Policy 4.6-I-22	Allow for the revitalization and intensification of infill sites within the Bishop Ranch Business Park, consistent with FAR limitations.	**Consistent:** Implementation of the Specific Plan would revitalize and intensify infill sites within and adjacent to the Bishop Ranch Business Park.
	Implementing Policy 4.6-I-23	Permit a diverse mix of complementary uses within Bishop Ranch to better meet the daily needs of workers and to reduce the need to travel by automobile. Complementary uses shall be consistent with site zoning, compatible with the primary use and shall not adversely affect the traffic-carrying capacity of adjacent streets.	**Consistent:** Implementation of the Specific Plan would include the establishment of a variety of complementary uses as allowed by the Mixed Use zoning designation. A key aspect of the Specific Plan is to complement and support the Bishop Ranch Business Park. A Traffic Impact Analysis has been prepared as a part of this EIR and mitigation has been proposed as

Table 3.8-2 (cont.): General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
			appropriate. Refer to Section 3.12, Transportation for further discussion.
	Guiding Policy 4.7-G-1	Consider the use of Specific Plans, and other area plans to develop land use programs that reflect specific area conditions and land use needs.	**Consistent:** This project would implement the North Camino Ramon Specific Plan, which has been specifically designed for the area's existing conditions and land use needs.
	Implementing Policy 4.7-I-4	Prepare and implement a North Camino Ramon Specific Plan (NCRSP) as framework for infill development that is pedestrian/bicycle friendly, mixed use, and a transit oriented and based on the smart growth principles. The plan shall retain and provide opportunities for existing businesses, complement the City Center Project, and incorporate flexibility to encourage innovative designs. The Plan envisions an average Plan Area floor area ratio (FAR) of up to 0.7. Projects providing community benefit consistent with the Specific Plan will be able to obtain maximum FAR densities. Additional FAR increases based on workforce housing incentives may be considered. The major components in the plan area shall provide opportunities for mid to large floorplate retail, vertical and horizontal mixed-use development including workforce housing, in proximity to new and existing jobs. This specific plan should include as a minimum the following elements: • Land Use Program, including an interim use and transitional land use provisions • Provide opportunities for the continuation of Service Commercial uses within the Plan Area. • Open Space/Public Space Plan. • Design Guidelines, which may include a Form Based Code approach that regulates size mass and standard design elements to	**Consistent:** This project includes the implementation of the North Camino Ramon Specific Plan. The Specific Plan has been specifically designed to facilitate the redevelopment of the Specific Plan area from an automobile-dominated, low-density commercial area to a transit- and pedestrian-oriented neighborhood that will be a community focal point with a mix of uses. A key aspect of the Specific Plan is to complement the San Ramon City Center project and support the large office population within the Bishop Ranch Business Park. The North Camino Ramon Specific Plan has been designed to comply with and implement Policy 4.7-I-4. Refer to Section 2.0, Project Description for further discussion.

Table 3.8-2 (cont.): General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
		streamline implementation. • Implementation program, including cost of and responsibility for necessary capital and other improvements, financing measures, plan administration and enforcement, etc. • a workforce housing program affordable to a combination of extremely low, very low, low, or moderate-income households. • Consistency with the redevelopment plan in those overlapping plan areas	
	Guiding Policy 4.8-G-1	Maintain and enhance San Ramon's identity.	**Consistent:** The Specific Plan provides development standards related to density, architectural styles, setbacks, parking, signage, landscaping, street design, and public space to ensure resulting development is consistent with the overall visual character of the existing and future land uses within the plan boundaries. All development and land use implemented as a part of the Specific Plan would be required to demonstrate consistency with the Specific Plan and its design guidelines. As such, the Specific Plan area's identity would be maintained and enhanced.
	Implementing Policy 4.8-I-1	Continue to develop and refine community design documents such as the San Ramon Beautification Plan, the Creek Corridor Plan, Street Beautification Plan, Street Beautification Guidelines, Architectural Review guidelines and other guidance documents to provide comprehensive design guidelines for beautification, of streetscapes creek corridors, City signs, public art, and community entries in San Ramon.	**Consistent:** The Specific Plan document includes development standards and design guidelines that would ensure comprehensive design and beautification of the Specific Plan area would occur.
	Implementing Policy 4.8-I-2	Ensure that the design, location, and size of new development blends with the environment and a site's natural features.	**Consistent:** The Specific Plan's development standards and design guidelines would ensure high-quality architecture and landscaping would

Table 3.8-2 (cont.): General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
			be implemented and enhance the aesthetic character of the City of San Ramon.
	Implementing Policy 4.8-I-3	Continue to refine citywide lighting standards to ensure appropriate illumination levels for residential, commercial, and industrial land uses, and that lighting is of a consistent character and quality while reducing light pollution.	**Consistent:** The Specific Plan boundaries contain existing commercial uses that emit sources of nighttime lighting. Buildout of the Specific Plan would not significantly change levels of nighttime illumination and, therefore, would not exacerbate this existing condition. Refer to Section 3.1, Aesthetics, Light, and Glare for further discussion.
	Implementing Policy 4.8-I-4	Ensure that parking facilities adequately address the community image, aesthetics and functional needs of the City.	**Consistent:** A central goal of the Specific Plan is to provide shared parking opportunities. The Specific Plan includes Parking Standards that would ensure adequate parking is provided and would minimize the visual impact of parking lots and structures.
	Implementing Policy 4.8-I-5	Encourage the linkage and integration of new development with existing neighborhoods by means of Complete Streets networks, open space areas, parks, and pathways as a means of enhancing pedestrian and bicycle connections.	**Consistent:** The Specific Plan includes a network of pedestrian and bicycle connections including an open space link to the Iron Horse Trail corridor.
	Implementing Policy 4.8-I-6	Seek to assure maximum public access to the Iron Horse Trail through land acquisition, licensing agreements with Contra Costa County, and incentives for dedication and improvement of land for trailhead parks and walkways.	**Consistent:** The Specific Plan includes an open space link to the Iron Horse Trail corridor. The link would consist of landscaped path and open space linking the Iron Horse Trail to the Park Commons, Town Green, and Transit Center, thereby ensuring maximum public access.
	Implementing Policy 4.8-I-7	Require new commercial and office development to provide plazas, courtyards, seating areas and other similar outdoor passive recreation areas.	**Consistent:** The Specific Plan envisions the incorporation of paseos, courtyards, and pocket parks in all development projects. These features would add to the passive recreation options for shoppers, employees, and residents.
	Implementing Policy 4.8-I-8	Use the development review process to ensure that new development minimizes impacts and preserves	**Consistent:** Intermittent views of the Dougherty Hills, Weidemann Hill, and Mt. Diablo are visible from the

Table 3.8-2 (cont.): General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
		and/or enhances significant views of the natural landscape.	Specific Plan area. Implementation of development within the Specific Plan area would not be expected to significantly change views of these features.
	Implementing Policy 4.8-I-9	Continue to implement landscaping guidelines for public roadways that improve their visual character.	**Consistent:** The Specific Plan includes street standards that require the provision of green buffer strips between pedestrian sidewalks or amenity spaces and the adjacent traffic travel lanes or parking spaces, thereby improving the visual character of public roadways.
	Implementing Policy 4.8-I-11	Require new office and commercial development to provide outdoor art that is clearly visible to the public or contribute to a citywide public art program though the development of an in lieu fee program.	**Consistent:** Policy VIS-1.3 of the Specific Plan requires the development of a public art program and funding mechanism for the Specific Plan area.
	Implementing Policy 4.8-I-12	Encourage attractive, drought-tolerant landscaping on private property that is suitable for San Ramon's climate.	**Consistent:** The Specific Plan includes design standards and guidelines regarding the use of drought-resistant landscaping.
	Implementing Policy 4.8-I-13	Require appropriate landscape treatment for public rights-of-way in all new residential, office, and commercial development.	**Consistent:** The Specific Plan includes street standards that require the provision of green buffer strips between pedestrian sidewalks or amenity spaces and the adjacent traffic travel lanes or parking spaces.
	Implementing Policy 4.8-I-14	Ensure that businesses provide signs that are attractive and consistent with neighboring commercial uses, minimize visual clutter from roadways and other public areas, and, where possible, cannot be seen from residential neighborhoods.	**Consistent:** The Specific Plan includes signage guidelines that would ensure signs are subtle, made of high-quality materials, do not compete with each other, are in proportion to the structures they serve, and are minimally visible from residential units. Furthermore, signage would be required to comply with the provisions of the Specific Plan.
	Implementing Policy 4.8-I-16	Continue to refine urban design standards in the Zoning Ordinance as needed for large-scale office development to promote smart growth principles while minimizing negative impacts on adjacent properties.	**Consistent:** The Specific Plan sets for design guidelines for all uses, including office uses, to ensure that new development is compatible with adjacent properties.

Table 3.8-2 (cont.): General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
	Implementing Policy 4.8-I-19	Continue to provide park and recreational amenities that combine well-designed buildings, recreational equipment and playing fields, and complementary landscaping at key locations throughout the City.	**Consistent:** The Specific Plan includes the provision of recreational amenities, including the Park Commons, Park Green, Iron Horse Trail Open Space Link, and Iron Horse Trail Overcrossing.
	Implementing Policy 4.8-I-20	Require all walls and fences to be designed to minimize visual monotony.	**Consistent:** Development Standards and design guidelines within the Specific Plan require walls and fences to implement architectural variations to minimize visual monotony.
5 – Traffic and Circulation	Guiding Policy 5.1-G-1	Maintain acceptable levels of service and ensure that future development and the circulation system are in balance.	**Consistent:** The proposed project would implement roadway improvements to ensure that acceptable intersection and arterial roadway levels of service meet adopted performance standards. Refer to Section 3.12, Transportation for further discussion.
	Implementing Policy 5.1-I-1	Strive to maintain traffic LOS C or better as the standard at all intersections with a maximum LOS D during a.m. and p.m. peak periods.	**Consistent:** The proposed project would implement roadway improvements to ensure that acceptable intersection and arterial roadway levels of service meet adopted performance standards. Refer to Section 3.12, Transportation for further discussion.
	Implementing Policy 5.1-I-2	Require traffic impact studies for all proposed new development projected to generate 50 or more net new peak hour vehicle trips or as requested by the City Traffic Engineer.	**Consistent:** Kimley-Horn and Associates prepared a traffic impact analysis for the Specific Plan. Refer to Section 3.12, Transportation for further discussion.
	Implementing Policy 5.1-I-3	Identify and implement circulation improvements based on required traffic studies.	**Consistent:** The Kimley-Horn and Associates traffic study identified roadway improvements necessary to mitigate for the proposed project's impacts on circulation. Refer to Section 3.12, Transportation for further discussion.
	Guiding Policy 5.2-G-1	Actively participate in local and regional transportation planning.	**Consistent:** The Specific Plan and EIR address and incorporate a number of transportation planning concepts advocated by local and regional agencies, such as accessibility to transit, bicycles, and pedestrians. Additionally, local and

Table 3.8-2 (cont.): General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
			regional agencies will have the opportunity to comment on the Specific Plan and EIR during the public review and hearing process. This is consistent with the objective of actively participating in local and regional transportation planning.
	Implementing Policy 5.2-I-5	Emphasize regional transportation demand management and trip reduction strategies as alternatives to improvements to existing facilities and the construction of new facilities.	**Consistent:** The proposed project would employ trip reduction strategies through the inclusion of a Transit Center that would serve as a convenient, centralized location for public transit providers. It would also promote the use of pedestrian and bicycle modes of transportation and encourage trip reduction through its adjacency to the Iron Horse Trail, and its siting of residential and office uses near shopping, dining, and entertainment. The Specific Plan also includes goals and policies regarding the establishment of Transportation Demand Management programs and a Transportation Management Association to serve the area.
	Implementing Policy 5.2-I-6	Identify the impacts of land use decisions on regional as well as local transportation facilities.	**Consistent:** Impacts of the Specific Plan on regional and local transportation facilities have been identified as a part of this EIR. Mitigation has been proposed as necessary. Refer to Section 3.12, Transportation for further discussion.
	Implementing Policy 5.2-I-7	Support regional air quality and greenhouse gas reduction objectives through effective management of the City's transportation system.	**Consistent:** The Specific Plan would redevelop the Specific Plan area from an automobile-dominated area to a transit- and pedestrian-oriented neighborhood, thereby supporting the reduction of greenhouse gas emissions from cars.
	Guiding Policy 5.3-G-1	Encourage transportation facilities that consider the users' safety and allows for all modes of travel based on local conditions and needs of the community.	**Consistent:** The Specific Plan has been designed to redevelop the area from an automobile-dominated area to a transit- and pedestrian-oriented neighborhood complete with a transit center and complementary to surrounding areas and local transportation modes.

Table 3.8-2 (cont.): General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
	Implementing Policy 5.3-I-2	Implement Complete Streets principles, as appropriate, for new roadway design and significant roadway rehabilitation.	**Consistent:** The Specific Plan's development standards for streets include Complete Streets principles such as the inclusion of pedestrian, bicyclist, transit rider, and driver amenities and design that encourage walking or bicycling.
	Implementing Policy 5.3-I-4	Encourage Complete Streets concepts as a vehicle-miles-traveled and greenhouse gas reduction strategy.	**Consistent:** The Specific Plan's development standards for streets include Complete Streets principles such as the inclusion of pedestrian, bicyclist, transit rider, and driver amenities and design that encourage walking or bicycling. Implementation of these standards would assist in the reduction of vehicle-miles-traveled and greenhouse gas emissions.
	Guiding Policy 5.4-G-1	Design arterial roadways to efficiently move inter-city traffic, thereby minimizing through-traffic in residential areas of the City.	**Consistent:** The Specific Plan's roadway network has been designed to efficiently move traffic through the area. Implementation of the Specific Plan's roadways would not result in increased through-traffic in adjacent residential areas.
	Implementing Policy 5.4-I-4	Maximize the carrying capacity of arterial roadways by controlling the number of intersections and minimize residential and commercial driveway access, on-street parking and requiring sufficient off-street parking to meet the needs of each proposed project.	**Consistent:** The Specific Plan's secondary street grid has been designed for the efficient movement of traffic. Driveway access and on- and off-street access would be implemented as appropriate for each project within the plan boundaries.
	Implementing Policy 5.4-I-5	Require traffic impact mitigation fees on new residential and commercial development to ensure that transportation improvements are constructed before the increased traffic causes conditions to deteriorate.	**Consistent:** Development projects within the Specific Plan boundaries would be subject to traffic impact mitigation fees as appropriate to ensure appropriate levels of service are maintained.
	Guiding Policy 5.5-G-1	Design collector and local roadways to improve circulation and to connect residential and commercial areas of the City while incorporating Complete Streets concepts pursuant to Policy 5.3-I-2 where appropriate	**Consistent:** The Specific Plan's secondary street grid would serve to improve circulation within the plan boundaries. The secondary street grid would be constructed to the development standards outlined in the Specific Plan and would include pedestrian and bicycle infrastructure,

Table 3.8-2 (cont.): General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
			thereby incorporating Complete Streets concepts.
	Implementing Policy 5.5-I-2	Continue to implement traffic-control measures and design features that support attainment of the City's goal of less than 3,000 vehicles per day on collector roadways.	**Consistent:** The Specific Plan would guide the redevelopment of the plan area from an automobile-dominated, low-density commercial area to a transit- and pedestrian-oriented neighborhood with a mix of uses that would allow for the minimization of vehicle trips, thereby supporting the attainment of fewer than 3,000 vehicles per day on collector roadways.
	Implementing Policy 5.5-I-4	Construct improvements to collector roadways as follows: […] • Alcosta Boulevard Extension: Extend Alcosta Boulevard north from Crow Canyon Road to Fostoria Parkway as a four-lane street. Widen and construct Fostoria Parkway as a four-lane roadway from Camino Ramon east to Alcosta Boulevard extension. (These streets are partially within the Danville Town limits, and these projects would require the support and participation of the Town of Danville.) […]	**Consistent:** The Specific Plan contemplates the Alcosta Boulevard Extension and widening of Fostoria Way as set forth in this policy. Individual applicants that pursue development in accordance with the Specific Plan will be assessed development fees in accordance with the City's standard fee schedule to fund roadway improvements, such as the Alcosta Boulevard Extension and Fostoria Way widening.
	Implementing Policy 5.4-I-5	Mitigate appropriately traffic that impacts collector streets as a result of new residential and commercial development.	**Consistent:** Individual applicants that pursue development in accordance with the Specific Plan will be assessed development fees in accordance with the City's standard fee schedule to fund roadway improvements. Refer to Section 3.12, Transportation for further discussion.
	Guiding Policy 5.6-G-1	Utilize Transportation Demand Management (TDM) strategies as an integral component of the City's transportation program to reduce total vehicle trips on San Ramon roadways and reduce the corresponding vehicle emissions that promote regional air quality improvements.	**Consistent:** The proposed project would employ TDM strategies through the inclusion of a Transit Center that would serve as a convenient, centralized location for public transit providers. It would also promote the use of pedestrian and bicycle modes of transportation and encourage trip reduction through

Table 3.8-2 (cont.): General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
			its adjacency and link to the Iron Horse Trail and its mix of land uses.
	Implementing Policy 5.6-I-1	Cooperate with public agencies and other jurisdictions to promote local and regional public transit service in San Ramon as part of a multimodal and Complete Streets strategy.	**Consistent:** The Specific Plan envisions the relocation of a Transit Center that would continue to be served by County Connection bus service to neighboring communities and the Dublin/Pleasanton and Walnut Creek BART stations.
	Implementing Policy 5.6-I-2	Encourage and assist major employers and commercial complexes to reduce the number of single-occupant vehicles by participating in the City's TDM programs.	**Consistent:** The proposed project would employ TDM strategies through the inclusion of a Transit Center that would serve as a convenient, centralized location for public transit providers. It would also promote the use of pedestrian and bicycle modes of transportation and encourage trip reduction through its adjacency and link to the Iron Horse Trail and its mix of land uses.
	Implementing Policy 5.6-I-7	Encourage new development to include a mix of uses and Complete Streets concepts that will allow people to walk and bike between destinations and reduce the amount of automobile vehicle-miles-traveled.	**Consistent:** The Specific Plan's secondary street grid would be constructed to the development standards outlined in the Specific Plan and would include pedestrian and bicycle infrastructure, thereby incorporating Complete Streets concepts. Furthermore, the Specific Plan envisions a centrally located mix of uses that would encourage alternative modes of transportation. These characteristics would assist in the reduction of automobile vehicle-miles-traveled.
	Implementing Policy 5.6-I-9	Encourage employers and commercial complexes to emphasize public transit services or private alternatives to the single-occupant vehicle.	**Consistent:** The Specific Plan's transit- and pedestrian-oriented neighborhood design and link to the Iron Horse Trail would encourage the use of transit services.
	Implementing Policy 5.6-I-10	Work with transit providers to situate transit stops at convenient and safe locations.	**Consistent:** The Specific Plan envisions the relocation of the Transit Center to place all parcels within the Specific Plan area within a 10-minute walk of the Transit Center.
	Implementing Policy 5.6-I-14	Consider the construction of public parking facilities in the City Center, North Camino Ramon Specific Plan,	**Consistent:** Shared parking is a central goal of the Specific Plan. The Specific Plan envisions a centralized

Table 3.8-2 (cont.): General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
		or other commercial areas to serve projected parking demand, while carefully balancing the need for adequate parking against the desire to minimize traffic growth and create a pedestrian/bicycle friendly environment using Complete Streets design concepts.	parking that would reduce the overall number of parking spaces needed and encourage one-stop shopping.
	Implementing Policy 5.5-I-16	Explore opportunities for the location or relocation of a transit center to North Camino Ramon Specific Plan Area to better geographically balance the public transit needs for the City.	**Consistent:** The existing Transit Center, currently located on Executive Parkway, may be relocated to the Park Commons. It will place all parcels within the Specific Plan area within a 10-minute walk, making access to jobs, stores, and restaurants in the area convenient and encouraging residents within the area to take transit to their jobs elsewhere.
	Guiding Policy 5.6-G-2	Encourage trip reduction measures in an effort to reduce vehicle-miles-traveled, improve air quality, and reduce greenhouse gas emissions.	**Consistent:** The Specific Plan envisions a transit- and pedestrian-oriented neighborhood with a mix of uses, thereby encouraging trip reduction and reduced impacts to air quality.
	Implementing Policy 5.6-I-17	Encourage "Park Once" concepts as a vehicle-miles-traveled reduction strategy for mixed-use, commercial, and public facilities through the integration of common design features and shared parking concepts including but not limited to Parking Benefit Districts.	**Consistent:** The Specific Plan's mixed-use core would provide for a mix of retail, restaurants and service commercial uses with outdoor cafes and merchandise displays, enlivening the streetfront and encouraging active pedestrian activity to make park-once-and-walk shopping possible and appealing.
	Implementing Policy 5.6-I-18	Encourage shared parking facilities and parking reductions for compatible land uses to minimize excessive parking to reduce inefficient use of land, unnecessary pavement and stormwater runoff, and encourage alternative transportation and reductions in vehicle-miles-traveled.	**Consistent:** Shared parking is a central goal of the Specific Plan. It will reduce the overall number of parking spaces needed, reduce the cost of providing parking to individual property owners, and encourage one-stop shopping. An overall parking management plan will encourage the use of shared parking throughout the area to take advantage of the wide mix of uses.
	Implementing Policy 5.6-I-19	Encourage infill and Transit-Oriented Development (TOD) concepts as a vehicle-miles-traveled reduction strategy for existing and proposed development.	**Consistent:** The Specific Plan would guide the redevelopment and infill of the plan area and would incorporate pedestrian- and transit features and amenities, thereby implementing Transit Oriented Development.

Table 3.8-2 (cont.): General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
	Guiding Policy 5.7-G-1	Encourage bicycling and walking as alternatives to driving, consistent with Complete Streets concepts.	**Consistent:** The Specific Plan's development standards for streets include Complete Streets principles such as the inclusion of pedestrian, bicyclist, transit rider, and driver amenities and design that encourage walking or bicycling.
	Implementing Policy 5.7-I-3	Continue to emphasize the Iron Horse Trail as a major north-south route for non-motorized transportation by improving connectivity and enhancing amenities for bicycles and pedestrians.	**Consistent:** The Specific Plan envisions the Iron Horse Trail serving as a bicycle/pedestrian backbone within the plan area and requires new development along the trail corridor to provide access. The Specific Plan also envisions grade separating the trail at Crow Canyon Road.
	Implementing Policy 5.7-I-4	Encourage future development along the trail corridor to provide connection points and amenities as appropriate.	**Consistent:** The Specific Plan envisions the Iron Horse Trail serving as a bicycle/pedestrian backbone within the plan area and requires new development along the trail corridor to provide access.
	Implementing Policy 5.7-I-5	Require bicycle parking, storage and other support facilities as part of any new office and retail developments and public facilities.	**Consistent:** The Specific Plan includes bicycle parking requirements that would ensure development within the plan boundaries provide bicycle support facilities.
	Implementing Policy 5.7-I-6	Continue to promote and implement through the development review process, continuous circulation facilities within Bishop Ranch Business Park, commercial districts, and residential neighborhoods to enhance connectivity and promote pedestrian and bicycle modes of transportation consistent with Complete Streets concepts.	**Consistent:** The Specific Plan's envisions a network of bicycle and pedestrian facilities, including a link to the Iron Horse Trail, that would promote alternative modes of transportation and would be consistent with Complete Streets concepts.
	Implementing Policy 5.7-I-7	Continue to implement accessibility standards for physically disabled persons within the public rights-of-way.	**Consistent:** All pedestrian facilities developed pursuant to the Specific Plan will comply with the latest adopted disabled access requirements.
	Implementing Policy 5.7-I-9	Implement the San Ramon Valley Iron Horse Trail Corridor Concept Plan by refining the design alternatives and pursue funding	**Consistent:** The Specific Plan contemplates grade separating the Iron Horse Trail at Crow Canyon Road, consistent with the San Ramon

Table 3.8-2 (cont.): General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
		through grants, public/private partnerships and other funding sources as appropriate.	Valley Iron Horse Trail Corridor Concept Plan.
	Implementing Policy 5.7-I-10	Require roadway improvement projects to minimize both temporary and permanent reductions in bicycle and pedestrian mobility and/or accessibility.	**Consistent:** The Specific Plan's proposed secondary street grid would include bicycle and pedestrian facilities, thereby improving their mobility and accessibility.
	Implementing Policy 5.7-I-11	Work with neighboring jurisdictions to ensure that continuity in bicycle and pedestrian networks is provided at jurisdictional boundaries.	**Consistent:** The Specific Plan includes a link to the Iron Horse Trail that links bicycle and pedestrian networks at jurisdictional boundaries.
6 – Parks and Recreation	Guiding Policy 6.5-G-1	Create and maintain a high-quality public park system for San Ramon.	**Consistent:** The Specific Plan includes development of the Park Commons linear park, Village Green, Iron Horse Trail Open Space Link, Iron Horse Trail Overcrossing, and a Residential Park, creating a high-quality public park system in the Specific Plan area.
	Implementing Policy 6.5-I-1	Maintain a standard of 6.5 acres of public parks per 1,000 residents at General Plan buildout, with only usable acreage considered in meeting this standard.	**Consistent:** Implementation of the Specific Plan's public park areas would assist the City in maintaining a standard of 6.5 acres of public park space per 1,000 residents through the dedication of parkland and payment of fees.
	Implementing Policy 6.5-I-2	Provide varied community park and recreational opportunities accessible to all City residents.	**Consistent:** The Specific Plan envisions an integrated network of varied public spaces planned to serve residents, shoppers, and employees.
	Implementing Policy 6.5-I-4	Provide passive and active recreational amenities within the City's parks to meet the needs of citizens of all ages and interests.	**Consistent:** The Specific Plan includes development of the Park Commons linear park, Park Green, Iron Horse Trail Open Space Link, Iron Horse Trail Overcrossing and Residential Park. These facilities would include passive and active recreational amenities.
	Implementing Policy 6.5-I-5	Require residential developers to make dedications to the City's park system.	**Consistent:** Specific Plan Policy PF-1.4 requires land dedication and/or park fees to be provided by residential developers within the Specific Plan area.
	Implementing Policy 6.5-I-6	Encourage contributions to the City's park system by non-residential developers.	**Consistent:** Specific Plan Policy PF-1.2 encourages public/private partnerships to construct public

Table 3.8-2 (cont.): General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
			spaces and bicycle links within the plan area.
	Implementing Policy 6.5-I-7	Complete all parkland dedication requirements for each development prior to occupancy.	**Consistent:** Specific Plan Policy PF-1.4 requires land dedication or park fees to be provided by residential developers within the Specific Plan area. Such actions would be required prior to occupancy.
	Implementing Policy 6.5-I-8	Encourage the development of landscaped and dedicated open spaces, parkways, trail systems, and special community service facilities in new developments.	**Consistent:** Implementation of the Specific Plan would create an integrated network of public spaces including parkways, trails, and open space throughout the Specific Plan area in conjunction with the area's redevelopment.
	Implementing Policy 6.5-I-16	Maintain a standard, at General Plan buildout, that public parks are to be within one-half mile of all homes with only usable acreage considered in meeting this standard.	**Consistent:** Implementation of the Specific Plan's Public Space Framework would distribute public spaces throughout the Specific Plan Area. The Park Green and Iron Horse Trail Link would be within 0.50 mile of most areas within the Specific Plan Area. Furthermore, the Specific Plan area is within 0.25 mile of Central Park.
	Implementing Policy 6.5-I-17	Maintain a standard, at General Plan buildout, that Community Parks are to be within three miles of all homes with only usable acreage considered in meeting this standard.	**Consistent:** All locations within the Specific Plan area are within 3 miles of Central Park. The Specific Plan would also implement the Park Green within its boundaries.
	Implementing Policy 6.5-I-18	Increase the accessibility and connectivity to the Iron Horse Trail and the regional/city trail network, including the possibility of bicycle/pedestrian overcrossing(s) described in the San Ramon Valley Iron Horse Trail Corridor Concept Plan.	**Consistent:** The Specific Plan envisions the Iron Horse Trail serving as a bicycle/pedestrian backbone within the plan area and requires new development along the trail corridor to provide access. The Specific Plan also envisions grade separating the trail at Crow Canyon Road.
	Implementing Policy 6.5-I-19	Where appropriate, require new development to provide Public Spaces to enhance the recreation or leisure interactive experience of residents or visitors for passive or active use.	**Consistent:** Specific Plan Policy PSP-1.3 requires specialized paving, landscaping, and street furnishings to encourage shoppers, employees, and residents to utilize the sidewalks as part of their daily active and passive recreation, entertainment, and social networking. The Specific Plan also envisions the use of mini-parks,

Table 3.8-2 (cont.): General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
			pedestrian paseos, and other small-scale amenities throughout the Plan Area.
7 – Public Facilities and Utilities	Guiding Policy 7.1-G-1	Provide public and cultural facilities that contribute to the City's positive image and enhance community identity.	**Consistent:** The Specific Plan envisions a network of sidewalks, landscaping, parks and active public spaces that would contribute to the City's positive image and enhance community identity.
	Guiding Policy 7.2-G-1	Collaborate with the San Ramon Valley Unified School District in their efforts to ensure that all school age children have equal access to equitable facilities.	**Consistent:** Specific Plan Policy PF-4.1 would ensure that developers of any new residential units would contribute school impact mitigation fees.
	Implementing Policy 7.2-I-2	Require that residential development pay fees to the School District to provide adequate, permanent classroom space.	**Consistent:** Specific Plan Policy PF-4.1 would ensure that developers of any new residential units would contribute school impact mitigation fees. The fees can only be used for capital improvements for school facilities.
	Guiding Policy 7.3-G-1	Encourage development of private educational, cultural, childcare, and medical facilities in San Ramon.	**Consistent:** Commercial square footage developed as a part of the Specific Plan would provide space for schools, studios, theaters, medical services, and child care facilities as allowed by the Mixed Use zoning ordinance.
	Implementing Policy 7.3-I-1	Encourage developers of residential and nonresidential projects to assist in funding public or private facilities and services.	**Consistent:** The Specific Plan envisions a network of public spaces that would be funded by both residential and nonresidential development within the area.
	Implementing Policy 7.3-I-9	Encourage uses which support the medical facilities within proximity of the Regional Medical Center.	**Consistent:** Several existing properties within the Specific Plan area support medical office uses that are in proximity of the Regional Medical Center (e.g., Bishop Ranch 11). The Specific Plan contains provisions allowing the consolidation of office uses within the Bishop Ranch 6 complex. Thus, in the event existing medical offices are displaced, it would be expected that they would be relocated to Bishop Ranch 6.
	Guiding Policy 7.4-G-1	Ensure the provision of adequate communication and utility systems	**Consistent:** Adequate communication and utility systems

Table 3.8-2 (cont.): General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
		for existing and future residents and the business community.	are available to serve the existing and future uses of within the Specific Plan area. Refer to Section 3.13, Utility Systems for further discussion.
	Implementing Policy 7.4-I-1	Coordinate with Pacific Gas and Electric Company (PG&E) in their efforts to monitor future utility expansion to ensure that facilities are designed and planned with minimal impact on existing and future residents.	**Consistent:** There are no known energy infrastructure capacity deficiencies that would significantly affect the redevelopment of the area. The need for any additional facility infrastructure would be evaluated and coordinated with PG&E as development progresses.
	Implementing Policy 7.4-I-2	Work with PG&E to improve transmission line corridors with attractive, community-serving uses and to upgrade the appearance of the transmission line corridors in conjunction with an expansion or co-use of the corridor.	**Consistent:** Implementation of the Specific Plan would not affect the transmission line located within the Iron Horse Trail corridor.
	Implementing Policy 7.4-I-3	Require new development to underground all utility lines needed to serve the future buildings and their occupants, and continue to coordinate with PG&E to underground utilities in existing residential neighborhoods, making the Southern San Ramon area a priority.	**Consistent:** New development within the Specific Plan area would underground all utility lines as applicable.
	Implementing Policy 7.4-I-4	Continue to explore opportunities to underground existing overhead utility lines throughout the City with available funding.	**Consistent:** The undergrounding of any existing overhead utility lines within the Specific Plan area would be considered during redevelopment activities on a project-by-project basis.
	Implementing Policy 7.4-I-6	Encourage utility providers to foster better access, use, and distribution of multi-media products, including fiber optics, wireless technologies, and satellite communications.	**Consistent:** The Specific Plan area is currently served by telephone, cable, and communication infrastructure. Additional access, use, and distribution of multimedia products would occur as redevelopment projects are constructed.
	Implementing Policy 7.4-I-7	Encourage all new development to provide the technology to support multiple telecommunications facilities and providers.	**Consistent:** The Specific Plan area is currently served by telephone, cable, and communication infrastructure. Additional access, use, and distribution of multimedia products

Table 3.8-2 (cont.): General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
			would occur as redevelopment projects are constructed.
	Implementing Policy 7.4-I-10	Encourage co-location of telecommunication facilities to minimize potential visual impacts to the community.	**Consistent:** Telecommunication facilities located within the Specific Plan boundaries would be required to abide by the regulatory standards regarding visual impacts as outlined by Division 4, Chapter IV of the Zoning Ordinance.
	Implementing Policy 7.4-I-11	Coordinate sub-surface utility work with road improvements and maintenance whenever possible.	**Consistent:** A network of sub-surface utilities is located within the existing roadways in the Specific Plan area. The Specific Plan envisions the extension of utilities within the proposed secondary street grid, thereby coordinating sub-surface utility work with road improvements.
	Guiding Policy 7.5-G-1	Manage solid waste so that State goals are exceeded and the best possible service is provided to the citizens and businesses of San Ramon.	**Consistent:** Mitigation included in this EIR would require construction, demolition, and operational debris recycling, thereby assisting the attainment of state solid waste goals. Refer to Section 3.13, Utility Systems for further discussion.
	Implementing Policy 7.5-I-2	Provide and promote opportunities to reduce waste in all sectors of San Ramon, including residential, commercial, non-profit, government, and educational sectors.	**Consistent:** Mitigation included in this EIR would require construction, demolition, and operational debris recycling, thereby assisting the attainment of state solid waste goals. Refer to Section 3.13, Utility Systems for further discussion.
	Implementing Policy 7.5-I-4	Through the development review process, encourage the provision of convenient recyclable material storage locations.	**Consistent:** Mitigation included in this EIR would require the incorporation of recycling and waste reduction plans prior to the issuance of occupancy permits for developments within the Specific Plan area. Refer to Section 3.13, Utility Systems for further discussion.
	Implementing Policy 7.5-I-8	Encourage solid waste diversion (e.g. waste prevention, reuse, recycling, and composting).	**Consistent:** Mitigation included in this EIR would require the incorporation of recycling and waste reduction plans prior to the issuance of occupancy permits for developments within the Specific

Table 3.8-2 (cont.): General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
			Plan area. Refer to Section 3.13, Utility Systems for further discussion.
	Guiding Policy 7.6-G-1	Collaborate with the San Ramon Valley Fire Protection District to deliver a high level of public protection services that protect life, property, and the environment.	**Consistent:** Two fire stations (Nos. 34 and 38) are within 1 mile of the Specific Plan area. Additionally, the Specific Plan requires that all new streets provide sufficient width to accommodate fire apparatus. Finally, the San Ramon Valley Fire Protection District will review all development applications for compliance with applicable Fire Code standards. Refer to Section 3.11, Public Services and Recreation for further discussion.
	Implementing Policy 7-6-I-1	Continue to coordinate with the San Ramon Valley Fire Protection District to provide adequate fire protection facilities and services to meet the needs of the community.	**Consistent:** Two fire stations (Nos. 34 and 38) are within 1 mile of the Specific Plan area. These facilities are considered adequate to serve the proposed project. Refer to Section 3.11, Public Services and Recreation for further discussion.
	Implementing Policy 7-6-I-2	Seek input from the San Ramon Valley Fire Protection District to ensure that fire protection measures are identified during the development review process.	**Consistent:** The San Ramon Valley Fire Protection District will review all development applications for compliance with applicable Fire Code standards. Refer to Section 3.11, Public Services and Recreation for further discussion.
	Guiding Policy 7.7-G-1	Maintain a high level of public safety for all people who live or work in San Ramon.	**Consistent:** The San Ramon Police Department was consulted during the preparation of the Specific Plan and recommended the inclusion of the public outreach facility in the shared parking structure adjacent to the Village Green. This is consistent with the objective of maintaining a high level of public safety.
	Implementing Policy 7.7-I-1	Ensure crime-reduction and public safety features are incorporated into the design of new development projects through the Crime Prevention Through Environmental Design program (CPTED).	**Consistent:** The Specific Plan promotes a number of CPTED features, including locating activity centers in visible areas, contemplating a public outreach facility in the shared parking structure adjacent to the Village Green, and orienting buildings to face streets. Collectively, these features

Table 3.8-2 (cont.): General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
			promote the CPTED objective of integrating crime deterrent features into new development projects.
	Implementing Policy 7.7-I-3	Require new development, if appropriate, to provide a funding mechanism to support and maintain San Ramon's high level of police services.	**Consistent:** The San Ramon Police Department was consulted during the preparation of the Specific Plan and recommended the inclusion of the public outreach facility in the shared parking structure adjacent to the Village Green. Refer to Section 3.11, Public Services and Recreation for further discussion.
8 – Open Space and Conservation	Guiding Policy 8.1-G-1	Protect and maintain the quality of biological resources in the San Ramon Planning Area, while also balancing the needs of growth and development.	**Consistent:** This EIR evaluates the potential presence of significant biological resources within the Specific Plan area and identifies protection measures where necessary. Refer to Section 3.3, Biological Resources for further information.
	Implementing Policy 8.1-I-1	Continue to require new land use and development activities to comply with applicable laws and regulations concerning special status species.	**Consistent:** This EIR would require new land use and development activities within the Specific Plan area to implement standard mitigation measures for nesting birds, thereby complying with the Migratory Bird Treaty Act. Refer to Section 3.3, Biological Resources for further discussion.
	Implementing Policy 8.1-I-2	When special status species and/or critical habitat may be adversely affected by land use or development activities, require appropriate and feasible mitigation measures in accordance with regulatory agency guidance.	**Consistent:** This EIR would require new land use and development activities within the Specific Plan area to implement standard mitigation measures for nesting birds, thereby complying with the Migratory Bird Treaty Act. Refer to Section 3.3, Biological Resources for further discussion.
	Implementing Policy 8.3-I-11	Continue participation in the Contra Costa Clean Water Program to control stormwater pollution and protect the quality of the City's waterways.	**Consistent:** Development implemented under the Specific Plan would apply stormwater pollution controls during construction and operations to prevent the release of pollutants into local waterways,

Table 3.8-2 (cont.): General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
			consistent with the policies of the Contra Costa Clean Water Program. Refer to Section 3.7, Hydrology and Water Quality for further discussion.
	Guiding Policy 8.6-G-1	Promote the implementation of water quality and conservation programs and measures by San Ramon employers, residents, and public agencies.	**Consistent:** Development within the Specific Plan area would be required to be consistent with the Contra Costa Clean Water Program and the City of San Ramon Stormwater Management Program. Mitigation included in this EIR would require the development to implement Stormwater Pollution Prevention Plans and Best Management Practices as applicable. Refer to Section 3.7, Hydrology and Water Quality for further discussion. In addition, mitigation included in this EIR would require the use of recycled water and compliance with the Model Water Efficient Landscape Ordinance. Refer to Section 3.13, Utility Systems for further discussion.
	Implementing Policy 8.6-I-1	Require new development projects to implement indoor water conservation and demand management measures.	**Consistent:** The Specific Plan contains sustainability guidelines that encourage whole-building design, a goal of which is the protection and conservation of water. Specific Plan Policy UTL-1.1 requires the incorporation of water conservation into all public and private development. In addition, new development and redevelopment within the Specific Plan area would be required to adhere to the City's Ordinance No. 218 (Water Conservation and Landscape Ordinance).
	Implementing Policy 8.6-I-2	Require new development projects to implement outdoor water conservation and demand management measures.	**Consistent:** The Specific Plan contemplates the use of recycled water for outdoor irrigation and requires new development to comply with the Model Water Efficient Landscape Ordinance. Refer to Section 3.13, Utility Systems for further discussion.

Table 3.8-2 (cont.): General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
	Implementing Policy 8.6-I-3	New development in areas where recycled water service exists or is planned shall be plumbed with "purple pipe" and other measures necessary to accommodate non-potable water service.	**Consistent:** Specific Plan Policy UTL-1.2 requires the incorporation of recycled water into landscaping plans for all public and private projects within the Plan area. Furthermore, development would be required to adhere to local development standards for recycled water.
	Implementing Policy 8.6-I-4	Require new development to meet the State Model Water Efficient Landscape Ordinance (MWELO).	**Consistent:** The Specific Plan requires new development to comply with the Model Water Efficient Landscape Ordinance. Refer to Section 3.13, Utility Systems for further discussion.
	Implementing Policy 8.6-I-6	Continue implementation of the City of San Ramon Stormwater Management Program to reduce storm water pollution, provide public education, and to protect the water quality of the City's local creeks and streams.	**Consistent:** The Specific Plan requires new development to implement Low Impact Development principles into drainage plans to reduce adverse stormwater impacts. This requirement is consistent with the objectives of the City of San Ramon Stormwater Management Program.
	Implementing Policy 8.6-I-7	Promote the protection of groundwater resources by collaborating with agencies that monitor and oversee clean-up efforts at existing sources of pollution.	**Consistent:** The Specific Plan does not contemplate any end uses with the potential to contaminate groundwater (e.g., industrial land uses). Furthermore, the Specific Plan would not interfere with the current groundwater remediation efforts at the Shell gas station at Crow Canyon Road/Crow Canyon Place intersection. These characteristics are consistent with the objective of promoting the protection of groundwater resources. Refer to Section 3.7, Hydrology and Water Quality for further discussion.
	Guiding Policy 8.7-G-1	Identify, evaluate, and preserve the archaeological, paleontological, and historic resources that are found within the San Ramon Planning Area.	**Consistent:** This EIR requires standard inadvertent discovery mitigation measures in the event undiscovered resources are found during construction. Refer to Section 3.4, Cultural Resources for further information.
	Implementing Policy 8.7-I-1	Require that new development evaluate potential impacts to historic, archaeological, and	**Consistent:** This EIR evaluates potential impacts to historic, archaeological, and paleontological

Table 3.8-2 (cont.): General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
		paleontological resources and, if necessary, implement appropriate mitigation measures to protect the resources.	resources and requires standard inadvertent discovery mitigation measures in the event undiscovered resources are found during construction. Refer to Section 3.4, Cultural Resources for further information.
	Implementing Policy 8.7-I-4	As a standard condition of approval, require all development projects involving grading and excavation to implement appropriate measures in the event that burial sites or human remains are encountered during earthwork activities.	**Consistent:** This EIR requires standard inadvertent discovery mitigation measures in the event undiscovered resources are found during construction. Refer to Section 3.4, Cultural Resources for further information.
	Implementing Policy 8.7-I-5	For projects involving a General Plan Amendment, the development of a Specific Plan (or amendment), or designating open space, provide for tribal consultation opportunities in accordance with state law.	**Consistent:** The City of San Ramon completed the tribal consultation process in accordance with state law prior to the adoption of the Specific Plan.
9 – Safety	Guiding Policy 9.2-G-1	Minimize risks of personal injury and property damage posed by geologic and seismic hazards.	**Consistent:** This EIR requires standard mitigation for geologic and seismic hazards. Refer to Section 3.5, Geology, Soils, and Seismicity for further discussion.
	Implementing Policy 9.2-I-1	Review proposed development sites during the planning process to identify and mitigate any potential geologic or seismic hazards.	**Consistent:** This EIR requires standard mitigation for geologic and seismic hazards. Refer to Section 3.5, Geology, Soils, and Seismicity for further discussion.
	Implementing Policy 9.2-I-3	Where appropriate, require an independent registered engineering geologist or geotechnical engineer to review geotechnical reports submitted by applicants on sites in seismically hazardous areas.	**Consistent:** This EIR requires standard mitigation for geologic and seismic hazards, including the preparation of a design-level geotechnical report for new development projects. Refer to Section 3.5, Geology, Soils, and Seismicity for further discussion.
	Implementing Policy 9.2-I-4	Require comprehensive geologic and engineering studies of critical structures regardless of location.	**Consistent:** This EIR requires standard mitigation for geologic and seismic hazards, including the preparation of a design-level geotechnical report for new development projects. Refer to Section 3.5, Geology, Soils, and Seismicity for further discussion.
	Implementing Policy 9.2-I-5	Require geotechnical field review during the construction phase of any	**Consistent:** This EIR requires standard mitigation for geologic and

Table 3.8-2 (cont.): General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
		new development as determined by the City Engineer.	seismic hazards, including the preparation of a design-level geotechnical report for new development projects. Refer to Section 3.5, Geology, Soils, and Seismicity for further discussion.
	Implementing Policy 9.2-I-6	Require preparation of a soils report as part of the development review and/or building permit process.	**Consistent:** This EIR requires standard mitigation for geologic and seismic hazards, including the preparation of a design-level geotechnical report for new development projects. Refer to Section 3.5, Geology, Soils, and Seismicity for further discussion.
	Implementing Policy 9.2-I-10	Control erosion of graded areas with revegetation or other acceptable methods.	**Consistent:** This EIR requires construction stormwater quality control measures to prevent erosion. Refer to Section 3.7, Hydrology and Water Quality for further discussion.
	Guiding Policy 9.3-G-1	Minimize the risk of property damage and personal injury resulting from the production, use, storage, disposal, or transportation of hazardous materials.	**Consistent:** The Specific Plan does not contemplate any end uses with the potential to handle large quantities of hazardous materials. Regardless, any use, transport, or storage of hazardous materials would be required to comply with applicable state and local regulations, including those of the Contra Costa Health Services Hazardous Materials Program. As such, the risk of property damage and personal injury resulting from the hazardous materials would be minimized.
	Implementing Policy 9.3-I-3	Require the clean-up of sites contaminated with hazardous substances.	**Consistent:** This EIR evaluated the potential presence of contaminated sites and requires appropriate evaluation measures. Refer to Section 3.6, Hazards and Hazardous Materials for further discussion.
	Guiding Policy 9.4-G-1	Protect the community from risks to lives and property posed by flooding and stormwater runoff.	**Consistent:** The Specific Plan area is not located within a 100-year flood hazard area. Stormwater within the area would continue to be directed to the City's network of storm drains, which have adequate capacity to handle stormwater runoff. Furthermore, new drainage infrastructure required for Specific

Table 3.8-2 (cont.): General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
			Plan implementation would be appropriately sized and modeled through the existing drainage system. As such, appropriate protection from flooding and stormwater runoff would be implemented.
	Implementing Policy 9.4-I-1	Reduce hazards caused by local flooding through improvements and ongoing maintenance to the storm drain system and/or creek corridors.	**Consistent:** New drainage infrastructure required for Specific Plan implementation would be appropriately sized and modeled through the existing drainage system. Existing drainage systems are adequately sized. As such, flood hazards would be reduced.
	Implementing Policy 9.4-I-2	Require new development to prepare hydrologic studies to assess storm runoff impacts on the local and subregional storm drainage systems and/or creek corridors. New development shall implement all applicable and feasible recommendations from the studies.	**Consistent:** Development within the Specific Plan boundaries would be required to comply with the City's Stormwater Municipal Regional Permit issued by the San Francisco Regional Water Quality Control Board. As a part of this requirement, each development within the plan boundaries would be required to demonstrate that it does not increase the quantity, duration, or peak flow of runoff from a site, thereby minimizing storm runoff impacts on the local and subregional storm drainage systems or creek corridors.
	Implementing Policy 9.4-I-7	All new developments shall not increase runoff to the 100-year peak flow in the City's flood control channels or to local creeks and shall be substantially equal to pre-development conditions. All new storm water systems shall be in compliance with the requirements of the City's Stormwater Municipal Regional Permit issued by the San Francisco Regional Water Quality Control Board.	**Consistent:** Development within the Specific Plan boundaries would be required to comply with the City's Stormwater Municipal Regional Permit issued by the San Francisco Regional Water Quality Control Board. As a part of this requirement, each development within the plan boundaries would be required to demonstrate that it does not increase the quantity, duration, or peak flow of runoff from a site.
	Implementing Policy 9.4-I-8	New development shall be required to locate buildings above the 100-year floodplain and outside the special flood hazard area to minimize potential flood damages.	**Consistent:** The Specific Plan area is not located within a 100-year floodplain and does not contain special flood hazard areas.
	Guiding Policy 9.5-G-1	Minimize the risks to lives, property, and natural environment due to fire hazards.	**Consistent:** Implementation of mitigation included in this EIR would minimize the risks to lives, property,

Table 3.8-2 (cont.): General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
			and natural environment due to fire hazards. Refer to Section 3.11, Public Services and Recreation for further discussion.
	Implementing Policy 9.5-I-5	Require sprinklers in all mixed-use development to protect residential uses from non-residential uses, which typically pose a higher fire risk.	**Consistent:** Development within the Specific Plan boundaries would include automatic sprinkler systems for fire suppression as required by the California Fire Code and as adopted by the City of San Ramon.
10 – Noise	Guiding Policy 10.1-G-1	Achieve an acceptable noise environment for the present and future residents of San Ramon.	**Consistent:** This EIR evaluates potential noise impacts and sets forth mitigation measures to ensure that sensitive receptors (such as residential uses) are not exposed to excessive noise levels. Refer to Section 3.9, Noise for further discussion.
	Implementing Policy 10.1-I-1	Minimize vehicular and stationary noise sources and noise emanating from intermittent activities.	**Consistent:** This EIR evaluates potential noise impacts from intermittent activities (such as traffic) and sets forth mitigation measures to ensure that sensitive receptors (such as residential uses) are not exposed to excessive noise levels. Refer to Section 3.9, Noise for further discussion.
	Implementing Policy 10.1-I-2	All projects that are exposed to noise greater than "normally acceptable" levels indicated in Figure 10 2 shall be required to submit a noise analysis. Applicable noise attenuation measures shall be implemented with the DNL reduced to 45 dB in all habitable rooms.	**Consistent:** The "normally acceptable" noise levels set forth in Figure 10.2 were used as the basis for assessing noise impacts. With the implementation of noise attenuation measures, all habitable rooms would be exposed to interior noise levels no greater than 45 db. Refer to Section 3.9, Noise for further discussion.
	Implementing Policy 10.1-I-3	Acoustical and vibration studies shall be prepared by qualified professionals in accordance with industry-accepted methodology. All applicable and feasible vibration reduction measures shall be incorporated into project plans.	**Consistent:** A professional noise analyst prepared the noise and vibration analysis contained in Section 3.9, Noise. The analyst followed the guidance set forth in the Caltrans Technical Noise Supplement as the basis for assessing noise impacts.
	Implementing Policy 10.1-I-4	Alternatives to sound walls such as building orientation and landscaped buffers shall be considered during the design process. If deemed	**Consistent:** Appropriate noise attenuation measures will be selected on a case-by-case basis by applicants who pursue development pursuant to

Table 3.8-2 (cont.): General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
		appropriate, sound walls shall be well-designed and appropriately sited.	the Specific Plan. City staff will review building plans for compliance with the applicable provisions of the General Plan, Specific Plan, and Municipal Code. As such, it would be expected that alternatives to sound walls will be pursued first, and walls only would be used if no other feasible options are available.
	Implementing Policy 10.1-I-5	New development shall minimize their noise impacts on adjacent properties through appropriate means, including, but not limited to, the following actions: • Screen and control noise sources, such as parking and loading facilities, outdoor activities and mechanical equipment, • Increase setbacks for noise sources from adjacent dwellings, • Retain or install fences, walls, and landscaping that serve as noise buffers, • Use soundproofing materials and other building practices or materials, • Encourage the use of commute alternatives, • Control hours of operation, including deliveries and trash pickup, to minimize noise impacts, and • Buffer noise along highways and arterial roadways through natural noise buffers and if necessary, install sound walls when compatible with neighborhood aesthetics and character.	**Consistent:** This EIR requires applicants to pursue new residential uses developed pursuant to the Specific Plan to prepare an acoustical analysis to identify potential noise impacts. If noise levels were to exceed acceptable levels, the applicant would required to implement necessary mitigation to achieve acceptable levels. Such mitigation would include the noise attenuation measures listed in this policy. Refer to Section 3.9, Noise for further discussion.
	Implementing Policy 10.1-I-6	Protect especially sensitive receptors such as schools, hospitals, and senior care uses, from excessive noise.	**Consistent:** This EIR evaluated noise levels at surrounding sensitive receptors, including the rowhouses along Fostoria Way, the San Ramon Regional Medical Center, and Iron Horse Middle School. Noise levels at these sensitive uses were found to be within acceptable levels. Refer to Section 3.9, Noise for further discussion.

Table 3.8-2 (cont.): General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
	Implementing Policy 10.1-I-7	Implement the City's noise control standards to ensure appropriate regulation of common residential, commercial, and industrial noise sources.	**Consistent:** The City's regulations and performance standards for noise control were used as the basis for evaluating the proposed project's noise impacts. Refer to Section 3.9, Noise for further discussion.
	Implementing Policy 10.1-I-9	Continue to enforce the City's Noise Ordinance to reduce noise impacts.	**Consistent:** Standards provided City's Noise Ordinance were used as the basis for evaluating the proposed project's noise impacts. Refer to Section 3.9, Noise for further discussion.
	Implementing Policy 10.1-I-10	Update and maintain the Noise Ordinance to improve the City's ability to reduce noise impacts.	**Consistent:** Standards provided City's Noise Ordinance were used as the basis for evaluating the proposed project's noise impacts. Refer to Section 3.9, Noise for further discussion.
	Implementing Policy 10.1-I-11	Encourage new developments to provide facilities which support the use of alternative transportation modes such as walking, bicycling, carpooling and, where applicable, transit to reduce peak-hour traffic and vehicular noise.	**Consistent:** The Specific Plan envisions a transit- and pedestrian-oriented, mixed use neighborhood and includes relocation of the Transit Center to a central location, development of the Iron Horse Trail Open Space Link, and shared parking, thereby encouraging alternative modes of transportation leading to a reduction in traffic and vehicular noise.
	Implementing Policy 10.1-I-13	Encourage mixed-use and commercial developments to locate noise generating components such as loading areas, parking lots, driveways, trash enclosures, mechanical equipment, and other noisier components away from residential development.	**Consistent:** Both the Specific Plan and EIR set forth measures to minimize noise impacts on adjacent uses through the use of structural and non-structural measures, including the siting of noise-intensive areas away from residential development. Refer to Section 3.9, Noise for further discussion.
	Implementing Policy 10.1-I-14	Construction activities are exempt from the standards set forth in Figure 10-2, but must implement all practical noise attenuation measures and practices to limit adverse impacts on nearby land uses.	**Consistent:** This EIR sets forth construction mitigation noise measures to limit adverse impacts on nearby land uses. Refer to Section 3.9, Noise for further discussion.
	Implementing Policy 10.1-I-16	Require evaluation of potentially harmful noise sources such as pure tones. Prohibit or place restrictions on such sources if the evaluation indicates that they may be harmful.	**Consistent:** Pure tones are most commonly associated with industrial land use activities (e.g., steam whistles). The Specific Plan contemplates only commercial and

Table 3.8-2 (cont.): General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
			residential development; no industrial land uses are proposed.
	Implementing Policy 10.1-I-17	For purposes of city analyses of noise impacts, and for determining appropriate noise mitigation, a significant increase in ambient noise levels is assumed if the project causes ambient noise levels to exceed the following: • The ambient noise level is less than 60 dB L_{dn} and the project increases noise levels by 5 dB or more. • The ambient noise level is 60-65 dB L_{dn} and the project increases noise levels by 3 dB or more. • The ambient noise level is greater than 65 dB L_{dn} and the project increases noise levels by 1.5 dB or more.	**Consistent:** The standards included in Implementing Policy 10.1-I-17 were used in the evaluation of the proposed project's noise impacts. Refer to Section 3.9, Noise for further discussion.
11 – Housing	Guiding Policy 11.1-G-1	Provide a diversity of housing types and affordability levels within San Ramon to meet the needs of community residents.	**Consistent:** The Specific Plan envisions the addition of 1,500 housing units within the plan boundaries. Specific Plan Policy VIS-3.5 would require each residential project to provide a minimum of 15 percent of the units as affordable workforce housing, thereby ensuring a diversity of housing types and affordability levels.
	Implementing Policy 11.1-I-1	Identify sites appropriate for the development of a variety of housing types and price ranges to meet the needs of all socioeconomic segments of the community (including extremely low, very low, low, moderate, and above moderate income households).	**Consistent:** The Specific Plan envisions the addition of 1,500 dwelling units. Products would include loft units, apartments over retail stores, condominiums, townhouses, rowhouses, and live/work units. Specific Plan Policy VIS-3.5 would require each residential project to provide a minimum of 15 percent of the units as affordable workforce housing. These characteristics would provide a variety of housing types and price ranges.
	Implementing Policy 11.1-I-2	Encourage the development of housing for special needs groups, including seniors, large families, persons with disabilities, and the homeless near public transportation services.	**Consistent:** Specific Plan Policy VIS-3.2 encourages residential development to serve special needs user groups within the boundaries of the plan. The existing Transit Center at Executive Parkway would provide

Table 3.8-2 (cont.): General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
			transit service to any future residential development contemplated in the Plan Area. As demand increases and as needed, the potential relocation of the Transit Center, as envisioned by the Specific Plan, would place public transportation services within a 10-minute walk from all housing within the plan boundaries.
	Implementing Policy 11.1-I-3	Facilitate the development of affordable housing throughout the community through use of financial and/or regulatory incentives, where feasible.	**Consistent:** Specific Plan Policy VIS-3.5 would require each residential project to provide 25 percent of the units as affordable workforce housing, of which 15 percent would be must-build and up to 10 percent may be met with the payment of an in-lieu fee. Additionally, Specific Plan Policy VIS-3.6 allows for density bonuses for project that provide more than the require percentage of workforce housing. These policies would assist in facilitating the development of affordable housing.
	Implementing Policy 11.1-I-4	Negotiate with developers to ensure a portion of future residential development is affordable to extremely low, very low, low, and moderate income households.	**Consistent:** Specific Plan Policy VIS-3.5 would require each residential project to provide a minimum of 15 percent of the units as affordable workforce housing.
	Implementing Policy 11.1-I-5	Maintain a variety of housing types that complements the employment opportunities within the community and encourages a jobs/housing balance.	**Consistent:** The Specific Plan envisions the addition of 1,500 housing units within the plan boundaries situated in a variety of loft units, apartments over retail stores, apartment and condominium buildings, townhouses, rowhouses, and live/work units. This variety of housing types would complement local employment opportunities, thereby encouraging a jobs/housing balance.
	Implementing Policy 11.1-I-6	Require diversity of unit size and number of bedrooms within multi-family housing developments (exempting senior projects) and strive to provide three- and four-bedroom units for large families. This policy will be implemented	**Consistent:** Higher-density housing planned for the Specific Plan area is anticipated to incorporate smaller dwelling units, and a larger proportion of singles and families without school-age children than what is currently the norm for San Ramon. Nonetheless, residential

Table 3.8-2 (cont.): General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
		through guidelines published by the Housing Advisory Committee (HAC).	development within the plan boundaries would be required to abide by guidelines published by the Housing Advisory Committee, including those related to unit size, as determined during review of proposed housing.
	Implementing Policy 11.1-I-7	Offer financial and regulatory incentives to promote a combination of residential, retail, and office uses in areas designated for mixed use development.	**Consistent:** The Specific Plan provides regulatory guidance regarding the combination of residential, retail, and office uses throughout the mixed-use designated plan area.
	Implementing Policy 11.1-I-8	Encourage construction of second dwelling units within single-family residential neighborhoods.	**Consistent:** Second dwelling units are not permitted in Mixed-Use (MU) designated zones. However, the implementation of the Specific Plan's envisioned mix of housing types would provide dwelling units similar to second dwelling units.
	Implementing Policy 11.1-I-9	Give public services employees, residents, and employed workers of San Ramon priority access to City housing programs.	**Consistent:** Public service employees, residents, and employed workers of San Ramon would have access to dwelling units developed within the Specific Plan area.
	Implementing Policy 11.1-I-10	Continue to participate with Contra Costa County and non-profit organizations to offer first-time homeownership programs to current and prospective San Ramon residents and workers.	**Consistent:** The Specific Plan envisions the development of 1,500 dwelling units in a range of styles and affordability and would be available for participation in first-time homeownership programs as applicable.
	Implementing Policy 11.1-I-11	Ensure that non-residential development contributes to the supply of housing affordable to lower-income households, including extremely low-income households.	**Consistent:** The Specific Plan includes Floor Area Ratio bonuses for developments that include workforce housing mixed with non-residential development, thereby encouraging contribution to the supply of affordable housing.
	Implementing Policy 11.1-I-12	Disperse below-market rate (BMR) housing throughout residential neighborhoods, and ensure that affordable units are essentially indistinguishable from surrounding market-rate units. This policy will be implemented through guidelines published by the Housing Advisory Committee (HAC).	**Consistent:** Workforce housing units would be dispersed throughout the various residential developments within the Specific Plan area and would be similar in design and appearance to surrounding units.

Table 3.8-2 (cont.): General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
	Implementing Policy 11.1-I-13	Encourage developers to provide amenities for a diversity of households, including single heads of households, persons with disabilities, seniors, and extended families.	**Consistent:** The Specific Plan envisions the addition of 1,500 housing units within the plan boundaries situated in a variety of loft units, apartments over retail stores, apartment and condominium buildings, townhouses, rowhouses, and live/work units. This wide variety of housing would enable the provision of amenities for a diversity of household types.
	Implementing Policy 11.1-I-18	Require commercial development to contribute to the supply of workforce housing through new construction, partnerships with non-profit affordable housing providers, or payment of linkage fees; exempt mixed use development projects from this policy as they are already subject to the 25 percent affordable housing requirement.	**Consistent:** The Specific Plan area is designated as a Mixed Use (MU) zone and envisions mixed-use developments. As such, development within the plan boundaries would be exempt from this policy.
	Guiding Policy 11.2-G-1	Create safe and aesthetically pleasing neighborhoods, and provide adequate housing to meet the needs of all household types and income groups.	**Consistent:** The Specific Plan includes design guidelines that would ensure the creation of safe and aesthetically pleasing neighborhoods within the plan boundaries. The Specific Plan envisions a wide range of housing types that would meet the needs of various household types and income groups.
	Implementing Policy 11.2-I-7	Ensure that the design, scale, and buffering of housing retains the character of the surrounding neighborhood.	**Consistent:** The Specific Plan includes design guidelines that would ensure the provision of cohesive neighborhoods.
	Guiding Policy 11.4-G-1	Promote energy conserving practices in the location, construction, renovation, and maintenance of San Ramon's housing units.	**Consistent:** The Specific Plan sets sustainability guidelines that encourage energy efficient design, including participation in third-party green building rating programs, as well as building siting and form, architectural design, building systems, and building construction methods that reduce energy use. These sustainability guidelines would be applicable to housing developed within the plan boundaries, thereby promoting energy conservation.
	Implementing Policy 11.4-I-1	Utilize the Urban Growth Boundary as a tool to focus the provision of	**Consistent:** The Specific Plan boundaries and the envisioned variety

Table 3.8-2 (cont.): General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
		diverse housing options within proximity to the local employment base, community services, and public transportation opportunities.	of housing options are located within the Urban Growth Boundary. The envisioned mixed-use developments would locate housing in proximity to local employment and community services. Relocation of the Transit Center would ensure ease of access to public transportation.
	Implementing Policy 11.4-I-2	Promote a combination of residential, retail, and office uses in areas designated for mixed use.	**Consistent:** The Specific Plan area is designated as a Mixed Use (MU) zone. A main objective of the Specific Plan is to facilitate redevelopment that contains a mix of uses, including residential, retail and office use.
	Implementing Policy 11.4-I-3	Allow minor variations in building setbacks and/or solar orientation during Plan Review to increase energy efficiency of new housing units.	**Consistent:** The Specific Plan includes sustainability guidelines applicable to housing developments that encourages the evaluation of building and siting options for solar access related to harvesting daylight, reducing summer cooling loads, and gaining passive solar heat in winter months, thereby increasing energy efficiency.
	Implementing Policy 11.4-I-4	Enforce the State's energy conservation standards for new residential construction and renovations to existing structures.	**Consistent:** Residential construction within the Specific Plan area would be required to abide by Title 24, Part 6, of the California Code of Regulations, which establishes California's Energy Efficiency Standards for Residential and Nonresidential Buildings. In addition, Policy UTL-5.2 would require new residential development to demonstrate a 15-percent increase in energy efficiency compared with Title 24 standards. As such, residential development in the Specific Plan area would exceed the State's energy conservation standards.
	Implementing Policy 11.4-I-5	Encourage innovative designs to maximize passive energy efficiencies, while retaining compatibility with surrounding neighborhoods.	**Consistent:** The Specific Plan includes sustainability guidelines applicable to housing developments that encourages the evaluation of building and siting options for solar access related to harvesting daylight, reducing summer cooling loads, and gaining passive solar heat in winter

Table 3.8-2 (cont.): General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
			months, thereby encouraging passive energy efficiencies. Such building and siting options would be balanced with the Specific Plan's guidelines regarding compatibility with surrounding neighborhoods.
12 – Air Quality and Greenhouse Gas	Guiding Policy 12.3-G-1	Improve and protect San Ramon's air quality and promote improvements in subregional air quality.	**Consistent:** The Specific Plan would promote improvements in sub-regional air quality, including reduction of greenhouse gas emissions, through the inclusion of a Transit Center that would serve as a convenient, centralized location for public transit providers. The Specific Plan also promotes the use of pedestrian and bicycle modes of transportation, provides a link to the Iron Horse Trail, and encourages trip and greenhouse gas reduction through the design of residential, office, and commercial mixed-use developments.
	Implementing Policy 12.3-I-1	Cooperate with other local, regional, and state agencies to achieve and maintain air quality standards.	**Consistent:** This EIR employs BAAQMD's guidance and thresholds for assessing air quality and greenhouse gas impacts. Additionally, relevant guidance and standards from state agencies are also referenced. This is consistent with cooperating with other agencies to achieve and maintain air quality standards. Refer to Section 3.2, Air Quality and Greenhouse Gas Emissions for further discussion.
	Implementing Policy 12.3-I-3	Analyze the air quality and climate change impacts of discretionary projects using applicable regulatory guidance; for example, the BAAQMD's CEQA Air Quality Guidelines.	**Consistent:** This EIR employs BAAQMD's guidance and thresholds for assessing air quality and greenhouse gas impacts. Additionally, relevant guidance and standards from state agencies are referenced. Refer to Section 3.2, Air Quality and Greenhouse Gas Emissions for further discussion.
	Implementing Policy 12.3-I-4	Use the City's environmental review process to impose appropriate mitigation measures on new development to reduce air quality and greenhouse gas emissions impacts.	**Consistent:** The Specific Plan's air quality impacts are evaluated in Section 3.2, Air Quality and Greenhouse Gas Emissions. Mitigation measures are proposed to reduce emissions of air pollutants.

Table 3.8-2 (cont.): General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
	Guiding Policy 12.4-G-1	Improve air quality by integrating air quality, land use, and transportation planning that incorporates appropriate project location, design, and application of best available technologies.	**Consistent:** The Specific Plan includes sustainability guidelines that encourage energy efficient design, including participation in third-party green building rating programs, as well as building siting and form, architectural design, building systems, and building construction methods that reduce energy use. Implementation of these sustainability guidelines would be consistent with the goal of integrating air quality, land use, and transportation planning that improve air quality.
	Implementing Policy 12.4-I-1	Minimize air quality and climate change impacts through project review, evaluation, and conditions of approval when planning the location and design of land use projects and transportation system projects needed to accommodate expected City population growth.	**Consistent:** The Specific Plan's air quality impacts are evaluated in Section 3.2, Air Quality and Greenhouse Gas Emissions. Mitigation measures are proposed to reduce the emissions of air pollutants. Future development within Specific Plan boundaries would also be required to implement mitigation measures and would be reviewed for air quality and climate change impacts.
	Implementing Policy 12.4-I-2	Support and encourage projects proposing infill, and mixed use development that creates walkable neighborhoods and communities and increases access to transit.	**Consistent:** One of the Specific Plan's main objectives is to facilitate redevelopment of the plan area by creating a transit- and pedestrian-oriented neighborhood with a mix of uses. This is consistent with the support and encouragement of infill, walkable neighborhoods, and increased transit access.
	Implementing Policy 12.4-I-3	Work with regional and local transit agencies to assess development project impacts on long-range transit plans and transit facilities during the planning stages of land use projects and ensure that potential impacts are avoided.	**Consistent:** Specific Plan Policy TRAN-1.2 requires coordination with the Contra Costa County Transit Authority regarding transit plans and transit facilities within the plan boundaries. This is consistent with working with regional and local transit agencies to assess potential impacts to transit.
	Guiding Policy 12.5-G-1	Minimize exposure of the public to hazardous air pollutant emissions, particulates, and noxious odors from	**Consistent:** Mitigation included in this EIR would minimize the exposure of the public to hazardous

Table 3.8-2 (cont.): General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
		freeways, major arterial roadways, commercial and industrial uses with substantial truck trips, and other uses that produce toxic emissions through the use and handling of fuels and solvents.	air pollutant emissions, particulates, and noxious odors. Refer to Section 3.2, Air Quality and Greenhouse Gas Emissions for further discussion.
	Implementing Policy 12.5-I-1	Locate sources of hazardous emissions at appropriate distances from existing and planned sensitive land uses in order to minimize or avoid potential health risks to people that might result from hazardous air pollutant emissions. Locate residential development projects and projects categorized as sensitive receptors at adequate distances from existing and potential sources of hazardous emissions.	**Consistent:** Land uses that have the potential to emit hazardous emissions or are sensitive receptors would be reviewed for appropriate siting at the time of development proposal.
	Implementing Policy 12.5-I-2	Evaluate potential handling, storage, and transport of hazardous materials in new commercial and industrial developments to minimize public exposure to hazardous air pollutants.	**Consistent:** Transportation, storage, use, and disposal of hazardous materials within the Specific Plan boundaries would be required to comply with applicable federal, state, and local statutes and regulations, thereby minimizing public exposure to hazardous air pollutants.
	Implementing Policy 12.5-I-3	Require construction and grading activities to incorporate particulate emissions reduction measures.	**Consistent:** Mitigation included in this EIR would ensure that construction and grading activities incorporate particulate emission reduction measures. Refer to Section 3.2, Air Quality and Greenhouse Gas Emissions for further discussion.
	Guiding Policy 12.6-G-1	Invest in more efficient and effective transportation infrastructure, City fleet management and support for trip reduction programs to reduce traffic congestion, vehicle trips and the need for costly new or expanded roadways.	**Consistent:** The Specific Plan envisions a transit- and pedestrian-oriented neighborhood and includes the relocation of the Transit Center to efficiently serve the population. This is consistent with investment in more efficient and effective transportation infrastructure and the goal of reduced traffic congestion, vehicle trips, and need for new or expanded roadways.
	Implementing Policy 12.6-I-1	The City shall encourage participation in feasible, affordable, innovative and flexible employer-based trip reduction programs for their employees.	**Consistent:** The Specific Plan includes the implementation and management of a Transportation Demand Management (TDM) program that would encourage

Table 3.8-2 (cont.): General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
			businesses to promote the use of commute alternatives and trip reduction programs for businesses within the plan boundaries.
	Implementing Policy 12.6-I-3	Encourage the development of state-of-the-art telecommunications infrastructure within the City, including satellite and neighborhood work centers for telecommuting to reduce vehicular commute travel and related emissions.	**Consistent:** The Specific Plan would locate employment centers close to residential land uses, thereby encouraging reduced vehicular commute travel and related emissions. The proximity would encourage satellite and neighborhood work center opportunities.
	Implementing Policy 12.6-I-4	Provide information to encourage the use of transportation modes that minimize motor vehicle use and resulting air pollution and greenhouse gas emissions.	**Consistent:** The Specific Plan includes the implementation and management of a Transportation Demand Management (TDM) program that would provide information and opportunities for alternative modes of transportation that would result in reduced air pollution and greenhouse gas emissions.
	Implementing Policy 12.6-I-5	Construct infrastructure and facilities that support and encourages the use of alternative modes of travel, including a safe and comprehensive bicycle and pedestrian system that connects all parts of the City.	**Consistent:** The Specific Plan includes the development of a transit center, an Iron Horse Trail link and overcrossing, a network of bicycle routes, and pedestrian-friendly streets. These facilities would be connected to similar existing infrastructure and support and encourage the use of alternative modes of travel.
	Guiding Policy 12.7-G-1	Minimize air emissions and potential climate change impacts related to energy consumption in government operations and the community.	**Consistent:** The Specific Plan includes sustainability guidelines that include measures to reduce energy consumption, thereby minimizing air emissions and potential climate change impacts.
	Implementing Policy 12.7-I-1	Increase the use of energy conservation features, renewable sources of energy and low-emission equipment in new and existing development projects within the City.	**Consistent:** The Specific Plan includes sustainability guidelines that include measures encouraging the use of energy conservation, renewable energy sources, and low-emission equipment in development within plan boundaries.
	Implementing Policy 12.7-I-2	Encourage the use of solar-ready roofs into residential and commercial	**Consistent:** The Specific Plan's sustainability guidelines encourage

Table 3.8-2 (cont.): General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
		development. New residential development should include proper solar orientation (south-facing roof area sloped at 20° to 55° from the horizontal), clear access on the south sloped roof (no chimneys, heating vents, plumbing vents, etc.), electrical conduit installed for solar electric system wiring, plumbing installed for solar hot water systems, and space provided for a solar hot water storage tank. Roofs for commercial development should be designed to maximize potential area available for solar panels and provide electrical conduit to support future installation.	the consideration of sloped roofs oriented for the integration of solar collector panels (solar-ready roofs); active solar heating for domestic hot water heating, space heating (air or water), and ventilation air preheating; and integration of solar electric photovoltaic systems into buildings, whenever possible. These guidelines are consistent with the policy of encouraging solar-ready roofs in residential and commercial development.
	Implementing Policy 12.7-I-3	Promote urban forestry projects that shade buildings, homes, streets, pedestrian walkways, and urban core areas to reduce surface and ambient temperatures and reduce energy required for cooling.	**Consistent:** The Specific Plan envisions the use of large shade trees throughout, specifically along sidewalks and roadways, in public spaces and park areas, and in landscaped areas. This is consistent with the promotion of urban forestry and goal of reducing surface and ambient temperatures.
	Implementing Policy 12.7-I-4	Initiate and sustain on-going efforts with local water agencies, utility providers and developers to establish and implement voluntary incentive-based programs to encourage the use of energy and water efficient designs and equipment in new and existing development projects within the City.	**Consistent:** The Specific Plan includes sustainability guidelines that would encourage developers within plan boundaries to implement and use energy- and water-efficient design and equipment. The Specific Plan also includes goals and policies envisioning the incorporation of water and energy conservation practices such as drought-resistant landscaping, compliance with the San Ramon Climate Action Plan's Energy Conservation and Alternative Energy strategies, and a 15-percent increase in energy efficiency compared with Title 24 standards.
	Implementing Policy 12.7-I-5	Reduce water use and related energy use by using reclaimed water for landscaping where appropriate, financially feasible, and allowed by water quality regulations. Require new development areas that will be served with recycled water to be plumbed with a "purple pipe"	**Consistent:** The Specific Plan includes an expansion of recycled water infrastructure and indicates that continued coordination with DERWA would be required for the proper planning of the future recycled water system within the plan boundaries. Furthermore,

Table 3.8-2 (cont.): General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
		system to facilitate the future use of recycled water.	development in the area would be required to adhere to the City's Ordinance No. 218 (Water Conservation and Landscape Ordinance) and DERWA's development standards for recycled water.
	Implementing Policy 12.7-I-6	Support ongoing efforts with the Green Affordable Housing Coalition (GAHC), building industry, water and utility districts and the BAAQMD to promote enhanced energy conservation and sustainable building standards for new construction.	**Consistent:** The Specific Plan includes a suite of sustainability guidelines that promote building practice in support of sustainable development including measures that would provide for energy conservation. Incorporation of these guidelines into development within plan boundaries would be consistent with supporting efforts of the GAHC, building industry, utilities and BAAQMD to promote energy conservation.
	Implementing Policy 12.7-I-8	Provide recycling programs for construction and demolition debris, and for commercial and/or community recycling of plastic, paper, green waste, and food waste to reduce energy consumption and greenhouse gas emissions.	**Consistent:** Mitigation included in this EIR would require the provision of recycling programs for construction, demolition, and operation of developments within the plan boundaries, thereby assisting in the reduction of energy consumption and greenhouse gas emissions.
	Guiding Policy 12.8-G-1	Reduce the City's proportionate contribution of greenhouse gas emissions and the potential impact that may result in climate change from internal governmental operations and land use activities within its authority.	**Consistent:** Mitigation included in this EIR would reduce greenhouse gas emissions resulting from implementation of the Specific Plan. Refer to Section 3.2, Air Quality and Greenhouse Gas Emissions for further discussion.
	Implementing Policy 12.8-I-1	Strive to reduce greenhouse gas emissions from its internal governmental operations and land use activities within its authority by 15 percent below 2008 levels by the year 2020 pending adoption of revised targets for the City's Climate Action Plan. The City will also work with the MTC to ensure that the City receives its proportionate fair share reduction in greenhouse gas emissions as may be identified under the provisions of SB 375	**Consistent:** Mitigation included in this EIR would reduce greenhouse gas emissions resulting from implementation of the Specific Plan. Refer to Section 3.2, Air Quality and Greenhouse Gas Emissions for further discussion.

Table 3.8-2 (cont.): General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination
	No.	Text	
		(2008 Chapter 728) for any projects or activities requiring approval by MTC.	
	Implementing Policy 12.8-I-4	Work with other local and regional governments to assess federal and state programs and their impact on greenhouse gas emissions and mitigation efforts.	**Consistent:** The analysis included in this EIR takes into account federal and state programs intended to reduce greenhouse gas emissions. Refer to Section 3.2, Air Quality and Greenhouse Gas Emissions for further discussion.
	Implementing Policy 12.8-I-5	Establish tiered significance thresholds for the evaluation of project greenhouse gas emissions impacts, the preparation of project level greenhouse gas emission inventories, and the identification and application of mitigation.	**Consistent:** Significance thresholds used for the evaluation of greenhouse has emission impacts of the proposed project were derived from applicable federal, state, and local regulations and used to identify the need for mitigation. Refer to Section 3.2, Air Quality and Greenhouse Gas Emissions for further discussion.
	Implementing Policy 12.8-I-6	Require businesses to minimize emissions of ozone-depleting compounds.	**Consistent:** Businesses using ozone-depleting compounds within the Specific Plan boundaries would be required to abide by all applicable federal, state, and local regulations regarding emissions.
Source: City of San Ramon, 2011; Michael Brandman Associates, 2011.			

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Municipal Code Consistency

Impact LU-3: The Specific Plan would not conflict with any of the applicable provisions of the City of San Ramon Municipal Code.

Impact Analysis

The North Camino Ramon Specific Plan would be adopted by ordinance and, as part of the San Ramon Municipal Code, would serve as the zoning standards for all properties within the plan area.

Specific Plan Summary

The North Camino Ramon Specific Plan seeks to facilitate the redevelopment of the Specific Plan area from an automobile-dominated, low-density commercial area to a transit- and pedestrian-oriented neighborhood that will be a community focal point with a mix of uses. The Specific Plan would serve as the zoning for the area within the plan boundaries and organizes land use districts and classifications that provide further guidance regarding development; refer to Specific Plan Chapter 6. Development must comply with all provisions of the Municipal Code unless specifically modified by the Specific Plan. Where differences occur, the Specific Plan's mandatory requirements and design guidelines shall prevail.

The Specific Plan is organized into the following chapters:

- Chapter 1: Introduction
- Chapter 2: Existing Conditions
- Chapter 3: Vision
- Chapter 4: Land Use
- Chapter 5: Public Spaces
- Chapter 6: Development Standards
- Chapter 7: Design Guidelines
- Chapter 8: Transportation
- Chapter 9: Utilities
- Chapter 10: Public Facilities
- Chapter 11: Implementation

Adoption of the Specific Plan into the Municipal Code must comply with the requirements of Section 65451 of the California Government Code. Section 65451 of the California Government Code mandates that a specific plan be structured as follows:

(a) A specific plan shall include a text and a diagram or diagrams which specify all of the following in detail:
   (1) The distribution, location, and extent of the uses of land, including open space, within the area covered by the plan.
   (2) The proposed distribution, location, and extent and intensity of major components of public and private transportation, sewage, water, drainage, solid waste disposal, energy, and other essential facilities proposed to be located within the area covered by the plan and needed to support the land uses described in the plan.
   (3) Standards and criteria by which development will proceed, and standards for the conservation, development, and utilization of natural resources, where applicable.
   (4) A program of implementation measures including regulations, programs, public works projects, and financing measures necessary to carry out paragraphs (1), (2), and (3).

(b) The specific plan shall include a statement of the relationship of the specific plan to the General Plan.

Consistency Analysis

The following describes the Specific Plan's consistency with Section 65451 of the California Government Code.

In accordance with Section 65451, Specific Plan Chapter 2 (Existing Conditions) provides a summary of conditions, including the distribution, location, and extent of land use within the plan boundaries. Chapter 3 (Vision) and Chapter 4 (Land Use) set the parameters for the development contemplated by the Specific Plan. Chapter 8, Transportation sets forth the area's network and policies for vehicular, transit, pedestrian and bicycle circulation, thereby defining the proposed public and private transportation infrastructure. Chapter 9, Utilities provides information and conceptual plans for all major utility systems needed to accommodate land uses described in the Specific Plan. Chapter 6 (Development Standards) and Chapter 7 (Design Guidelines) provide standards and criteria by which development will proceed. Policies within the development standards and design guidelines have been designed to provide for the conservation of natural resources. Chapter 7 (Design Guidelines) contains sustainability guidelines that outline building siting, architectural design, building systems, building materials, and landscape design practices specific to the conservation of natural resources. Chapter 11 (Implementation) provides an overview of the needs, measures, and strategies envisioned to enable public/private partnership to implement the mixed-use vision for the Plan area.

The Specific Plan also includes a discussion of its relationship to the applicable General Plan as required by Section 65451. The Specific Plan provides more detailed information and requirements for the implementation of the City of San Ramon General Plan 2030, and fulfills General Plan 2030 Implementing Policy 4.7-I-4, which calls for the preparation and implementation of a North Camino Ramon Specific Plan as a framework for infill development that is pedestrian/bicycle friendly, mixed use, transit-oriented and based on smart growth principles. As such, the Specific Plan is consistent with Government Code Section 65451.

Conclusion

The proposed Specific Plan would be adopted by ordinance and part of the Municipal Code and, therefore, represents a self-mitigating aspect of the proposed project. Because the Specific Plan complies with all applicable requirements for such land use plan, it would be consistent and compatible with the Municipal Code. Impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

3.9 - Noise

3.9.1 - Introduction

This section describes the existing noise setting and potential effects from project implementation on the site and its surrounding area. Descriptions and analysis in this section are based on noise modeling performed by Michael Brandman Associates. The noise modeling output is included in this EIR as Appendix D.

3.9.2 - Environmental Setting

Acoustical Terminology

Sound is mechanical energy transmitted by pressure waves in a compressible medium such as air. Noise is generally defined as unwanted sound. Sound is characterized by various parameters that describe the rate of oscillation of sound waves, the distance between successive troughs or crests, the speed of propagation, and the pressure level or energy content of a given sound wave. In particular, the sound pressure level has become the most common descriptor used to characterize the loudness of an ambient sound level. The unit of sound pressure, a ratio of the faintest sound detectable by a keen human ear, is called a decibel (dB).

A decibel (dB) is a unit of measurement that indicates the relative intensity of a sound. The zero point on the dB scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Changes of 3 dB or fewer are only perceptible in laboratory environments. Audible increases in noise levels generally refer to a change of 3 dB or more, as this level has been found to be barely perceptible to the human ear in outdoor environments. Sound levels in dB are calculated on a logarithmic basis. An increase of 10 dB represents a 10-fold increase in acoustic energy, while 20 dB is 100 times more intense, and 30 dB is 1,000 times more intense. Each 10-dB increase in sound level is perceived as approximately a doubling of loudness.

Because sound or noise can vary in intensity by over 1 million times within the range of human hearing, a logarithmic loudness scale similar to the Richter scale used for earthquake magnitude is used to keep sound intensity numbers at a convenient and manageable level. Since the human ear is not equally sensitive to all sound frequencies within the entire spectrum, noise levels at maximum human sensitivity are factored more heavily into sound descriptions in a process called A weighting, written as dBA. This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Any further reference to decibels in this report written as dB should be understood to be A-weighted values.

Time variations in noise exposure are typically expressed in terms of a steady-state energy level equal to the energy content of the time-varying period (called L_{eq}), or, alternately, as a statistical description of the sound pressure level that is exceeded over some fraction of a given observation period. Finally, because community receptors are more sensitive to unwanted noise intrusion during the evening and at night, State law requires that, for planning purposes, an artificial dB increment be added to quiet-

time noise levels in a 24-hour noise descriptor called the Community Noise Equivalent Level (CNEL).

Many methods have been developed for evaluating community noise to account for, among other things:

- Variation in noise levels over time
- Influence of periodic individual loud events
- Community response to changes in the community noise environment

Several methods have been developed to measure sound over a period of time, including:

- Equivalent Sound Level (L_{eq})
- Community Noise Equivalent Level (CNEL)
- Day/Night Average Sound Level (L_{dn})

These methods are described and defined below.

L_{eq}

Time variations in noise exposure are typically expressed in terms of a steady-state energy level equal to the energy content of the time-varying period (called L_{eq}), or, alternately, as a statistical description of the sound pressure level that is exceeded over some fraction of a given observation period. For example, the noise levels exceeded on 10 percent of readings is called L_{10}, the median (50th percentile) reading is called L_{50}, etc.

CNEL

Because community receptors are more sensitive to unwanted noise intrusion during the evening and at night, State law requires that, for planning purposes, an artificial dB increment penalty be added to quiet time noise levels in a 24-hour noise descriptor called CNEL.

L_{dn}

Another commonly used method is the day/night average level or L_{dn}. The L_{dn} is a measure of the 24-hour average noise level at a given location. It was adopted by the U.S. Environmental Protection Agency (EPA) for developing criteria for the evaluation of community noise exposure. It is based on a measure of the average noise level over a given time period, called the L_{eq}. The L_{dn} is calculated by averaging the L_{eqs} for each hour of the day at a given location after penalizing the sleeping hours (defined as 10:00 p.m. to 7:00 a.m.) by 10 dBA to account for the increased sensitivity of people to noises that occur at night. The maximum noise level recorded during a noise event is typically expressed as L_{max}. The sound level exceeded over a specified time can be expressed as L_n (e.g., L_{90}, L_{50}, L_{10}, etc.). L_{50} equals the level exceeded 50 percent of the time, L_{10} equals the level exceeded 10 percent of the time, etc.

As previously mentioned, people respond to changes in sound pressure, which are measured on a noise scale in a logarithmic manner. In general, a 3-dB change in sound pressure level is considered a just detectable difference in most situations. A 5-dB change is readily noticeable, and a 10-dB change is considered a doubling (or halving) of the subjective loudness. Note that a 3-dB increase or decrease in the average traffic nose level is realized by a doubling or halving of the traffic volume, or by about a 7-mile-per-hour increase or decrease in speed.

For each doubling of distance from a point noise source, the sound level will decrease by 6 dB. In other words, if a person is 100 feet from a machine and moves 200 feet from that source, sound levels will drop by approximately 6 dB. Moving 400 feet away, sound levels will drop approximately another 6 dB. For each doubling of distance from a line source, such as a roadway, noise levels are reduced 3 to 5 decibels, depending on the ground cover between the source and the receiver.

Noise Exposure

An interior CNEL of 45 dB is mandated by the State of California Noise Insulation Standards (California Code of Regulations, Title 24, Part 6, Section T25 28) for multiple-family dwellings and hotel and motel rooms. In 1988, the State Building Standards Commission expanded that standard to include all habitable rooms in residential use, including single-family dwelling units. Since normal noise attenuation within residential structures with closed windows is about 20 dB, an exterior noise exposure of 65 dB CNEL allows the interior standard to be met without any specialized structural attenuation (e.g., dual-paned windows). A noise level of 65 dB is also the level at which ambient noise begins to interfere with one's ability to carry on a normal conversation at reasonable separation without raising one's voice. Table 3.9-1 summarizes typical noise sources, levels, and responses.

Table 3.9-1: Noise Levels and Human Response

Noise Source	Noise Level (dBA)	Response
Library	30	Very quiet
Refrigerator humming	40	Quiet
Quiet office	50	Quiet
Normal conversation	60	Intrusive
Vacuum cleaner	70	Telephone use difficult
Freight train at 50 feet	80	Interferes with conversation
Heavy-duty truck at 50 feet	90	Annoying
Jet takeoff at 2,000 feet	100	Very annoying; hearing damage at sustained exposure levels
Unmuffled motorcycle	110	Maximum vocal effect; physical discomfort
Jet takeoff at 200 feet	120	Regular exposure over one minute risks permanent hearing loss

Table 3.9-1 (cont.): Noise Levels and Human Response

Noise Source	Noise Level (dBA)	Response
Shotgun firing	130	Pain threshold
Carrier jet operation	140	Harmfully loud
Source: Melville C. Branch and R. Dale Beland, 1970.		

Construction Noise

The FHWA compiled noise measurement data regarding the noise generating characteristics of several different types of construction equipment used during the Central Artery/Tunnel project in Boston.

Table 3.9-2 provides a list of the construction equipment measured along with the associated measured noise emissions and measured percentage of typical equipment use per day. From this acquired data, the FHWA developed the Roadway Construction Noise Model, which may be used for the prediction of construction noise.

Table 3.9-2: Construction Equipment Noise Emissions and Usage Factors

Equipment	Acoustical Use Factor (percent)	Spec 721.560 L_{max} @ 50 feet (dBA, slow)	Actual Measured L_{max} @ 50 feet (dBA, slow)
Auger Drill Rig	20	85	84
Backhoe	40	80	78
Bar Bender	20	80	N/A
Compactor (ground)	20	80	83
Compressor (air)	40	80	78
Concrete Batch	15	83	N/A
Concrete Mixer Truck	40	85	79
Concrete Pump	20	82	81
Concrete Saw	20	90	90
Crane	16	85	81
Dozer	40	85	82
Dump Truck	40	84	76
Excavator	40	85	81
Flat Bed Truck	40	84	74
Front End Loader	40	80	79
Generator	50	82	81

Table 3.9-2 (cont.): Construction Equipment Noise Emissions and Usage Factors

Equipment	Acoustical Use Factor (percent)	Spec 721.560 L_{max} @ 50 feet (dBA, slow)	Actual Measured L_{max} @ 50 feet (dBA, slow)
Grader	40	85	N/A
Jackhammer	20	85	89
Paver	50	85	77
Pneumatic Tools	50	85	85
Pumps	50	77	81
Roller	20	85	80
Tractor	40	84	N/A
Vibrating Hopper	50	85	87
Vibratory Concrete Mixer	20	80	80
Welder/Torch	40	73	74

Notes:
[1] Acoustical use factor is the percentage of time each piece of equipment is operational during a typical day.
[2] Spec 721.560 is the equipment noise level utilized by the Roadway Construction Noise Model program.
[3] Actual Measured is the average noise level measured of each piece of equipment during the Central Artery/Tunnel project in Boston, Massachusetts primarily during the 1990s.
Source: Federal Highway Administration, 2006.

Groundborne Vibration

Groundborne vibration consists of rapidly fluctuating motions within the ground that have an average motion of zero. The effects of groundborne vibration typically cause a nuisance only to people, but at extreme vibration levels, damage to buildings may occur. Although groundborne vibration can be felt outdoors, it is typically an annoyance only indoors, where the associated effects of the shaking of a building can be notable. Groundborne noise is an effect of groundborne vibration and typically only exists indoors. It is produced from noise radiated from the motion of the walls and floors of a room and may consist of the rattling of windows or dishes on shelves.

Peak particle velocity (PPV) relates to the maximum instantaneous peak of the vibration signal and is often used in measuring the magnitude of vibration. Scientific studies have shown that human responses to vibration vary by the source of vibration: continuous or transient. Continuous sources of vibration include construction, while transient sources include truck movements. Generally, the thresholds of perception and annoyance are higher for transient sources than continuous sources. Table 3.9-3 shows PPV levels for continuous and transient sources and the associated human response.

Table 3.9-3: Response to Groundborne Vibration

Peak Particle Velocity (inches/second)		Human Response
Continuous	Transient	
0.40	2.00	Severe
0.10	0.90	Strongly perceptible
0.04	0.25	Distinctly perceptible
0.01	0.04	Barely perceptible
Source: California Department of Transportation, 2004.		

Vibration Propagation

The propagation of groundborne vibration is not as simple to model as airborne noise. This is because noise in the air travels through a relatively uniform medium, while groundborne vibrations travel through the earth, which may contain significant geological differences. There are three main types of vibration propagation: surface, compression, and shear waves. Surface waves, or Rayleigh waves, travel along the ground's surface. These waves carry most of their energy along an expanding circular wave front, similar to ripples produced by throwing a rock into a pool of water. P-waves, or compression waves, are body waves that carry their energy along an expanding spherical wave front. The particle motion in these waves is longitudinal (i.e., in a push-pull fashion). P-waves are analogous to airborne sound waves. S-waves, or shear waves, are also body waves that carry energy along an expanding spherical wave front. However, unlike P-waves, the particle motion is transverse or side-to-side and perpendicular to the direction of propagation. All three types of vibration propagation result in earth movement that can be measured through the use of a vibration meter; however, a vibration meter only captures the amount of movement and cannot decipher between the different types of propagation.

As vibration waves propagate from a source, the vibration energy decreases in a logarithmic nature and the vibration levels typically decrease by 6 VdB per doubling of the distance from the vibration source. However, in order for this drop-off rate to provide accurate results, the nearest receiver needs to be placed a minimum distance away from the source that is greater than double the width of the vibration source. As stated above, this drop-off rate can vary greatly, depending on the soil, but has been shown to be effective enough for screening purposes, in order to identify potential vibration impacts that may need to be studied through actual field tests.

Construction-Related Vibration Level Prediction

Construction activity can result in varying degrees of ground vibration, depending on the equipment used on the site. Operation of construction equipment causes ground vibrations that spread through the ground and diminish in strength with distance. Buildings in the vicinity of the construction site respond to these vibrations with varying results ranging from no perceptible effects at the low levels to slight damage at the highest levels. Table 3.9-4 gives approximate vibration levels for particular

construction activities. The data in the table provides a reasonable estimate for a wide range of soil conditions.

Table 3.9-4: Vibration Source Levels for Construction Equipment

Equipment	Peak Particle Velocity (inches/second)	Approximate Vibration Level (L_v) at 25 feet
Pile driver (impact)	1.518 (upper range) 0.644 (typical)	112 104
Pile driver (sonic)	0.734 (upper range) 0.170 (typical)	105 93
Clam shovel drop (slurry wall)	0.202	94
Hydromill (slurry wall)	0.008 (in soil) 0.017 (in rock)	66 75
Vibratory roller	0.210	94
Hoe ram	0.089	87
Large bulldozer	0.089	87
Caisson drill	0.089	87
Loaded trucks	0.076	86
Jackhammer	0.035	79
Small bulldozer	0.003	58
Source: Federal Transit Administration, 2006.		

Existing Noise Levels

Noise in the project study area is primarily created from vehicles on I-680 and major roadways. To determine the existing noise level environment, short-term, peak-hour noise measurements were taken at six locations and long-term noise measurements were taken at two locations in the project study area. The noise measurements include those taken as part of the noise analysis prepared for the San Ramon City Center EIR in order to provide additional measurements of the project study area. The noise measurements associated with the City Center project are considered worst-case, since they were taken in 2007 when the nearby roadways had higher traffic volumes. Noise measurement locations were selected in the field based on the methodology presented in Section 5.3.1.2 of the Caltrans Technical Noise Supplement (TeNS) with the intent of representatively sampling of the existing noise environment. Exhibit 3.9-1 depicts the noise measurement locations.

Noise Measurement Results

Short-Term Peak Noise Measurements

The results of the short-term peak-hour noise level measurements are presented in Table 3.9-5. The noise level measurements were monitored for a minimum period of 10 minutes. The existing noise level measurements ranged from 56.2 to 73.1 dBA L_{eq}, with the highest noise measurement at Site 3.

Table 3.9-5: Existing (Ambient) Short-Term Noise Level Measurements

Site No.[1]	Location	Start Time of Measurement[2]	Noise Level (dBA L_{eq})
1	Located approximately 50 feet west of the centerline of San Ramon Valley Boulevard, 25 feet north of the centerline of Talavera Drive, and 120 feet west of the edge of I-680.	7:11 a.m.	71.9
		3:22 p.m.	71.8
2	Located approximately 50 feet west of the centerline of Sunset Drive and 50 feet south of Shops at Bishop Ranch.	7:50 a.m.	65.1
		4:16 p.m.	67.1
3	Located approximately 50 feet east of Bishop Drive, 90 feet east of the edge of I-680, and 700 feet south of Norris Canyon Road	7:45 a.m.	72.8
		4:23 p.m.	73.1
4	Located approximately 100 feet north of the centerline of Norris Canyon Road and 100 feet east of the centerline of Alcosta Boulevard.	8:04 a.m.	58.0
		4:44 p.m.	56.2

Notes:
1 Site location shown on Exhibit 3.9-1.
2 Noise measurements 1 and 2 taken on June 4 and 5, 2007 and noise measurements 3 and 4 taken on March 4, 2010.
Source: Michael Brandman Associates, 2012.

The noise level measurements were taken during both the peak morning and afternoon traffic periods. According to Section N-2230 of the Caltrans Technical Noise Supplement, the CNEL values are generally within ± 2 dBA of the measured peak-hour L_{eq} dBA. The short-term noise measurement printouts are provided in Appendix D.

24-Hour Measurement Results

The results of the 24-hour noise level measurements are presented in Table 3.9-6. The measured sound pressure levels in dBA have been used to calculate the minimum and maximum L_{eq} averaged over 10-minute intervals, and CNEL, which are shown in Table 3.9-6 along with the measured L_{eq} averaged over the entire measurement time. In addition, a graph of the calculated L_{eq} averaged over 10 minute intervals for the 24-hour measurement is shown in Exhibit 3.9-2.

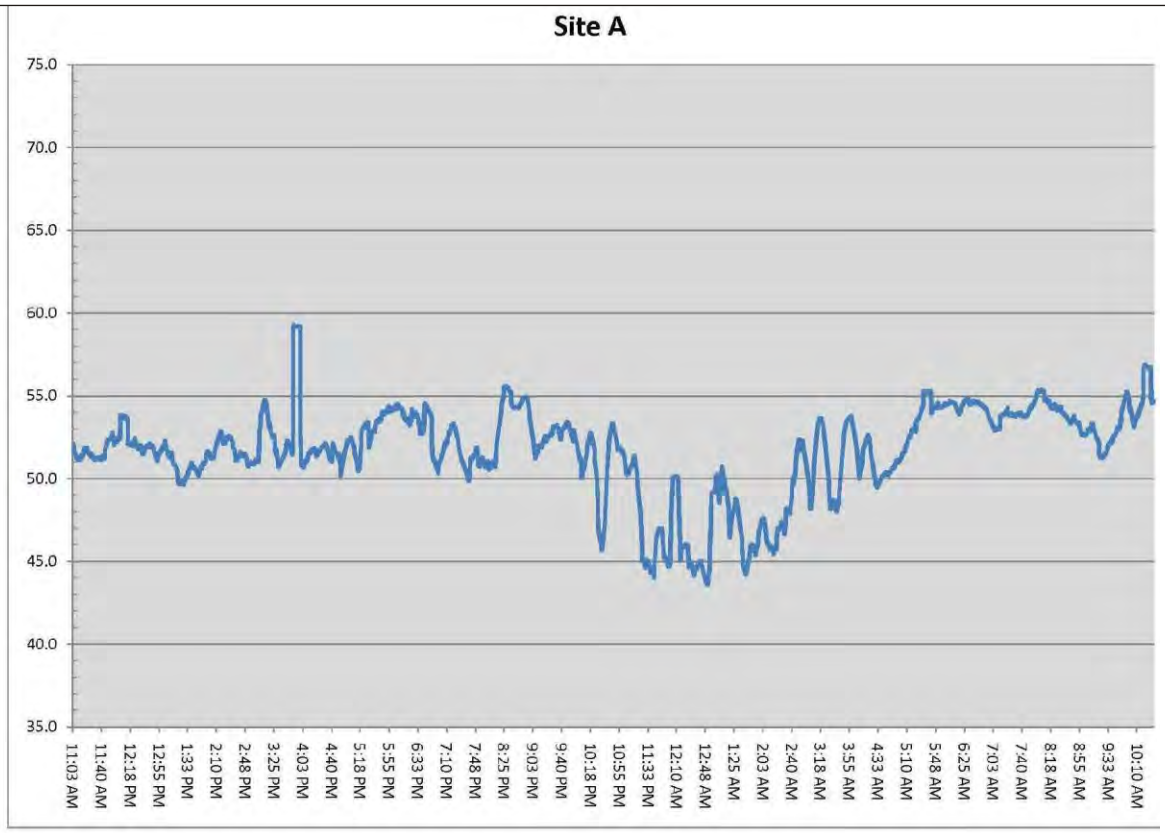
Source: State of CA NAIP, 2010.

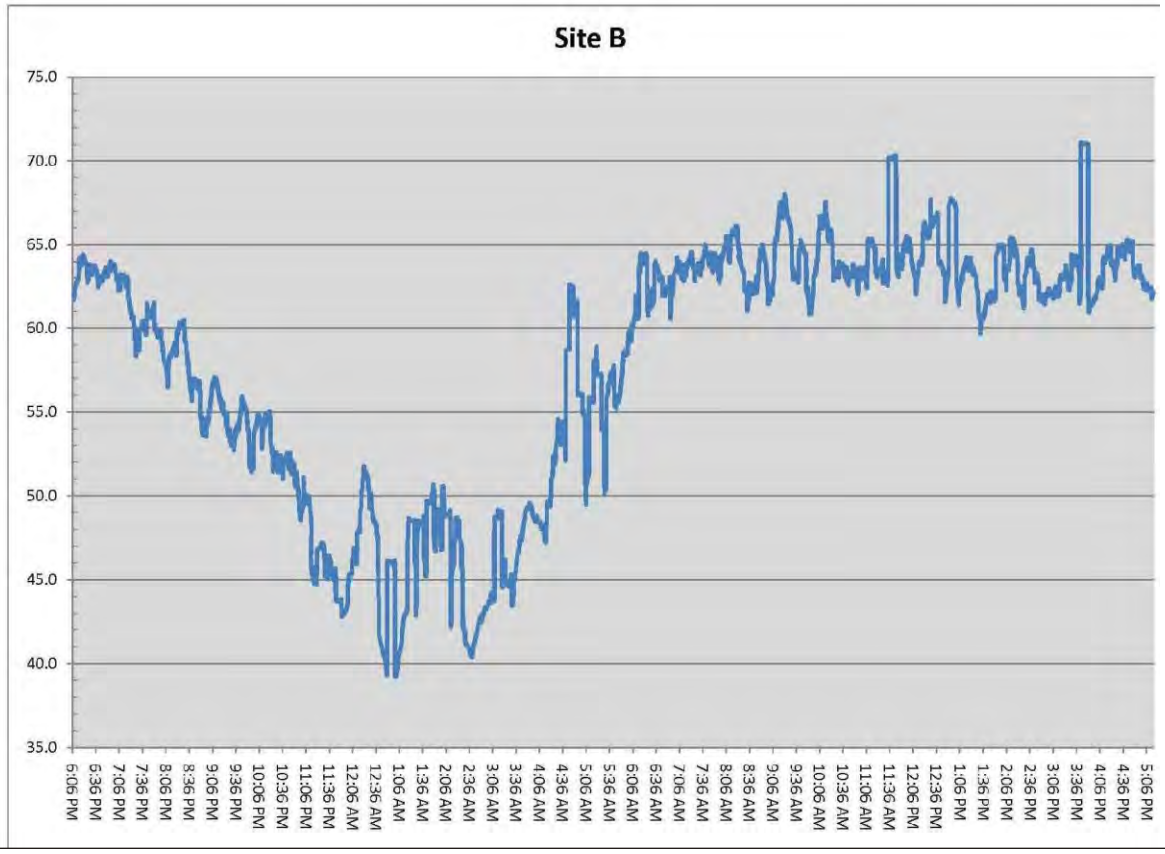
Michael Brandman Associates

NORTH

1,000 500 0 1,000 Feet

Exhibit 3.9-1
Noise Measurement Locations

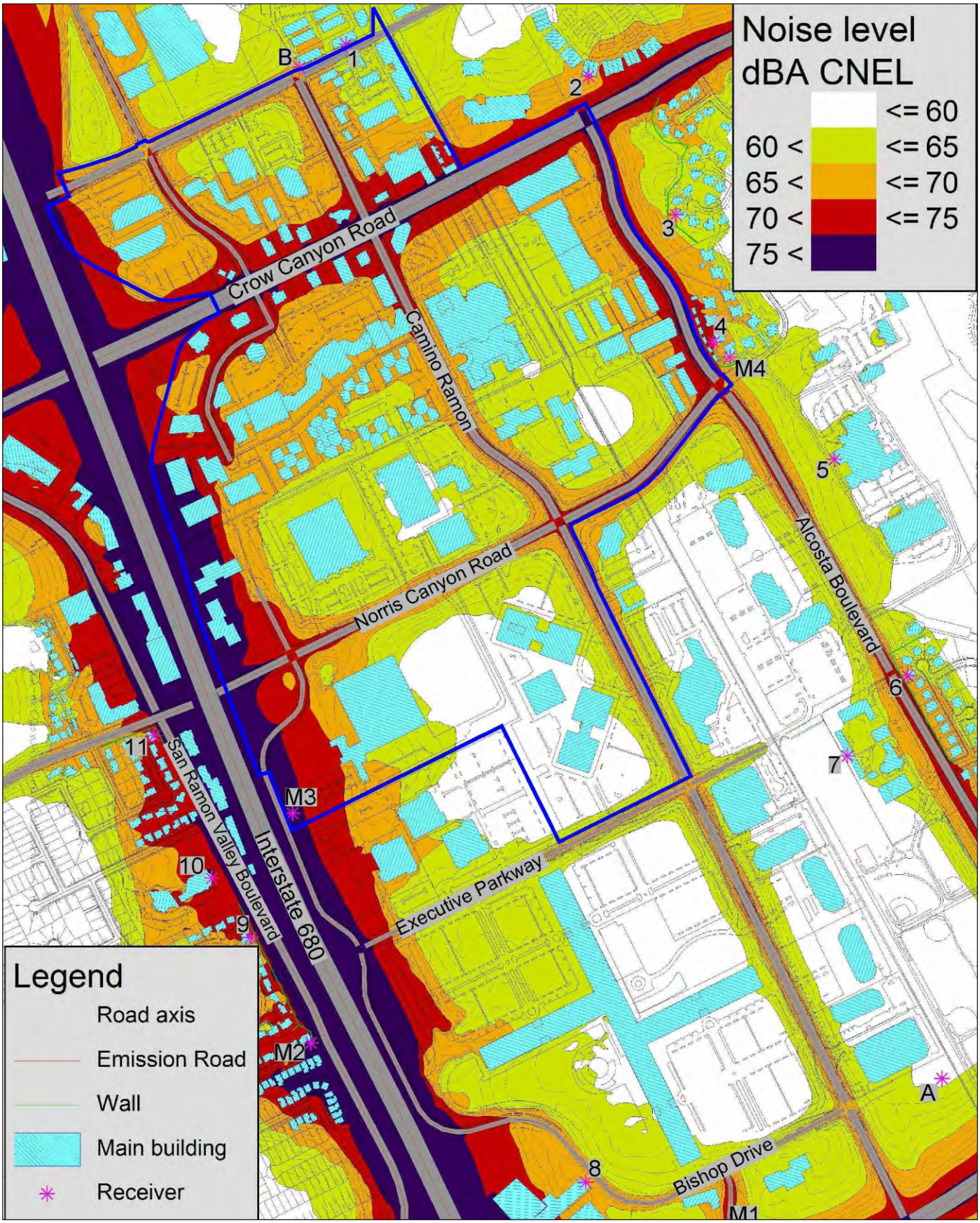




Source: Extech Model 407780 Sound Level Meters.

Michael Brandman Associates

Exhibit 3.9-2
Noise Measurement Graphs



Source: SoundPlan Version 7.1.

Michael Brandman Associates

Exhibit 3.9-3
Existing Noise Contour Map

Table 3.9-6: Existing (Ambient) 24-Hour Noise Level Measurement

Site	Site Description	24-Hour Average (dBA Leq)	Minimum 10 Minute Interval (dBA L_{eq}/Time)	Maximum 10 Minute Interval (dBA L_{eq}/Time)	24-Hour Average (dBA CNEL)
A	Located approximately 160 feet southeast of the southern Bishop Ranch 3 parking structure and 25 feet from the centerline of Iron Horse Trail.	52.5	43.6/ 1:25 a.m.	59.3/ 4:25 p.m.	58.0
B	Located approximately 45 feet east of the centerline of Camino Ramon and 40 feet north of the centerline of Fostoria Way.	62.0	39.2/ 1:21 a.m.	71.1/ 4:02 p.m.	64.5

Notes:
[1] Site location shown on Exhibit 3.9-1.
[2] Noise measurement A taken on June 4 and 5, 2007 and B taken on March 3 and 4, 2010.
Source: Michael Brandman Associates, 2012.

Modeled Existing Noise Levels

The existing noise levels were modeled using the SoundPlan model, which is described in Section 3.10.4. Table 3.9-7 provides the SoundPlan-modeled noise levels at the façades of nearby sensitive receptors. The SoundPlan model was also used to produce a noise contour map showing the existing dBA CNEL in the project vicinity and is shown below in Exhibit 3.9-3. The SoundPlan Model printouts for the existing conditions are provided in Appendix D. Table 3.9-7 shows that currently only Receivers 7 is within the City's 60-dBA CNEL exterior sensitive receptor standard.

Table 3.9-7: Existing Noise Levels at Nearby Sensitive Receptors

Receiver[1]	Description	dBA CNEL[2]	dBA L_{eq} Day	dBA L_{eq} Evening	dBA L_{eq} Night
1	Multi-family home north of Fostoria Way	64	59	57	57
2	Multi-family home north of Crow Canyon Road	69	64	61	62
3	Single-family home east of Alcosta Boulevard	64	59	57	57
4	Multi-family home east of Alcosta Boulevard	70	65	62	63
5	San Ramon Regional Medical Center	61	57	55	53
6	Single-family home east of Alcosta Boulevard	66	60	57	59
7	Iron Horse Middle School	59	54	51	52
8	Marriott Hotel	66	62	61	59

Table 3.9-7 (cont.): Existing Noise Levels at Nearby Sensitive Receptors

Receiver[1]	Description	dBA CNEL[2]	dBA L_{eq} Day	dBA L_{eq} Evening	dBA L_{eq} Night
9	Single-family home west of San Ramon Valley Boulevard	70	66	65	63
10	St. Joan of Arc Catholic Church	74	71	69	67
11	Single-family home west of San Ramon Valley Boulevard	71	66	64	63

Notes:
[1] Location of Receivers shown on Exhibit 3.9-3.
[2] Noise level includes a 5-dBA penalty to account for the noise-sensitive evening hours and a 10-dBA penalty to account for the noise-sensitive nighttime hours.
Source: SoundPlan Version 7.1; Michael Brandman Associates, 2012.

Modeled Existing Roadway Noise Contours

The existing roadway noise contours were calculated utilizing the FHWA Traffic Noise Prediction Model FHWA-ROAD-77-108. The distances to the 55-, 60-, 65-, and 70-dBA L_{dn} noise contours were calculated, plus the noise level at 100 feet from the centerline. Table 3.9-8 shows the existing traffic noise contours.

Table 3.9-8: Existing Roadway Noise Contours

Roadway	Segment	CNEL at 100 feet (dBA)	Distance to Contour (feet)			
			70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL
Fostoria Way	West of Crow Canyon Place	58	RW	RW	76	164
Fostoria Way	East of Crow Canyon Place	57	RW	RW	66	141
Fostoria Way	East of Camino Ramon	51	RW	RW	RW	51
Crow Canyon Road	West of San Ramon Valley Boulevard	66	RW	118	254	548
Crow Canyon Road	West of I-680 Southbound Ramps	68	72	156	336	724
Crow Canyon Road	East of I-680 Northbound Ramps	69	83	178	384	826
Crow Canyon Road	East of Crow Canyon Place	68	RW	155	335	721
Crow Canyon Road	East of Camino Ramon	67	RW	142	305	657
Crow Canyon Road	East of Alcosta Boulevard	67	RW	126	272	587
Norris Canyon Road	West of San Ramon Valley Boulevard	53	RW	RW	RW	75
Norris Canyon Road	West of Bishop Drive	63	RW	77	166	357

Table 3.9-8 (cont.): Existing Roadway Noise Contours

Roadway	Segment	CNEL at 100 feet (dBA)	Distance to Contour (feet)			
			70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL
Norris Canyon Road	East of Bishop Drive	62	29	63	136	294
Norris Canyon Road	East of Camino Ramon	62	28	60	129	279
Executive Parkway	West of Camino Ramon	54	RW	RW	39	83
Executive Parkway	East of Camino Ramon	52	RW	RW	RW	61
Bishop Drive	West of Camino Ramon	53	RW	RW	33	71
Bollinger Canyon Road	West of I-680 Southbound Ramps	66	RW	110	237	510
Bollinger Canyon Road	East of I-680 Northbound Ramps	69	80	172	371	799
Bollinger Canyon Road	West of Camino Ramon	68	RW	152	328	708
Bollinger Canyon Road	East of Camino Ramon	68	RW	152	327	705
Bollinger Canyon Road	East of Alcosta Boulevard	66	RW	116	251	540
San Ramon Valley Boulevard	North of Crow Canyon Road	64	39	85	183	394
San Ramon Valley Boulevard	North of Norris Canyon Road	63	RW	69	148	320
San Ramon Valley Boulevard	South of Norris Canyon Road	62	RW	60	128	277
Bishop Drive	North of Norris Canyon Road	49	RW	RW	RW	42
Bishop Drive	South of Norris Canyon Road	55	RW	RW	49	105
Crow Canyon Place	North of Fostoria Way	57	RW	RW	62	133
Crow Canyon Place	North of Crow Canyon Road	60	RW	44	94	203
Crow Canyon Place	South of Crow Canyon Road	60	RW	45	96	207
Camino Ramon	North of Crow Canyon Road	61	RW	51	110	237
Camino Ramon	South of Crow Canyon Road	61	RW	54	117	253
Camino Ramon	North of Norris Canyon Road	60	RW	49	106	229
Camino Ramon	South of Norris Canyon Road	60	RW	47	101	218
Camino Ramon	South of Executive Parkway	60	RW	47	100	216
Camino Ramon	South of Bishop Drive	61	RW	52	111	240
Camino Ramon	South of Bollinger Canyon Road	57	RW	RW	67	145
Alcosta Boulevard	South of Crow Canyon Road	64	38	83	178	384
Alcosta Boulevard	South of Norris Canyon Road	62	RW	63	136	292

Table 3.9-8 (cont.): Existing Roadway Noise Contours

Roadway	Segment	CNEL at 100 feet (dBA)	Distance to Contour (feet)			
			70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL
Alcosta Boulevard	North of Bollinger Canyon Road	62	RW	65	141	304
Alcosta Boulevard	South of Bollinger Canyon Road	63	RW	71	154	332

Notes:
RW = Noise contour is located within right-of-way of roadway.
Source: Michael Brandman Associates, 2012.

The calculated existing noise contours in Table 3.9-8 shows that at 100 feet from the centerline, the following roadway segments of Crow Canyon Road from west of San Ramon Valley Boulevard to east of Alcosta Boulevard, Norris Canyon Road from west of Bishop Drive to east of Camino Ramon, Bollinger Canyon Road from west of I-680 to east of Alcosta Boulevard, San Ramon Valley Boulevard from north of Crow Canyon Road to south of Norris Canyon Road, Camino Ramon from north of Crow Canyon Road to south of Crow Canyon Road and south of Bishop Drive, and Alcosta Boulevard from south of Norris Canyon Road to south of Bollinger Canyon Road currently exceed the City's "normally acceptable" noise standard of 60 dBA CNEL for noise-sensitive land uses.

Aviation Noise

The nearest airport to the Specific Plan area is Livermore Municipal Airport, located approximately 9 miles to the southeast. Because of distance, aircraft noise has nominal effect on the Specific Plan area.

Sensitive Receptors

The nearby sensitive receptors consist of residential uses, hospital uses, school uses, transient lodging uses, and church uses. Representative sensitive receptors of each land use have been identified above in Table 3.9-7.

3.9.3 - Regulatory Framework

State

Office of Noise Control Standards

The California Office of Noise Control has set the land use compatibility noise standards and has encouraged local jurisdictions to adopt them. Pursuant to the land use compatibility noise standards, for commercial and industrial uses, noise levels up to 65 dBA CNEL are "normally acceptable;" noise levels between 65 and 75 dBA CNEL are "conditionally acceptable," which means that noise levels are acceptable only when a detailed noise analysis is conducted, and needed noise-insulation features are included in the design. Conventional construction with closed windows and a fresh-air supply

system or air conditioning will normally suffice as "acceptable noise insulation" features. Noise levels between 70 and 80 dBA CNEL are generally unacceptable, and development of land uses in noise environments that exceed 75 dBA CNEL are discouraged. For residential development and schools, exterior noise levels ranging up to 60 dBA CNEL are classified as "normally acceptable," based upon the assumption that the homes are built with normal, conventional construction. Noise levels ranging from 55 to 70 dBA CNEL are conditionally acceptable. Noise levels in the 70- to 75-dBA CNEL range are classified as "generally unacceptable," and new construction or development is discouraged but may proceed if a detailed noise analysis is conducted, and needed noise-insulation features are included in the design.

Caltrans Vibration Guidance

Construction vibration is regulated in accordance with standards established by the Transportation and Construction-Induced Vibration Guidance Manual, issued by the California Department of Transportation (Caltrans). Table 3.9-9 presents these standards. Transient sources create a single, isolated vibration event, such as blasting or drop-ball impacts. Continuous/frequent intermittent sources include multiple impacts from pile drivers, the use of vibratory compaction equipment, and other construction equipment that creates vibration other than in single events.

Table 3.9-9: Groundborne Vibration Exposure Standards

Structure and Condition	Maximum Peak Particle Velocity (inches/second)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely fragile historic building, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.20	0.10
Historic and older residential structures with plaster walls and ceilings	0.50	0.25
New residential structures with gypsum board walls and ceilings	1.00	0.50
Modern commercial and industrial buildings	2.00	0.50
Source: California Department of Transportation, 2004.		

Local

General Plan

The City of San Ramon General Plan sets forth the following goal and policies relevant to noise:

- **Guiding Policy 10.1-G-1:** Strive to achieve an acceptable noise environment for the present and future residents of San Ramon.
- **Implementing Policy 10.1-I-1:** Minimize vehicular and stationary noise sources and noise emanating from temporary activities.

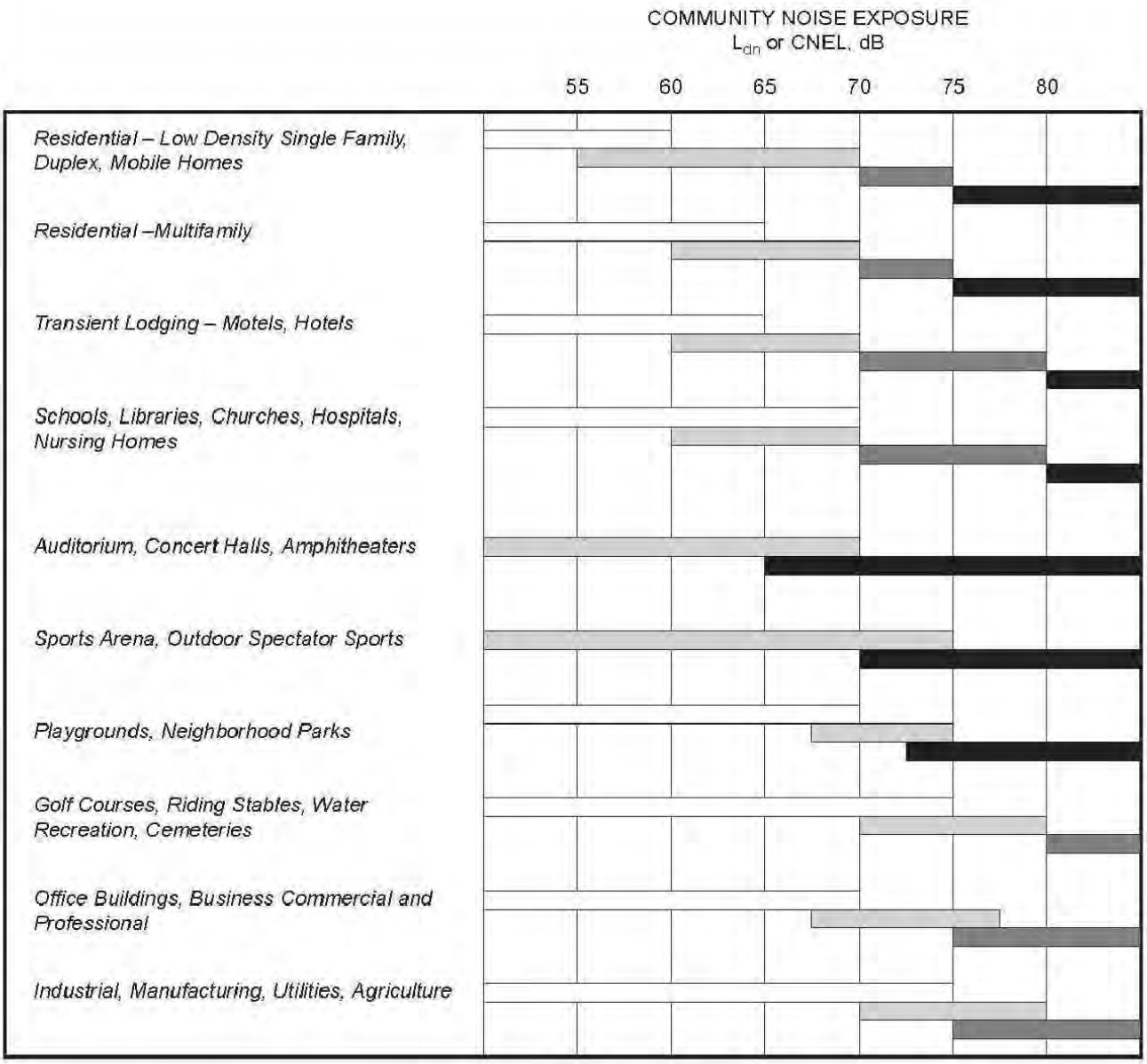
- **Implementing Policy 10.1-I-2:** Require a noise study for all projects that have noise exposure greater than "normally acceptable" levels indicated in Figure 10-2 (Exhibit 3.9-4).
- **Implementing Policy 10.1-I-4:** Include noise attenuation measures in new developments that expose the community to greater than "normally acceptable" noise levels.
- **Implementing Policy 10.1-I-6:** Require developers to reduce the noise impacts of new development on adjacent properties through appropriate means, including, but not limited to, the following actions:
  - Screen and control noise sources, such as parking and loading facilities, outdoor activities and mechanical equipment,
  - Increase setbacks for noise sources from adjacent dwellings,
  - Retain fences, walls, and landscaping that serve as noise buffers,
  - Use soundproofing materials and double-glazed windows,
  - Control hours of operation, including deliveries and trash pickup, to minimize noise impacts, and
  - As a last resort, construct noise walls along highways and arterials when compatible with aesthetic concerns and neighborhood character. This would be a developer responsibility.
- **Implementing Policy 10.1-I-8:** Protect especially sensitive uses, including schools, hospitals, and senior care facilities, from excessive noise.
- **Implementing Policy 10.1-I-10:** Require new sources to use best available control technology (BACT) to minimize noise from all sources.

Municipal Code

The following City ordinances are applicable to the proposed project:

- **Chapter V Noise Control B6-100 Construction projects:** It is unlawful for a person within a residential land use district to operate or perform construction or repair work on a building, structure or project, or to operate a pile driver, steam shovel, pneumatic hammer, derrick, steam or electric hoist or other construction-type device on holidays celebrated by the federal government, and on Monday through Friday, prior to seven-thirty a.m. and after seven p.m. on each day and on Saturdays and Sundays, prior to nine a.m. and after six p.m.

- **Chapter V Noise Control B6-101 Business and residential relationships:**
  A. Store deliveries by any vehicle in the area between the business and residences is prohibited between ten p.m. and six-thirty a.m. weekdays and between ten p.m. and eight a.m. on weekends and federal holidays. Delivery vehicles will have their engines turned off during deliveries.
  B. Garbage disposal, construction and maintenance by power equipment in the area between the business and residences is prohibited between ten p.m. and six-thirty a.m. weekdays and between ten p.m. and eight a.m. on weekends and federal holidays.
  C. Pedestrian, cycle or unauthorized vehicle traffic in the area between the business and residences is prohibited between ten p.m. and eight a.m.



LEGEND:

NORMALLY ACCEPTABLE
Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.

CONDITIONALLY ACCEPTABLE
New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made. Conventional construction, but with closed windows and fresh air supply systems or air conditioning, will normally suffice.

NORMALLY UNACCEPTABLE
New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and neede noise insulation features included in the design.

CLEARLY UNACCEPTABLE
New construction or development should generally not be undertaken.

Source: California Department of Health, *Guidelines for the Preparation and Content of Noise Elements of the General Plan*, November, 1990.

Source: California Department of Health.

Michael Brandman Associates

Exhibit 3.9-4
Land Use Compatibility Matrix

3.9.4 - Methodology

Michael Brandman Associates evaluated the proposed project's noise impacts through noise measurements and modeling of project noise impacts. The analysis is provided below.

Measurement Procedure and Criteria

To ascertain the existing noise at and adjacent to the project site, field monitoring was conducted from Monday, June 4, 2007 to Tuesday, June 5, 2007 and from Wednesday, March 3, 2010 to Thursday, March 4, 2010. (The former noise measurements were taken for the San Ramon City Center Project EIR.) The field survey noted that noise within the proposed project area is generally characterized by vehicle traffic on the local roadways. No aircraft overflights were observed during the noise measurements.

Noise monitoring was performed using two different styles of noise meters for the short-term, peak-hour measurements and the long-term measurements, which are described below.

Short-Term Peak-Hour Noise Measurements

The short-term peak-hour noise measurements were taken using a Larson-Davis Model 824 Type 1 precision sound level meter programmed in "slow" mode to record noise levels in "A" weighted form as well as the frequency spectrum of the noise broken down into $^1/_3$ octaves. The sound level meter and microphone were mounted on a tripod 5 feet above the ground and were equipped with a windscreen during all measurements. The sound level meter was calibrated before and after the monitoring using a Larson-Davis calibrator, Model CAL 200. The accuracy of the calibrator is maintained through a program established through the manufacturer and is traceable to the National Bureau of Standards. The unit meets the requirements of American National Standards Institute Standard S1.4-1984 and IEC Standard 942: 1988 for Class 1 equipment. All noise level measurement equipment meets American National Standards Institute specifications for sound level meters (S1.4-1983 identified in Chapter 19.68.020.AA).

All traffic noise measurement durations were measured according to the standards stated in Section N-3320 of Caltrans Technical Noise Supplement, which specifies that the measurements be a duration of at least 10 minutes and shall be continued past 10 minutes until the fluctuations in the displayed L_{eq} are less than 0.5 dBA.

Long-Term Noise Measurements

The long-term noise measurements were taken using two Extech Model 407780 Type 2 integrating sound level meters programmed in "slow" mode to record the sound pressure level at 3-second intervals for approximately 24 hours in "A" weighted form. In addition, the L_{eq} averaged over the entire measuring time and L_{max} were recorded. The sound level meters and microphones were mounted on tripods 5 feet above the ground and were equipped with windscreens during all measurements. The sound level meters were calibrated before and after the monitoring using an Extech calibrator, Model 407766. All noise level measurement equipment meets American National

Standards Institute specifications for sound level meters (S1.4-1983 identified in Chapter 19.68.020.AA).

Noise Measurement Locations

The noise monitoring locations were selected by Michael Brandman Associates in order to obtain noise measurements of the current noise levels in the project study area and to provide a baseline for any potential noise impacts that may be created by development of the proposed project. The noise measurement sites were selected to provide a representative sampling of the noise levels experienced by nearby sensitive receptors. The sites are described in Table 3.9-5 and Table 3.9-6, and are shown in Exhibit 3.9-1.

Noise Measurement Timing and Climate

The noise measurements were recorded from 3:20 p.m. on June 4, 2007 to 9:35 a.m. on June 5, 2007 and from 7:18 a.m. to 5:26 p.m. on March 4, 2010. On June 4, 2007, the temperature was 76 degrees Fahrenheit, barometric pressure was 29.50 inches of mercury, with wind gusts up to 8 miles per hour during the noise measurement readings. On June 5, 2007, the temperature was 60 degrees Fahrenheit, barometric pressure was 29.47 inches of mercury, and the wind speed was around 5 miles per hour during the noise measurement readings. On March 4, 2010, at the start of the noise measurements, the temperature was 41 degrees Fahrenheit, barometric pressure was 29.59 inches of mercury, with low clouds and no wind. At the conclusion of the noise measurements on March 4, 2010, the temperature was 56 degrees Fahrenheit, barometric pressure was 29.48 inches of mercury, the sky was partly cloudy and the wind was approximately 3 miles per hour.

FHWA-RD-77-108 Traffic Noise Prediction Model

To predict existing and future noise levels due to traffic traveling 25 miles per hour or above, a computer program that replicates the FHWA Traffic Noise Prediction Model FHWA-RD-77-108 was utilized. The FHWA-RD-77-108 Model arrives at a predicted noise level through a series of adjustments to the Reference Energy Mean Emission Level. Adjustments are then made to the reference energy mean emission level to account for the roadway active width (i.e., the distance between the center of the outermost travel lanes on each side of the roadway); the total average daily traffic (ADT); and the percentage of ADT that flows during the day, evening, and night; the travel speed; the vehicle mix on the roadway; a percentage of the volume of automobiles, medium trucks, and heavy trucks; the roadway grade; the angle of view of the observer exposed to the roadway; and the site conditions (“hard” or “soft”) as they relate to the absorption of the ground, pavement, or landscaping.

Traffic Noise Prediction Model Inputs

The roadway parameters used for this study are presented in Table 3.9-10. The roadway classifications are based on the City of San Ramon General Plan Circulation Element. The roadway speeds are based on the posted speed limits. Since the study area is located in a suburban

environment and landscaping exists along the sides of all analyzed roadways, soft site conditions were modeled.

Table 3.9-10: FHWA Model Roadway Parameters

Roadway	Segment	General Plan Classification	Vehicle Speed (miles per hour)
Fostoria Way	West of Crow Canyon Place	4-Lane Collector	35
Fostoria Way	East of Crow Canyon Place	4-Lane Collector	30
Fostoria Way	East of Camino Ramon	4-Lane Collector	30
Crow Canyon Road	West of San Ramon Valley Boulevard	6-Lane Arterial	40
Crow Canyon Road	West of I-680 Southbound Ramps	6-Lane Arterial	40
Crow Canyon Road	East of I-680 Northbound Ramps	8-Lane Arterial	40
Crow Canyon Road	East of Crow Canyon Place	8-Lane Arterial	40
Crow Canyon Road	East of Camino Ramon	8-Lane Arterial	40
Crow Canyon Road	East of Alcosta Boulevard	6-Lane Arterial	40
Norris Canyon Road	West of San Ramon Valley Boulevard	4-Lane Collector	25
Norris Canyon Road	West of Bishop Drive	4-Lane Collector	40
Norris Canyon Road	East of Bishop Drive	4-Lane Collector	40
Norris Canyon Road	East of Camino Ramon	4-Lane Collector	40
Executive Parkway	West of Camino Ramon	Minor	30
Executive Parkway	East of Camino Ramon	Minor	30
Bishop Drive	West of Camino Ramon	Minor	30
Bollinger Canyon Road	West of I-680 Southbound Ramps	6-Lane Arterial	40
Bollinger Canyon Road	East of I-680 Northbound Ramps	6-Lane Arterial	40
Bollinger Canyon Road	West of Camino Ramon	8-Lane Arterial	40
Bollinger Canyon Road	East of Camino Ramon	8-Lane Arterial	40
Bollinger Canyon Road	East of Alcosta Boulevard	6-Lane Arterial	40
San Ramon Valley Boulevard	North of Crow Canyon Road	4-Lane Arterial	40
San Ramon Valley Boulevard	North of Norris Canyon Road	4-Lane Arterial	40
San Ramon Valley Boulevard	South of Norris Canyon Road	4-Lane Arterial	40
Bishop Drive	North of Norris Canyon Road	Minor	30
Bishop Drive	South of Norris Canyon Road	Minor	30
Crow Canyon Place	North of Fostoria Way	Minor	30

Table 3.9-10 (cont.): FHWA Model Roadway Parameters

Roadway	Segment	General Plan Classification	Vehicle Speed (miles per hour)
Crow Canyon Place	North of Crow Canyon Road	Minor	30
Crow Canyon Place	South of Crow Canyon Road	Minor	30
Camino Ramon	North of Crow Canyon Road	4-Lane Collector	35
Camino Ramon	South of Crow Canyon Road	4-Lane Collector	35
Camino Ramon	North of Norris Canyon Road	4-Lane Collector	35
Camino Ramon	South of Norris Canyon Road	4-Lane Collector	35
Camino Ramon	South of Executive Parkway	4-Lane Collector	35
Camino Ramon	South of Bishop Drive	4-Lane Collector	35
Camino Ramon	South of Bollinger Canyon Road	4-Lane Collector	35
Alcosta Boulevard	South of Crow Canyon Road	4-Lane Arterial	40
Alcosta Boulevard	South of Norris Canyon Road	4-Lane Arterial	40
Alcosta Boulevard	North of Bollinger Canyon Road	4-Lane Arterial	40
Alcosta Boulevard	South of Bollinger Canyon Road	4-Lane Arterial	40
Source: City of San Ramon, 2011.			

In order to determine the offsite project-generated traffic noise impacts, the average daily traffic volumes on the study area roadways were obtained from the Traffic Impact Analysis. The peak-hour volumes were provided for the existing year without and with project and year 2030 without and with project scenarios. The ADT volumes were calculated by multiplying the PM peak-hour volumes by 12. The calculated ADT volumes are shown in Table 3.9-11.

Table 3.9-11: Average Daily Traffic

Roadway	Segment	Average Daily Traffic			
		Existing		Year 2030	
		No Project	With Project	No Project	With Project
Fostoria Way	West of Crow Canyon Place	9,800	11,200	18,800	14,900
Fostoria Way	East of Crow Canyon Place	12,100	12,800	33,100	18,100
Fostoria Way	East of Camino Ramon	2,600	2,600	13,600	13,500
Crow Canyon Road	West of San Ramon Valley Boulevard	36,100	39,700	47,300	45,800
Crow Canyon Road	West of I-680 Southbound Ramps	54,800	61,900	63,900	56,700
Crow Canyon Road	East of I-680 Northbound Ramps	60,300	81,100	73,700	66,300

Table 3.9-11 (cont.): Average Daily Traffic

Roadway	Segment	Average Daily Traffic			
		Existing		Year 2030	
		No Project	With Project	No Project	With Project
Crow Canyon Road	East of Crow Canyon Place	49,200	65,500	52,300	48,800
Crow Canyon Road	East of Camino Ramon	42,800	46,300	56,400	55,200
Crow Canyon Road	East of Alcosta Boulevard	40,000	43,500	60,300	57,700
Norris Canyon Road	West of San Ramon Valley Boulevard	7,800	9,400	10,900	9,800
Norris Canyon Road	West of Bishop Drive	21,600	28,700	28,300	23,900
Norris Canyon Road	East of Bishop Drive	16,100	19,800	21,700	16,900
Norris Canyon Road	East of Camino Ramon	14,900	17,200	23,400	15,400
Executive Parkway	West of Camino Ramon	5,700	6,100	8,400	8,800
Executive Parkway	East of Camino Ramon	3,600	3,600	3,900	4,800
Bishop Drive	West of Camino Ramon	4,500	5,400	14,100	13,100
Bollinger Canyon Road	West of I-680 Southbound Ramps	32,400	33,400	45,000	47,900
Bollinger Canyon Road	East of I-680 Northbound Ramps	63,500	70,000	92,500	88,400
Bollinger Canyon Road	West of Camino Ramon	47,800	51,200	69,400	65,000
Bollinger Canyon Road	East of Camino Ramon	47,500	49,300	58,500	54,100
Bollinger Canyon Road	East of Alcosta Boulevard	35,300	37,900	54,300	50,200
San Ramon Valley Boulevard	North of Crow Canyon Road	23,800	24,800	32,300	31,700
San Ramon Valley Boulevard	North of Norris Canyon Road	17,400	22,100	25,000	21,100
San Ramon Valley Boulevard	South of Norris Canyon Road	14,000	15,000	21,100	18,400
Bishop Drive	North of Norris Canyon Road	2,000	8,600	2,900	10,500
Bishop Drive	South of Norris Canyon Road	8,100	11,000	9,300	12,100
Crow Canyon Place	North of Fostoria Way	11,500	11,500	20,700	18,300
Crow Canyon Place	North of Crow Canyon Road	21,700	22,600	24,600	21,700
Crow Canyon Place	South of Crow Canyon Road	22,300	29,000	22,300	27,100
Camino Ramon	North of Crow Canyon Road	17,100	18,500	21,100	17,700
Camino Ramon	South of Crow Canyon Road	18,800	34,000	22,600	19,500
Camino Ramon	North of Norris Canyon Road	16,200	24,400	25,000	15,400
Camino Ramon	South of Norris Canyon Road	15,100	23,400	19,500	12,800
Camino Ramon	South of Executive Parkway	14,900	20,400	16,800	16,000

Table 3.9-11 (cont.): Average Daily Traffic

Roadway	Segment	Average Daily Traffic			
		Existing		Year 2030	
		No Project	With Project	No Project	With Project
Camino Ramon	South of Bishop Drive	17,400	22,600	17,700	17,200
Camino Ramon	South of Bollinger Canyon Road	8,200	8,200	10,800	10,100
Alcosta Boulevard	South of Crow Canyon Road	22,900	25,700	32,100	29,100
Alcosta Boulevard	South of Norris Canyon Road	15,200	18,200	23,700	18,900
Alcosta Boulevard	North of Bollinger Canyon Road	16,100	19,200	28,800	28,100
Alcosta Boulevard	South of Bollinger Canyon Road	18,400	20,700	31,700	30,300
Source: Kimley-Horn and Associates, 2012; Michael Brandman Associates, 2012.					

Table 3.9-12 presents the hourly traffic flow distributions (vehicle mixes) used in this analysis. These distributions were obtained from Caltrans and from field observations of similar collector and arterial roads. The vehicle mix provides the hourly distribution percentages of automobiles, medium trucks, and heavy trucks for input into the FHWA and SoundPlan Models.

Table 3.9-12: Nearby Roadway Vehicle Mixes

Roadway Classification	Vehicle Type	Percent of Hourly Distribution			
		Day (7 a.m. to 7 p.m.)	Evening (7 p.m. to 10 p.m.)	Night (10 p.m. to 7 a.m.)	Overall
Local and Collector	Automobiles	73.6	13.6	10.2	97.4
	Medium Trucks	0.9	0.9	0.0	1.8
	Heavy Trucks	0.4	0.0	0.4	0.7
Arterials	Automobiles	69.5	12.9	9.6	92.0
	Medium Trucks	1.4	0.1	1.5	3.0
	Heavy Trucks	2.4	0.1	2.5	5.0
Interstate 680	Automobiles	65.6	13.4	15.7	94.7
	Medium Trucks	1.5	0.3	0.7	2.5
	Heavy Trucks	1.5	0.2	1.1	2.8
Source: California Department of Transportation, 2012; Michael Brandman Associates, 2012.					

Source Assumptions

To assess the roadway noise generation in a uniform manner, all vehicles were analyzed at the single-lane-equivalent acoustic center of the roadway being analyzed, which means that all lanes were analyzed as one lane located at the centerline of the roadway, instead of analyzing each lane in the

roadway as a separate noise source. The width of each single-lane-equivalent was based on the right-of-way and near-far lane lengths (i.e., the distance between the middle lines of each outside lane) as determined by the General Plan Roadway Classification. In order to determine the height above the road grade from where the noise is being emitted, each type of vehicle has been analyzed independently with autos at road grade, medium trucks at 2.3 feet above road grade, and heavy trucks at 8 feet above road grade. These elevations were determined through a noise-weighted average of the elevation of the exhaust pipe, tires, and mechanical parts in the engine, which are the primary noise emitters from a vehicle.

SoundPlan Noise Modeling Software

Since noise in the project vicinity is created by multiple roadways, parking lots, and stationary sources, the SoundPlan Version 7.1 noise modeling software was used. SoundPlan's road noise source algorithms are based on the FHWA Traffic Noise Model (FHWA TNM Model). The SoundPlan Model requires the input of roadways and the locations of the noise measurement receivers. Stationary noise sources with associated frequency spectrums, sound barriers, terrain contour lines, building placement, and specific ground coverage zones may be incorporated as well. The site plan and aerial photos were used to determine the placement of the roadways and buildings as well as to establish the terrain in the project vicinity. Since the study area is located in a suburban environment and landscaping exists along the sides of all analyzed roadways, loose soil conditions were used to develop noise contours and analyze noise impacts to the project study area. The default temperature and humidity, which can vary the propagation of noise were used in the analysis, and represent reasonable assumptions since they are near the averages experienced in the project vicinity.

Roadway Assumptions

The model analyzed the noise impacts from the nearby roadways onto the project vicinity, which consists of the area analyzed in the Traffic Impact Analysis**.** All roadways were analyzed based on a single-lane-equivalent noise source combining both directions of travel. The roadway widths and vehicle speeds were based on the parameters previously shown in Table 3.9-10. The ADT volumes used in the SoundPlan model consist of the roadway volumes previously presented in Table 3.9-11. Interstate 680 was also analyzed in the SoundPlan model with 155,000 vehicles per day for the existing conditions and 165,500 vehicles per day for the year 2030 conditions, which were obtained from Caltrans. The vehicle mixes used in the SoundPlan Model have been provided previously in Table 3.9-12.

Modeling Calibration

Receivers were placed at the location of the noise measurement sites in order to assist in the calibration of the noise sources inputted into the SoundPlan model as well as to verify the accuracy of the SoundPlan Model. Table 3.9-13 and Table 3.9-14 provide a summary of the calculated results, and a comparison with the measured results shown above in Table 3.9-5 and Table 3.9-6, respectively.

Table 3.9-13: Model Calibration of Existing Short-Term Noise Levels

Site No.	Site Description	Calculated Daytime Noise Level[1] (dBA L_{eq})	Measured Noise Level[2] (AM/PM) (dBA L_{eq})	Difference (AM/PM)
M1	Located approximately 50 feet west of the centerline of San Ramon Valley Boulevard, 25 feet north of the centerline of Talavera Drive, and 120 feet west of the edge of I-680.	72.0	71.9/71.8	0.1/0.2
M2	Located approximately 50 feet west of the centerline of Sunset Drive and 50 feet south of Shops at Bishop Ranch.	65.5	65.1/67.1	0.4/-1.6
M3	Located approximately 50 feet east of Bishop Drive, 90 feet east of the edge of I-680, and 700 feet south of Norris Canyon Road	73.4	72.8/73.1	0.6/0.3
M4	Located approximately 100 feet north of the centerline of Norris Canyon Road and 100 feet east of the centerline of Alcosta Boulevard.	58.4	58.0/56.2	0.4/2.2

Notes:
[1] Noise level calculated from SoundPlan Version 7.1.
[2] Noise measurements 1 and 2 taken on June 4 and 5, 2007 and noise measurements 3 and 4 taken on March 4, 2010.
Source: Michael Brandman Associates, 2012.

Table 3.9-14: Model Calibration of Existing Long-Term Noise Levels

Site No.	Site Description	Calculated Noise Level[1] (dBA CNEL)	Measured Noise Level[2] (dBA CNEL)	Difference
A	Located approximately 160 feet southeast of the southern Bishop Ranch 3 parking structure and 25 feet from the centerline of Iron Horse Trail.	59.4	58.0	1.4
B	Located approximately 45 feet east of the centerline of Camino Ramon and 40 feet north of the centerline of Fostoria Way.	65.5	64.5	1.0

Notes:
[1] Noise level calculated from SoundPlan Version 7.1.
[2] Noise measurement A taken on June 4 and 5, 2007 and B taken on March 3 and 4, 2010.
Source: Michael Brandman Associates, 2012.

Table 3.9-13 shows that the SoundPlan Model is within 2.2 dBA of the short-term noise measurement and is below the 3.0-dBA threshold of perception. Table 3.9-14 shows the model calibration accuracy to the long-term noise measurements and found that the model is within 1.4 dBA of the measured noise levels. Therefore, based on the field noise measurements, the SoundPlan Model provides an accurate representation of the project area noise levels.

3.9.5 - Thresholds of Significance

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, noise impacts resulting from the implementation of the proposed project would be considered significant if the project would cause:

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 standards of other agencies?

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

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? (Refer to Section 7, Effects Found Not To Be Significant.)

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? (Refer to Section 7, Effects Found Not To Be Significant.)

Policy 10.1-I-2 of the General Plan Noise Element requires analysis of all projects that have noise exposure greater than the "normally acceptable" levels shown in Exhibit 3.9-4 and is 60 dBA CNEL for residential, transient lodging, schools, libraries, churches, hospitals, and nursing homes. Where the without project condition already exceeds the City's 60-dB CNEL exterior threshold, the City's General Plan provides no definition of what constitutes a substantial noise increase. However, the 1992 findings of the Federal Interagency Committee on Noise (FICON), which assessed changes in ambient noise levels resulting from aircraft operations, provides guidance that can be used to define substantial changes in noise levels that may be caused by the proposed project. Project-generated increases in noise levels that exceed those outlined in the thresholds below, and that affect existing noise-sensitive land uses (receptors) are considered substantial and, therefore, would constitute a significant noise impact. The proposed project would create a significant roadway noise impact if (1) it would independently increase noise levels to above 60 dB CNEL at the exterior of any nearby sensitive receptor or (2) create an exterior noise increase of 3 dB or more at sensitive receptors where the without project noise level is 60 to 65 dB CNEL or 1.5 dB or more at sensitive receptors where the without project noise level exceeds 65 dBA CNEL.

Chapter V Noise Control B6-100A of the Municipal Code restricts construction activities from occurring on Monday through Friday between the hours of 6:00 p.m. and 7:30 a.m. or on Saturday and Sunday between the hours of 6:00 p.m. and 9:00 a.m. or anytime on federal holidays. Since some construction activities could result in noise levels that could cause harm to persons such as residents or workers, a noise threshold utilizing the OSHA agency limits of noise exposure is used. The use of a significance threshold using an OSHA standard is considered conservative. The OSHA standard is limiting noise exposure of workers to 90 dB or less over 8 continuous hours or 105 dB or less over 1 continuous hour. For the purpose of this noise impact analysis, noise levels that could expose residents or workers to more than 90 dB for over 8 continuous hours or more than 105 dB for over 1 continuous hour are considered a significant noise impact.

A vibration impact would be considered significant if transient sources exceed 0.25 inch per second PPV for transient sources and if continuous sources exceed 0.04 inch per second PPV.

3.9.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the project and provides mitigation measures where appropriate.

Exposure of Persons to Excessive Noise

Impact NOI-1:	**Development and land use activities contemplated by the Specific Plan would not expose persons to excessive noise levels.**

Impact Analysis

The City has established noise standards for residential and non-residential land uses in the General Plan Noise Element and Municipal Code. These standards apply to noise-sensitive land uses within the existing noise environment and to noise created by future development.

For the proposed project, the significance of anticipated noise effects is based on a comparison between predicted noise levels and noise criteria defined by the City of San Ramon. Noise impacts are considered significant if existing or proposed noise-sensitive land uses would be exposed to noise levels in excess of the General Plan Noise Element and Municipal Code standards.

Short-Term Construction Impacts

Buildout of the Specific Plan would result in the additional development of approximately 1,500 residential units and an additional 1.68 million square feet of non-residential uses relative to existing conditions. Development of these uses would occur over a period of years. This additional development would generate noise during construction activities. Table 3.9-2 illustrates typical noise levels associated with the operation of construction equipment at a distance of 50 feet. As shown, construction equipment generates high levels of intermittent noise ranging from 70 dB to 105 dB and would result in a significant impact where noise-sensitive land uses adjoin construction sites. Although construction activities would result in a substantial noise increase in such locations, this impact would be short-term and would cease upon completion of construction.

Mitigation Measure NOI-1a is proposed that would require construction contractors to implement various sound control measures, including limitation of construction hour, using noise attenuation devices on heavy equipment, and a limitation of the allowable construction-related noise levels to the OSHA standards. With implementation of Mitigation Measure NOI-1a, short-term construction activities would not expose persons to excessive noise levels.

Operational Impacts

Implementation of the proposed project would allow for new development and redevelopment within the Specific Plan area that would generate additional traffic or alter existing traffic patterns. These changes in traffic volumes may increase ambient noise levels for existing land uses next to the affected roadways. The new development within the Specific Plan area would also create additional non-transportation noise sources such as truck loading areas and garbage truck collections, forced air mechanical equipment, parking lot noises, and street and sidewalk sweepers. These types of noises may create noise impacts to adjacent properties; however, this analysis is based on an area plan, where the specific placement of these noise sources is not available and their contribution to the overall noise environment is nominal, compared with transportation noise, and they have not been analyzed.

The operational impacts have been analyzed based on the potential impacts to the existing sensitive receptors in the vicinity of the Specific Plan area and potential impacts to the residential uses that the proposed project would introduce to the Specific Plan area.

Impacts to Existing Sensitive Receptors

The potential offsite noise impacts caused by the increase in vehicular traffic from the proposed Specific Plan buildout onto the study area roadways have been analyzed for the following two traffic scenarios:

- **Existing Condition:** This scenario consists of existing roadway noise contours.
- **Year 2030:** This scenario refers to the Year 2030 roadway noise contours and include growth in land uses located within the City's urban growth limit.

In order to quantify the traffic noise impacts along the analyzed roadways, the roadway noise contours were calculated with the FHWA RD-77-108 model. Noise contours represent the distance to noise levels of a constant value and are measured from the center of the roadway. For analysis comparison purposes, the L_{dn} and CNEL noise levels are calculated at 100 feet from the centerline, which through field observations was the average distance sensitive receptors were set back from the roadways in the study area. In addition, the distance from the centerline to the 55-, 60-, 65-, and 70-dBA noise levels are calculated for both L_{dn} and CNEL standards and the noise calculation spreadsheets are provided in Appendix D.

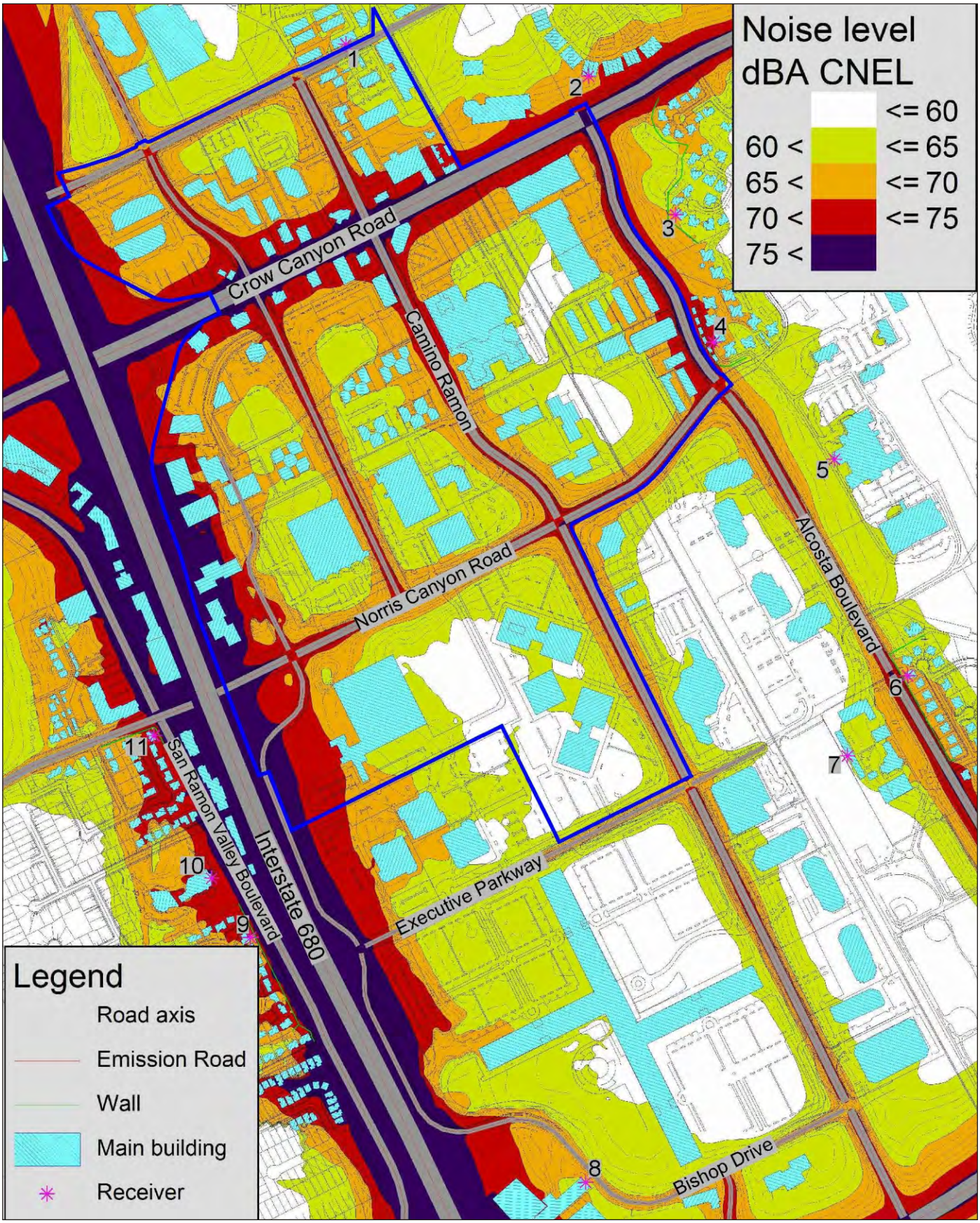
Since the Specific Plan area is in an urban area, with I-680 on the west side and many major roads in the project vicinity, the combined roadway noise impacts have also been analyzed at representative existing sensitive receptors, through the use of the SoundPlan model. The SoundPlan model analyzed the same scenarios that were analyzed for the roadway segment analysis and the SoundPlan printouts are provided in Appendix D.

Project Impacts

The proposed project would create a significant roadway noise impact if (1) it would independently increase noise levels to above 60 dB CNEL at the exterior of any nearby sensitive receptor or (2) create an exterior noise increase of 3 dB or more at sensitive receptors where the without project noise level is 60 to 65 dB CNEL or 1.5 dB or more at sensitive receptors where the without project noise level exceeds 65 dBA CNEL. The proposed project's offsite traffic noise impacts have been analyzed for the existing and year 2030 conditions and are discussed below.

Existing Conditions

The proposed project's potential offsite noise impacts have been calculated through a comparison between the existing scenario and the existing with project scenario. It should be noted that this is a worst-case analysis and a conservative comparison, since there are several properties within the Specific Plan that are not currently built to their highest allowed density, while the existing with project scenario assumes that all properties would be built out to their highest allowed densities. This results in the project showing increases in traffic and associated traffic noise, while in reality the project would lower the traffic generated from the Specific Plan area. The results of this comparison are shown in Table 3.9-15 for the roadway segment analysis and Table 3.9-16 for the combined roadway noise impacts at representative sensitive receptors. The calculated existing noise contours have been previously shown on Exhibit 3.9-3; the existing with project noise contours are shown on Exhibit 3.9-5.



Source: SoundPlan Version 7.1.

Michael Brandman Associates

Exhibit 3.9-5
Existing With Project Noise Contour Map

Table 3.9-15: Existing Project Roadway Noise Contributions

Roadway	Segment	CNEL at 100 feet			
		No Project	With Project	Project Contribution	Potential Significant Impact?
Fostoria Way	West of Crow Canyon Place	58	59	1	No
Fostoria Way	East of Crow Canyon Place	57	57	0	No
Fostoria Way	East of Camino Ramon	51	50	-1	No
Crow Canyon Road	West of San Ramon Valley Boulevard	66	66	0	No
Crow Canyon Road	West of I-680 Southbound Ramps	68	68	0	No
Crow Canyon Road	East of I-680 Northbound Ramps	69	70	1	No
Crow Canyon Road	East of Crow Canyon Place	68	69	1	No
Crow Canyon Road	East of Camino Ramon	67	68	1	No
Crow Canyon Road	East of Alcosta Boulevard	67	67	0	No
Norris Canyon Road	West of San Ramon Valley Boulevard	53	54	1	No
Norris Canyon Road	West of Bishop Drive	63	64	1	No
Norris Canyon Road	East of Bishop Drive	62	63	1	No
Norris Canyon Road	East of Camino Ramon	62	62	0	No
Executive Parkway	West of Camino Ramon	54	54	0	No
Executive Parkway	East of Camino Ramon	52	52	0	No
Bishop Drive	West of Camino Ramon	53	54	1	No
Bollinger Canyon Road	West of I-680 Southbound Ramps	66	66	0	No
Bollinger Canyon Road	East of I-680 Northbound Ramps	69	69	0	No
Bollinger Canyon Road	West of Camino Ramon	68	68	0	No
Bollinger Canyon Road	East of Camino Ramon	68	68	0	No
Bollinger Canyon Road	East of Alcosta Boulevard	66	66	0	No
San Ramon Valley Boulevard	North of Crow Canyon Road	64	64	0	No
San Ramon Valley Boulevard	North of Norris Canyon Road	63	64	1	No
San Ramon Valley Boulevard	South of Norris Canyon Road	62	62	0	No
Bishop Drive	North of Norris Canyon Road	49	56	7	No

Table 3.9-15 (cont.): Existing Project Roadway Noise Contributions

Roadway	Segment	CNEL at 100 feet			
		No Project	With Project	Project Contribution	Potential Significant Impact?
Bishop Drive	South of Norris Canyon Road	55	57	2	No
Crow Canyon Place	North of Fostoria Way	57	57	0	No
Crow Canyon Place	North of Crow Canyon Road	60	60	0	No
Crow Canyon Place	South of Crow Canyon Road	**60**	**61**	**1**	**Yes**
Camino Ramon	North of Crow Canyon Road	61	61	0	No
Camino Ramon	South of Crow Canyon Road	61	64	3	No
Camino Ramon	North of Norris Canyon Road	**60**	**62**	**2**	**Yes**
Camino Ramon	South of Norris Canyon Road	**60**	**62**	**2**	**Yes**
Camino Ramon	South of Executive Parkway	**60**	**61**	**1**	**Yes**
Camino Ramon	South of Bishop Drive	61	62	1	No
Camino Ramon	South of Bollinger Canyon Road	57	57	0	No
Alcosta Boulevard	South of Crow Canyon Road	64	64	0	No
Alcosta Boulevard	South of Norris Canyon Road	62	63	1	No
Alcosta Boulevard	North of Bollinger Canyon Road	62	63	1	No
Alcosta Boulevard	South of Bollinger Canyon Road	63	63	0	No
Source: Michael Brandman Associates, 2012.					

Table 3.9-16: Existing Combined Roadway Noise Levels at Nearby Sensitive Receptors

Receiver[1]	Description	Existing (dBA CNEL)[2]		
		Without Project	With Project	Project Increase
1	Multi-family home north of Fostoria Way	64	64	0
2	Multi-family home north of Crow Canyon Road	69	69	0
3	Single-family home east of Alcosta Boulevard	64	65	1
4	Multi-family home east of Alcosta Boulevard	70	71	1
5	San Ramon Regional Medical Center	61	61	0
6	Single-family home east of Alcosta Boulevard	66	66	0

Table 3.9-16 (cont.): Existing Combined Roadway Noise Levels at Nearby Sensitive Receptors

Receiver[1]	Description	Existing (dBA CNEL)[2]		
		Without Project	With Project	Project Increase
7	Iron Horse Middle School	59	59	0
8	Marriott Hotel	66	67	1
9	Single-family home west of San Ramon Valley Boulevard	70	70	0
10	St. Joan of Arc Catholic Church	74	74	0
11	Single-family home west of San Ramon Valley Boulevard	71	71	0

Notes:
[1] Location of Receivers shown on Exhibits 3.9-3 and 3.9-5.
[2] Noise level includes a 5-dBA penalty to account for the noise-sensitive evening hours and a 10-dBA penalty to account for the noise-sensitive nighttime hours.
Source: Michael Brandman Associates, 2012.

Exhibit 3.9-5 above shows that for the existing conditions, noise level contributions from the proposed project to the study area roadways would range from -1 to 7 dBA CNEL. In this scenario, only the roadway segments of Crow Canyon Place south of Crow Canyon Road, and Camino Ramon north and south of Norris Canyon Road and south of Executive Parkway would exceed 60 dB CNEL, where the without project conditions are within this threshold. In addition, no roadway segments would exceed either the 1.5- or 3-dB project increase where the without project condition exceeds either 60 or 65 dB CNEL. Since these roadway segments currently do not have any residential, transient lodging, schools, libraries, churches, hospitals, nursing homes or any other noise-sensitive land uses adjacent to them, no sensitive receptor would experience a significant increase in roadway noise for the existing conditions. This impact would be less than significant.

Table 3.9-16 above shows that for the existing conditions, project-related noise level contributions to the nearby sensitive receptors would range from 0 to 1 dB, which is within the 1.5- and 3-dB increase thresholds. Receiver 7, Iron Horse Middle School, is the only Receiver that is currently within the City's 60 dB CNEL exterior noise standard for sensitive receptors and the project contribution to this receiver is less than 1 dB, which would not create an exceedance of the standard. This impact would be less than significant.

Year 2030 Conditions

The proposed project's potential offsite noise impacts have been calculated through a comparison between the year 2030 scenario and the year 2030 with project scenario. It should be noted that the year 2030 comparison is more accurate than the existing scenario comparison, since it actually compares all properties within the Specific Plan area to be built out to their highest allowed densities for both without and with project scenarios. The results of this comparison are shown in Table 3.9-17 for the roadway segment analysis and Table 3.9-18 for the combined roadway noise impacts at

representative sensitive receptors. The calculated year 2030 noise contours are shown on Exhibit 3.9-6 and the existing with project noise contours are shown on Exhibit 3.9-7.

Table 3.9-17: Year 2030 Project Roadway Noise Contributions

Roadway	Segment	CNEL at 100 feet			
		No Project	With Project	Project Contribution	Potential Significant Impact?
Fostoria Way	West of Crow Canyon Place	61	60	-1	No
Fostoria Way	East of Crow Canyon Place	62	59	-3	No
Fostoria Way	East of Camino Ramon	58	58	0	No
Crow Canyon Road	West of San Ramon Valley Boulevard	67	67	0	No
Crow Canyon Road	West of I-680 Southbound Ramps	69	68	-1	No
Crow Canyon Road	East of I-680 Northbound Ramps	70	69	-1	No
Crow Canyon Road	East of Crow Canyon Place	68	68	0	No
Crow Canyon Road	East of Camino Ramon	69	68	0	No
Crow Canyon Road	East of Alcosta Boulevard	68	68	0	No
Norris Canyon Road	West of San Ramon Valley Boulevard	55	54	-1	No
Norris Canyon Road	West of Bishop Drive	64	64	-1	No
Norris Canyon Road	East of Bishop Drive	63	62	-1	No
Norris Canyon Road	East of Camino Ramon	64	62	-2	No
Executive Parkway	West of Camino Ramon	55	56	1	No
Executive Parkway	East of Camino Ramon	52	53	1	No
Bishop Drive	West of Camino Ramon	58	57	-1	No
Bollinger Canyon Road	West of I-680 Southbound Ramps	67	67	0	No
Bollinger Canyon Road	East of I-680 Northbound Ramps	70	70	0	No
Bollinger Canyon Road	East of Camino Ramon	69	68	-1	No
Bollinger Canyon Road	East of Alcosta Boulevard	68	68	0	No
San Ramon Valley Boulevard	North of Crow Canyon Road	65	65	0	No
Bollinger Canyon Road	West of Camino Ramon	69	69	0	No
San Ramon Valley Boulevard	North of Norris Canyon Road	64	63	-1	No

Table 3.9-17 (cont.): Year 2030 Project Roadway Noise Contributions

Roadway	Segment	CNEL at 100 feet			
		No Project	With Project	Project Contribution	Potential Significant Impact?
San Ramon Valley Boulevard	South of Norris Canyon Road	63	63	0	No
Bishop Drive	North of Norris Canyon Road	51	56	5	No
Bishop Drive	South of Norris Canyon Road	56	57	1	No
Crow Canyon Place	North of Fostoria Way	59	59	0	No
Crow Canyon Place	North of Crow Canyon Road	60	60	0	No
Crow Canyon Place	South of Crow Canyon Road	**60**	**61**	**1**	**Yes**
Camino Ramon	North of Crow Canyon Road	62	61	-1	No
Camino Ramon	South of Crow Canyon Road	62	61	-1	No
Camino Ramon	North of Norris Canyon Road	62	60	-2	No
Camino Ramon	South of Norris Canyon Road	61	59	-2	No
Camino Ramon	South of Executive Parkway	61	60	-1	No
Camino Ramon	South of Bishop Drive	61	61	0	No
Camino Ramon	South of Bollinger Canyon Road	59	58	-1	No
Alcosta Boulevard	South of Crow Canyon Road	65	65	0	No
Alcosta Boulevard	South of Norris Canyon Road	64	63	-1	No
Alcosta Boulevard	North of Bollinger Canyon Road	65	65	0	No
Alcosta Boulevard	South of Bollinger Canyon Road	65	65	0	No
Source: Michael Brandman Associates, 2012.					

Table 3.9-18: Year 2030 Combined Roadway Noise Levels at Nearby Sensitive Receptors

Receiver[1]	Description	Year 2030 (dBA CNEL)[2]		
		Without Project	With Project	Project Increase
1	Multi-family home north of Fostoria Way	67	66	-1
2	Multi-family home north of Crow Canyon Road	70	70	0
3	Single-family home east of Alcosta Boulevard	65	65	0
4	Multi-family home east of Alcosta Boulevard	71	71	0

Table 3.9-18 (cont.): Year 2030 Combined Roadway Noise Levels at Nearby Sensitive Receptors

Receiver[1]	Description	Year 2030 (dBA CNEL)[2]		
		Without Project	With Project	Project Increase
5	San Ramon Regional Medical Center	62	61	-1
6	Single-family home east of Alcosta Boulevard	68	68	0
7	Iron Horse Middle School	61	60	-1
8	Marriott Hotel	68	67	-1
9	Single-family home west of San Ramon Valley Boulevard	70	70	0
10	St. Joan of Arc Catholic Church	74	74	0
11	Single-family home west of San Ramon Valley Boulevard	71	71	0

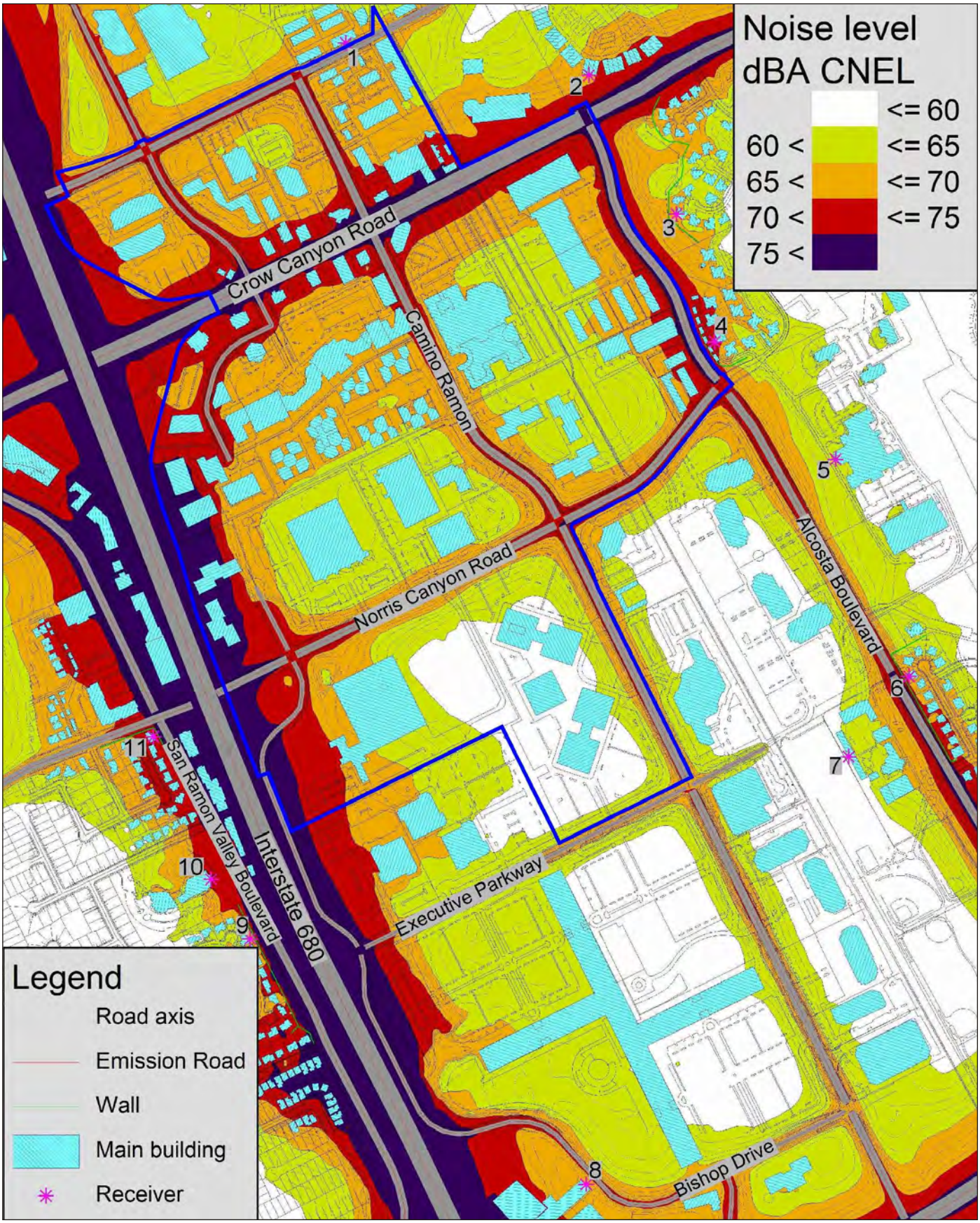
Notes:
[1] Location of Receivers shown on Exhibits 3.9-6 and 3.9-7.
[2] Noise level includes a 5-dBA penalty to account for the noise-sensitive evening hours and a 10-dBA penalty to account for the noise-sensitive nighttime hours.
Source: SoundPlan Version 7.1; Michael Brandman Associates, 2012.

Table 3.9-17 above shows that for the year 2030 conditions, noise level contributions from the proposed project to the study area roadways would range from -3 to 5 dBA CNEL. In this scenario, only the roadway segments of Crow Canyon Place south of Crow Canyon Road would exceed 60 dB CNEL, where the without project conditions are within this threshold. In addition, no roadway segments would exceed either the 1.5- or 3-dB project increase where the without project condition exceeds either 60 or 65 dB CNEL. Since this roadway segment does not have any residential, transient lodging, schools, libraries, churches, hospitals, nursing homes, or any other noise-sensitive land uses adjacent to it, no sensitive receptor would experience a significant increase in roadway noise for the year 2030 conditions. This impact would be less than significant.

Table 3.9-18 above shows that for the year 2030 conditions, project-related noise level contributions to the nearby sensitive receptors would range from -1 to 0 dB, which is within the 1.5- and 3-dB increase thresholds. All receivers would be above the City's 60 dB CNEL exterior noise standard for sensitive receptors for the without project conditions, so it is not possible for the project contribution to create an exceedance of this standard. This impact would be less than significant.

Impacts to Proposed Residential Uses

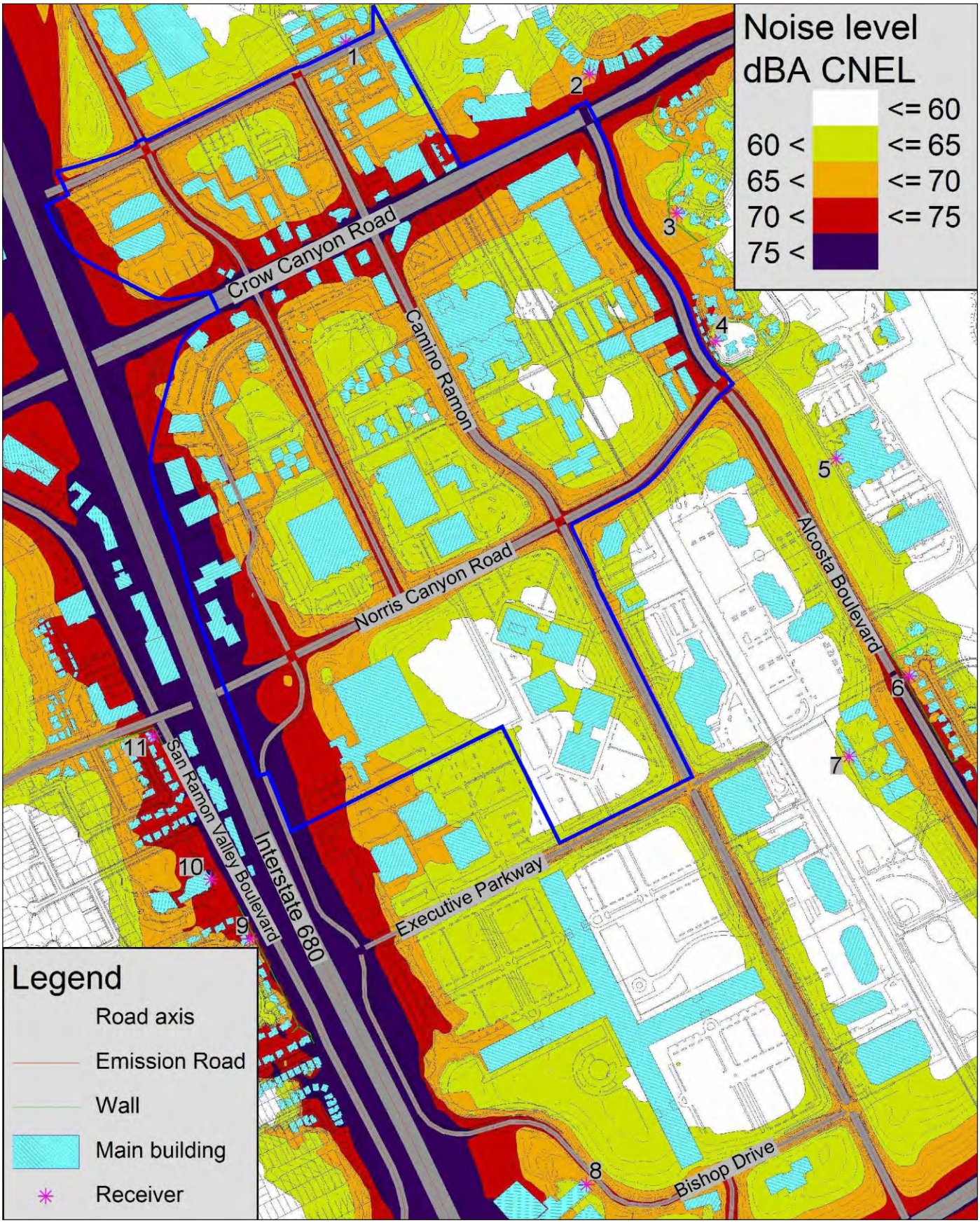
The proposed project would introduce residential uses to the Specific Plan area. These residential uses would be incorporated into mixed-used developments with various commercial uses on the ground floor beneath the proposed multi-family residences. The intent of the proposed project is to develop a community with mutually supportive uses within walking distance.



Source: SoundPlan Version 7.1.

Michael Brandman Associates

Exhibit 3.9-6
Year 2030 Without Project Noise Contour Map



Source: SoundPlan Version 7.1.

Michael Brandman Associates

Exhibit 3.9-7
Year 2030 With Project Noise Contour Map

Policies 10.1-I-2 and 10.1-I-4 of the General Plan Noise Element requires new residential developments to limit noise levels to 60 dB CNEL for exterior areas and 45 dB CNEL for all habitable rooms. The anticipated noise levels that would impact the project site are shown in Exhibit 3.9-7, for the Year 2030 with project conditions. Exhibit 3.9-7 shows that the noise levels would be as high as 75 dBA CNEL in areas where residential uses may be located and that the entire Specific Plan area, other than a couple of pockets shielded from buildings, would exceed the 60-dB CNEL exterior noise standard. This would be considered a significant impact.

The General Plan provides no definition for exterior residential areas and whether a residential balcony is defined as an exterior area or if it is limited to private back yards. The proposed project is based on the interconnectivity among residential, commercial, and office uses. Residential balconies are an important part of this interconnectivity, since they provide a place for the residents to interact with the surrounding commercial and street activities, while still being in the comfort of their own homes. Residential balconies are also important to mixed-use designs, since they make visitors aware that they are in a mixed-use residential community. Generally, residents would not expect privacy on a residential balcony in a mixed-use development; therefore, it has been assumed that residential balconies in mixed-use areas were not intended to be covered by the exterior noise standards.

Mitigation Measure NOI-1b is provided that would require an acoustical study be prepared for any development with residential uses in the Specific Plan area. The acoustical study shall develop mitigation if necessary to reduce exterior noise impacts to ground-level yards or patios to within the City's 60-dBA CNEL exterior noise standard, and any interior habitable space to within the City's 45-dBA CNEL interior noise standard. With implementation of Mitigation Measure NOI-1b, the proposed residential uses would not expose persons to excessive noise levels.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM NOI-1a All construction contractors shall adhere to the following noise attenuation requirements:

- Construction activities shall be restricted from occurring Monday through Friday between the hours of 6:00 p.m. and 7:30 a.m. or on Saturday and Sunday between the hours of 6:00 p.m. and 9:00 a.m. or anytime on federal holidays. The City of San Ramon shall have the discretion to permit construction activities to occur outside of allowable hours if compelling circumstances warrant such an exception (e.g., weather conditions necessary to pour concrete).

- Construction activities shall not exceed Occupational Safety and Health Administration noise standards of 90 dB over 8 continuous hours or 105 dB over 1 continuous hour at any nearby office or residential use.
- All construction equipment shall use noise-reduction features (e.g., mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer.

MM NOI-1b An acoustical analysis shall be prepared for any development that will include residential uses within the Specific Plan area. The acoustical analysis shall analyze potential exterior noise impacts to any ground level yards or patios (upper level balconies shall be exempt from exterior noise standards) in order to determine compliance with the City's 60-dBA CNEL exterior noise standard. The acoustical analysis shall also analyze potential interior noise impacts to any habitable rooms in order to determine compliance with the City's 45-dBA CNEL interior noise standard. If the analysis determines an exceedance of noise standards will occur, then the analysis shall develop mitigation to reduce noise levels to within the standards.

Level of Significance After Mitigation

Less than significant impact.

Vibration

Impact NOI-2:	**Development and land use activities contemplated by the General Plan 2030 would not expose persons to excessive vibration levels.**

Impact Analysis

Groundborne vibrations consist of rapidly fluctuating motions within the ground that have an average motion of zero. The effects of groundborne vibrations typically only cause a nuisance to people, but at extreme vibration levels, damage to buildings may occur. Construction activities and the operation of heavy trucks and buses can produce vibration that may be felt by adjacent uses.

A vibration impact would be considered significant if transient sources exceed 0.25 inch per second PPV for transient sources and if continuous sources exceed 0.04 inch per second PPV. The short-term and long-term groundborne vibration impacts associated with project construction and operation are discussed separately below.

Short-Term Construction Impacts

Construction equipment such as pile drivers are known to generate substantial vibration levels that if used in the vicinity of sensitive land uses may expose persons to excessive vibration levels as well as have the potential to damage buildings. Other construction equipment such as bulldozers and vibratory rollers do not create the vibration levels of pile drivers; however, these types of equipment are more likely to operate continuously and closer to sensitive receptors, and they may expose persons to excessive vibration levels. Table 3.9-4 above gives approximate vibration levels for

particular construction equipment, which shows based on typical propagation, from as far away as 130 feet a pile driver would exceed the 0.25-inch-per-second-PPV threshold. As a result, vibration from short-term construction activities represents a potentially significant impact.

Mitigation Measure NOI-2a is provided that will require any development with construction activities that are within 130 feet of an offsite sensitive receptor, that a vibration analysis shall be prepared. With the implementation of Mitigation Measure NOI-2a, short-term construction activities would not expose persons to excessive vibration levels.

Operations-Related Impacts

The operation of heavy trucks and buses within the Specific Plan area can generate ground vibration, which varies considerably by vehicle type, weight, pavement conditions, and soil conditions. Groundborne vibration levels generated from vehicular traffic are not typically perceptible outside of the right-of-way of public roadways. However, there is a potential for vibration impacts to occur when heavy trucks are operating on private loading areas or truck routes that are located adjacent to sensitive land uses. Table 3.9-4 above gives approximate vibration levels for a loaded truck, which shows based on typical propagation, from as far away as 50 feet a loaded truck would exceed the 0.04 inch per second PPV threshold. As a result, vibration from operations-related activities represents a potentially significant impact.

Mitigation Measure NOI-2b is provided that will require any development that would introduce sensitive receptors within 50 feet of any private loading areas or truck routes to prepare a vibration analysis. With the implementation of Mitigation Measure NOI-2b, operational activities would not expose persons to excessive vibration levels.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM NOI-2a A vibration analysis shall be prepared for any development that would include construction activities located within 130 feet of an offsite sensitive receptor. The vibration analysis shall utilize industry-accepted methodologies that include the recommended vibration assessment procedure and thresholds provided by public agencies such as Caltrans or the Federal Highway Administration.

MM NOI-2b A vibration analysis shall be prepared for any residential development that will be located within 50 feet of any private loading area or truck route. The vibration analysis shall utilize industry-accepted methodologies that include the recommended vibration assessment procedure and thresholds provided by public agencies such as Caltrans or the Federal Highway Administration.

Level of Significance After Mitigation

Less than significant impact.

Permanent Increase in Ambient Noise Levels

Impact NOI-3:	**Development and land use activities contemplated by the Specific Plan would not expose persons to a permanent increase in ambient noise levels.**

Impact Analysis

As discussed in Impact NOI-1, implementation of the proposed project would allow for new development and redevelopment within the Specific Plan area that would generate additional traffic and/or alter existing traffic patterns. These changes in traffic volumes may create a permanent increase in ambient noise levels for existing land uses next to the affected roadways.

The proposed project would create a significant roadway noise impact if (1) it would independently increase noise levels to above 60 dB CNEL at the exterior of any nearby sensitive receptor or (2) create an exterior noise increase of 3 dB or more at sensitive receptors where the without project noise level is 60 to 65 dB CNEL or 1.5 dB or more at sensitive receptors where the without project noise level exceeds 65 dBA CNEL. The proposed project's offsite traffic noise impacts have been analyzed for the existing and year 2030 conditions and are discussed below.

Existing Conditions

Impact NOI-1 above shows that for the existing conditions, noise level contributions from the proposed project to the study area roadways would range from -1 to 7 dBA CNEL. In this scenario, only the roadway segments of Crow Canyon Place south of Crow Canyon Road, and Camino Ramon north and south of Norris Canyon Road and south of Executive Parkway would exceed 60 dB CNEL, where the without project conditions are within this threshold. In addition, no roadway segments would exceed either the 1.5- or 3-dB project increase where the without project condition exceeds either 60 or 65 dB CNEL. Since these roadway segments currently do not have any residential, transient lodging, schools, libraries, churches, hospitals, nursing homes, or any other noise-sensitive land uses adjacent to them, no sensitive receptor would experience a significant increase in roadway noise for the existing conditions.

Impact NOI-1 above also shows that for the existing conditions, project-related noise level contributions to the nearby sensitive receptors would range from 0 to 1 dB, which are within the 1.5- and 3-dB increase thresholds. Receiver 7, Iron Horse Middle School, is the only analyzed receiver that is currently within the City's 60-dB CNEL exterior noise standard for sensitive receptors and the project contribution to this receiver is less than 1 dB, which would not create an exceedance of the standard. This impact would be less than significant.

Year 2030 Conditions

Impact NOI-1 above shows that for the year 2030 conditions, noise level contributions from the proposed project to the study area roadways would range from -3 to 5 dBA CNEL. In this scenario,

only the roadway segments of Crow Canyon Place south of Crow Canyon Road would exceed 60 dB CNEL, where the without project conditions are within this threshold. In addition, no roadway segments would exceed either the 1.5 -or 3-dB project increase where the without project condition exceeds either 60 or 65 dB CNEL. Since this roadway segment does not have any residential, transient lodging, schools, libraries, churches, hospitals, nursing homes, or any other noise-sensitive land uses adjacent to it, no sensitive receptor would experience a significant increase in roadway noise for the year 2030 conditions.

Impact NOI-1 above also shows that for the year 2030 conditions, project-related noise level contributions to the nearby sensitive receptors would range from -1 to 0 dB, which is within the 1.5- and 3-dB increase thresholds. All receivers would be above the City's 60 dB CNEL exterior noise standard for sensitive receptors for the without project conditions; therefore, it is not possible for the project contribution to create an exceedance of this standard. This impact would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Temporary Increase in Ambient Noise Levels

Impact NOI-4:	**Development and land use activities contemplated by the Specific Plan would not expose persons to temporary increases in ambient noise levels.**

Impact Analysis

As discussed in Impact NOI-1, Implementation of the proposed project would result in the development of 1,500 residential units and an additional 1.68 million square feet of non-residential uses. This additional development would generate noise during construction activities. Table 3.9-2 illustrates typical noise levels associated with the operation of construction equipment at a distance of 50 feet. As shown, construction equipment generates high levels of intermittent noise ranging from 70 dB to 105 dB and would result in a significant impact where noise-sensitive land uses adjoin construction sites. Although construction activities would result in a substantial noise increase in such locations, this impact would be short-term and would cease upon completion of construction.

Mitigation Measure NOI-1a is proposed that would require construction contractors to implement various sound control measures, including limiting construction hours, using noise attenuation devices on heavy equipment, and limiting the allowable construction-related noise levels to the OSHA standards. With implementation of Mitigation Measure NOI-1a, short-term construction activities would not expose persons to excessive noise levels.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Implement Mitigation Measure NOI-1a.

Level of Significance After Mitigation

Less than significant impact.

3.10 - Population and Housing

3.10.1 - Introduction

This section describes the existing population and housing and potential effects from implementation of the Specific Plan on the affected area and its surroundings. Descriptions and analysis in this section are based on population and housing information provided by the California Department of Finance, the Association of Bay Area Governments, and the City of San Ramon.

3.10.2 - Environmental Setting

Current Population, Housing, and Employment Estimates

The California Department of Finance estimated the population of the City of San Ramon to be 73,109 as of January 1, 2011. Employment was estimated to be 26,900 by the California Department of Employment Development. Population, housing, and employment characteristics for San Ramon are summarized in Table 3.10-1.

Table 3.10-1: Population, Housing, and Employment Characteristics (2011)

Population	Dwelling Units	Households	Persons per Household	Employment	Unemployed Persons
73,109	26,470	25,523	2.86	26,900	1,100
Source: California Department of Finance, 2011; California Department of Employment Development, 2011.					

Historic Population Growth

The population of the City of San Ramon has grown significantly since incorporation in 1983. The City's population more than doubled in the 25 years between 1985 and 2010. The primary cause of population growth was development in the Dougherty Valley, which to date has added more than 20,000 residents to the City's population. The City's population growth between 1985 and 2010 is summarized in Table 3.10-2.

Table 3.10-2: City of San Ramon Historic Population Growth

Year	Population	Change From Previous (percent)
1985	24,750	—
1990	35,303	42.6
1995	39,315	11.4
2000	44,722	13.8
2005	50,672	13.3
2010	71,947	42.0
Net Change	**47,197**	**190.7**
Compound Annual Growth Rate	**4.36**	**—**
Source: California Department of Finance, 2010.		

Population Growth Projections

The Association of Bay Area Governments (ABAG) publishes population growth projections for every city and county in the San Francisco Bay Area. ABAG's population growth projections are used in regional planning efforts for issues such as air quality and affordable housing. Table 3.10-3 summarizes the population growth projections within the city boundaries from 2015 to 2035. As shown in the table, ABAG projects the population of San Ramon to increase by 22,500 persons between 2015 and 2035, which translates to an increase of 32.9 percent. Note that San Ramon's 2011 population estimate of 73,109 exceeds the 2015 population projection and is approaching the 2020 population projection. Refer to Impact POP-1 for further discussion of this issue.

Table 3.10-3: City of San Ramon Population Growth Projections

Year	Population	Change From Previous (Percent)
2015	68,400	—
2020	73,800	7.9
2025	79,600	7.9
2030	85,200	7.0
2035	90,900	6.7
Net Change	**22,500**	**32.9**
Compound Annual Growth Rate	**1.43**	**—**
Source: Association of Bay Area Governments, 2009.		

Employment Growth Projections

ABAG also publishes employment growth projections for every jurisdiction in the San Francisco Bay Area. Table 3.10-4 summarizes the employment growth projections for the City of San Ramon. As shown in the table, ABAG projects the creation of 10,180 jobs within the San Ramon city boundary, between 2015 and 2035, which translates to an increase of 24.3 percent.

Table 3.10-4: San Ramon Employment Growth Projections

Year	Employment	Change From Previous (Percent)
2015	41,890	—
2020	43,870	4.7
2025	46,650	6.3
2030	49,490	6.1
2035	52,070	5.2
Net Change	**10,180**	**24.3**
Compound Annual Growth Rate	**1.09**	**—**
Source: Association of Bay Area Governments, 2009.		

Historic Housing Growth

The historical housing growth is calculated from 1990 to 2010. The City's housing units almost doubled in the 20 years between 1990 and 2010, growing at a compound annual growth rate of 3.2 percent. The City's housing growth between 1990 and 2010 is summarized in Table 3.10-5.

Table 3.10-5: San Ramon Historic Housing Growth

Year	Dwelling Units	Change from Previous (Percent)
1990	13,531	—
1995	15,486	14.4
2000	17,476	12.9
2005	19,908	13.9
2010	25,558	28.4
Net Change	**12,027**	**88.8**
Compound Annual Growth Rate	**3.2**	—
Source: California Department of Finance, 2010.		

Regional Housing Needs Allocation

State law requires local governments to provide housing for persons of all income ranges. The State has prioritized housing production by requiring cities and counties periodically to update the housing element of their General Plan, which is the document that outlines the community's long-term growth strategy. The amount of housing that must be accounted for in a local housing element is determined through a process called the Regional Housing Needs Allocation (RHNA). In the RHNA process, the State gives each region a number representing the amount of housing needed, based on existing need and expected population growth.

In the nine-county San Francisco Bay Area region, ABAG is responsible for assigning each city and county allocation targets for housing by income range. Local governments then revise their housing elements to identify development sites and housing policies that will allow the community to meet its housing needs. ABAG's latest RHNA was issued in June 2008 and guides the production of affordable housing through 2014. The allocations were based on several weighted factors, including projected household growth, existing and projected employment, and proximity to public transit. Table 3.10-6 identifies San Ramon's housing allocation.

Table 3.10-6: Regional Housing Needs Allocation (2007-2014)

Income Category	Dwelling Unit Allocation
Very Low (Up to 50% of Contra Costa County's median income)	1,174
Low (Up to 80% of Contra Costa County's median income)	715
Moderate (Up to 120% of Contra Costa County's median income)	740
Above Moderate (Above 120% of Contra Costa County's median income)	834
Total	**3,463**
Source: Association of Bay Area Governments, 2008.	

3.10.3 - Regulatory Framework

Local

City of San Ramon

General Plan 2030

General Plan 2030 sets forth the following guiding and implementing policies that are relevant to population and housing:

- **Implementing Policy 2.3-I-6:** Encourage housing for San Ramon's resident workforce to improve the match between local employment and local workers.
- **Implementing Policy 3.1-G-1:** Manage the City's growth in a way that balances existing and planned transportation facilities, protection of open space and ridgelines, provision of diverse housing options, and the preservation of high quality community facilities and services.
- **Implementing Policy 3.1-I-3:** Provide a variety of diverse housing options to accommodate the local employment base, including public service employees.
- **Implementing Policy 3.1-I-4:** Allocate the number of new housing units according to the City's ability to provide public services and housing needs through the use of adopted performance standards. Refer to Table 3.2-1 [of the General Plan].
- **Implementing Policy 3.1-I-5:** Use growth management policies to encourage the construction of workforce housing necessary to meet local housing needs.
- **Guiding Policy 3.6-G-1:** Promote the opportunity to both work and live in San Ramon through implementation of the Housing Element.
- **Implementing Policy 3.6-I-1:** Develop and implement housing programs that emphasize the availability of housing for people who work in local jobs.
- **Implementing Policy 3.6-I-2:** Evaluate the impact of proposed General Plan Amendments on the availability of job and housing opportunities.
- **Implementing Policy 3.6-I-3:** Prepare a biennial report on the implementation of actions outlined in the Housing Element, for submittal to Contra Costa Transportation Authority as part of the biennial Growth Management Program Compliance Checklist. The report will

demonstrate reasonable progress by illustrating how San Ramon has adequately planned to meet the existing and projected housing needs through the adoption of land use plans and regulatory systems that provide opportunities for, and do not unduly constrain, housing development.

- **Implementing Policy 4.6-I-3:** Assess the City's future needs for housing and employment along with any development proposals and if changes are necessary, provide an opportunity for voter review of the Urban Growth Boundary in the year 2015.
- **Implementing Policy 4.6-I-10:** Provide a wide range of housing opportunities for current and future residents.
- **Implementing Policy 4.6-I-19:** Promote the revitalization and infill development in existing retail shopping centers, which are identified as mixed use centers on the General Plan Diagram, to provide opportunities for housing and other compatible non-retail uses.
- **Implementing Policy 4.6-I-21:** Promote incentives that will provide for density and FAR bonuses for mixed use development that includes amenities for public benefit, such as workforce housing, pedestrian-oriented facilities (outdoor seating, plazas, weather protection, transit waiting areas), historic preservation, cultural facilities, public art and water features, and open space preservation.
- **Implementing Policy 4.7-I-4:** Prepare and implement a North Camino Ramon Specific Plan (NCRSP) as framework for infill development that is pedestrian/bicycle friendly, mixed use, and a transit oriented and based on the smart growth principles. The plan shall retain and provide opportunities for existing businesses, complement the City Center Project, and incorporate flexibility to encourage innovative designs. The Plan envisions an average Plan Area floor area ratio (FAR) of up to 0.7. Projects providing community benefit consistent with the Specific Plan will be able to obtain maximum FAR densities. Additional FAR increases based on workforce housing incentives may be considered. The major components in the plan area shall provide opportunities for mid to large floorplate retail, vertical and horizontal mixed-use development including workforce housing, in proximity to new and existing jobs. This specific plan should include as a minimum the following elements:
  - Land Use Program, including an interim use and transitional land use provisions.
  - Provide opportunities for the continuation of Service Commercial uses within the Plan Area.
  - Open Space/Public Space Plan.
  - Design Guidelines, which may include a Form Based Code approach that regulates size mass and standard design elements to streamline implementation.
  - Implementation program, including cost of and responsibility for necessary capital and other improvements, financing measures, plan administration and enforcement, etc.
  - Develop a workforce housing program affordable to a combination of extremely low, very low, low, or moderate-income households.
  - Consistency with the redevelopment plan in those overlapping plan areas

- **Implementing Policy 7.3-I-4:** Encourage the development of a variety of housing and recreational opportunities for senior citizens close to City services and facilities, including transportation.
- **Guiding Policy 11.21-G-1:** Provide a diversity of housing types and affordability levels within San Ramon to meet the needs of community residents.
- **Implementing Policy 11.1-I-1:** Identify sites appropriate for the development of a variety of housing types and price ranges to meet the needs of all socioeconomic segments of the community (including extremely low, very low, low, moderate, and above moderate income households).
- **Implementing Policy 11.1-I-2:** Encourage the development of housing for special needs groups, including seniors, large families, persons with disabilities, and the homeless near public transportation services.
- **Implementing Policy 11.1-I-3:** Facilitate the development of affordable housing throughout the community through use of financial and/or regulatory incentives, where feasible.
- **Implementing Policy 11.1-I-4:** Negotiate with developers to ensure a portion of future residential development is affordable to extremely low, very low, low, and moderate income households.
- **Implementing Policy 11.1-I-5:** Maintain a variety of housing types that complements the employment opportunities within the community and encourages a jobs/housing balance.
- **Implementing Policy 11.1-I-6:** Require diversity of unit size and number of bedrooms within multi-family housing developments (exempting senior projects) and strive to provide three- and four-bedroom units for large families. This policy will be implemented through guidelines published by the Housing Advisory Committee (HAC).
- **Implementing Policy 11.1-I-7:** Offer financial and regulatory incentives to promote a combination of residential, retail, and office uses in areas designated for mixed use development.
- **Implementing Policy 11.1-I-11:** Ensure that non-residential development contributes to the supply of housing affordable to lower-income households, including extremely low-income households.
- **Implementing Policy 11.1-I-12:** Disperse below-market rate (BMR) housing throughout residential neighborhoods, and ensure that affordable units are essentially indistinguishable from surrounding market-rate units. This policy will be implemented through guidelines published by the Housing Advisory Committee (HAC).
- **Implementing Policy 11.1-I-13:** Encourage developers to provide amenities for a diversity of households, including single heads of households, persons with disabilities, seniors, and extended families.
- **Implementing Policy 11.1-I-14:** Utilize affordable housing agreements, when appropriate, to encourage a full range of housing types.
- **Implementing Policy 11.1-I-18:** Require commercial development to contribute to the supply of workforce housing through new construction, partnerships with non-profit affordable

housing providers, or payment of linkage fees; exempt mixed use development projects from this policy as they are already subject to the 25 percent affordable housing requirement.

- **Guiding Policy 11.21-G-2:** Create safe and aesthetically pleasing neighborhoods, and provide adequate housing to meet the needs of all household types and income groups.
- **Implementing Policy 11.2-I-1:** Promote increased awareness of the importance of property maintenance to long-term housing quality and engage the community to preserve neighborhoods.
- **Implementing Policy 11.2-I-5:** Ensure that units produced for lower and moderate income households are maintained at designated income levels for the term established in the entitlement.
- **Implementing Policy 11.2-I-6:** Work to preserve the affordability of publicly assisted housing units and to discourage their conversion to market-rate housing.
- **Implementing Policy 11.2-I-7:** Ensure that the design, scale, and buffering of housing retains the character of the surrounding neighborhood.
- **Guiding Policy 11.21-G-3:** Ensure all persons and household types have equal access to housing in San Ramon.
- **Implementing Policy 11.3-I-1:** Collaborate with and support efforts of organizations dedicated to eliminating housing discrimination in San Ramon.
- **Implementing Policy 11.3-I-2:** Participate in programs and provide incentives for projects that include housing for seniors, lower and moderate income households, and special needs groups.
- **Implementing Policy 11.3-I-3:** Encourage the provision of housing with supportive services for special needs groups, such as the homeless, persons with disabilities, and victims of domestic violence.
- **Implementing Policy 11.3-I-4:** Encourage the provision of housing to meet the needs of families of all sizes.
- **Implementing Policy 11.3-I-5:** Support and provide funding to organizations that assist the homeless.
- **Implementing Policy 11.4-I-2:** Promote a combination of residential, retail, and office uses in areas designated for mixed use.

3.10.4 - Methodology

Impacts on population and housing were assessed by reviewing existing and anticipated population and housing figures provided by the California Department of Finance, the City of San Ramon General Plan, and ABAG. The proposed project's impacts were evaluated by determining their consistency with these estimates and projections.

3.10.5 - Thresholds of Significance

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, population and housing impacts resulting from the implementation of the proposed project would be considered significant if the project would:

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)?

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? (Refer to Section 7, Effects Found Not To Be Significant.)

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? (Refer to Section 7, Effects Found Not To Be Significant)

3.10.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the project and provides mitigation measures where appropriate.

Population Inducement

Impact POP-1: The proposed Specific Plan would not induce substantial population growth.

Impact Analysis

CEQA Guidelines Section 15126.2(d) requires that an EIR 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. The CEQA Guidelines provide the example of a major expansion of a wastewater treatment plant that may allow for more construction within the service area. The CEQA Guidelines also note that the evaluation of growth inducement should consider the characteristics of a project that may encourage or facilitate other activities that could significantly affect the environment.

This impact analysis will first discuss the potential for direct and indirect growth inducement and then address consistency with regional population and growth projections.

Direct and Indirect Growth Inducement

Direct growth consists of activities that directly facilitate population growth. The construction of new dwelling units is considered an activity that directly results in population growth. Indirect growth inducements consist of activities that in themselves do not facilitate population growth, but instead indirectly cause growth. Examples include the creation of new jobs in a sparsely populated area that results in workers moving into the area or the removal of a physical barrier to growth, such as the extension of sewer service to an unserved area.

A key consideration in evaluating growth inducement is whether the activity in question constitutes "planned growth." A residential project that is consistent with the underlying General Plan and zoning designations would generally be considered planned growth because it was previously contemplated by these long-range documents and, thus, would not be deemed to have a significant growth-inducing effect. Likewise, a project that requires a General Plan Amendment and re-zone to develop more intense uses than are currently allowed may be considered to have a substantial growth-

inducing effect because such intensity was not contemplated by the applicable long-range documents. It should be noted that these are hypothetical examples and conclusions about the potential for growth inducement will vary on a case-by-case basis.

The proposed project consists of the implementation of the North Camino Ramon Specific Plan and related development and land uses. The Specific Plan is a tool for the systematic implementation of the San Ramon General Plan and establishes a link between the policies of the General Plan and the individual development proposals in the Specific Plan area. Thus, development and land use activities that occur within the Specific Plan boundaries that are consistent with the Specific Plan are inherently "planned growth." As such, the development of housing within the North Camino Ramon Specific Plan area would not be considered growth-inducing.

Development and land use activities contemplated by the Specific Plan would include the expansion or redevelopment of roads, potable water, recycled water, wastewater, and stormwater facilities. However, the plan area is already served by such services; therefore, the expansion would not result in indirect growth. Furthermore, the implementation of increased commercial space would not cause indirect growth since significant commercial space already exists in the plan area, which is located in already highly urbanized region with a sufficient workforce.

In summary, development of land use and infrastructure that are contemplated by the Specific Plan would not have significant direct or indirect growth-inducing effects.

Consistency with Regional Growth Projections

Evaluating consistency with regional growth projections is a second way for assessing growth inducement potential, particularly for long-range planning documents such as a Specific Plan. In the nine-county San Francisco Bay region, ABAG oversees regional growth forecasts and regularly issues updates to Projections, its official population and employment estimate document. ABAG's forecasts are used in various regional planning activities, including air quality management and affordable housing strategies. The most recent version of Projections was issued in 2009.

Table 3.10-7 compares population and employment projections for 2030 as forecast by the proposed General Plan 2030 and ABAG's 2009 Projections. As shown in the table, the proposed General Plan 2030 anticipates more population and employment growth than does ABAG.

Table 3.10-7: San Ramon Population and Employment Projections (2030)

Category	2030 Projections	
	General Plan 2030	ABAG
Population	92,031	85,200
Employment	58,769	49,490
Source: City of San Ramon 2010; Association of Bay Area Governments, 2009.		

The discrepancy between the City of San Ramon General Plan's and ABAG's population and employment growth figures is not new and dates back at least a decade. Furthermore, the discrepancy is largely attributable to population growth that has occurred in the Dougherty Valley, which has added more than 20,000 persons to the San Ramon population. The existing General Plan projected higher population and employment growth than several ABAG forecasts, including the most recent (Projections 2009). Furthermore, historic population growth during the past decade has matched the General Plan 2020's projections more closely than ABAG's various forecasts. Refer to Section 2, Project Description for further discussion of this issue.

Regardless, as previously noted, ABAG's growth estimates are used for various regional planning activities. Because the Specific Plan's growth is included in the General Plan 2030, it would not further exacerbate the City of San Ramon's exceedance of ABAG growth estimates.

Regional Housing Needs Allocation

The General Plan 2030 Housing Element currently contemplates the development of 1,124 dwelling units within the Specific Plan area. The Specific Plan contemplates as many as 1,500 dwelling units, a net increase of 376 dwelling units relative to General Plan 2030. As such, the Specific Plan is consistent with the Housing Element's housing projections for the Specific Plan area.

Furthermore, Policy LUD-7.7 would require each residential project to provide a minimum of 15 percent of the units as affordable workforce housing, resulting in approximately a minimum of 225 affordable housing units at buildout. These dedicated affordable housing units would contribute to fulfilling the City's RHNA.

Therefore, the proposed project's residential development would be consistent with local and regional housing strategies.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

3.11 - Public Services and Recreation

3.11.1 - Introduction

This section describes the existing public services and recreation setting and potential effects from the implementation of the Specific Plan on the affected area and its surroundings. Descriptions and analysis in this section are based on information provided in the City of San Ramon General Plan 2030.

3.11.2 - Environmental Setting

Fire Protection and Emergency Medical Services

The San Ramon Valley Fire Protection District (Fire District) provides fire protection and emergency medical services (EMS) to a 118-square-mile area encompassing the City of San Ramon; the Town of Danville; and the unincorporated communities of Alamo, Blackhawk, Diablo, Southern Morgan Territory, and Tassajara Valley. In addition, the Fire District serves portions of Alameda County. The Fire District is an autonomous special district governed by an elected Board of Directors. The Fire District is headquartered at 1500 Bollinger Canyon Road, San Ramon, adjacent to Station No. 38.

Stations

The Fire District operates 10 fire stations, including four in San Ramon. Table 3.11-1 summarizes the two fire stations closest to the Specific Plan area.

Table 3.11-1: Fire Station Summary

No.	Address	Apparatus		Staffing
		Quantity	Equipment	
34	12599 Alcosta Boulevard	1	Type 1 Engines	2 Captains, 2 Engineers, 2 Firefighters
		1	Ladder Truck	
		1	Type 3 Engine	
		1	Ambulance	
		1	Heavy Rescue	
38	1600 Bollinger Canyon Road	1	Type 1 Engine	1 Captain, 1 Engineer, 1 Firefighter
		1	Type 3 Engine	
		1	Ambulance	
		1	Water Tender	
Source: San Ramon Valley Fire Protection District, 2012.				

Staffing

The Fire District employs 196 full-time personnel and 33 volunteer personnel. The Fire District has 163 full-time firefighters and 18 on-call firefighters. All firefighters are trained Emergency Medical

Technicians 1As (EMT-1As) and State Certified Firefighter I and II with specialized defibrillator training.

As of 2009, the Fire District had 1.3 sworn firefighters per 1,000 residents within its service area.

Specialized Units

Rescue Team

The Rescue Team consists of approximately 30 members. The Rescue Team is a proactive organization whose main purposes are to provide immediately available, high-quality technical rescue resources managed by skilled and dedicated personnel, and to provide Fire District-wide, rescue-related training. The team is based at Station 34 on Alcosta Boulevard because of its central location and proximity to Interstate 680 (I-680).

Hazardous Materials Team

The Hazardous Materials (Hazmat) Team is based out of Station 35 in Blackhawk and is made up of 26 State Certified Hazardous Materials Technicians/Specialists. The Hazmat Team is capable of specialized entry, chemical analysis, and hazard mitigation.

Response Times and Protocols

The Fire District's goal is an overall response time of 5 minutes, 95 percent of the time. When the first units for a structure fire are dispatched from one of the staffed emergency response companies, the three closest engines, a ladder truck, and the shift Battalion Chief are automatically assigned. In addition, a rescue medic ambulance can be dispatched in the event one of the occupants of the structure or Fire District personnel needs medical assistance at the scene.

The Fire District's median response time for urban areas is 5 minutes and 6 seconds, and its 90th percentile response time in urban areas is 7 minutes and 37 seconds. These response times exclude dispatch times.

Mutual Aid

The Fire District exchanges mutual aid with the four adjacent fire agencies (Alameda County Fire Department, Contra Costa County Fire Protection District, East Contra Costa Fire Protection District, and Moraga-Orinda Fire Protection District) and Cal Fire (formerly the California Department of Forestry and Fire Prevention).

ISO Rating

The Insurance Services Office (ISO) Public Protection Classification Program currently rates the Fire District a 2 on a scale of 1 to 10 for urban areas, with 1 being the highest possible protection rating and 10 being the lowest. The ISO rating measures individual fire protection agencies against a Fire Suppression Rating Schedule, which includes such criteria as facilities and support for handling and dispatching fire alarms, first-alarm response and initial attack, and adequacy of local water supply for

fire-suppression purposes. The ISO ratings are used to establish fire insurance premiums. Only 5 percent of the more than 44,000 fire agencies in the United States receive an ISO 2 rating or higher.

Police Protection

The San Ramon Police Department (Police Department) provides police protection within the San Ramon City limits.

Police Facilities

The Police Department is currently headquartered at 2401 Crow Canyon Road, approximately 1 mile from the Specific Plan area.

The Police Department has a substation in the Dougherty Station Community Center, located at 17011 Bollinger Canyon Road, which opened in 2005. It provides policing services to the community and houses the Dougherty Valley beat officers who patrol the area.

Organization, Staffing, and Resources

The Police Department is authorized for 58 sworn police officer positions, 19 full-time equivalent (FTE) non-sworn civilian positions, and 35 volunteer positions. The Police Department consists of two bureaus: Administration (Professional Standards, Training, and Records) and Operations (Patrol Division, Investigations Division, and Traffic Division). Table 3.11-2 provides a summary of Police Department organization and staffing. The Police Department's staffing ratio is currently 0.79 officer per 1,000 residents, which is slightly below the City's adopted standard of 0.8 officer per 1,000 residents. The Police Department has a fleet of 52 vehicles.

Table 3.11-2: Police Department Organizational Summary

Bureau	Status	Positions (Number)	Total
Administration	Sworn and Non-Sworn	Sworn: Chief (1); Captain (1); Lieutenant (2); Sergeant (1); Non-Sworn: Program Manager (1); Administrative Analyst (1); Coordinator (4); Specialist (1); Police Services Technician (1); Clerical (3)	16
Operations	Sworn and Non-Sworn	Sworn: Lieutenant (3); Sergeant (8); Officer (42) Non-Sworn: Police Services Technician (2)	55
Records	Non-Sworn	Coordinator (1); Specialist (1); Clerical (4)	6
Source: San Ramon Police Department, 2012.			

Policing Programs

The Police Department operates several policing programs intended to prevent or address crime within certain segments of the community.

Youth crime prevention is a major focus of specialized policing activities. The Police Department sponsors a School Resource Officer Program, a Community and Youth Resource Program, and a

Character Counts Program. Each program is assigned a dedicated full-time officer who works directly with youth, parents, schools, and organizations to prevent crime.

The Police Department also has a Crime Prevention Program intended to advise the community about approaches, best practices, strategies, and techniques to avoid or minimize the potential for crime. The Crime Prevention Specialist reviews all development plans for crime prevention measures prior to construction.

Police Activity

The Police Department responded to more than 57,000 calls for service, made 500 arrests, and issued more than 12,000 citations in 2010. Table 3.11-3 provides a summary of police activities for 2008 through 2010.

Table 3.11-3: Police Activity Summary (2008–2010)

Category	2008	2009	2010
Calls for Service	62,194	53,662	57,258
Arrests	661	500	574
Citations Issued	12,677	11,569	12,014
Source: San Ramon Police Department, 2012.			

Response Times

The Police Department's average response time to priority calls for service was less than 3.5 minutes in 2010. This average response time is within the City's adopted standard of 3 to 5 minutes for priority calls.

Schools

The San Ramon Valley Unified School District (School District) provides K-12 education to the City of San Ramon, as well as the Town of Danville and the unincorporated communities of Alamo, Blackhawk, Diablo, and Tassajara Valley.

Local Schools

Table 3.11-4 summarizes the four schools that currently serve the Specific Plan area based on information provided by the California Department of Education for the 2010–2011 academic year.

Table 3.11-4: School Summary (2010–2011)

School	Grades	Enrollment	Full-Time Equivalent Teachers	Pupil-Teacher Ratio
Bollinger Canyon Elementary	K-5	546	25.2	21.7
Twin Creeks Elementary	K-5	519	24.3	21.4

Table 3.11-4 (cont.): School Summary (2010–2011)

School	Grades	Enrollment	Full-Time Equivalent Teachers	Pupil-Teacher Ratio
Iron Horse Middle	6-8	957	36.7	26.1
California High	9-12	2,472	99.6	24.8
Source: California Department of Education, 2012.				

Library Services

Contra Costa County Library, a County agency, operates the San Ramon Library, located at 100 Montgomery Street in The Market Place, and the Dougherty Station Library, located at 17017 Bollinger Canyon Road.

The San Ramon Library opened in 1989 and totals 18,238 square feet. The Dougherty Station Library opened in 2005 and totals 11,600 square feet. The Dougherty Station Library is designed to be expanded by 30,000 square feet to a total area of 41,600 square feet. The expansion will be timed in conjunction with the second phase of the nearby Diablo Valley College facility, which is projected to occur by 2015. Together, both libraries contain approximately 134,000 volumes.

Performance Standards

The City of San Ramon has an adopted standard of 0.5 square foot of library space per capita and 3 volumes per capita at General Plan buildout. The Dougherty Valley Library and the San Ramon Library currently total 29,838 square feet. Using the City's 2010 California Department of Finance population estimate of 64,860 persons, there is a current ratio of 0.46 square foot of library space per resident, which does not meet the adopted square footage standard. However, the expansion of the Dougherty Station Library and construction of a library within future City Hall complex at City Center are expected to bring the square footage into compliance with the adopted standard. The existing number of volumes, approximately 134,000, does not meet the performance standard of 189,528 volumes (3 volumes per capita). Additional volumes are expected with the expansion of the Dougherty Station Library, and this standard can be met at buildout.

Parks, Recreation, and Community Facilities

The City of San Ramon Parks and Community Services Department and the East Bay Regional Parks District maintain parks, trails, and community facilities for public use in San Ramon.

Parks

The City of San Ramon Parks and Community Services Department maintains 52 existing park sites totaling 356.4 acres. Of the 52 sites, 35 are dedicated community parks, neighborhood parks, or specialized recreational areas or facilities, and the remaining 17 are school parks.

Park facilities near the Specific Plan area are summarized below.

Central Park

Central Park, located at Bollinger Canyon Road and Alcosta Boulevard, is the largest active park in the City of San Ramon. The park encompasses 42.8 acres and contains two soccer pitches, four multi-use athletic fields (e.g., soccer, cricket, baseball, and softball), a baseball field, volleyball courts, basketball courts, tennis courts, a skate park, a children's playground, and picnic areas. The basketball courts can be lighted 24 hours a day, and the multi-use athletic fields are lighted until 10 p.m.

Iron Horse Middle School Park and Gym

The Iron Horse Middle School Park and Gym are co-operated by the City and the San Ramon Valley Unified School District and are immediately adjacent to the north side of Central Park. Park and gym facilities are available for public use during non-school hours. Facilities include outdoor basketball courts and indoor multi-use facilities for activities such as basketball, volleyball, gymnastics, and aerobics.

Iron Horse Trail

The Iron Horse Trail is a multi-use, approximately 30-mile Class I paved trail stretching from Pleasanton to Concord along the former Southern Pacific Railroad San Ramon Branch Line right-of-way. In Contra Costa County, the County owns the railroad right-of-way and leases a 20-foot-wide corridor within the right-of-way to East Bay Regional Parks District for use as a public trail. As part of that lease agreement, the East Bay Regional Parks District is responsible for the operation and ongoing maintenance of the trail.

The trail corridor traverses the Specific Plan area in a north-south direction, with signalized crossings at Crow Canyon Road and Norris Canyon Road. An unsignalized crossing is present at Fostoria Way. The City of San Ramon is pursuing the grade separation of the trail at Crow Canyon Road.

Community Facilities

The San Ramon Community Center is the only community facility in the Specific Plan vicinity. The 23,000-square-foot Community Center is located in the eastern portion of Central Park and contains multi-purpose rooms, meeting venues, and offices.

Performance Standards

The City of San Ramon has an adopted standard of 6.5 acres of public parks per 1,000 residents at General Plan buildout. Using the City's 2010 California Department of Finance population estimate of 64,860 persons, there is a current ratio of 5.50 acres of public parks per 1,000 residents, which is below the adopted standard but would be met at General Plan buildout.

The City has an adopted standard of 1.2 square feet of community center space per capita at General Plan buildout. There is a current ratio of 1.83 square feet of community center space per capita, which is above the adopted standard and would be maintained at General Plan buildout.

3.11.3 - Regulatory Framework

State

California Fire Code and California Building Code

The International Fire Code and the International Building Code, established by the International Code Council (ICC) and amended by the State of California, prescribe performance characteristics and materials to be used to achieve acceptable levels of fire protection.

Leroy F. Greene School Facilities Act of 1998

The California State Legislature enacted the Leroy F. Green School Facilities Act of 1998 (SB 50), which made significant amendments to existing state law governing school fees. SB 50 prohibited state or local agencies from imposing school impact mitigation fees, dedications, or other requirements in excess of those provided in the statute. The legislation also prohibited local agencies from using the inadequacy of school facilities as a basis for denying or conditioning approvals of any project.

Local

City of San Ramon

General Plan 2030

General Plan 2030 sets forth the following guiding and implementing policies that are relevant to public services and recreation:

- **Implementing Policy 2.3-I-20:** Evaluate the ability of new development to pay for its infrastructure, its share of public and community facilities, and the incremental operating costs it imposes.
- **Guiding Policy 3.2-G-1:** Ensure the attainment of public facility and service standards through the City's development review process, Capital Improvement Program (CIP), and a variety of funding mechanisms to maintain existing facilities and help fund expansion.
- **Implementing Policy 3.2-I-1:** Adopt "Findings of Consistency" that ensure new projects will comply with the City's performance standards through its development review process.
- **Implementing Policy 3.2-I-3:** Require new development to fund public facilities and infrastructure that is deemed necessary to mitigate the impact of that new development.
- **Implementing Policy 3.2-I-4:** Levy local, sub-regional, and regional mitigation fees for public facilities and infrastructure improvements in proportion to a new development's impact.
- **Guiding Policy 6.5-G-1:** Create and maintain a high-quality public park system for San Ramon.
- **Implementing Policy 6.5-I-1:** Maintain a standard of 6.5 acres of public parks per 1,000 residents at General Plan buildout, with only usable acreage considered in meeting this standard.
- **Implementing Policy 6.5-I-2:** Provide varied community park and recreational opportunities accessible to all City residents.

- **Implementing Policy 6.5-I-3:** Maintain a minimum size of 2 acres or more for neighborhood parks.
- **Implementing Policy 6.5-I-4:** Provide passive and active recreational amenities within the City's parks to meet the needs of citizens of all ages and interests.
- **Implementing Policy 6.5-I-5:** Require residential developers to make dedications to the City's park system.
- **Implementing Policy 6.5-I-6:** Encourage contributions to the City's park system by non-residential developers.
- **Implementing Policy 6.5-I-7:** Complete all parkland dedication requirements for each development prior to occupancy.
- **Implementing Policy 6.5-I-8:** Encourage the development of landscaped and dedicated open spaces, parkways, trail systems, and special community service facilities in new developments.
- **Implementing Policy 6.5-I-10:** Seek partnership opportunities with the private sector and with other public agencies to enhance park facilities and provide leisure time activities.
- **Implementing Policy 6.5-I-12:** Explore preservation of open space, ridge lands, and scenic corridors in and around San Ramon.
- **Implementing Policy 6.5-I-14:** Continue to review biennially and update quadrennially the 10-year Parks and Community Services Master Plan.
- **Implementing Policy 6.5-I-15:** Maintain service levels and maintenance standards in parks and recreation facilities at optimal levels for public use, safety, and cost effectiveness.
- **Implementing Policy 6.5-I-16:** Maintain a standard, at General Plan buildout, that public parks are to be within one-half mile of all homes with only usable acreage considered in meeting this standard.
- **Implementing Policy 6.5-I-17:** Maintain a standard, at General Plan buildout, that Community Parks are to be within three miles of all homes with only usable acreage considered in meeting this standard.
- **Implementing Policy 6.5-I-18:** Increase the accessibility and connectivity to the Iron Horse Trail and the regional/city trail network, including the possibility of bicycle/pedestrian overcrossing(s) described in the San Ramon Valley Iron Horse Trail Corridor Concept Plan.
- **Implementing Policy 6.5-I-19:** Where appropriate, require new development to provide Public Spaces to enhance the recreation or leisure interactive experience of residents or visitors for passive or active use.
- **Guiding Policy 7.1-G-1:** Provide public and cultural facilities that contribute to the City's positive image and enhance community identity.
- **Implementing Policy 7.1-I-1:** Confer with the Contra Costa Library System to provide superior services by maintaining City performance standards for libraries consistent with the Growth Management Element.
- **Implementing Policy 7.1-I-3:** Maintain teen services on or adjacent to middle school sites.
- **Guiding Policy 7.2-G-1:** Collaborate with the San Ramon Valley Unified School District in their efforts to ensure that all school age children have equal access to equitable facilities.

- **Implementing Policy 7.2-I-1:** Collaborate with the San Ramon Valley Unified School District in their efforts to ensure that all future school sites are developed as "school parks."
- **Implementing Policy 7.2-I-2:** Require that residential development pay fees to the School District to provide adequate, permanent classroom space.
- **Implementing Policy 7.2-I-3:** Encourage the efforts for the Phase II Expansion of the Diablo Valley College – San Ramon Campus facility (including the library extension) in Dougherty Valley.
- **Implementing Policy 7.2-I-4:** Collaborate with the San Ramon Valley Unified School District to assure that all future schools are planned to be open and operational based on student generation rates.
- **Implementing Policy 7.3-I-1:** Encourage developers of residential and nonresidential projects to assist in funding public or private facilities and services.
- **Implementing Policy 7.3-I-8:** Encourage and support public facilities and services that contribute to the maintenance and long-term success of a vibrant San Ramon Regional Medical Center.
- **Guiding Policy 7.6-G-1:** Collaborate with the San Ramon Valley Fire Protection District to deliver a high level of public protection services that protect life, property, and the environment.
- **Implementing Policy 7-6-I-1:** Continue to coordinate with the San Ramon Valley Fire Protection District to provide adequate fire protection facilities and services to meet the needs of the community.
- **Implementing Policy 7-6-I-2:** Seek input from the San Ramon Valley Fire Protection District to ensure that fire protection measures are identified during the development review process.
- **Guiding Policy 7.7-G-1:** Maintain a high level of public safety for all people who live or work in San Ramon.
- **Implementing Policy 7.7-I-1:** Ensure crime-reduction and public safety features are incorporated into the design of new development projects through the Crime Prevention Through Environmental Design program (CPTED).
- **Implementing Policy 7.7-I-3:** Require new development, if appropriate, to provide a funding mechanism to support and maintain San Ramon's high level of police services.
- **Guiding Policy 9.1-G-1:** Maintain the City's Emergency Operations Plan as the guide for emergency management in San Ramon.
- **Implementing Policy 9.1-I-1:** Maintain and update the City's Emergency Operations Plan, as required by State and Federal laws, to minimize the risk to life and property of seismic and geologic hazards, hazardous materials and waste, and fire.

San Ramon Valley Fire Protection District

The Fire District has enacted a comprehensive fire prevention ordinance that includes sprinkler requirements for most commercial buildings and residential buildings exceeding 5,000 square feet.

3.11.4 - Methodology

Michael Brandman Associates evaluated potential impacts on public services and recreation through review of General Plan 2030, Existing Conditions Baseline Report, aerial photographs, and applicable state laws.

3.11.5 - Thresholds of Significance

According to the CEQA Guidelines' Appendix G Environmental Checklist, to determine whether environmental effects to public services are significant, the following questions are analyzed and evaluated.

> Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, 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?
> b) Police protection?
> c) Schools?
> d) Parks?
> e) Other public facilities?

According to the CEQA Guidelines' Appendix G Environmental Checklist, to determine whether impacts to recreation are significant environmental effects, the following questions are analyzed and evaluated.

> f) 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?
>
> g) 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?

3.11.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the project and provides mitigation measures where appropriate.

Fire Protection and Emergency Medical Services

Impact PSR-1:	**Development and land use activities contemplated by the Specific Plan may result in a need for new or expanded fire facilities or adverse impacts on fire protection.**

Impact Analysis

The San Ramon Valley Fire Protection District currently provides fire protection and emergency medical services to the Specific Plan area.

The Specific Plan contemplates redevelopment from a low-density commercial area to transit- and pedestrian-oriented neighborhood with a mix of uses. As much as 5,070,000 square feet of commercial uses and as many as 1,500 dwelling units may be developed at buildout of the Specific Plan. Both the new commercial uses and new dwelling units would be expected to increase demand for fire protection and emergency medical services.

The Fire Protection District was consulted during the preparation of the Specific Plan regarding public safety issues. Fire officials indicated that their primary concern was ensuring adequate access for fire apparatus. Specific Plan Policies PF-2.1 and PF-2.2 require that all streets provide sufficient emergency vehicle access and that the new types of mixed-use development are incorporated into the emergency and disaster response plans for the City of San Ramon. This would ensure that fire apparatus could adequately negotiate the street system contemplated by the Specific Plan.

Additionally, the Specific Plan boundaries are within 1 mile of two fully staffed fire stations. Station 34 is located south of the Specific Plan area on Alcosta Boulevard and Station 38 is located west of the Specific Plan area on Bollinger Canyon Road. As such, fire apparatus responding from either station would be expected to arrive at emergency calls that occur within the Specific Plan boundaries within acceptable response times; therefore, no new or expanded fire facilities would be required.

Finally, the potential need for additional fire staffing is outside the scope of this EIR, as it does not involve physical impacts on the environment. Rather, this impact is most appropriately addressed through other mechanisms such as Conditions of Approval, Development Agreements, or other means.

In summary, the proposed project would not result in a need for new or expanded fire protection facilities that have the potential to result in physical impacts on the environment. Impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Police Protection

Impact PSR-2:	**Development and land use activities contemplated by the Specific Plan would not result in a need for new or expanded police facilities that result in physical impacts on the environment.**

Impact Analysis

The San Ramon Police Department currently provides police protection services to the Specific Plan area.

The Specific Plan contemplates redevelopment from a low-density commercial area to transit- and pedestrian-oriented neighborhood with a mix of uses. As much as 5,070,000 square feet of commercial uses and as many as 1,500 dwelling units may be developed at buildout of the Specific Plan. Both the new commercial uses and new dwelling units would be expected to increase demand for police services.

The Police Department was consulted during the preparation of the Specific Plan regarding public safety issues. As discussed in the Specific Plan, the mixed-use nature of the area and the creation of pedestrian-friendly internal streets will lend itself to the department's Community Policing policies, which are designed to reduce crime and the fear of crime by encouraging a partnership between the police and citizens of the community. As a part of that partnership, the Specific Plan recognizes the need for an additional beat with five additional officers to serve the Specific Plan area (Policy PF-3.1) and includes the provision for a substation space in the proposed shared parking structure adjacent to the Village Green to help facilitate community policing programs, public outreach, and access (Policy PF-3.2). The environmental effects of this potential outreach station are considered in this EIR.

The need for additional police staffing is outside the scope of this EIR, as it does not involve physical impacts on the environment. Rather, this impact is most appropriately addressed through other mechanisms such as Conditions of Approval, Development Agreements, or other means.

The Specific Plan boundaries are within 1 mile of San Ramon Police headquarters. The headquarters are located west of the Specific Plan area on Crow Canyon Road. As such, police units responding from headquarters would be expected to arrive at emergency calls that occur within the Specific Plan boundaries within acceptable response times; therefore, no new or expanded police facilities would be required. Note that units out on patrol may be within or near the Specific Plan area and, thus, may arrive more quickly than those responding from headquarters.

In summary, the proposed project would not result in a need for new or expanded police protection facilities that have the potential to result in physical impacts on the environment. Impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Schools

Impact PSR-3:	**Development and land use activities contemplated by the Specific Plan would not result in a need for new or expanded school facilities or adverse impacts on education.**

Impact Analysis

The San Ramon Valley Unified School District (School District) provides K-12 education to the Specific Plan area.

The Specific Plan contemplates redevelopment from a low-density commercial area to transit- and pedestrian-oriented neighborhood with a mix of uses. As much as 5,070,000 square feet of commercial uses and as many as 1,500 dwelling units may be developed at buildout of the Specific Plan. The new commercial uses would not be expected to alter existing school enrollment levels; however, the 1,500 additional dwelling units would be expected to increase K-12 enrollment.

Specific Plan Policy PF-4.1 would ensure that developers of any new residential units would contribute school impact mitigation fees. The fees can only be used for capital improvements for school facilities. The School District is currently in the midst of an ongoing, multi-year, capital improvement program that will increase school capacity to accommodate increased enrollment from planned growth within its boundaries. This includes expansion of existing schools and construction of new schools in San Ramon. Note that the School District has other available funding sources for capital improvements, including two voter-approved school bond measures. For these reasons, it is expected that the School District will have adequate classroom capacity to accommodate students generated by development within the Specific Plan area.

Government Code Section 65995 prohibits a local agency from either denying approval of a land use project because of inadequate school facilities or imposing school impact mitigation measures other than designated fees. Therefore, payment of development fees to the School District would address the proposed project's impacts on schools and ensure that impacts are less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Parks, Trails, and Community Facilities

Impact PSR-4:	**Development and land use activities contemplated by the Specific Plan would not result in a need for new or expanded park, trail, or community facilities beyond those included in the Specific Plan.**

Impact Analysis

The City of San Ramon and East Bay Regional Parks District provide various parks, trails, and community facilities within the plan boundaries.

The Specific Plan contemplates redevelopment from a low-density commercial area to transit- and pedestrian-oriented neighborhood with a mix of uses. As much as 5,070,000 square feet of commercial uses and as many as 1,500 dwelling units may be developed at buildout of the Specific Plan. Both the new commercial uses and the new dwelling units would be expected to increase park, trail, and community facility use.

In recognition of this, the Specific Plan would provide additional park facilities and public spaces as described below.

- The Commons would consist of a 1.25-acre, linear landscaped open space stretching from Crow Canyon Road to Norris Canyon Road and would provide space for community events and passive recreation.
- The Village Green would consist of a 2.0-acre communal activity space near the Specific Plan area's central block and would provide space for a variety of community events and passive recreation.
- The Iron Horse Trail is an existing, linear pedestrian and bicycle trail serving the Specific Plan area and connecting it to Danville, Alamo, Walnut Creek, Pleasant Hill, Concord, and Dublin. The Iron Horse Trail consists of 5.25 acres within the Specific Plan area and would be maintained as part of Specific Plan implementation. Furthermore, the Specific Plan contemplates the development of an overcrossing at Crow Canyon Road, which would enhance the convenience and safety of this facility.
- The Iron Horse Trail Link would consist of a 74-foot-wide landscaped open space containing an 18-foot-wide pedestrian and bicycle path to link the Commons and the Village Green to the Iron Horse Trail. The link would consist of 2.0 acres within the Specific Plan area.
- The residential park would consist of a 2.0-acre, multi-use open space area constructed as part of the high-density residential development south of Norris Canyon Road to serve both residents and nearby office employees.

Policy PF-1.4 of the Specific Plan requires land dedication or park fees for new residential development in the planning area for the implementation of the Public Spaces component of the plan.

In addition to the previously described planned public spaces, the Specific Plan also encourages smaller public spaces such as paseos, courtyards, and pocket parks to be privately developed. Policy PF-1.3 requires residential development in the planning area to be conditioned to provide public space amenities or onsite recreation facilities for their residents. As such, additional public spaces would be provided.

In summary, residential development within the Specific Plan area would increase the City's population and have a corresponding increase in park usage. The implementation of policies within the Specific Plan would ensure that impacts to parks would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Library Services

Impact PSR-5:	**Development and land use activities contemplated by the Specific Plan would not result in a need for new or expanded library facilities or adverse impacts on related services.**

Impact Analysis

The Contra Costa County Library, in conjunction with the City of San Ramon, operates libraries within the City limits.

The proposed project consists of the adoption and implementation of the North Camino Ramon Specific Plan to allow redevelopment from a low-density commercial area to a transit- and pedestrian-oriented neighborhood with a mix of uses. While the adoption of the Specific Plan would not change the status of the existing library service levels, implementation of development within the plan boundaries area may result in a decrease in performance standards.

The population increase attributable to buildout of the Specific Plan would be expected to translate into additional demand for library services. Currently, the City does not meet its adopted standards of 0.5 square feet of library space and 3 volumes per capita. However, the expansion of the Dougherty Station Library and construction of a library within the City Hall complex at the City Center project are expected to bring the City into compliance with adopted library service standards. As such, impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

3.12 - Transportation

3.12.1 - Introduction

This section describes the existing transportation setting and potential effects from implementation on of the Specific Plan on the Specific Plan area and its surroundings. Descriptions and analysis in this section are based on information contained in the North Camino Ramon Specific Plan traffic analysis, prepared by Kimley-Horn and Associates, Inc. and included in this EIR as Appendix E.

3.12.2 - Environmental Setting

Overview

The City of San Ramon is located within Contra Costa County in the San Francisco Bay Area region. The City is bounded by Alameda County to the west, the Town of Danville and unincorporated Contra Costa County to the north, unincorporated Contra Costa County to the east, and the City of Dublin/Alameda County to the south. The City of San Ramon is the southernmost incorporated jurisdiction within Contra Costa County.

The North Camino Ramon Specific Plan area is located adjacent to Interstate 680 (I-680), and extends from the City's northern boundary with the Town of Danville to portions of Executive Parkway in the center of the Bishop Ranch Business Park. The Specific Plan area is generally bounded by Fostoria Way to the north; Iron Horse Trial, Alcosta Boulevard, Camino Ramon to the east; the I-680 freeway to the west; and private property and Executive Parkway to the south. It contains approximately 255 acres, including existing roadways, and is characterized by a wide range of uses including retail, service commercial, professional offices, and warehouses.

Roadway System

This existing circulation network comprises interstates, arterials, collector streets, and local streets. The state freeway and some of the City's arterial streets are designated as Routes of Regional Significance by the Contra Costa Transportation Authority (CCTA) and the Tri Valley Transportation Council (TVTC). Exhibit 3.12-1 illustrates the existing roadway system within the Specific Plan boundaries.

Regional Access

I-680, Bollinger Canyon Road, and Crow Canyon Road provide access to the Specific Plan area at the regional level. Bollinger Canyon Road and Crow Canyon Road are the only two arterials with major interchanges at I-680 within the vicinity of the Specific Plan area. While I-680 serves San Ramon and the Tri-Valley area, it connects I-80 to the north with U.S. 101 and I-280 to the south. South of San Ramon, I-680 also connects to I-580, an east–west freeway extending from U.S. 101 in Marin County to I-5 in Stanislaus County.

Local Access

Roadways including San Ramon Valley Boulevard, Crow Canyon Road, Norris Canyon Road, Alcosta Boulevard, and Camino Ramon, as well as the local streets identified above provide access to the land uses within the Specific Plan area at the local level. These roadways connect the study area to the greater San Ramon area as well as adjacent cities and towns such as Danville, Alamo, Walnut Creek, Dublin, Pleasanton, and Sunol.

Routes of Regional Significance

Routes of Regional Significance are major arterials and freeways that primarily serve regional traffic as designated by the CCTA and the TVTC. A Route of Regional Significance is required to meet designated Traffic Service Objectives (TSOs) as mandated by Contra Costa Measure J and included in the Tri-Valley Transportation Plan and Action Update. Within the vicinity of the Specific Plan area, the freeway segments and arterials below are identified as Routes of Regional Significance.

Interstate 680 (I-680)

I-680 is a north-south freeway serving San Ramon and the Tri-Valley. It connects San Jose in the south to I-80 in Solano County in the north. Within the study area, I-680 has three mixed flow lanes and one high occupancy vehicle (HOV) lane in each direction. There are two full-access interchanges on I-680 within the vicinity of the Specific Plan area: at Crow Canyon Road and Bollinger Canyon Road. One auxiliary lane exists between Crow Canyon Road and Bollinger Canyon Road on I-680 in both directions.

Crow Canyon Road

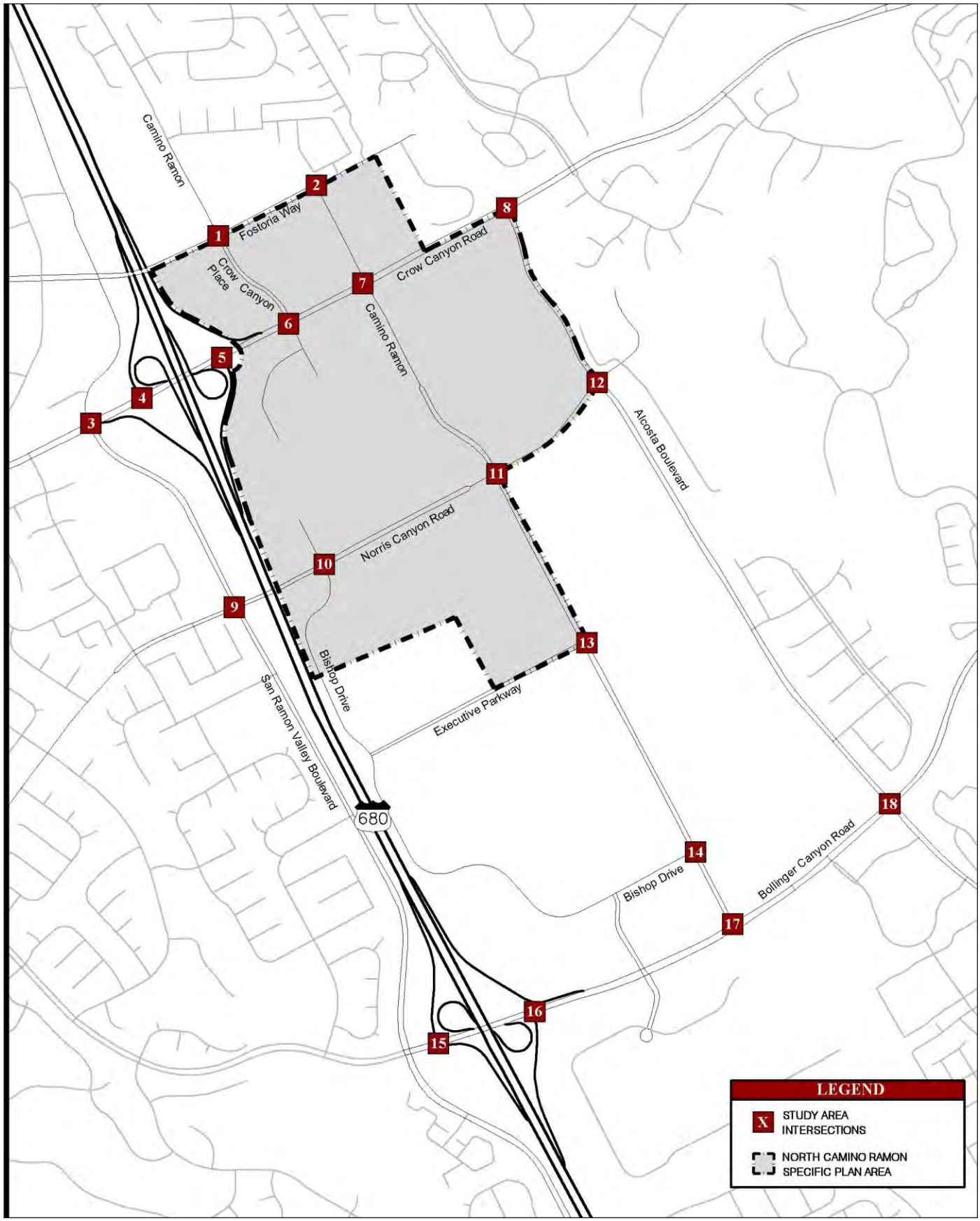
Ranging from a two-lane rural road to a four- to eight-lane arterial, Crow Canyon Road connects I-580 in Castro Valley to Camino Tassajara in Danville. Through the Specific Plan area, Crow Canyon Road runs in an east–west orientation, across the I-680 interchange to Alcosta Boulevard, and continuing east to Dougherty Road and Camino Tassajara. The posted speed limit is 40 miles per hour (mph) and no on-street parking is permitted on either side of the street.

Bollinger Canyon Road

An east–west arterial roadway located south of Specific Plan area connecting Crow Canyon Road to Dougherty Road. Between the I-680 interchange and Dougherty Road, Bollinger Canyon Road varies from eight to six lanes. The posted speed limit is 40 mph and no on-street parking is permitted on either sides of the street.

San Ramon Valley Boulevard

A north-south arterial roadway located west of the Specific Plan area, west of I-680. It connects SR-84 (in Sunol) in the south and Walnut Creek in the north. South of I-580, it is known as Foothill Road, and north of Diablo Road in Danville it is known as Hartz Avenue, then Danville Boulevard, and then South Main Street. The posted speed limit is 35 mph north of Norris Canyon Road and 40 mph south of Norris Canyon Road. No on-street parking is permitted on either side of the street.



Source: Kimley-Horn and Associates, Inc., 2012.

Michael Brandman Associates

Exhibit 3.12-1
Study Area and Intersection Locations

Arterials

As identified in the General Plan, the function of arterial roadways is to accommodate high traffic volumes and intra-city circulation. These streets are used to travel to major activity centers, facilitate freeway access, and connect to other arterials. They also serve adjacent residential land uses via arterial and collector connections. Within the vicinity of the Specific Plan area, the streets below are identified as Arterial Streets:

Alcosta Boulevard

A four-lane, north–south arterial roadway located on the east side of the Iron Horse Trail. At its southern point, Alcosta Boulevard connects to I-680 and at its northern terminus connects to Crow Canyon Road. Alcosta Boulevard serves a combination of residential, commercial, and office land uses. The posted speed limit is between 30 to 40 mph and no on-street parking is permitted on either sides of the street within the Specific Plan area.

Collector Streets

Collector Streets are used to travel within and between neighborhoods. They collect traffic from local streets and channel it to arterial streets. Within the vicinity of the Specific Plan area, the streets below are identified as Collector Streets.

Fostoria Way

A four-lane, east-west collector roadway located at the north end of the Specific Plan area that provides a direct connection between the North Camino Ramon and Crow Canyon Specific Plan areas. The posted speed limit is 30 mph, and no on-street parking is permitted on either side of the street within the Specific Plan area.

Camino Ramon

A four-lane, north–south collector roadway that approximately bisects the Specific Plan area in east and west portions. At its southern point, Camino Ramon ends at Bollinger Canyon Road and at its northern terminus connects to Sycamore Valley Road in Danville. The southern end of Camino Ramon provides a direct link the City Center area. Camino Ramon serves a combination of residential, commercial, and office land uses. The posted speed limit is 30 mph north of Norris Canyon Road and 40 mph south of Norris Canyon Road. No on-street parking is permitted on either side of the street within the Specific Plan area.

Norris Canyon Road

A four-lane, east-west collector roadway that approximately bisects the Specific Plan area in its north and south portions. At its western point, Norris Canyon Road connects Crow Canyon Road in Castro Valley and terminates at the east end of the Specific Plan area at Alcosta Boulevard. The posted speed limit is 40 mph and no on-street parking is permitted on either side of the street.

Local Roadways

Roadways including San Ramon Valley Boulevard, Crow Canyon Road, Norris Canyon Road, Alcosta Boulevard, and Camino Ramon, as well as the local streets identified above provide access to the land uses within the Specific Plan area at the local level. These roadways connect the study area to the greater San Ramon area as well as adjacent cities and towns such as Danville and Dublin.

Executive Parkway

A two-lane, east-west local street within the Specific Plan area that provides access to the existing transit center. The posted speed limit is 30 mph and no on-street parking is permitted on either side of the street.

Bishop Drive

A two-lane, north-south and east-west local street with a posted speed limit of 30 mph. No on-street parking is permitted on either side of the street.

Crow Canyon Place

A four-lane, north-south local street with a two-way left-turn lane in the middle. This street provides access to the Crow Canyon Specific Plan area. The posted speed limit of 25 mph and no on-street parking is permitted on either side of the street.

Existing Traffic Conditions Analysis

Study Intersections

Eighteen intersections were identified for analysis. The study intersections were determined on the basis of where the majority of the traffic generated by development within the Specific Plan area will be focused and where potential traffic impacts are most likely to occur. The study intersections are shown in Exhibit 3.12-1 and listed in Table 3.12-1.

Table 3.12-1: Study Intersections

No.	Study Intersection
1	Fostoria Way/Camino Ramon/Crow Canyon Place
2	Fostoria Way/Camino Ramon/Costco Driveway
3	Crow Canyon Road/San Ramon Valley Boulevard
4	Crow Canyon Road/I-680 Southbound Ramps
5	Crow Canyon Road/I-680 Northbound Ramps
6	Crow Canyon Road/Crow Canyon Place
7	Crow Canyon Road/Camino Ramon
8	Crow Canyon Road/Alcosta Boulevard
9	Norris Canyon Road/San Ramon Valley Boulevard

Table 3.12-1 (cont.): Study Intersections

No.	Study Intersection
10	Norris Canyon Road/Bishop Drive
11	Norris Canyon Road/Camino Ramon
12	Norris Canyon Road/Alcosta Boulevard
13	Executive Parkway/Camino Ramon
14	Bishop Drive/Camino Ramon
15	Bollinger Canyon Road/I-680 Southbound Ramps
16	Bollinger Canyon Road/I-680 Northbound Ramps
17	Bollinger Canyon Road/Camino Ramon
18	Bollinger Canyon Road/Alcosta Boulevard
Source: Kimley-Horn and Associates, Inc., 2012.	

All study intersections are signalized intersections with the exception of the intersection of Fostoria Way/Camino Ramon/Costco Driveway, which is a four-way stop-controlled unsignalized intersection. Lane configurations and type of intersection control at each of the above noted study intersections are shown in Exhibit 3.12-2a and Exhibit 3.12-2b.

Freeway Segments

The following freeway segments are included in the analysis:

- Northbound and southbound I-680, north of the Crow Canyon Road Interchange
- Northbound and southbound I-680, between the Crow Canyon Road and Bollinger Canyon Road Interchanges
- Northbound and southbound I-680, south of the Bollinger Canyon Road Interchange

Intersection Level of Service Methodology

Capacity constraints in urban areas usually take place at intersections. How an intersection operates from the driver's perspective is based on the concept of Level of Service (LOS). Level of Service (LOS) is used to rank traffic operation on various types of facilities based on traffic volumes and roadway capacity using a series of letter designations ranging from A to F. Generally, LOS A represents free-flow conditions and LOS F represents forced-flow or breakdown conditions. Consistent with the requirements of Measures C and J, the City of San Ramon specifies that LOS be based on the CCTA methodology for signalized intersections. This method identifies LOS for signalized intersections with the volume to capacity (v/c) ratio of critical movements. For the single unsignalized intersection within the study area, the 2000 Highway Capacity Manual (HCM) methodology was used. Table 3.12-2 summarizes the LOS definitions for CCTA and HCM 2000 methodologies, respectively.

Table 3.12-2: Intersection Level of Service Definitions

Level of Service	Description	Signalized Volume/Capacity Ratio (v/c)[1]	Unsignalized Control Delay (sec/veh)[2]
A	Free flow with no delays; users are virtually unaffected by others in the traffic stream	< 0.60	0 – 10
B	Stable traffic; traffic flows smoothly with few delays	0.61 – 0.70	> 10 – 15
C	Stable flow but the operation of individual users becomes affected by other vehicles; modest delays	0.71 – 0.80	>15 – 25
D	Approaching unstable flow; operation of individual users becomes significantly affected by other vehicles; Delays may be longer than one cycle during peak hours	0.81 – 0.90	> 25- 35
E	Unstable flow with operating conditions at or near the capacity level; long delays and vehicle queuing	0.91 – 1.0	> 35 – 50
F	Forced or breakdown flow that causes reduced capacity; stop-and-go traffic conditions; excessive long delays and vehicle queuing	> 1.0	> 50

Notes:
[1] Contra Costa Transportation Authority (CCTA), 2007.
[2] 2000 Highway Capacity Manual (HCM) – All-Way Stop Controlled Intersections.
Source: Kimley-Horn and Associates, Inc., 2012.

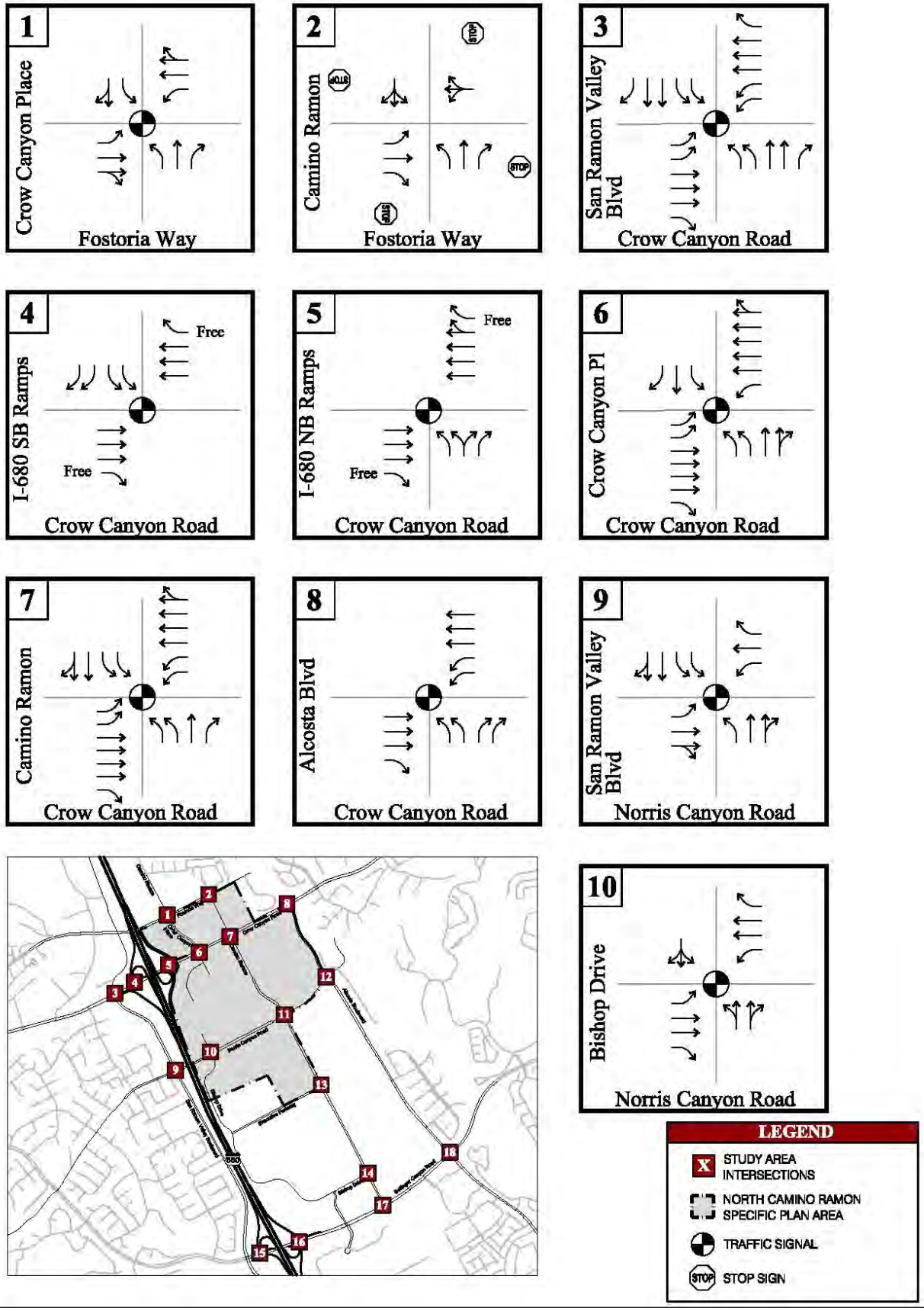
Freeway Analysis Methodology

Performance measures such as speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience are used to describe freeway operation conditions. The City of San Ramon is part of the Tri-Valley Transportation Plan/Action Plan. The Tri-Valley Action Plan (TVAP) (adopted November, 2009) identifies Multimodal Transportation Service Objectives (MTSOs) for I-680, including average peak-hour speed and the delay index. TVAP sets the target minimum average peak-hour speed for I-680 as 30 miles per hour. The delay index compares the time required to travel between two points during peak hour conditions with the time required during non-congested, off-peak conditions and is defined as the observed travel time divided by the free-flow travel time. The target minimum value for delay index for I-680 is 2.0, which would indicated that a trip through the segment of I-680 takes twice as long during peak periods. The TVAP compares existing and 2030 traffic conditions for I-680 against the identified MTSOs. The MTSOs adopted for the study segments of I-680 within the vicinity of San Ramon are summarized in Table 3.12-3.

Table 3.12-3: MTSOs for I-680 within San Ramon

Tri-Valley Facility	Limits	Multimodal Transportation Service Objectives (MTSO)
Interstate I-680	TRANSPAC/Tri-Valley Boundary (between Rudgear Road 7 Livorna Road) to Alameda County	Maintain a minimum average speed of 30 mph, delay index of 2.0.

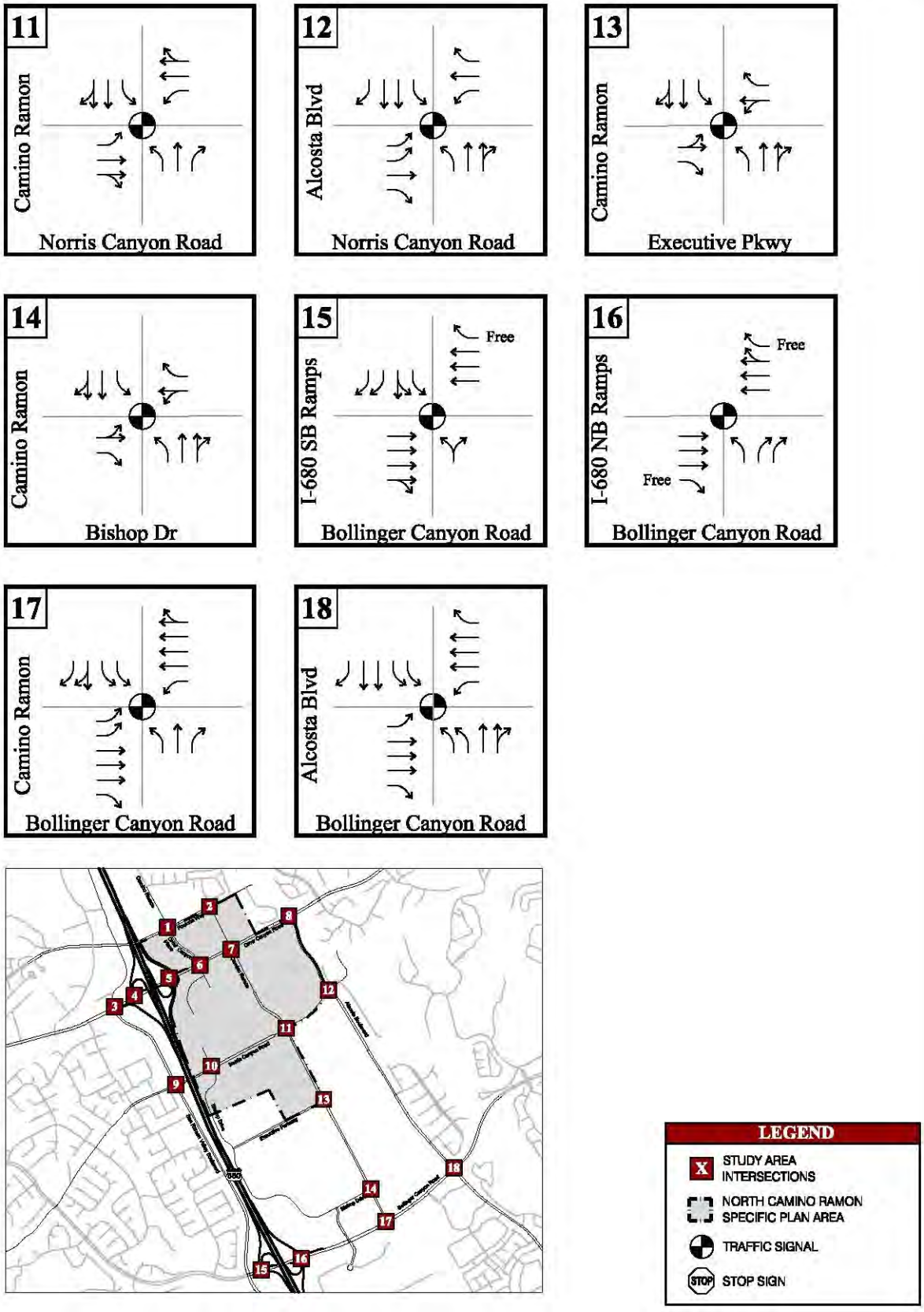
Note:
Tri-Valley Transportation Plan and Action Plan Update, Final Report, adopted by the Tri-Valley Transportation Council November 30, 2009.
Source: Kimley-Horn and Associates, Inc., 2012.



Source: Kimley-Horn and Associates, Inc., 2012.

Michael Brandman Associates

Exhibit 3.12-2a
Existing Conditions
Lane Geometry and Traffic Control



Source: Kimley-Horn and Associates, Inc., 2012.

Michael Brandman Associates

Exhibit 3.12-2b
Existing Conditions
Lane Geometry and Traffic Control

Existing Traffic Volumes

Study Intersections

The intersection turning movement counts for study intersections were provided by the City of San Ramon's Engineering Division from their annual count program. Traffic counts are collected during the morning peak hour (between 7:00 a.m. and 9:00 a.m.) and the afternoon peak hour (between 4:00 p.m. and 6:00 p.m.). Peak hour intersection traffic counts were collected in 2008 and 2009. Existing AM and PM peak-hour turning movement counts are shown in Exhibit 3.12-3a and Exhibit 3.12-3b.

Freeway Segments

Freeway mainline volumes for the peak hours were developed using Caltrans 2009 Annual Average Daily Traffic (AADT) volume data for the freeway study segments. The AM and PM peak-hour volumes were derived using factors developed by Caltrans to determine the amount of peak-hour traffic (k-factor) and the directional distribution of the traffic (d-factor). The HOV percentage, provided from Caltrans 2009 HOV data, estimates the number of vehicles using the HOV lane during the AM and PM peak hours. Existing AM and PM peak-hour freeway volumes are shown in Table 3.12-4.

Table 3.12-4: Existing Conditions – Peak-Hour Freeway Volumes

Interstate 680		Total Lanes	HOV Lanes	Peak Hour	Total Volume	HOV Percentage
Direction	Segment					
North of Crow Canyon Road Interchange	Northbound	4	1	AM	5,657	17
				PM	6,852	17
	Southbound	4	1	AM	6,967	14
				PM	6,412	12
North of Bollinger Canyon Road Interchange	Northbound	5	1	AM	5,374	17
				PM	6,510	17
	Southbound	5	1	AM	6,619	14
				PM	6,091	12
South of Bollinger Canyon Road Interchange	Northbound	4	1	AM	5,551	17
				PM	6,724	17
	Southbound	4	1	AM	6,837	14
				PM	6,292	12

Notes:
Peak-hour volumes from Caltrans 2009 AADT Report
AM and PM peak-hour volumes derived using K and D Factors from Caltrans Peak Hour Volume Report
HOV percentage of total volume based on data from Caltrans District 4 Year 2009 HOV Lane Report
For freeway segment between Bollinger Canyon Road and Crow Canyon Road, auxiliary lane is more than 2,500 feet. Weaving does not apply to lane segments greater than 2,500 feet in length; therefore, the auxiliary lane is considered a basic freeway segment.
Source: Kimley-Horn and Associates, Inc., 2012.

Existing Conditions for Intersection Level of Service

Results of the existing conditions intersection LOS analysis using the CCTA LOS methodology for signalized intersections and the 2000 HCM methodology for unsignalized intersections during the AM and PM peak hours are summarized in Table 3.12-5 and shown on Exhibit 3.12-3a and Exhibit 3.12-3b. Detailed intersection LOS calculations are included in Appendix E.

According to the current General Plan, LOS C or better should be maintained at all intersections, with LOS D (volume to capacity ratio less than or equal to 0.90) for no more than 2 hours of the day (AM and PM peak hours). As shown in Table 3.12-5, all study intersections operate at acceptable levels of service.

Table 3.12-5: Existing Conditions Intersection Level of Service

No.	Intersection	Traffic Control	AM Peak Hour		PM Peak Hour	
			V/C Ratio or Control Delay (sec/veh)	LOS	V/C Ratio or Control Delay (sec/veh)	LOS
1	Fostoria Way/Camino Ramon/Crow Canyon Place	Signal	0.31	A	0.47	A
2	Fostoria Way/Camino Ramon/Costco Driveway	AWSC	10.10	B	18.60	C
3	Crow Canyon Road/San Ramon Valley Boulevard	Signal	0.55	A	0.71	C
4	Crow Canyon Road/I-680 Southbound Ramps	Signal	0.44	A	0.59	A
5	Crow Canyon Road/I-680 Northbound Ramps	Signal	0.60	B	0.73	C
6	Crow Canyon Road/Crow Canyon Place	Signal	0.63	B	0.78	C
7	Crow Canyon Road/Camino Ramon	Signal	0.52	A	0.59	A
8	Crow Canyon Road/Alcosta Boulevard	Signal	0.55	A	0.62	B
9	Norris Canyon Road/San Ramon Valley Boulevard	Signal	0.54	A	0.43	A
10	Norris Canyon Road/Bishop Drive	Signal	0.34	A	0.55	A
11	Norris Canyon Road/Camino Ramon	Signal	0.45	A	0.53	A
12	Norris Canyon Road/Alcosta Boulevard	Signal	0.37	A	0.40	A
13	Executive Parkway/Camino Ramon	Signal	0.37	A	0.36	A

Table 3.12-5 (cont.): Existing Conditions Intersection Level of Service

No.	Intersection	Traffic Control	AM Peak Hour		PM Peak Hour	
			V/C Ratio or Control Delay (sec/veh)	LOS	V/C Ratio or Control Delay (sec/veh)	LOS
14	Bishop Drive/Camino Ramon	Signal	0.26	A	0.45	A
15	Bollinger Canyon Road/I-680 Southbound Ramps	Signal	0.63	B	0.63	B
16	Bollinger Canyon Road/I-680 Northbound Ramps	Signal	0.85	D	0.77	C
17	Bollinger Canyon Road/Camino Ramon	Signal	0.54	A	0.81	D
18	Bollinger Canyon Road/Alcosta Boulevard	Signal	0.66	B	0.68	B

Notes:
AWSC - All-Way Stop Controlled intersection.
Source: Kimley-Horn and Associates, Inc., 2012.

Bicycle Circulation

The City of San Ramon has an extensive bicycle network. The bicycle transportation system is comprised of the following facilities:

- **Class I Bikeway (Bike Path):** A right-of-way that is completely separated from any street. These facilities are usually multi-use trails that accommodate pedestrian and bicyclists.
- **Class II Bikeway (Bike Lane):** A one-way striped and signed lane for bicyclists on either side of the street.
- **Class III Bike Route:** A street where bicyclists and automobiles share the traveled way marked only by signs.

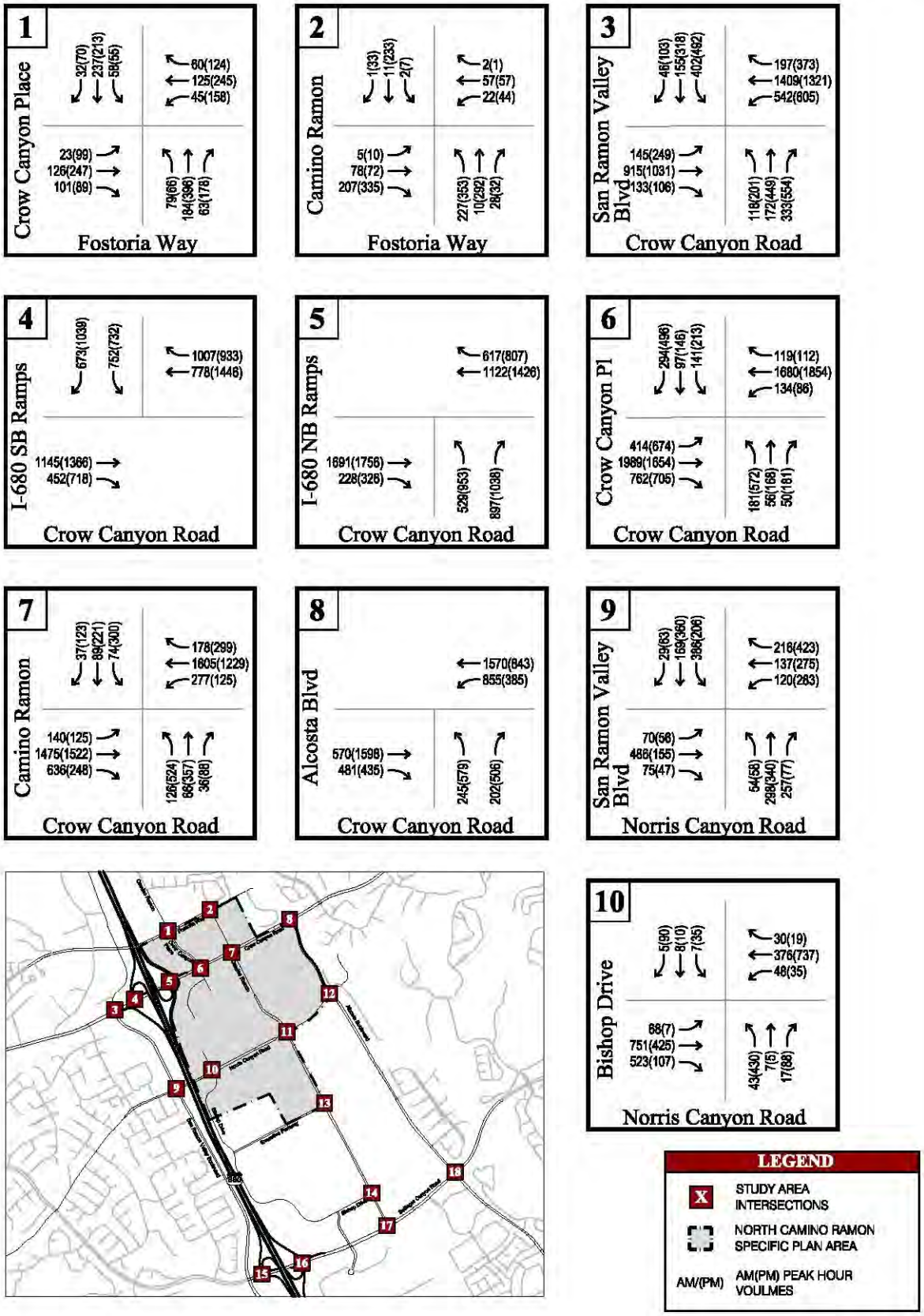
Within the vicinity of the Specific Plan area, the only Class I Bikeway is the Iron Horse Trail. This trail is approximately 30 miles long extending from Pleasanton to Concord along the former San Ramon Branch Line railroad right-of-way. North of Crow Canyon Road, the trail forms the east end of the Specific Plan area, and south of Crow Canyon Road, the trail runs through the Specific Plan area to Norris Canyon Road. The Specific Plan area is regionally accessible via bicycle, primarily by using the Iron Horse Trail.

Class II bike lanes exist on Fostoria Way between San Ramon Valley Boulevard and Crow Canyon Place, Norris Canyon, Bishop Drive, and Alcosta Boulevard within the Specific Plan area. In the vicinity of Specific Plan area, Class II bike lanes exists on San Ramon Valley Boulevard and on Crow Canyon Road, east of Alcosta Boulevard.

No Class III bike routes exist within the Specific Plan area. In the vicinity, Class III bike routes exist on Norris Canyon Road between San Ramon Valley Boulevard and Bollinger Canyon Road. Bollinger Canyon Road between San Ramon Valley Boulevard and Canyon View Lakes Drive is designated as a Class III bike route. Exhibit 3.12-4 shows the existing bicycle facilities within the vicinity of the Specific Plan area.

Pedestrian Circulation

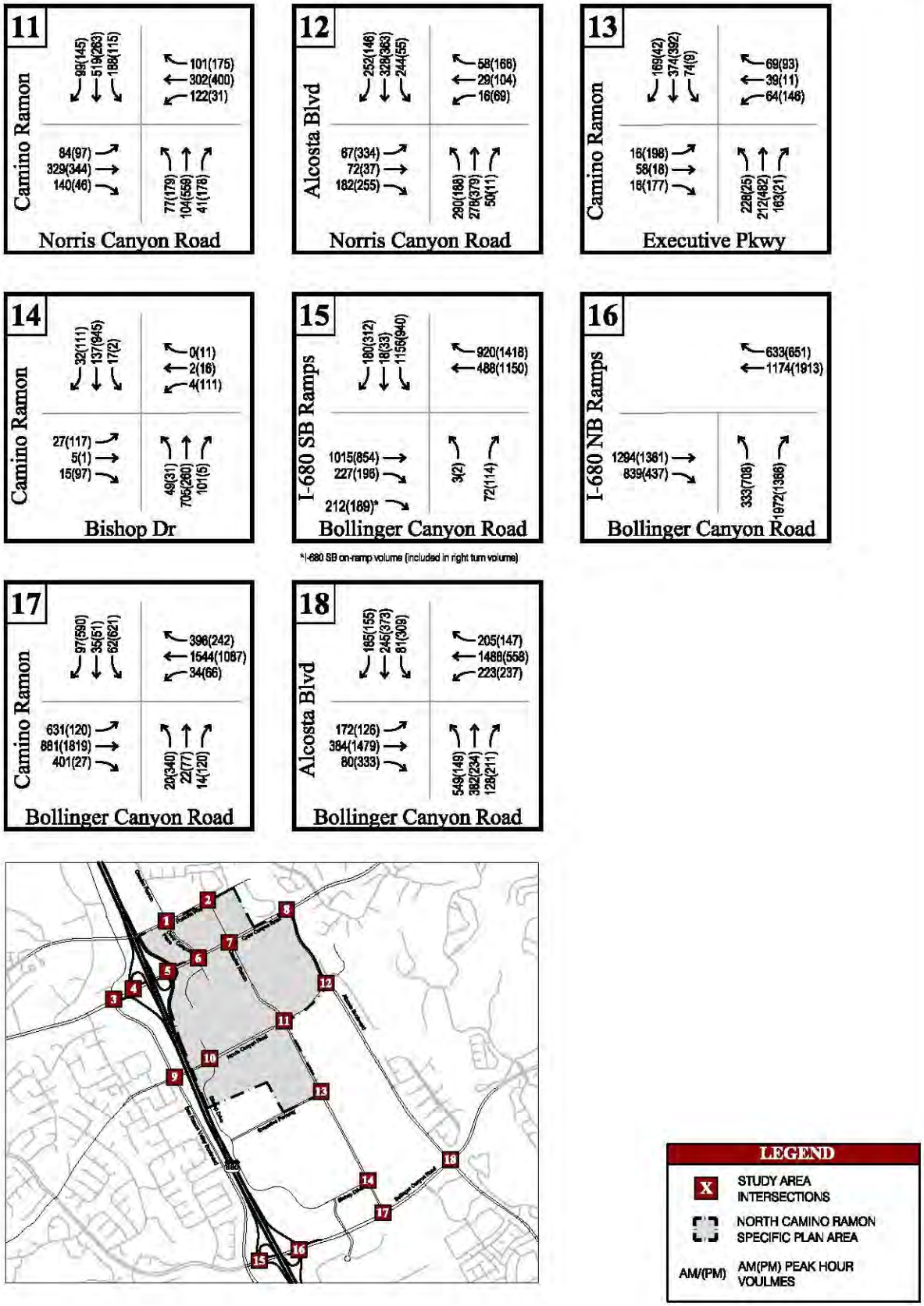
Pedestrian facilities within the Specific Plan area consist of sidewalks, crosswalks at signalized intersections, street lighting, and the Class I multi-use Iron Horse Trail. Pedestrian crossings are located at signalized intersections and consist of striped crosswalks, pedestrian signal heads, curb ramps, and pedestrian pushbuttons. The City's current standard requires pedestrian countdown timers, but not all of the intersections within the Specific Plan area include these devices. A summary of existing sidewalks and crosswalks by streets within the vicinity of the Specific Plan area is described below and summarized in Table 3.12-6.



Source: Kimley-Horn and Associates, Inc., 2012.

Michael Brandman Associates

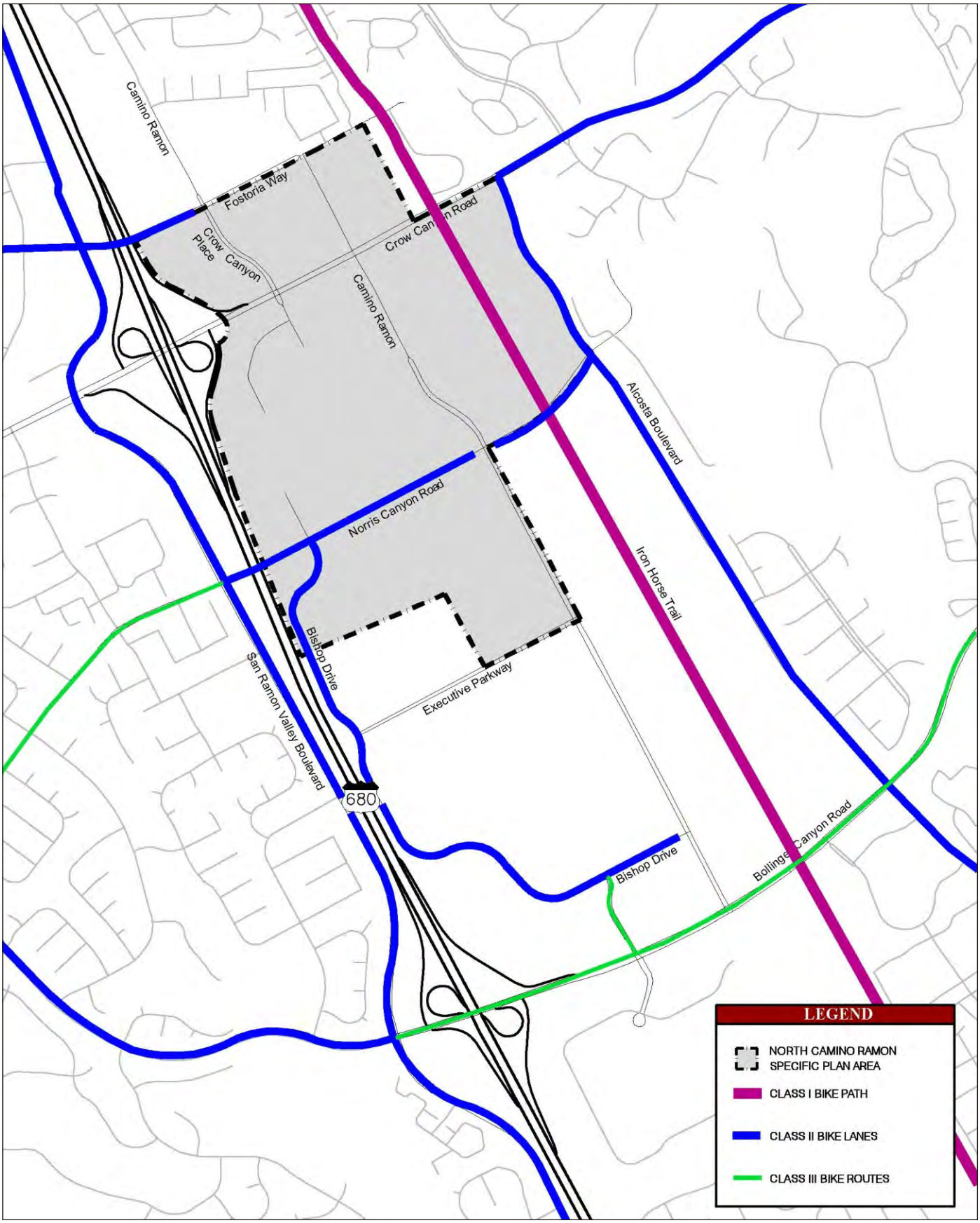
Exhibit 3.12-3a
Existing Peak-Hour
Turning Movement Volumes



Source: Kimley-Horn and Associates, Inc., 2012.

Michael Brandman Associates

Exhibit 3.12-3b
Existing Peak-Hour Turning Movement Volumes



Source: Kimley-Horn and Associates, Inc., 2012.

Michael Brandman Associates

Exhibit 3.12-4
Existing Bicycle Facilities

Table 3.12-6: Existing Conditions – Pedestrian Facilities

Street	Orientation of Street	Street Segment		Sidewalk Exists On				Crosswalks at Signalized Intersections
		From	To	North Side	South Side	East Side	West Side	
Fostoria Way	East-West	San Ramon Valley Boulevard	Camino Ramon/ Crow Canyon Place	No	Yes	N/A	N/A	Yes
		Camino Ramon/Crow Canyon Place	Camino Ramon	Yes	Yes	N/A	N/A	No
Crow Canyon Road	East-West	I-680	Crow Canyon Place.	No	Yes	N/A	N/A	Yes
		Crow Canyon Place	Alcosta Boulevard.	Yes	Yes	N/A	N/A	Yes
Norris Canyon Road	East-West	San Ramon Valley Boulevard	Bishop Drive	Yes	No	N/A	N/A	Yes
		Bishop Drive	Camino Ramon	Yes	No	N/A	N/A	Yes
		Camino Ramon	Alcosta Boulevard.	Yes	Yes	N/A	N/A	Yes
Alcosta Boulevard	North-South	Crow Canyon Road	Norris Canyon Road	N/A	N/A	No	Yes	Yes
Camino Ramon	North-South	Fostoria Way	Norris Canyon Road	N/A	N/A	Yes	Yes	Yes
		Norris Canyon Road	Executive Parkway	N/A	N/A	No	Yes	Yes
		Executive Parkway	Bishop Drive	N/A	N/A	Yes	Yes	Yes
		Bishop Drive	Bollinger Canyon Road	N/A	N/A	Yes	No	Yes
Bishop Drive	North-South	Norris Canyon Road	Executive Parkway	N/A	N/A	Yes	No	Yes
	North-South and East-West	Executive Parkway	Camino Ramon	Yes	N/A	Yes	N/A	Yes

Source: Kimley-Horn and Associates, 2012.

Fostoria Way

On Fostoria Way, a sidewalk exists on the south side of the street between San Ramon Valley Boulevard and Crow Canyon Place. Between Crow Canyon Place and Camino Ramon, a sidewalk exists on either side of the street. The signalized intersection of Fostoria Way/Crow Canyon Place has crosswalks across all approaches. However, at the intersection of Fostoria Way/Camino Ramon, crosswalks exist only across the westbound approach.

Crow Canyon Road

On Crow Canyon Road, a sidewalk exists on the south side of the street between I-680 freeway and Crow Canyon Place. Between Crow Canyon Place and Alcosta Boulevard, sidewalks exist on both sides of the street. The signalized intersection of Crow Canyon Road/Crow Canyon Place has crosswalks across all approaches, except across the eastbound approach. Crosswalks exist across all approaches at the Crow Canyon Road/Camino Ramon intersection and across Crow Canyon Road at the Iron Horse Trail. At the intersection with Alcosta Boulevard, crosswalks exist across all approaches, except at the eastbound approach.

Norris Canyon Road

On Norris Canyon Road, a sidewalk exists on the north side of the street between San Ramon Valley Boulevard and Bishop Drive. No sidewalk exists on the south side of the street in this segment. Between Bishop Drive and Camino Ramon, a sidewalk exists only on the north side of the street; between Camino Ramon and Alcosta Boulevard, a sidewalk exists on either side of the street. Crosswalks exist at all signalized intersections on Norris Canyon Road within the vicinity of the Specific Plan area.

Alcosta Boulevard

On Alcosta Boulevard, a sidewalk exists on the west side between Crow Canyon Road and Norris Canyon Road. Crosswalks exist at all signalized intersections along Alcosta Boulevard.

Camino Ramon

On Camino Ramon, sidewalks exist on both sides between Fostoria Way and Norris Canyon Road. South of Norris Canyon Road to Executive Parkway, sidewalk exists only along the west side of the street. Between Executive Parkway and Bishop Drive, sidewalks exist on both sides of the street. A sidewalk exists only on the east side of the street between Bishop Drive and Bollinger Canyon Road. At all signalized intersections on Camino Ramon, crosswalks exist across all approaches. Between Crow Canyon Road and Norris Canyon Road, two unsignalized striped crosswalks exist across Camino Ramon.

Bishop Drive

On Bishop Drive, a sidewalk exists only on the east side between Norris Canyon Road and Executive Parkway. A meandering dirt sidewalk is present on the east/north side of Bishop Drive between Executive Parkway and Camino Ramon. Segments of the sidewalk are present on the south side

between Camino Ramon and Executive Parkway. At all signalized intersections along Bishop Drive, crosswalks exist across all approaches.

Iron Horse Trail

The Iron Horse Trail is located within the eastern portion of the Specific Plan area. The Iron Horse Trail crosses Crow Canyon Road and Norris Canyon Road using the signalized pedestrian crossing. The trail crosses Executive Parkway using an unsignalized pedestrian crossing. All sidewalks and intersections are lit with City standard streetlights on roadways and safety lighting at intersections. The pedestrian system surrounding the site is continuous without gaps. The entire Specific Plan area site is accessible via sidewalks and signalized crossings on Iron Horse Trail.

Transit Systems

Bus Service

The County Connection serves Walnut Creek, Concord, Danville, Martinez, Lafayette, Orinda, Clayton, Moraga, Pleasant Hill, Alamo, and the San Ramon area. County Connection is operated by the Central Contra Costa Transit Authority (CCCTA). County Connection provides bus service to all Bishop Ranch offices and the San Ramon Transit Center. Employees of Bishop Ranch are eligible for free bus passes as part of the local Transportation Demand Management (TDM) Program. Exhibit 3.12-5 shows the transit routes operating within the Specific Plan area and its vicinity.

Currently, there are eight routes operating within the Specific Plan area and its vicinity. Detailed descriptions of these routes follow.

Route 21

This weekday service route operates between 5:30 a.m. and 11:20 p.m. with a 30-minute peak-hour frequency and a 60-minute off-peak-hour frequency. It connects Walnut Creek BART station with the San Ramon Transit Center. Within the vicinity of the Specific Plan area, the route operates via San Ramon Valley Boulevard, Fostoria Way, Camino Ramon, and Executive Parkway to terminate at the San Ramon Transit Center located east of the Executive Parkway/Camino Ramon intersection, next to the Iron Horse Trail.

Route 321

Route 321 is a weekend service that operates between 7:45 a.m. and 10:30 p.m. During the early hours (7:45 a.m. to 1:45 p.m.), the frequency of service is every 120 minutes in the morning, which increases to 60 minutes during the midday hours (1:45 p.m. to 4:45 p.m.) and then reverts to 120 minutes during the evening hours. The route connects the Walnut Creek BART station to the San Ramon Transit Center and then to Shops at Bishop Ranch. This route is the same as weekday Route 21, except for the last segment where it provides connection between San Ramon Transit Center and Shops at Bishop Ranch.

Route 35

This weekday service route operates between 6:00 a.m. and 8:17 p.m. with a 30-minute peak-hour frequency and a 60-minute off-peak-hour frequency. It connects San Ramon Transit Center with the Dublin/Pleasanton BART Station. Within the vicinity of the Specific Plan area, the route operates on Executive Parkway, Bishop Drive, and Bollinger Canyon Road.

Route 36

This weekday service route operates between 6:30 a.m. and 9:00 p.m. with a 60-minute frequency during the peak and off-peak hours. It also connects San Ramon Transit Center with the Dublin/Pleasanton BART Station. Within the vicinity of the Specific Plan area, the route operates via Executive Parkway, Bishop Drive, Norris Canyon Road, Crow Canyon Road, Bollinger Canyon Road, and San Ramon Valley Boulevard.

Route 92X (ACE Express)

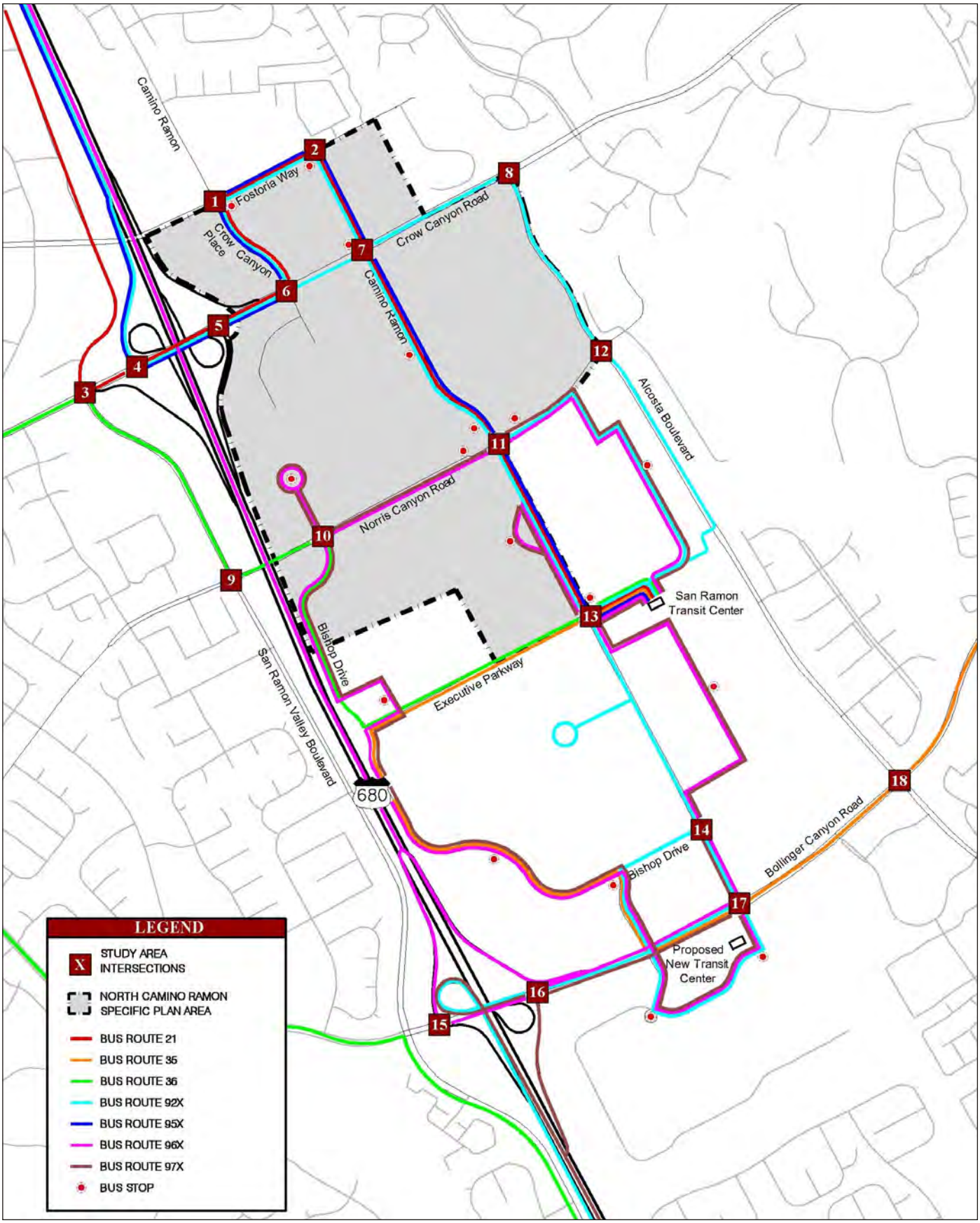
This weekday express service route operates only during the peak hours every 60 minutes. It connects the Mitchell Park & Ride lot off Ygnacio Valley Road in Walnut Creek, the Sycamore Valley Road Park & Ride lot in Danville, San Ramon Transit Center, Chevron Park, AT&T Offices, and the Altamont Commuter Express (ACE) Pleasanton Train Station. The timing for the service is designed around the ACE train timings. In the southbound direction, the service runs five times—twice during the AM peak hour and three times during the PM peak hour. In the northbound direction, the service runs five times—two times during the AM and three during the PM peak hours. Within the vicinity of the Specific Plan area, the route operates along Crow Canyon Road, Camino Ramon, Norris Canyon Road, and Alcosta Boulevard.

Route 95X (San Ramon Express)

This weekday express service route operates only during the peak hours with a 30-minute frequency. It connects the Walnut Creek BART Station, the Sycamore Valley Road Park & Ride lot in Danville, and the San Ramon Transit Center. The timing for the service is designed around the BART train timings. The route offers four southbound trips and three northbound trips during the morning and five northbound and four southbound trips during the afternoon. Within the vicinity of the Specific Plan area, the route operates on Crow Canyon Road, Fostoria Way, and Camino Ramon.

Route 96X (Bishop Ranch – Walnut Creek BART Express)

This weekday express service route operates only during peak hours with a 20-minute frequency. It connects the Walnut Creek BART Station, the San Ramon Transit Center, and the Bishop Ranch area. The timing for the service is designed around the BART train timings. Within the vicinity of the Specific Plan area, the route operates on Bishop Drive, Camino Ramon, and Norris Canyon Road.



Source: Kimley-Horn and Associates, Inc., 2012.

Michael Brandman Associates

Exhibit 3.12-5
Existing Transit System

Route 97X (Bishop Ranch – Dublin/Pleasanton BART Express)
This weekday express service route operates only during peak hours with a 30-minute frequency. It connects the Dublin/Pleasanton BART Station, the San Ramon Transit Center, and the Bishop Ranch area. The timing for the service is designed around the BART train timings. Within the vicinity of the Specific Plan area, the route operates on Bishop Drive, Camino Ramon, and Norris Canyon Road.

Existing Transit Center

The existing San Ramon Transit Center is located on Executive Parkway, adjacent to the Iron Horse Trail and Bishop Ranch 3. The transit center provides commuters with 54 parking spaces to meet a carpool, vanpool, or bus. These parking spaces are available on a first-come first-serve basis and are free of charge. Bike racks and lockers are also available at the Transit Center. Lockers are covered and secured and can be rented for three, six, or 12 months.

3.12.3 - Regulatory Framework

State

California Department of Transportation (Caltrans)

Caltrans builds, operates, and maintains the state highway system, including the interstate highway system. Caltrans's mission is to improve mobility statewide. The department 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 review measures to mitigate the traffic impacts.

Regional and Local

Tri-Valley Transportation Plan and Action Plan Update

One of five Contra Costa sub-regional transportation planning advisory bodies, the TVTC adopted the Tri-Valley Transportation Plan/Action Plan Update in 2008. The Contra Costa Countywide Transportation Plan was adopted by the Contra Costa Transportation Authority in July 2009. The plan includes an update of the Tri-Valley Transportation Action Plan. This Plan serves as a guide for transportation planning in the Tri-Valley area and as the action plan for Routes of Regional Significance, as mandated by Measure C and Measure J. The Plan's recommendations are incorporated into the aforementioned Countywide Comprehensive Transportation Plan and used to define gas and sales tax programs for funding transportation improvements. The Action Plan establishes and adopts Multimodal Transportation Service Objectives, which are quantifiable

measures of performance for Routes of Regional Significance in achieving objectives set forth in the plan.

The Plan identifies a number of programmed improvements for the Tri-Valley area; improvements within the City of San Ramon and the surrounding Tri-Valley are identified below.

Interstate 580 (I-580)

- I-580 Eastbound/Westbound HOV Lane: Foothill Road to east of Vasco Road (Eastbound HOV/Express lane construction complete from Hacienda Drive to Greenville Road)
- A fifth Eastbound I-580 Lane: Santa Rita Road to Vasco Road
- Westbound I-580 Auxiliary Lane: Airway Boulevard to Tassajara Road

Interstate 680 (I-680)

- Construct Auxiliary Lanes: Sycamore Valley Road to Crow Canyon Road
- HOV Lane over Sunol Grade (northbound): Fremont to SR-84
- I-680/Norris Canyon Road HOV Ramps: Interchange of I-680 and Norris Canyon in San Ramon
- Southbound I-680 HOV Lane Extension: North Main Street to Livorna Road
- I-680 HOV Lane Extension: Between Alcosta Boulevard and south to SR-237
- Transportation Operations System on I-680: I-580 to Santa Clara County Line
- I-680/Sunol Interchange improvements

Crow Canyon Road

- Crow Canyon Road Widening to six lanes: From Alcosta Boulevard to Tassajara Ranch Drive
- Safety Improvements on Crow Canyon Road: From Castro Valley Boulevard to Alameda County/San Ramon City Limit

Camino Tassajara

- Camino Tassajara Widening: From East Blackhawk Drive to Contra Costa /Alameda County Line

Dougherty Road

- Widen to eight lanes: From I-580 to Dublin Boulevard
- Widen to six lanes north of Dublin Boulevard: Contra Costa County Line to I-580

Dublin Boulevard

- Dublin Boulevard Widening: Donlon Way to Tassajara Road
- Dublin Boulevard Extension: Tassajara Road to Dolan Road

San Ramon Valley Boulevard

- I-580/Foothill/San Ramon Valley Boulevard Interchange Improvements
- Widen to four lanes: Sycamore Valley Road to Fountain Springs Drive

Santa Rita Road

- Santa Rita Road Interchange at I-580

Tassajara Road

- Widen to eight lanes: I-580 to Dublin Boulevard
- Widen to six lanes: From Dublin Boulevard to County Line

Transit

- ACE Commuter Service: Addition of four round trips per day
- Park-and-Ride Lots: Add new park-and-ride lots and serve them by bus lines.
- County Connection: Expand the service from six lines serving the Tri-Valley (30-minute headway) to eight lines. The lines would serve Danville, San Ramon, Bishop Ranch, Dougherty Valley, and the East Dublin BART Station.
- WHEELS: Expand service from the current 12 lines with 30- to 60-minute headways to 21 lines, all with 30-minute headways. Revise the route system to serve the two BART stations, park-and-ride lots, and the newly developed areas of East Dublin and North Livermore. Some routes would be extended to San Ramon and Danville.
- Express Bus Service: The plan call for the provision of new express bus routes operating the I-680, I-580 and Vasco Road corridors.

Measure J

The projects and programs contained in Contra Costa Measure J Transportation Sales Tax Expenditure Plan are for the continued maintenance, improvement, and operation of local streets, roads, and highways, and the construction, improvement, and operation of the public transit system. Measure J projects and programs specific to the San Ramon Valley include the I-680 Carpool Lane Gap Closure/Transit Corridor Improvements, which will extend the existing bus/carpool lanes on southbound I-680 from North Main Street to Livorna Road and northbound from North Main Street to north of SR-242. It includes the construction of bus/carpool/vanpool on-off ramps on I-680 at Norris Canyon Road in San Ramon, and the implementation of transit corridor improvements that address congestion and/or increase the person-throughput in the I-680 corridor (these improvements are identified in the Tri-Valley Transportation Plan and Action Plan Update improvements for I-680 described above).

Measure J also provides funding for the “Safe Transportation for Children” and includes implementation of a San Ramon Valley School Traffic Congestion Relief Program and other projects

in the San Ramon Valley that reduce school-related congestion. The Measure J Traffic Congestion Relief Agency (TRAFFIX) oversees bus service to seven school sites in the San Ramon Valley. Service began in August 2009 and targets the most congested corridors in the San Ramon Valley. The goal of the program is to provide an incentive to parents to avoid using automobiles to transport children to school by providing a viable alternative.

The County Connection - Short Range Transit Plan (SRTP)

The SRTP identified transit improvements expected over the next 10 years (2008–2017) within the County Connection service area. The transit improvements are divided into two groups: Track I and Track II. Track I improvements are expected to be implemented in the foreseeable future and Track II improvements depend upon the availability of funds and may not have a time frame. Transit improvements within the City of San Ramon and the surrounding region are identified below.

Track I

- New Service Using Out-of Service Bus Trips: Each day County Connection buses travel between the operations facility and the starting points of routes without passengers. This project will review current out-of-service bus trips for the potential of operating these trips or portions of these trips as regular in-service trips. These trips could provide service between the cities of San Ramon and Dublin, and between Downtown Concord and North Concord Industrial Area.

Track II

- ACE Fourth Train: County Connection Route 92X service expansion to serve the fourth ACE train.
- Limited holiday service on New Year's Day, Labor Day, Fourth of July, Memorial Day, Thanksgiving Day, or Christmas Day. Currently County Connection does not provide any service during these holidays.
- Lifeline Transportation Network: Identify lifeline services intended to meet the travel needs of low-income individuals and families.
- Provide additional express bus services (various routes). The 2001 "Contra Costa Express Bus Study," identified the following all-day express routes:
  - Benicia/Vallejo to Walnut Creek BART, Bishop Ranch/San Ramon, and Dublin BART; Fairfield to Walnut Creek BART, Bishop Ranch/San Ramon, and Dublin BART; and Martinez to Dublin BART.
- The preferred option in the 2003 "I-680 Investment Options Analysis" study also identified express bus service improvements. Central Core to Urban Core Express Buses connecting San Ramon and Bishop Ranch Business Park employment centers to/from Castro Valley or Hayward, and San Ramon to Downtown San Jose.

- Coordination between CCCTA, which is the primary transit provider for central/south Contra Costa County, and Livermore Amador Valley Transit Authority, which primarily operates in north-central Alameda County.
- Tassajara Valley/Alamo Creek Service: In 2002, the Board of Supervisors approved additional developments northeast of the Dougherty Valley projected to add approximately 4,000 additional persons to the local population. The Contra Costa Board of Supervisors imposed conditions on the developers to form a Community Services District to help fund transit service linking the Tassajara developments to Bishop Ranch, Stoneridge Mall, Dublin BART, and Hacienda Business Park between 6:30 a.m. and 9:00 a.m. and between 4:00 p.m. and 6:30 p.m.
- Restructuring Weekend Service: Restructure existing Saturday service to more closely resemble the Sunday routes (which have been proven to be more productive) by combining key route segments.
- Increased bus transit service along SR-24 (with the construction of the fourth bore at the Caldecott Tunnel) to complement reverse commute travel.
- Paratransit expanded to provide Americans with Disabilities parallel service during the same times and days as Track II fixed-route projects.

San Ramon Valley Iron Horse Trail - Bicycle Pedestrian Corridor Concept Plan

This study assesses the feasibility of integrating a series of proposed overcrossings along the Iron Horse Trail with adjacent transit- and pedestrian-oriented land use plans. The Corridor Concept Plan identifies overhead crossings for the Iron Horse Trail at Bollinger Canyon Road and Crow Canyon Road in San Ramon and Sycamore Valley Road in Danville.

2009 Draft Contra Costa Countywide Bicycle and Pedestrian Plan

The Contra Costa Countywide Bicycle and Pedestrian Plan assesses the needs of bicyclists and pedestrians in the County, outlines goals and strategies, and identifies a set of countywide improvements that would encourage more walking and bicycling. The plan identifies several projects that are identified in the section summarizing the Tri-Valley Transportation Plan.

BART Fiscal Year 2008 to 2017 Short-Range Transit Plan and Capital Improvement Program

This report identified a new West Dublin/Pleasanton Station in the median of I-580 between Castro Valley and the existing Dublin/Pleasanton Station. The station opened in February 2011.

Congestion Management Program Facilities and Requirements

The CCTA Congestion Management Program (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, telecommuting, compressed workweek, carpooling, vanpooling, walking, bicycling, and incentives to increase the use of these alternatives.

San Ramon collects data related to commute mode of travel from city employees and businesses, including the Bishop Ranch Business Park, to monitor the effectiveness of congestion management and Transportation Demand Management (TDM) programs. Data from 2009 indicate that about 11 percent of San Ramon Valley commuters use carpools and vanpools, nearly 6 percent use public transportation, and about 2 percent walk or bike to work for a total of 19 percent utilization of commute alternatives. The effectiveness of the current programs in San Ramon has been recognized by the Environmental Protection Agency (EPA) and the U.S. Department of Transportation. The most congested areas in the City of San Ramon are in the Crow Canyon and Bishop Ranch subareas, where employment is most concentrated. The primary goal of the City's TDM program is to reduce traffic congestion and improve air quality through the reduction of work-related car trips. The City adopts the strategy, which includes utilization of the technical assistance provided by the City's TDM Program Manager and the implementation of the 511 Contra Costa Incentives Programs at employment sites, to achieve its TDM goal. Technical assistance, program development, and implementation services available to participating employers include the following elements:

- Coordinate, distribute, and evaluate employee transportation surveys.
- Implement citywide commuter incentive programs for carpooling, vanpooling, transit, and a citywide Guaranteed Ride Home Program for residents and businesses.
- Coordinate and implement regional commuter campaigns such as Bike to Work Day, Summer/Winter Spare the Air Campaign, and 511 Regional Rideshare.
- Provide and disseminate information on national campaigns such as Earth Day and Try Transit Week, among others.
- Provide "Transportation Options" presentations to employers and employees relocating to San Ramon and other portions of the Southwest Contra Costa County.
- Organize and facilitate employer transportation commuter fairs.
- Coordinate and facilitate Spare the Air commuter fairs at employment sites.
- Facilitate with local transit agencies to develop, increase, and promote transit service.
- Provide assistance and support to property managers with multi-tenant buildings to coordinate and implement commuter rideshare programs.
- Provide and distribute rideshare information to local Chambers Of Commerce, developers, and homeowner associations.

Commuter Incentive Programs

The City in collaboration with 511 Contra Costa promotes commuter incentive programs to residents, employees, and students, including:

- Carpool Incentive Program: provides incentives to those who carpool to work in the City of San Ramon instead of driving alone.
- Vanpool Driver Incentive Program: provides $1,000 for starting a new vanpool and keeping it on the road for one year with a minimum of six new passengers. Drivers of new vanpools with origin and/or destination in the City of San Ramon and throughout Contra Costa County are eligible.
- Vanpool Passengers Incentive Program: provides 50 percent of vanpool fare for the first 3 months. New vanpool riders who live or work in the City are eligible.
- Transit Incentive Program: provides complimentary transit passes to commuters who live, work, or attend school in Contra Costa County.
- Guaranteed Ride Home Program: provides a free taxi ride or a rental car for emergencies, including unscheduled mandatory overtime, family emergency, and illness. Employees in Contra Costa County who use alternate modes of travel other than car are eligible. The employer is required to pre-register in the program.
- Altamont Commuter Express (ACE): provides an incentive for commuters who ride the County Connection 920 ACE shuttle from the San Ramon Transit Center and the Sycamore Road Park & Ride lot (Danville) to the Pleasanton ACE station.
- Bike Locker Program: bike racks and lockers are available at the San Ramon Transit Center. These lockers are covered and secured and can be rented for three, six, or 12 months.
- Park & Ride Lots: These lots are available for commuters that carpool, vanpool, and use public transit. The Bollinger Canyon Road/San Ramon Valley Boulevard lot provides 100 parking spaces, the Dougherty Valley Park and Ride provides 50 parking spaces and bike lockers, and the Sycamore Park & Ride lot in Danville provides over 150 spaces in addition to bike racks and lockers. The San Ramon Transit Center, located along the Iron Horse Trail at the corner of Executive Parkway and Camino Ramon, provides commuters with 54 parking spaces to meet a carpool, vanpool, or bus. Commuters can leave their cars at the Transit Center and board a County Connection bus to Dublin/Pleasanton and Walnut Creek BART Station.
- Carpool to School Ridematching Program: The City of San Ramon, 511 Contra Costa, and the regional Rideshare Agency can develop personalized carpool to school ridematching programs for individual school sites. The program is tailor made to meet the diverse needs of each individual school site and/or school district.
- Student Transit Ticket Program: free public transit tickets are provided as an alternative to driving student(s) to school. Each student is eligible to receive two 12-Ride County Connection transit tickets (limit two tickets per school year). This offer is available with a maximum of three students per household while supplies last.

City of San Ramon

Bollinger Canyon Road Plan Line Study

As a requirement of the development agreement for the Dougherty Valley, the City of San Ramon has undertaken a Plan Line Study of Bollinger Canyon Road between San Ramon Valley Boulevard and Alcosta Boulevard to identify right-of-way requirements and lane needs on this roadway segment. The Plan Line concepts have been integrated into the traffic analysis in this EIR as planned improvements.

General Plan 2030

The City of San Ramon General Plan 2030 sets forth the following guiding and implementing policies that are relevant to transportation:

- **Implementing Policy 2.3-I-12:** Promote and encourage public transit, carpool and vanpool opportunities into San Ramon's business areas including Bishop Ranch, Crow Canyon business area, and the San Ramon Valley Boulevard business area.
- **Implementing Policy 2.3-I-13:** Encourage and facilitate non-motorized means of transportation to business areas.
- **Implementing Policy 2.3-I-19:** Encourage businesses to promote the use of commute alternatives among their employees by implementing the City's Transportation Demand Management (TDM) programs.
- **Guiding Policy 3.3-G-1:** Maintain acceptable traffic levels of service on City streets and roadways through implementation of Transportation Demand Management (TDM), Growth Management, the Capital Improvement Program and traffic engineering operational measures.
- **Implementing Policy 3.3-I-1:** Strive to maintain traffic LOS C or better as the standard at all intersections with a maximum LOS D during a.m. and p.m. peak periods.
- **Implementing Policy 3.3-I-2:** Accept LOS D during a.m. and p.m. peak periods with the possibility of intersections at or closely approaching the limits of LOS D (Volume/Capacity <0.90), only on arterial routes bordered by non-residential development where improvements to meet the City's standard would be prohibitively costly or disruptive.
- **Implementing Policy 3.3-I-3:** Require traffic impact studies for all proposed new development projected to generate 50 or more net new peak hour vehicle trips or as requested by the City Traffic Engineer.
- **Implementing Policy 3.3-I-4:** Proposed development expected to generate 50 or more peak hour vehicle trips will not be approved, unless it can be shown that its impact can be mitigated and the City's traffic and circulation standards can be maintained. The City also will not approve any proposed development expected to generate over 100 peak hour vehicle trips, unless "Findings of Consistency" can be made
- **Implementing Policy 3.3-I-5:** Identify and implement circulation improvements on the basis of detailed traffic studies.
- **Implementing Policy 3.3-I-6:** Support regional and local neighborhood transit options o reduce the use of the automobile and maintain acceptable traffic levels of service.

- **Implementing Policy 3.3-I-7:** Develop and implement, Findings of Special Circumstances for any intersection on non-Regional Routes that does not meet the City's traffic and circulation standards.
- **Guiding Policy 3.4-G-1:** Utilize Transportation Demand Management (TDM) strategies to reduce total vehicle trips on San Ramon streets, and to contribute to regional air quality improvement and effective growth management.
- **Implementing Policy 3.4-I-1:** Continue to implement the City's TDM Program to reduce trip generation.
- **Implementing Policy 3.4-I-2:** Work with 511 Contra Costa, other jurisdictions and agencies to coordinate the City's TDM Program with regional TDM programs and activities.
- **Implementing Policy 3.4-I-3:** Cooperate with regional and local service providers and other jurisdictions to promote local and regional public transit service.
- **Implementing Policy 3.4-I-4:** Support local feeder transit service to and from current and future regional transit lines.
- **Implementing Policy 3.4-I-5:** Preserve options for future transit use when designing improvements for roadways.
- **Implementing Policy 3.4-I-6:** Locate future transit uses, such as light rail or BART, in the I-680 right-of-way.
- **Implementing Policy 3.4-I-7:** Improve and expand the bicycle routing system in San Ramon.
- **Guiding Policy 3.5-G-1:** Participate in regional cooperative and multi-jurisdictional transportation planning for the maintenance of regional mobility and air quality standards as required by the Measure J Growth Management Program and the Contra Costa Congestion Management Plan (CMP).
- **Implementing Policy 3.5-I-1:** Continue to develop and implement Action Plans for Routes of Regional Significance, in cooperation with the Southwest Area Transportation Committee (SWAT), the Contra Costa Transportation Authority (CCTA), and the Tri-Valley Transportation Council (TVTC).
- **Implementing Policy 3.5-I-2:** Continue to implement the Tri-Valley Transportation Action Plan through participation in the Tri-Valley Transportation Council (TVTC).
- **Implementing Policy 3.5-I-3:** Participate in programs to mitigate regional traffic congestion, including implementation of regional and sub-regional transportation demand management and trip reduction strategies as alternatives to increased roadway capacity.
- **Implementing Policy 3.5-I-4:** Emphasize regional transportation demand management and trip reduction strategies as alternatives to increased roadway capacity.
- **Implementing Policy 3.5-I-5:** Continue to address the impacts of land use decisions on regional and local transportation facilities by applying the Contra Costa Transportation Authority (CCTA) travel demand model and technical procedures during project analysis. Additionally, help maintain CCTA's travel demand modeling system by providing information on proposed improvements to the transportation system and future developments and long-range plans within San Ramon.

- **Implementing Policy 3.5-I-6:** Participate in the Contra Costa Transportation Authority conflict resolution process as needed to resolve disputes related to the development and implementation of Action Plans and other Growth Management Programs.
- **Implementing Policy 3.6-I-4:** As part of the development review process, support the accommodation of public transit, bicycle, and pedestrian access for new development.
- **Guiding Policy 5.1-G-1**: Maintain acceptable levels of service and ensure that future development and the circulation system are in balance.
- **Implementing Policy 5.1-I-4:** Implement uniform design standards for City arterials, collectors, and local streets.
- **Implementing Policy 5.1-I-5:** Monitor key intersection levels of service on an annual basis and document the results.
- **Implementing Policy 5.1-I-6:** Implement the following transportation programs: the Transportation Demand Program (TDM), Street Smarts Traffic Safety Program, the Residential Traffic Calming Program, the Safe Routes to School Program, TRAFFIX Program and the Engineering Services Department's Traffic Engineering component.
- **Implementing Policy 5.1-I-7:** Implement a School Traffic Calming Program to address access and safety issues on streets adjacent to schools in San Ramon.
- **Guiding Policy 5.2-G-1:** Actively participate in local and regional transportation planning.
- **Implementing Policy 5.2-I-1:** Continue to develop and implement Action Plans for Routes of Regional Significance, in cooperation with the Southwest Area Transportation Committee (SWAT), the Contra Costa Transportation Authority (CCTA), and the Tri-Valley Transportation Council (TVTC).
- **Implementing Policy 5.2-I-2:** Continue to implement the Tri-Valley Transportation Action Plan through participation in the Tri-Valley Transportation Council (TVTC).
- **Implementing Policy 5.2-I-3:** Participate in roadway programs to mitigate regional traffic congestion including the following projects when necessary based on monitoring and program goals:
  - **Alcosta Boulevard/I-680 Northbound Off-Ramp**: Widen the off-ramp to provide one left turn lane, one shared left/through/right turn lane, and one right turn lane.
- **Implementing Policy 5.2-I-4:** Support goals and policies of the Contra Costa Congestion Management Plan (CMP).
- **Implementing Policy 5.2-I-5:** Emphasize regional transportation demand management and trip reduction strategies as alternatives to improvements to existing facilities and the construction of new facilities.
- **Implementing Policy 5.2-I-6:** Identify the impacts of land use decisions on regional as well as local transportation facilities.
- **Implementing Policy 5.2-I-7:** Support regional air quality objectives through effective management of the City's transportation system.
- **Guiding Policy 5.3-G-1:** Encourage transportation facilities that consider the users' safety and allows for all modes of travel based on local conditions and needs of the community.

- **Implementing Policy 5.3-I-1:** Develop Complete Streets Guidelines that establish local review and assessment criteria and encourage development of a multimodal transportation network to meet community needs.
- **Implementing Policy 5.3-I-2:** Implement Complete Streets principles, as appropriate, for new roadway design and significant roadway rehabilitation.
- **Implementing Policy 5.3-I-3:** Coordinate the implementation of Complete Streets concepts, as appropriate, with ongoing transportation and congestion relief programs such as the TDM Program, Street Smarts Traffic Safety Program, Residential Traffic Calming Program, Safe Routes to School Program and TRAFFIX Program.
- **Implementing Policy 5.3-I-4:** Encourage Complete Streets concepts as a vehicle-miles-traveled and greenhouse gas reduction strategy.
- **Guiding Policy 5.4-G-1:** Design arterial roadways to efficiently move inter-city traffic, thereby minimizing through-traffic in residential areas of the City.
- **Implementing Policy 5.4-I-1:** Ensure that adequate north-south and east-west arterial capacity is provided to accommodate future travel demand and, where appropriate, implement Complete Streets concepts pursuant to Policy 5.3-G-1.
- **Implementing Policy 5.4-I-2:** Implement the City's five-year Capital Improvement Plan.
- **Implementing Policy 5.4-I-3:** Construct the capacity improvements necessary to serve traffic growth generated by development under the General Plan.
  - **Crow Canyon Road:** Widen to six lanes from Alcosta Boulevard to Danville Town limits. Preserve right-of-way for widening to four lanes from Bollinger Canyon Road to Alameda County line.
  - **Dougherty Road:** Support construction to six lanes from North Gale Ridge Road to Alameda County line.
  - **Bollinger Canyon Road:** Widen to eight lanes from I-680 to Alcosta Boulevard. Construct to six lanes from east of Canyon Lakes Drive to Dougherty Road (North) [Project Complete].
  - **Camino Tassajara:** Support widening to four lanes from Danville Town limits to Windemere Parkway. Support widening to six lanes from Windemere Parkway to Alameda County line.
  - **Alcosta Boulevard:** Install signals and associative lane improvements at the Old Ranch Road and Vera Cruz Drive intersections.
- **Implementing Policy 5.4-I-4:** Maximize the carrying capacity of arterial roadways by controlling the number of intersections and minimize residential and commercial driveway access, on-street parking and requiring sufficient off-street parking to meet the needs of each proposed project.
- **Implementing Policy 5.4-I-5:** Require traffic impact mitigation fees on new residential and commercial development to ensure that transportation improvements are constructed before the increased traffic causes conditions to deteriorate.

- **Implementing Policy 5.4-I-6:** Make optimal use of federal, state, and other funding sources to complete circulation system improvements.
- **Implementing Policy 5.4-I-7:** Minimize congestion on arterials by fully implementing the policies in the Transportation Demand Management and Transit section of the Circulation Element.
- **Implementing Policy 5.4-I-8:** Encourage regional freight movement on freeways and other appropriate routes; evaluate and implement vehicle weight limits as appropriate on arterial, collector and local roadways to mitigate truck traffic impacts in the community.
- **Implementing Policy 5-4-I 9:** Specify routes for transporting hazardous materials that minimize the risk to people and property.
- **Guiding Policy 5.5-G-1:** Design collector and local roadways to improve circulation and to connect residential and commercial areas of the City while incorporating Complete Streets concepts pursuant to Policy 5.3-I-2 where appropriate.
- **Implementing Policy 5.5-I-1:** Implement residential traffic calming measures, as warranted, and police enforcement to mitigate speeding and other traffic impacts in residential areas of the City.
- **Implementing Policy 5.5-I-2:** Continue to implement traffic-control measures and design features that support attainment of the City's goal of less than 3,000 vehicles per day on collector roadways.
- **Implementing Policy 5.5-I-3:** Continue to implement traffic-control measures, residential traffic calming, and design features that support attainment of the City's goal of less than 500 vehicles per day on local roadways.
- **Implementing Policy 5.5-I-4:** Construct improvements to collector roadways as follows:
  - **Twin Creeks Drive**: Extend and construct as a four-lane street from Crow Canyon Road to Old Crow Canyon Road.
  - **Alcosta Boulevard Extension**: Extend Alcosta Boulevard north from Crow Canyon Road to Fostoria Parkway as a four-lane street. Widen and construct Fostoria Parkway as a four-lane roadway from Camino Ramon east to Alcosta Boulevard extension. (These streets are partially within the Danville Town limits, and these projects would require the support and participation of the Town of Danville.)
  - **Camino Ramon**: Install a signal and associated lane improvements at the Fostoria Way intersection. Reconfigure the westbound and eastbound approaches at the Bishop Drive intersection and alter signal phasing.
- **Implementing Policy 5.5-I-5:** Mitigate appropriately traffic that impacts collector streets as a result of new residential and commercial development.
- **Implementing Policy 5.5-I-6:** Maintain controlled or permit-only parking restrictions in residential areas adjacent to California High School.
- **Guiding Policy 5.6-G-1:** Utilize Transportation Demand Management (TDM) strategies as an integral component of the City's transportation program to reduce total vehicle trips on San

Ramon roadways and reduce the corresponding vehicle emissions that promote regional air quality improvements.

- **Implementing Policy 5.6-I-1:** Cooperate with public agencies and other jurisdictions to promote local and regional public transit service in San Ramon as part of a multimodal and Complete Streets strategy.
- **Implementing Policy 5.6-I-2:** Encourage and assist major employers and commercial complexes to reduce the number of single-occupant vehicles by participating in the City's TDM programs.
- **Implementing Policy 5.6-I-3:** Encourage additional local bus or other public transportation service providers to and from regional transit lines. Bus service or other public transportation services should be included under the Initial Level of Development as part of the Dougherty Valley area. The City shall consistently strive to improve the transit service to and from San Ramon including the annexed areas of Dougherty Valley.
- **Implementing Policy 5.6-I-4:** Preserve options for future public transit and alternative transportation uses when designing improvements for roadways such as Bollinger Canyon Road Corridor within Dougherty Valley.
- **Implementing Policy 5.6-I-5:** Support future transit uses within the I-680 corridor right-of-way.
- **Implementing Policy 5.6-I-6:** Work with other jurisdictions and agencies to coordinate the City's TDM programs with regional plans that are aimed at reducing traffic congestion and improving air quality.
- **Implementing Policy 5.6-I-7:** Encourage new development to include a mix of uses and Complete Streets concepts that will allow people to walk and bike between destinations and reduce the amount of automobile vehicle-miles-traveled.
- **Implementing Policy 5.6-I-8:** Support alternative public transportation programs and obtain funding for new TDM projects or programs.
- **Implementing Policy 5.6-I-9:** Encourage employers and commercial complexes to emphasize public transit services or private alternatives to the single-occupant vehicle.
- **Implementing Policy 5.6-I-10:** Work with transit providers to situate transit stops at convenient and safe locations.
- **Implementing Policy 5.6-I-11:** Promote increased transit ridership through the use of Transportation Management Associations and other employer-based transit programs, equip buses with bike racks, and making transit information readily accessible.
- **Implementing Policy 5.6-I-12:** Coordinate with Caltrans and transit providers to identify and implement park and ride lots with convenient access to public transit.
- **Implementing Policy 5.6-I-13:** Work with the San Ramon Valley Unified School District and other appropriate agencies and organizations to reduce vehicle trips through the provision of transit programs and promoting carpooling, bicycling, and walking.
- **Implementing Policy 5.6-I-14:** Consider the construction of public parking facilities in the City Center, North Camino Ramon Specific Plan, or other commercial areas to serve projected

parking demand, while carefully balancing the need for adequate parking against the desire to minimize traffic growth and create a pedestrian/bicycle friendly environment.

- **Implementing Policy 5.6-I-15:** Work with local transit providers to increase and expand weekend transit service.
- **Implementing Policy 5.6-I-16:** Explore opportunities for the location or relocation of a transit center to North Camino Ramon Specific Plan Area to better geographically balance the public transit needs for the City.
- **Guiding Policy 5.6-G-2:** Encourage trip reduction measures in an effort to reduce vehicle miles traveled improve air quality and reduce greenhouse gas emissions.
- **Implementing Policy 5.6-I-17:** Encourage "Park Once" concepts as a vehicle miles traveled reduction strategy for mixed use, commercial, and public facilities through the integration of common design features and shared parking concepts including but not limited to Parking Benefit Districts.
- **Implementing Policy 5.6-I-18:** Encourage shared parking facilities and parking reductions for compatible land uses to minimize excessive parking to reduce inefficient use of land, unnecessary pavement and stormwater runoff, and encouraged alternative transportation and reductions in Vehicle miles traveled.
- **Implementing Policy 5.6-I-19:** Encourage infill and Transit Oriented Development (TOD) concepts as a "vehicle miles traveled" reduction strategy for existing and proposed development.
- **Guiding Policy 5.7-G-1:** Encourage bicycling and walking as alternatives to driving, consistent with Complete Streets concept.
- **Implementing Policy 5.7-I-1:** Establish a network of on- and off-street bicycle routes to encourage their use for commute, recreational, and other trips. Improve and expand bicycle routes for commuters in San Ramon. The design of bike routes shall consider the safety of cyclists.
- **Implementing Policy 5.7-I-2:** Develop bicycle routes that provide access to regional employment centers, shopping centers, public facilities, transit centers, schools and parks.
- **Implementing Policy 5.7-I-3:** Continue to emphasize the Iron Horse Trail as a major north-south route for non-motorized transportation by improving connectivity and enhancing amenities.
- **Implementing Policy 5.7-I-4:** Encourage future development along the trail corridor to provide connection points and amenities as appropriate.
- **Implementing Policy 5.7-I-5:** Require bicycle parking, storage and other support facilities as part of any new office and retail developments and public facilities.
- **Implementing Policy 5.7-I-6:** Continue to promote and implement through the development review process, continuous circulation facilities within Bishop Ranch Business Park, commercial districts, and residential neighborhoods to enhance connectivity and promote pedestrian and bicycle modes of transportation consistent with Complete Streets concepts.

- **Implementing Policy 5.7-I-7:** Continue to implement accessibility standards for physically disabled persons within the public rights-of-way
- **Implementing Policy 5.7-I-8:** Adopt a local or regional Bicycle Master Plan that considers sources of statewide funding for bicycle programming.
- **Implementing Policy 5.7-I-9:** Implement the San Ramon Valley Iron Horse Trail Corridor Concept Plan by refining the design alternatives and pursue funding through grants, public/private partnerships and other funding sources as appropriate.
- **Implementing Policy 5.7-I-10:** Require roadway improvement projects to minimize both temporary and permanent reductions in bicycle and pedestrian mobility and/or accessibility.
- **Implementing Policy 5.7-I-11:** Work with neighboring jurisdictions to ensure that continuity in bicycle and pedestrian networks is provided at jurisdictional boundaries.
- **Implementing Policy 5.7-I-12:** Work with the California Department of Transportation (Caltrans) and other appropriate agencies to improve bicycle and pedestrian mobility and safety at freeway crossings.
- **Implementing Policy 5.7-I-13:** Promote educational efforts about traffic laws and safe practices to avoid conflicts between motorists, bicyclists, and pedestrians.

General Plan Roadway Improvements

The General Plan's Traffic and Circulation Element identifies a list of planned improvements within the City. Roadway improvements identified in the General Plan with their current status are listed below.

Arterial Roadway Improvements

Crow Canyon Road

- Widen to six lanes from Alcosta Boulevard to Danville Town limits. No construction currently scheduled.
- Preserve right-of-way for widening to four lanes from Bollinger Canyon Road to Alameda County line—preserved.

Dougherty Road

- Support construction to six lanes from North Gale Road to Alameda County line—under construction [Project Complete].

Bollinger Canyon Road

- Widen to eight lanes from I-680 to Alcosta Boulevard—under construction.
- Construct to six lanes from Canyon Lakes Drive to Dougherty Road (North)—scheduled for 2009–2014 [Project Complete].

Camino Tassajara

- Support widening to four lanes from Danville Town limits to Windemere Parkway—no construction currently scheduled.

- Support widening to six lanes from Windemere Parkway to Alameda County line—no construction currently scheduled.

Alcosta Boulevard

- Extend Alcosta Boulevard north from Crow Canyon Road to Fostoria Parkway as a four-lane street—no construction currently scheduled.
- Widen and construct Fostoria Parkway as a four-lane roadway from Camino Ramon east to Alcosta Boulevard extension. (These streets are partially within the Danville Town limits, and these projects would require the support and participation of the Town of Danville)—no construction currently scheduled.

Collector and Local Roadway Improvements

Twin Creeks Drive

- Extend and construct as a four-lane street from Crow Canyon Road to Old Crow Canyon Road—scheduled for 2009–2014.

Bicycle Network Improvements

Within the City limits, the General Plan identifies the following bicycle network improvements:

- Class II bike lane on Bollinger Canyon Road (north of Deerwood Drive)
- Class I bike path on Cross Valley Trail (between Tareyton Avenue and Alcosta Boulevard)
- Designation of Class III bike route on Deerwood Drive between San Ramon Valley Boulevard and Bollinger Canyon Road
- Class II bike lane on Dougherty Road extension
- Class III bike route on Fostoria Parkway from Crow Canyon Place to Iron Horse Trail

3.12.4 - Methodology

Analysis in this section was based on the traffic analysis prepared by Kimley-Horn and Associates, Inc. Four analysis scenarios are included in the traffic operations analysis. These scenarios are as follows:

- **Existing Conditions:** This scenario reflects traffic counts that were collected during 2008 and 2009.
- **Existing Plus Project**: This scenario adds project vehicular trips generated by the land uses proposed in the Specific Plan to existing traffic conditions.
- **Year 2030 Cumulative Conditions – No Project**: This scenario represents Year 2030 traffic conditions modeled by the Contra Costa Transportation Authority (CCTA) travel forecasting model.

- **Year 2030 Cumulative Conditions Plus Project**: This scenario adds trips generated by the land uses proposed in the Specific Plan to Year 2030 traffic conditions.

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 land uses of the Specific Plan. 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. These rates are developed through many studies conducted throughout the country and, therefore, the rates represent a national average for similar land use types. Trip generation rates can vary depending on where the studies were conducted, and ITE provides a range of rates.

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 hours of 7:00 and 9:00 a.m. and between 4:00 and 6:00 p.m. While the project itself may generate more traffic during other times of the day, 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. For this reason, this analysis is focused on the weekday AM and PM peak hours. This methodology is in harmony with typical City of San Ramon and CCTA practices in the preparation of other traffic impact studies.

Because development in the Specific Plan area comprise the redevelopment and intensification of existing land uses, estimates of the "net new external" vehicle trips generated by the proposed project equal the total trip generation within the Specific Plan area with buildout of the proposed land use plan minus the trip generation of existing uses. The trip generation estimates for the proposed project include adjustments to account for internal capture, transit use, and applicable TDM programs within the Specific Plan area. For the purposes of applying these trip generation adjustments appropriately, the Specific Plan area was partitioned into block groups, or groupings of development subareas. Exhibit 3.12-6 shows the project development subareas and block groups.

Internal Capture

With multi-use development, there is the potential for interaction among uses within the site. These types of trips are considered internal to the site and are "captured" within the site. Trip estimates for the proposed project 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 development or adjacent development contains a mix of complementary land use types. The trips are expected to remain internal to the project site or sub-district and frequently do not require the use of an automobile. Internal capture reductions for each use within the development block groups shown in Exhibit 3.12-6 were calculated separately, based on ITE methodology.

Project Transit Trip Reduction

Developments constructed within viable walking distance (generally within 0.33 to 0.50 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 mode share that can be anticipated within the Specific Plan area, the following trip reductions were taken to the existing and proposed land uses within the Specific Plan area:

- Residential: 2 percent
- Office: 2 percent
- Retail: no reduction applied

There is generally a lower propensity to utilize transit for retail trips compared with office or residential uses. For this reason, no transit reduction is applied to the trip generation for retail uses. The 2-percent transit reduction applied to office and residential trips is consistent, if not conservative, when compared with mode split data reported for San Ramon in the 2009 511 Southern Contra Costa County Transportation Survey.

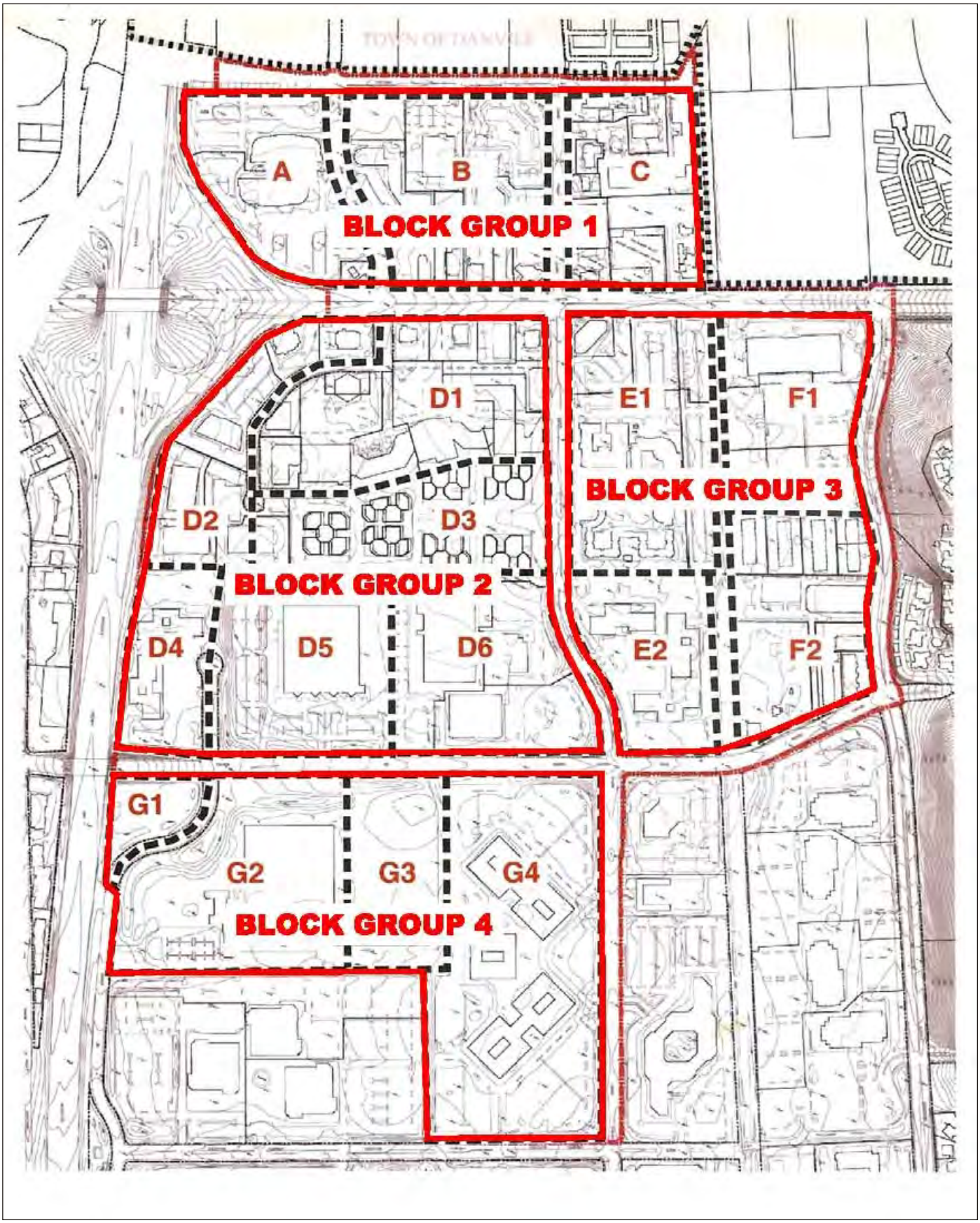
Project Trip Pass-By

Pass-by trips represent trips already on the road that stop as they pass by the 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 found in ITE's Trip Generation Handbook. A reduction was applied to the trip generation for retail uses within the Specific Plan area to account for pass-by trips.

TDM Reduction

TDM refers to strategies to reduce single-occupant automobile traffic for the purposes of reducing traffic congestion, improving air quality, and delaying/reducing the need to construct costly transportation infrastructure improvements. TDM measures include carpooling, vanpooling, transit, walking, bicycles, and telecommuting, among others. The City of San Ramon provides administrative oversight and implements the 511 Southern Contra Costa County regional TDM programs. The Bishop Ranch Transportation Association has been an active member in the City's TDM program and has been recognized at the local, regional, and state level for its contribution to reduce the number of trips by single-occupant vehicles and encourage commuters to carpool, vanpool, ride transit, walk, and bicycle to work.

TDM reductions of 8 percent for general office uses and 4 percent for medical/dental office uses have been applied to the existing trip generation for block groups within Bishop Ranch, which historically reports successful results from its TDM programs and policies.



Source: Kimley-Horn and Associates, Inc., 2012.

Michael Brandman Associates

Exhibit 3.12-6
Project Development Subareas

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CITY OF SAN RAMON • NORTH CAMINO RAMON SPECIFIC PLAN
ENVIRONMENTAL IMPACT REPORT

Because the Specific Plan includes recommendations supporting the formation of a representative transportation management association (TMA) for the Specific Plan area, the TDM reductions for general office and medical/dental office uses were applied to the proposed project trip generation for all block groups within the Specific Plan area. The reductions applied to the project trip generation estimates are consistent with the guidance presented in the CCTA Technical Procedures Update (July 2006), and conform to the 10-percent maximum allowed reduction for transit and TDM measures.

The net new external trip generation was calculated by subtracting the adjusted trip generation (after applied reductions) for the existing land uses within the Specific Plan area from the adjusted trip generation estimate for the proposed project land use program. The trip generation estimates are calculated for each individual block group (see Exhibit 3.12-6) and then added together to estimate the total project's trips. Table 3.12-7 summarizes the ITE trip generation for the proposed buildout of the Specific Plan land uses. A detailed trip generation summary is included in Appendix E.

Table 3.12-7: Net New Trips Over Existing Conditions with Development of Plan

Land Use	Daily	AM Peak			PM Peak		
		In	Out	Total	In	Out	Total
Block Group 1 (Subarea A, B, C)	(155)	(88)	(8)	(96)	8	(62)	(54)
Block Group 2 (Subarea D1, D2, D3)	29,030	519	343	862	1,192	1,320	2,512
Block Group 3 (Subarea E1, E2, F1, F2)	3,719	17	269	286	264	26	290
Block Group 4 (Subarea G1, G2, G3, G4)	16,656	496	307	803	634	775	1,409
Total	**49,250**	**944**	**911**	**1,855**	**2,098**	**2,058**	**4,156**

Notes:
Trip generation estimates calculated using rates from ITE Trip Generation, 8th Edition
The following ITE land use categories were assumed for all development scenarios:
Residential – ITE 230, Residential Condominium/Townhouse
Retail – ITE 820, Shopping Center
General Office – ITE 710, General Office Building
Professional/Medical Office – ITE 720, Medical-Dental Office Building
Reductions for mixed-use internalization and pass-by reductions for retail calculated using methodology presented in ITE Trip Generation Handbook, 2nd Edition. ITE does not provide daily pass-by rates; therefore, a daily pass-by rate of 15 percent was assumed, in accordance with Caltrans TIA Standards, 2002.
Bus Transit reduction applied - 2% for Residential and Office uses to reflect proximity to the existing transit center and bus service in the Specific Plan area. This reduction is consistent with the methodology used in the San Ramon City Center EIR.
A TDM reduction of 8% for General Office traffic and 4% for Medical-Dental Office traffic has been applied. For this analysis, a lower reduction, 4%, has been used for Medical-Dental Office traffic, as there is likely to be a higher proportion of non-employee trips, where TDM measures such are carpool, rideshare, etc. are typically less utilized
Source: Kimley-Horn and Associates, 2012.

Project Trip Distribution

The Specific Plan trip distribution was based on distributions prepared in previous traffic reports, existing traffic count information, discussions with City staff and the general orientation of population sources to the site. Table 3.12-8 shows the traffic distribution assumed for the traffic analysis.

Table 3.12-8: Trip Distribution

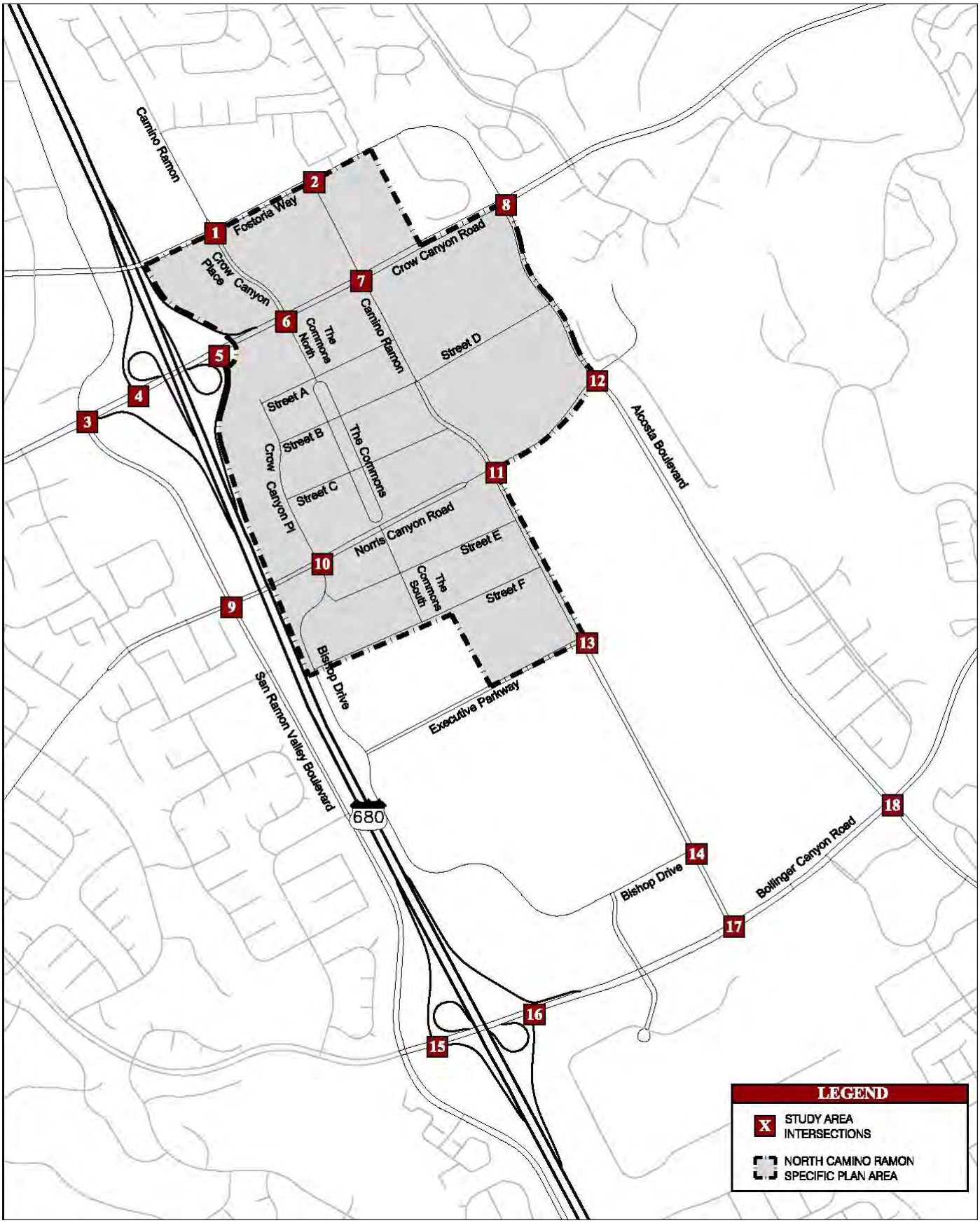
Description	Percent Distribution
I-680 North	25%
I-680 South	35%
Crow Canyon Road East	8%
Crow Canyon Road West	8%
Fostoria Way	2%
San Ramon Valley Boulevard North	3%
San Ramon Valley Boulevard South	3%
Bollinger Canyon Road East	6%
Bollinger Canyon Road West	3%
Alcosta Road South	5%
Norris Canyon Road West	2%
Total	**100%**
Source: Kimley-Horn and Associates, 2012.	

Project Roadway Improvements

Specific Plan Roadway Improvements

The North Camino Ramon Specific Plan identifies a list of planned roadway improvements within the Specific Plan area as shown on Exhibit 3.12-7. Roadway improvements included in the Specific Plan are listed below:

- A new Alcosta Boulevard roadway extension north of Crow Canyon Road connecting to Fostoria Way (this is a planned improvement and not exclusive to the proposed project).
- A new north-south street forming the new spine of the internal circulation network, with a wide center landscaped median. The northernmost segment of the new street is called “The Commons North,” the central core segment is called “The Commons” and the southernmost segment of this street is called “The Commons South.”
- The extension of Crow Canyon Place, which connects to “A” Street, to Norris Canyon Road, forming the top of the new grid.
- Three new east-west streets that connect Crow Canyon Place and Camino Ramon north of Norris Canyon Road (Streets A, B, C).
- Two new east-west streets that connect Crow Canyon Place and Camino Ramon south of Norris Canyon Road (Streets E, F).
- A new east-west street connecting Camino Ramon and Alcosta Boulevard (Street D).



Source: Kimley-Horn and Associates, Inc., 2012.

Michael Brandman Associates

Exhibit 3.12-7
Proposed Roadway Network

Access and Traffic Control for New Roadway Connections

There are several new streets in the proposed roadway network that will intersect with each other and with key existing streets. The following new intersections are created with buildout of the proposed roadway network:

New Intersections with Existing Streets

- Camino Ramon/Street A
- Camino Ramon/Street B/Street D
- Camino Ramon/Street C
- Camino Ramon/Street E
- Camino Ramon/Street F
- Alcosta Boulevard/Street D
- Norris Canyon Road/The Commons

New Intersections with Proposed Streets

- The Commons North/Street A
- The Commons/Street B/Street D
- The Commons/Street C
- The Commons South/Street E
- The Commons South/Street F
- Crow Canyon Place/Street A
- Crow Canyon Place/Street B
- Crow Canyon Place/Street C

It is anticipated that the intersection of The Commons and Norris Canyon Road would be signalized because of the expected traffic volume levels, significant bus activity accessing the relocated transit center, and anticipated pedestrian activity crossing Norris Canyon Road. The anticipated lane configuration at this intersection includes a left-turn lane, two through lanes and a right-turn lane for the eastbound and westbound Norris Canyon Road approaches. The northbound and southbound intersection approaches for The Commons will feature an exclusive left-turn lane, through lane, and a right-turn lane. The design elements of this intersection—including curb returns, lane widths, pedestrian crossing timings, bicycle detection, and signal timings—will need to be designed in order to accommodate the significant pedestrian, bicycle, and transit activity anticipated at this location, particularly since buses would use this intersection to access the relocated transit center.

It is anticipated that the intersection of Camino Ramon and Street B/Street D would be signalized because of the expected traffic volumes at this location. The anticipated lane configuration at this intersection is consistent with the street cross-section shown in Appendix E. The northbound and southbound travel lanes on Camino Ramon are divided by a raised center median.

The northbound and southbound intersection approaches will include an exclusive left-turn lane, a through lane, and a shared through/right-turn lane. The eastbound and westbound side street approaches will include an exclusive left-turn lane and a shared through/right-turn lane.

It is anticipated that the new minor street intersections along Camino Ramon, Alcosta Boulevard, Crow Canyon Place, and The Commons will be side-street stop-controlled. In order to avoid conflicts with existing driveways, where possible, the proposed street connections should attempt to align with existing driveway curb cuts and median breaks and existing access control shall be retained. However, as individual development projects are submitted to the City for review and as traffic conditions are regularly assessed through the City's annual monitoring program, intersection access and traffic control can be reevaluated to assess the need for signalization and to evaluate the potential to limit access to right-in/right-out or to expand to full access if needed. Where full access is allowed, exclusive left-turn lanes should be provided. As buildout of the Specific Plan area occurs and traffic is redistributed throughout the proposed roadway system, the specific intersection access and traffic control needs for each existing and newly formed intersection will be considered. It should be noted that the proposed street design of The Commons and the new east-west connecting streets (Streets A, B, C, D, E, and F) feature elements such as on-street parking, 11-foot travel lanes, and enhanced pedestrian crossings that will provide traffic calming influences that will reduce the attractiveness of these streets for cut-through traffic currently using other local roadways traveling through the area.

3.12.5 - Thresholds of Significance

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, transportation impacts resulting from the implementation of the proposed project would be considered significant if the project would:

a) 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?

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.

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? (Refer to Section 7.0, Effects Found Not To Be Significant.)

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

e) Result in inadequate emergency access?

f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance of safety of such facilities?

In the context of checklist item a), the following quantitative threshold will be used, which reflects the policies of General Plan 2030:

Would the project:

- Cause a study intersection to exceed the current General Plan's standard of LOS C, with LOS D (volume to capacity ratio less than or equal to 0.90) for no more than two hours of the day (AM and PM peak hours). This criteria is consistent with, and slightly more stringent than, the CCTA MTSO for intersections on Routes of Regional Significance?

In the context of checklist item f), the following criteria will be used:

- Fail to provide for reasonably efficient pedestrian and bicycle circulation, through implementation of City standards and the current General Plan's proposed bicycle and trail network or General Plan policies related to pedestrian and bicycle circulation.
- Create a condition, either by design or by the generation of traffic, that provides a barrier to, or unsafe condition for, pedestrian and bicycle circulation.
- Create a transit demand that would exceed currently planned transit service.

For the freeway mainline segments, the Tri-Valley Transportation Plan/Action Plan has identified I-680 as a Route of Regional Significance, and has developed specific Traffic Service Objectives, including:

- Maintain a minimum average speed of 30 mph
- Maintain a delay index of 2.0

Therefore, the standard of significance for the I-680 freeway mainline is LOS E.

3.12.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the Specific Plan and provides mitigation measures where appropriate.

Existing Plus Project Conditions

Impact TRANS-1:	**Development and land use activities contemplated by the Specific Plan would increase traffic volumes and cause transportation facilities to degrade below acceptable standard levels under existing plus project conditions.**

Impact Analysis

This impact identifies potential ramifications to intersection operations and freeway segments under the Existing Plus Project Conditions. The Existing Plus Project Conditions are an artificial scenario that identifies specific impacts of the proposed plan for comparative purposes. The peak-hour traffic volumes for this scenario were developed by adding the net new trips generated by the land use plan to the existing traffic volumes using the project trip distribution.

Intersection Operations

Each study area intersection was analyzed using the existing intersection geometry and traffic control illustrated in Exhibit 3.12-2a and Exhibit 3.12-2b with the exception of the Bishop Drive/Norris Canyon Road intersection, where the northbound and southbound approach lane configuration is assumed to be modified with implementation of the proposed extension of Crow Canyon Place (Annabel Drive) to Norris Canyon Road. For project conditions, it is assumed that the southbound approach will be modified to include one left-turn, one through, and one right-turn lane. It is assumed that the northbound approach will be restriped to include one left-turn lane and one shared through/right lane with protected left-turn phasing for the northbound/southbound approaches.

Using the trip generation from Table 3.12-7 and the trip distribution percentages from Table 3.12-8 the project trips were calculated and added to the existing traffic volumes to develop the existing plus project traffic volumes. The assigned project trips (project only volumes) are shown in Exhibit 3.12-8a and Exhibit 12.-8b. Exhibit 3.12-9a and Exhibit 3.12-9b illustrate the existing plus project peak-hour volumes. Results of the capacity analysis are compared with the existing conditions as shown in Table 3.12-9.

Table 3.12-9: Existing Plus Project Conditions – Intersection Levels of Service

No.	Intersection	Traffic Control	Existing Condition				Existing Plus Project Condition			
			AM Peak		PM Peak		AM Peak		PM Peak	
			V/C Ratio or Control Delay	LOS	V/C Ratio or Control Delay	LOS	V/C Ratio or Control Delay	LOS	V/C Ratio or Control Delay	LOS
1	Fostoria Way/Camino Ramon/Crow Canyon Place	Signal	0.31	A	0.47	A	0.32	A	0.49	A
2	Fostoria Way/Camino Ramon/Costco Driveway	AWSC	10.1	B	18.6	C	10.3	B	21.0	C
3	Crow Canyon Road/ San Ramon Valley Boulevard	Signal	0.55	A	0.71	C	0.59	A	0.88	D
4	Crow Canyon Road/ I-680 Southbound Ramps	Signal	0.44	A	0.59	A	0.52	A	0.67	B
5	Crow Canyon Road/ I-680 Northbound Ramps	Signal	0.60	B	0.73	C	0.69	B	**0.94**	**E**
6	Crow Canyon Road/ Crow Canyon Place	Signal	0.63	B	0.78	C	0.72	C	**0.92**	**E**
7	Crow Canyon Road/ Camino Ramon	Signal	0.52	A	0.59	A	0.73	C	0.79	C
8	Crow Canyon Road/ Alcosta Boulevard	Signal	0.55	A	0.62	B	0.57	A	0.66	B
9	Norris Canyon Road/ San Ramon Valley Boulevard	Signal	0.54	A	0.43	A	0.60	A	0.61	B
10	Norris Canyon Road/Bishop Drive	Signal	0.34	A	0.55	A	0.41	A	0.74	C
11	Norris Canyon Road/Camino Ramon	Signal	0.45	A	0.53	A	0.58	A	0.79	C
12	Norris Canyon Road/ Alcosta Boulevard	Signal	0.37	A	0.40	A	0.40	A	0.48	A
13	Executive Parkway/ Camino Ramon	Signal	0.37	A	0.36	A	0.41	A	0.43	A
14	Bishop Drive/Camino Ramon	Signal	0.26	A	0.45	A	0.32	A	0.54	A
15	Bollinger Canyon Road/I-680 Southbound Ramps	Signal	0.63	B	0.63	B	0.63	B	0.64	B
16	Bollinger Canyon Road/I-680 Northbound Ramps	Signal	0.85	D	0.77	C	**0.91**	**E**	**0.90**	**E**

Table 3.12-9 (cont.): Existing Plus Project Conditions – Intersection Levels of Service

No.	Intersection	Traffic Control	Existing Condition				Existing Plus Project Condition			
			AM Peak		PM Peak		AM Peak		PM Peak	
			V/C Ratio or Control Delay	LOS	V/C Ratio or Control Delay	LOS	V/C Ratio or Control Delay	LOS	V/C Ratio or Control Delay	LOS
17	Bollinger Canyon Road/Camino Ramon	Signal	0.54	A	0.81	D	0.58	A	0.84	D
18	Bollinger Canyon Road/Alcosta Boulevard	Signal	0.66	B	0.68	B	0.68	B	0.74	C

Notes:
AWSC – All-Way Stop Controlled
LOS analysis performed using TRAFFIX software.
Source: Kimley-Horn and Associates, 2012.

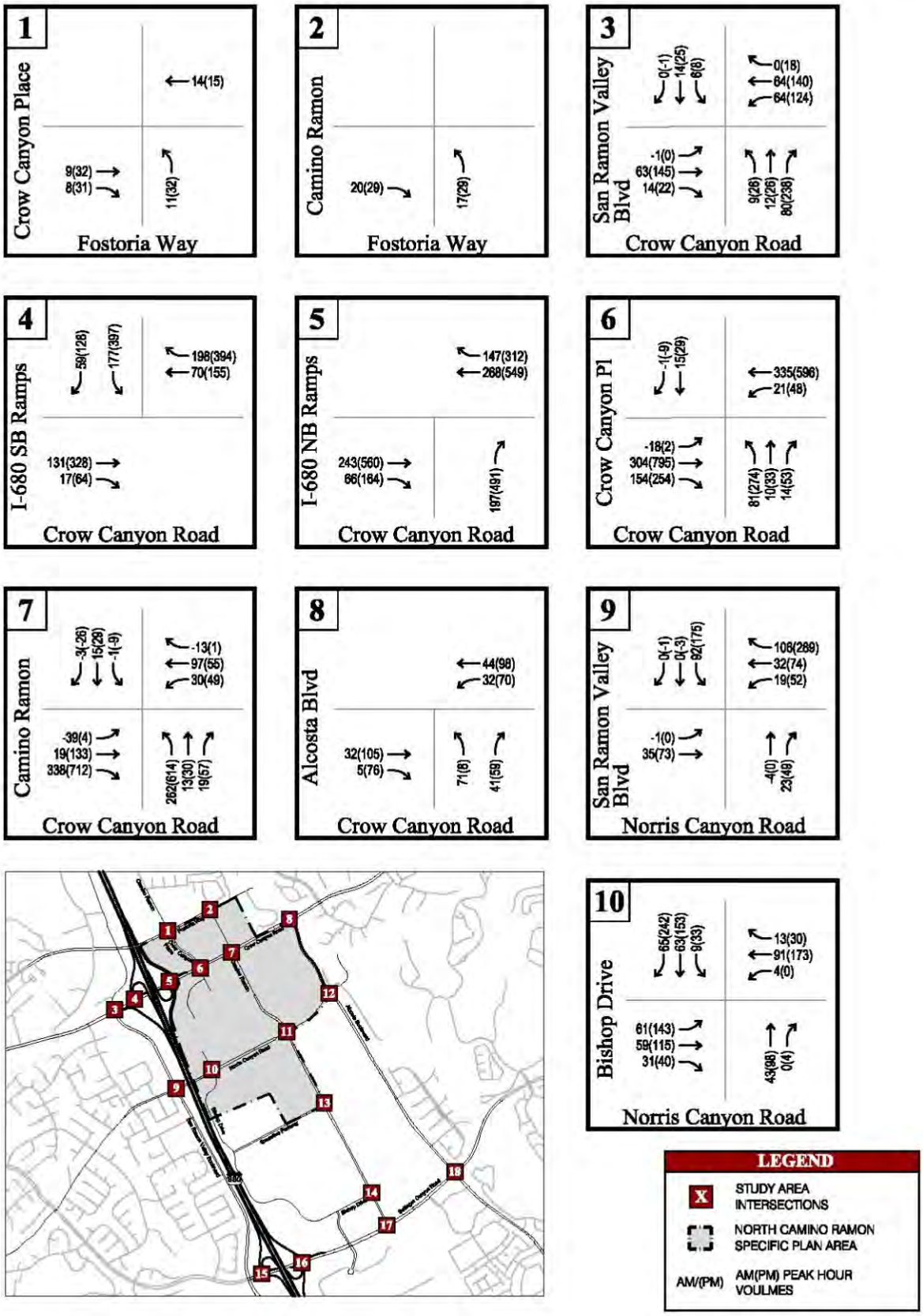
As shown in Table 3.12-9, the study intersections in the Existing Plus Project scenario would continue to operate at acceptable levels of service, except for the following intersections:

- Crow Canyon Road and I-680 Northbound Ramps (PM peak)
- Crow Canyon Road and Crow Canyon Place (PM Peak)
- Bollinger Canyon Road and I-680 Northbound Ramps (AM Peak and PM Peak)

These three intersections currently operate at acceptable LOS under existing conditions. By adding the trips generated by the Specific Plan to these intersections, they would operate at unacceptable levels.

Crow Canyon Road and I-680 Northbound Ramps (PM peak)

The Crow Canyon Road and I-680 Northbound Ramp intersection currently operates at LOS C during the PM peak hour, and is projected to operate at LOS E with the addition of the project-generated trips under the Existing Plus Project scenario. The City of San Ramon's General Plan 2030 includes policies to implement capital improvement projects, including widening the northbound ramp to provide two left-turn and two right-turn lanes. This improvement would result in a v/c ratio of 0.89/LOS D for the PM peak hour, which would meet the City's LOS standard. Implementation of the planned CIP project at this intersection would mitigate the Existing Plus Project impact, making this impact less than significant with mitigation. The planned CIP improvement consists of adding a northbound traffic lane and restriping the northbound approach for two left-turn and two right-turn lanes. This improvement is reflected in Mitigation Measure TRANS-1a.



Source: Kimley-Horn and Associates, Inc., 2012.

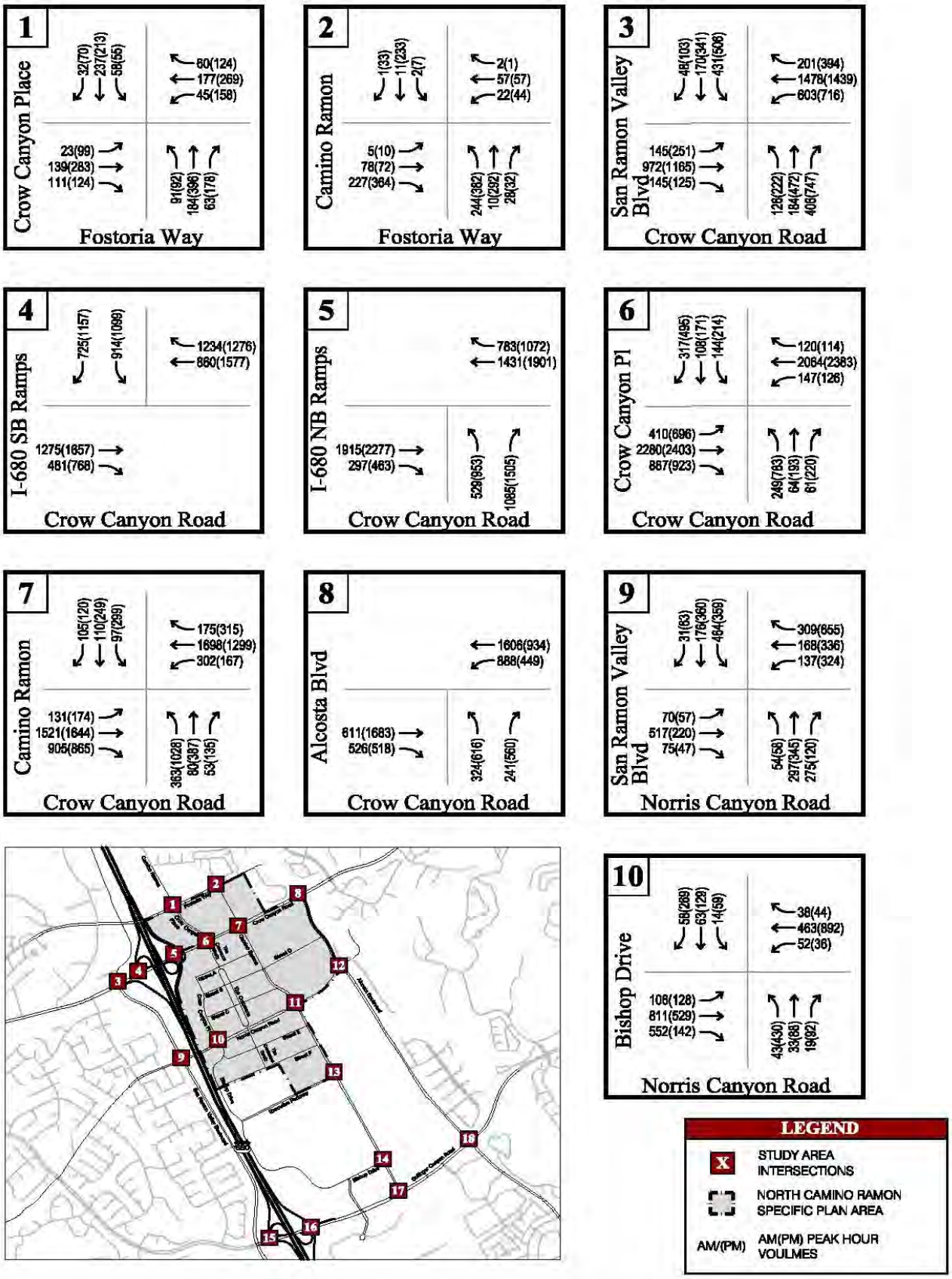
Michael Brandman Associates

Exhibit 3.12-8a
Project Only
Peak-Hour Turning Movement Volumes

Source: Kimley-Horn and Associates, Inc., 2012.

Michael Brandman Associates

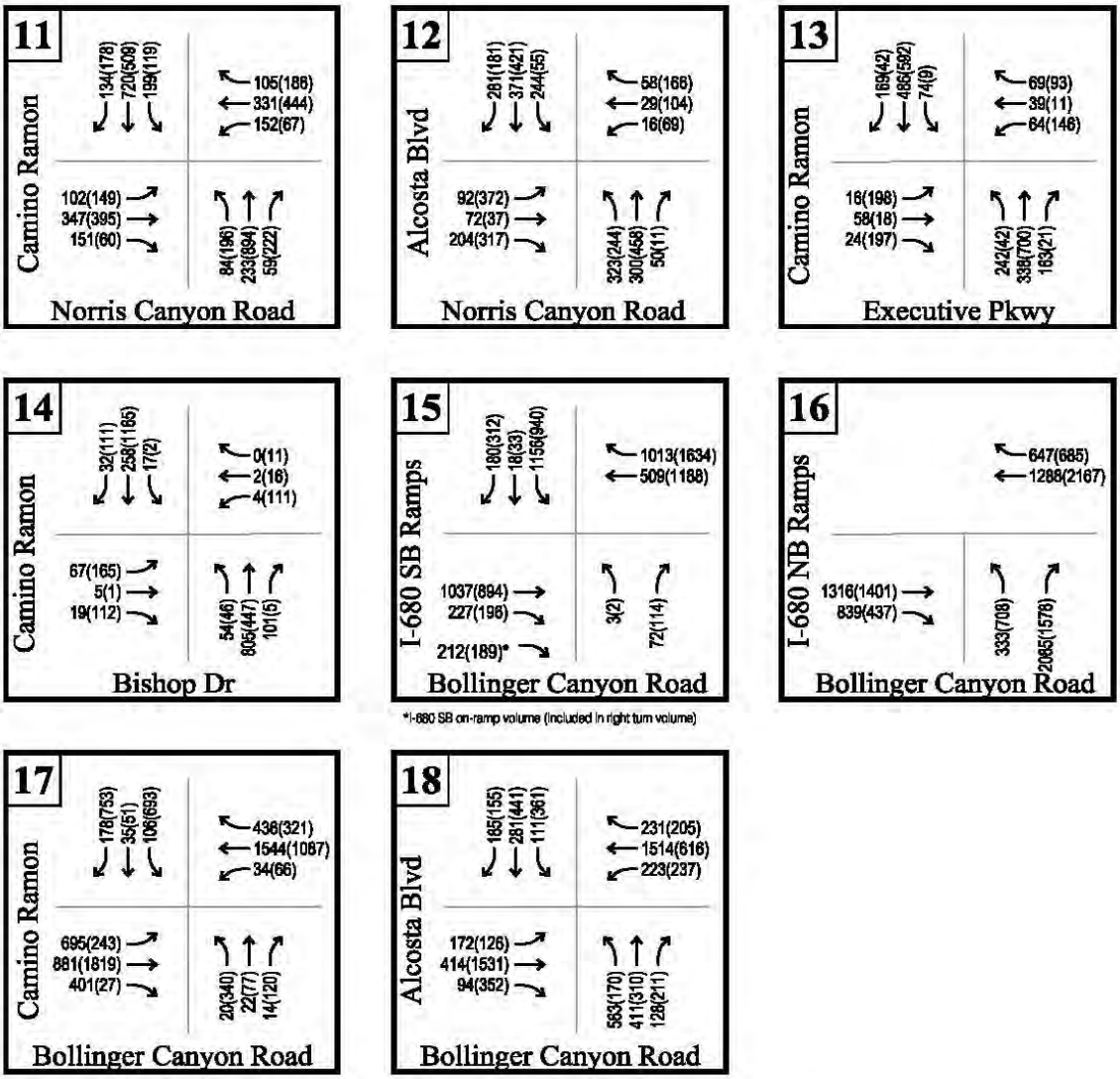
Exhibit 3.12-8b
Project Only
Peak-Hour Turning Movement Volumes



Source: Kimley-Horn and Associates, Inc., 2012.

Michael Brandman Associates

Exhibit 3.12-9a
Existing Plus Project Conditions
Peak-Hour Turning Movement Volumes



Source: Kimley-Horn and Associates, Inc., 2012.

Michael Brandman Associates

Exhibit 3.12-9b
Existing Plus Project Conditions
Peak-Hour Turning Movement Volumes

Because traffic generated through gradual buildout of the Specific Plan area and from other cumulative development will progressively impact the intersection, the City should continue to monitor this intersection through its annual monitoring program to identify when traffic from new development causes the intersection to near the LOS E threshold. When the annual monitoring results indicate that this intersection is nearing the threshold of unacceptable operations, the City can work to prioritize the planned improvement project at this location. As individual development projects occur within the Specific Plan area, these projects would be required to pay into the local and regional traffic impact fee programs that are used to fund CIP improvements.

Crow Canyon Road and Crow Canyon Place (PM Peak)

The Crow Canyon Road and Crow Canyon Place intersection currently operates at LOS C during the PM peak hour, and is projected to operate at LOS E with the addition of the project-generated trips under the Existing Plus Project scenario. The intersection currently operates with split phasing for the northbound and southbound approaches, due to the proximity of the shopping center signal to the south. With redevelopment of the Specific Plan area and implementation of the Annabel Drive/Crow Canyon Place roadway connection between Crow Canyon Road and Norris Canyon Road, it is logical to assume that there will be opportunity to modify or remove the shopping center signal. As part of this improvement, the City can modify the signal operations at the Crow Canyon Place/Crow Canyon Road intersection to provide protected phasing for the northbound and southbound approaches, which would improve operating conditions to an acceptable v/c ratio of 0.89/LOS D in the PM peak hour for Existing Plus Project conditions. This improvement is reflected in Mitigation Measure TRANS-1b.

Bollinger Canyon Road and I-680 Northbound (AM Peak)

This intersection currently operates at LOS D during the AM peak hour and LOS C during the PM peak hour, and is projected to operate at LOS E during the AM and PM peak hours with the addition of the project-generated trips under the Existing Plus Project scenario. The addition of a third northbound left-turn lane is a funded and programmed improvement project to be constructed subject to Caltrans approval. Implementation of this improvement would result in a v/c ratio of 0.72/LOS C during the AM peak hour and 0.80/LOS D during the PM peak hour. The planned improvement would improve the intersection to acceptable levels and, therefore, would reduce the project impact to less than significant. This improvement is reflected in Mitigation Measure TRANS-1c.

Freeway Segments

The Existing Plus Project freeway volumes were determined by assigning the net new trips generated by the project to the mainline freeway segments based on the project distribution. Existing Plus Project mainline freeway volumes are shown in Table 3.12-10. Detailed freeway volume calculation sheets are included in Appendix E.

Table 3.12-10: Existing Plus Project Conditions – Peak-Hour Freeway Volumes

Interstate 680		Total Lanes	HOV Lanes	Peak Hour	Existing		Existing Plus Project	
Direction	Segment				Total Volume	HOV Percentage	Total Volume	HOV Percentage
North of Crow Canyon Road Interchange	Northbound	4	1	AM	5,657	17	5,884	17
				PM	6,852	17	7,362	17
	Southbound	4	1	AM	6,967	14	7,203	14
				PM	6,412	12	6,937	12
North of Bollinger Canyon Road Interchange	Northbound	5	1	AM	5,374	17	5,585	17
				PM	6,510	17	7,035	17
	Southbound	5	1	AM	6,619	14	6,834	14
				PM	6,019	12	6,549	12
South of Bollinger Canyon Road Interchange	Northbound	4	1	AM	5,551	17	5,861	17
				PM	6,724	17	7,427	17
	Southbound	4	1	AM	6,837	14	7,145	14
				PM	6,292	12	6,966	12

Notes:
Peak-hour volumes from Caltrans 2009 AADT Report
AM and PM peak-hour volumes derived using K and D Factors from Caltrans Peak Hour Volume Report
HOV percentage of total volume based on data from Caltrans District 4 Year 2009 HOV Lane Report
For freeway segment between Bollinger Canyon Road and Crow Canyon Road, auxiliary lane is more than 2,500 feet. Weaving does not apply to lane segments greater than 2,500 feet in length; therefore, the auxiliary lane is considered a basic freeway segment.
Source: Kimley-Horn and Associates, Inc., 2012.

Summary

Overall, traffic patterns are not anticipated to change significantly compared to the existing scenario as the only roadway modifications include the new roadways proposed as part of the Specific Plan while the primary roadway network remains the same. Implementation of Mitigation Measures TRANS-1a through TRANS-1c would ensure that traffic resulting from Specific Plan buildout would not cause intersection or freeway LOS to degrade beyond acceptable levels. Impacts would be less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM TRANS-1a Following adoption of the Specific Plan, the City of San Ramon shall monitor the intersection of Crow Canyon Road/I-680 Northbound Ramps. When traffic monitoring determines that intersection operations are approaching unacceptable levels, the City shall install the improvements contemplated by the City's Capital Improvement Program. Those improvements consist of adding a northbound traffic

lane and restriping the northbound approach for two left-turn lanes and two right-turn lanes.

MM TRANS-1b Following adoption of the Specific Plan, the City of San Ramon shall monitor the intersection of Crow Canyon Road/Crow Canyon Place. When traffic monitoring determines that intersection operations is approaching unacceptable levels, the City shall modify the signal operation to convert the north and south approaches from split to protected phasing.

MM TRANS-1c Following adoption of the Specific Plan, the City of San Ramon shall monitor the intersection of Bollinger Canyon Road/I-680 Northbound Ramps. When traffic monitoring determines that intersection operations are approaching unacceptable levels, the City shall install the improvements contemplated by the City's Capital Improvement Program. Those improvements consist of adding a third northbound right-turn lane.

Level of Significance After Mitigation

Less than significant impact.

Year 2030 Cumulative Plus Project Conditions

Impact TRANS-2:	**Development and land use activities contemplated by the Specific Plan would not increase traffic volumes and cause transportation facilities to degrade below acceptable standard levels under cumulative plus project conditions.**

Impact Analysis

Cumulative Without Project Scenario

This scenario evaluates the impacts on traffic and circulation that would occur in 2030 with and without the development of the project. The Cumulative No Project scenario will develop baseline traffic projections to establish background conditions for the evaluation of the project in the future and form the basis for determining and comparing cumulative impacts. Additional development projects are expected to be completed by 2030 and will contribute to a long-term increase in background traffic, regardless of the proposed land uses in the North Camino Ramon Specific Plan. These projects include growth in land uses located within the City's urban growth limit such as residential, industrial, business park, and commercial, as well as growth outside of the City. This step in the analysis makes it possible to identify long-term traffic impacts, regardless of the proposed project.

Cumulative traffic volumes were established in the 2030 General Plan EIR and are based on the future land projections, which include:

- Land Use Amendments: to include parcel designation changes to the North Camino Ramon Specific Plan area and El Nido property; land use changes for the City Center project; and the

elimination of manufacturing, warehouse, and commercial service land use designations from the North Camino Specific Plan area.

The process for developing the 2030 General Plan forecasts included updating the land use database used in the CCTA regional travel demand forecasting model to reflect current and proposed housing, population and employment forecasts, and sphere of influence boundary changes. The CCTA regional model is based on the Association of Bay Area Government's (ABAG) "Projections 2005" land use projections to the year 2030. City of San Ramon Traffic Analysis Zones (TAZs) were reviewed and modified to match the City's forecasts and current approved development projects (e.g., City Center). The 2030 General Plan model forecasts were developed on the basis that some level of future development would occur within the Specific Plan area; however, detailed land use plans had not been developed at that time. Land use forecasts in TAZs outside of the City of San Ramon remain based on ABAG's Projections 2005. The CCTA regional model's transportation network was revised to reflect existing recent transportation improvements and proposed transportation improvements identified in the General Plan Update to the extent the improvements can be represented in the model. The current General Plan transportation improvements are listed below; the CCTA model's 2030 transportation network was reviewed, and modified when necessary, to ensure that these improvements were properly reflected. Further, the network was reviewed to ensure it included regional transportation improvements that affect travel characteristics in San Ramon such as the Norris Canyon High Occupancy Vehicle Ramps.

The traffic forecasting process develops year 2030 intersection turning movement volume and freeway mainline volume projections using the forecasted growth in traffic between the year 2000 (base year model) and 2030 year model. The absolute growth from the model forecasts (2000 to 2030) is converted to annual growth. This annual growth is then added to existing intersection traffic counts and existing freeway mainline volumes for the appropriate number of years between counts and the year 2030.

General Plan Roadway Improvements

The General Plan's Traffic and Circulation Element identifies a list of planned improvements within the City. Roadway improvements identified in the current General Plan with their current status are listed below:

Arterial Roadway Improvements

Crow Canyon Road

- Widen to six lanes from Alcosta Boulevard to Danville Town limits—construction schedule to be determined.
- Preserve right-of-way for widening to four lanes from Bollinger Canyon Road to Alameda County line—preserved.

Dougherty Road

- Support construction to six lanes from North Gale Road to Alameda County line—under construction [Project Complete].

Bollinger Canyon Road

- Widen to eight lanes from I-680 to Alcosta Boulevard—under construction; some portions completed.

Camino Tassajara

- Support widening to four lanes from Danville Town limits to Windemere Parkway—construction schedule to be determined.
- Support widening to six lanes from Windemere Parkway to Alameda County line—construction schedule to be determined.

Alcosta Boulevard

- Extend Alcosta Boulevard north from Crow Canyon Road to Fostoria Parkway as a four-lane street—construction schedule to be determined.
- Widen and construct Fostoria Parkway as a four-lane roadway from Camino Ramon east to Alcosta Boulevard extension. (These streets are partially within the Danville Town limits, and these projects would require the support and participation of the Town of Danville.—construction schedule to be determined.

Collector and Local Roadway Improvements

Twin Creeks Drive

- Extend and construct as a four-lane street from Crow Canyon Road to Old Crow Canyon Road—scheduled for 2009–2014.

Cumulative Plus Project Scenario

The Cumulative Plus Project scenario was developed by modifying the 2030 CCTA regional travel demand model to reflect the land use and roadway modifications proposed as part of the North Camino Ramon Specific Plan. The 2030 General Plan traffic forecasts, which were used for the Cumulative No Project scenario in this analysis, included employment and residential growth assumptions for projected development within the Specific Plan area; however, the future land use assumptions used in the 2030 General Plan traffic analysis were preliminary estimates of the development potential for the area. To more accurately project traffic volumes for the purposes of this analysis, the CCTA model was modified as follows:

- The model traffic analysis zones (TAZs) in the Specific Plan area were modified to more accurately match the proposed project land use plan.

- The project land use plan includes projections for office and retail land uses in terms of square footage; however, the CCTA model TAZs include employment information to account for these types of land uses. For this reason, the project office and retail uses were converted to employment information by applying rates that convert square feet of various land uses to types of employment.
- The transportation network was modified to reflect the project proposed roadways improvements within the plan area.

The traffic forecasting process compared the plus project model results with the no project model results and calculated the net difference in peak-hour roadway segment and freeway segment volumes. The net incremental difference was then added or subtracted to the Cumulative No Project volumes at each intersection approach, and distributed to the intersection turning movements based on the Cumulative No Project movements. The resulting turning movement volumes reflect the Cumulative Plus Project peak-hour traffic volumes. A similar process was used to add the net incremental difference between the no project and plus project model results for the study freeway segments to develop the Cumulative Plus Project freeway mainline volumes. Because of the changes to development levels by block throughout the Specific Plan area and mix of land uses with implementation of the project, traffic distribution within the Specific Plan area results in an increase in traffic volumes at some locations, while other locations show a slight decrease in traffic levels when compared with Cumulative No Project volumes.

Intersection Operations

The CCTA's regional travel demand model was modified to reflect the land use and roadway modifications proposed as part of the North Camino Ramon Specific Plan and then was compared with the baseline traffic projections. Results of the traffic operations comparison are summarized in Table 3.12-11. Intersection turning movements and geometry are shown in Exhibit 3.12-10a and Exhibit 3.12-10b. Exhibit 3.12-11a and Exhibit 3.12-11b depict Cumulative peak hour turning movement volumes. Exhibit 3.12-12a and Exhibit 3.12-12b depict Cumulative Plus Project peak hour turning movement volumes.

Table 3.12-11: Cumulative Plus Project Conditions – Intersection Levels of Service

No.	Intersection	Traffic Control	Cumulative				Cumulative Plus Project			
			AM Peak		PM Peak		AM Peak		PM Peak	
			V/C Ratio	LOS	V/C Ratio	LOS	V/C Ratio	LOS	V/C Ratio	LOS
1	Fostoria Way/Camino Ramon/Crow Canyon Place	Signal	0.67	B	0.83	D	0.69	B	0.71	C
2	Fostoria Way/Camino Ramon/Costco Driveway	Signal	0.46	A	0.79	C	0.37	A	0.74	C

Table 3.12-11 (cont.): Cumulative Plus Project Conditions – Intersection Levels of Service

No.	Intersection	Traffic Control	Cumulative				Cumulative Plus Project			
			AM Peak		PM Peak		AM Peak		PM Peak	
			V/C Ratio	LOS	V/C Ratio	LOS	V/C Ratio	LOS	V/C Ratio	LOS
3	Crow Canyon Road/San Ramon Valley Boulevard	Signal	0.69	B	0.90	D	0.63	B	0.87	D
4	Crow Canyon Road/I-680 Southbound Ramps	Signal	0.55	A	0.69	B	0.52	A	0.63	B
5	Crow Canyon Road/I-680 Northbound Ramps	Signal	0.71	C	0.73	C	0.71	C	0.66	B
6	Crow Canyon Road/Crow Canyon Place	Signal	0.63	B	0.86	D	0.72	C	0.84	D
7	Crow Canyon Road/Camino Ramon	Signal	0.59	A	0.69	B	0.59	A	0.64	B
8	Crow Canyon Road/Alcosta Boulevard	Signal	0.80	D	0.87	D	0.83	D	0.83	D
9	Norris Canyon Road/San Ramon Valley Boulevard	Signal	0.57	A	0.58	A	0.53	A	0.52	A
10	Norris Canyon Road/Bishop Drive	Signal	0.39	A	0.66	B	0.47	A	0.59	A
11	Norris Canyon Road/Camino Ramon	Signal	0.65	B	0.80	D	0.45	A	0.52	A
12	Norris Canyon Road/Alcosta Boulevard	Signal	0.49	A	0.57	A	0.43	A	0.47	A
13	Executive Parkway/Camino Ramon	Signal	0.45	A	0.51	A	0.49	A	0.53	A
14	Bishop Drive/Camino Ramon	Signal	0.56	A	0.71	C	0.58	A	0.68	B
15	Bollinger Canyon Road/I-680 Southbound Ramps	Signal	0.78	C	0.78	C	0.76	C	0.79	C
16	Bollinger Canyon Road/I-680 Northbound Ramps	Signal	0.83	D	0.68	B	0.84	D	0.67	B
17	Bollinger Canyon Road/Camino Ramon	Signal	0.72	C	0.75	C	0.72	C	0.67	B
18	Bollinger Canyon Road/Alcosta Boulevard	Signal	0.78	C	0.90	D	0.78	C	0.86	D

Notes:
LOS analysis performed using TRAFFIX software.
Source: Kimley-Horn and Associates, 2012.

As shown in Table 3.12-11, all study area intersections continue to operate within the City's level of service standard during the AM and PM peak hours. Further, conditions at some intersections are projected to improve slightly with implementation of the project land use and transportation plan. This is primarily due to variations in traffic distribution with changes to the land use plan and new local and regional roadway connections within the Specific Plan area.

Freeway Segments

The mainline freeway volumes for the AM and PM peak hours were calculated for Cumulative and Cumulative Plus Project conditions. The average HOV proportion of the total freeway segment volume was determined from the CCTA travel demand model forecasts. The total freeway volumes and HOV percentage for each study freeway segment are summarized in Table 3.12-12. Detailed freeway volume calculation sheets are included in Appendix E.

Table 3.12-12: Cumulative Plus Project Conditions – Peak-Hour Freeway Volumes

Interstate 680		Total Lanes	HOV Lanes	Peak Hour	Cumulative		Cumulative Plus Project	
Direction	Segment				Total Volume	HOV Percentage	Total Volume	HOV Percentage
North of Crow Canyon Road Interchange	Northbound	4	1	AM	7,488	20	7,498	20
				PM	9,088	21	9,212	21
	Southbound	4	1	AM	9,599	21	9,984	21
				PM	8,334	21	8,458	21
North of Bollinger Canyon Road Interchange	Northbound	5	1	AM	6,799	20	6,861	20
				PM	8,476	21	8,407	21
	Southbound	5	1	AM	9,390	21	9,402	21
				PM	7,848	21	7,684	21
South of Bollinger Canyon Road Interchange	Northbound	4	1	AM	6,496	20	6,608	20
				PM	8,101	21	7,995	21
	Southbound	4	1	AM	8,876	21	8,743	21
				PM	7,300	21	7,000	21

Notes:
Peak-hour volumes derived based on growth from CCTA Travel Demand Forecasting Model.
HOV percentage of total volume based on data from CCTA 2030 Model.
For freeway segment between Bollinger Canyon Road and Crow Canyon Road, auxiliary lane is more than 2,500 feet. Weaving does not apply to lane segments greater than 2,500 feet in length; therefore, the auxiliary lane is considered to be a basic freeway segment.
Source: Kimley-Horn and Associates, Inc., 2012.

Results of the Cumulative and Cumulative Plus Project freeway performance compared to the existing MTSOs are provided in Table 3.12-13. The Cumulative conditions analysis includes the freeway geometry changes identified in the planned improvements section and the Tri-Valley Action Plan (2009). As shown in Table 3.12-13, the growth in traffic for I-680 between existing and cumulative conditions will result in a deterioration in MTSO performance. The I-680 freeway segments are anticipated to operate below MTSOs during the AM and the PM peak hours for Cumulative No Project and Cumulative Plus Project conditions.

Table 3.12-13: Status of MTSOs for I-680 within San Ramon (Year 2030 Cumulative and Cumulative Plus Project Conditions)

MTSO	Standard	Cumulative (2030)	Cumulative (2030) Plus Project
Peak Hour Travel Speeds	Minimum average speed of 30 miles per hour.	Not met for AM northbound or southbound and not met for PM northbound or southbound	Not met for AM northbound or southbound and not met for PM northbound or southbound
Delay Index	Delay index of 2.0 or less.	Not met for AM northbound or southbound and not met for PM northbound or southbound	Not met for AM northbound or southbound and not met for PM northbound or southbound
Notes: Tri-Valley Transportation and Action Plan Update Source: Kimley-Horn and Associates, Inc., 2012.			

Development contemplated by the Specific Plan would contribute trips to the I-680 corridor, which is forecast to operate below the MTSOs for Cumulative No Project conditions in 2030. Note that the development contemplated by the Specific Plan itself does not cause facilities to operate below acceptable levels; rather, it contributes to unacceptable operation.

Implementing General Plan 2030 Policies 3.2-I-1 through 3.2-I-6 and 3.3-I-1 through 3.3-I-8 set forth minimum performance standards for transportation facilities and require new development projects to study impacts to these facilities. New development projects are required to mitigate for impacts on transportation facilities.

Implementing General Plan 2030 Policies 5.2-I-1 through 5.2-I-6 set forth various objectives concerning regional cooperation in implementing transportation improvements. Furthermore, Implementing Policy 5.3-I-5 requires that traffic mitigation fees be assessed on new residential and commercial development. Given the regional nature of freeway operations, these are considered the most appropriate methods of addressing the proposed project's impacts on regional facilities. Impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Emergency Response

Impact TRANS-3: Development and land use activities contemplated by the Specific plan would not adversely affect response time for emergency service providers.

Impact Analysis

The San Ramon Valley Fire Protection District has two existing fire stations (Station Nos. 34 and 38) that are located within 1 mile of the Specific Plan area. The San Ramon Police headquarters is also located within 1 mile of the Specific Plan area. As such, the Specific Plan area is located within close proximity of staffed fire protection and police protection facilities and, therefore, would be expected to be served with acceptable emergency response times.

The existing roadway network within the Specific Plan area consists of high-capacity arterial and collector roadways in a conventional, widely spaced suburban grid. The Specific Plan proposes a grid of smaller, pedestrian-scaled blocks consisting of walkable local streets integrated with active commercial frontages, landscaping, streetscape features, public spaces, and other amenities. The smaller, pedestrian-scaled block system is intended to encourage walking, bicycling, and exploration of the Mixed Use Core and encourages a park-once, walk and shop environment. The street grid forms a framework for development of compact commercial and residential mixed-use buildings as well as flexibility for larger retailers, office complexes, and multi-family residential blocks. The vehicular circulation system also serves to provide emergency access to all parts of the Specific Plan area. All of the streets (and service corridors) are dimensioned to accommodate the San Ramon Valley Fire Protection District's travel way clearances.

The growth in land uses allowed under the Specific Plan would increase traffic and associated delays at intersections that may impact the response time for emergency service providers. Maintenance of the City's level of service standards on roadways would ensure that emergency service response time remains at an adequate level. Based on the analysis of land use development resulting from the implementation of the Specific Plan and with the implementation of mitigation, intersections and freeway segments are projected to operate at acceptable levels of services. Therefore, future development and land use activities contemplated by the Specific Plan would not result in inadequate emergency access. Impacts would be less than significant.

Level of Significance Before Mitigation

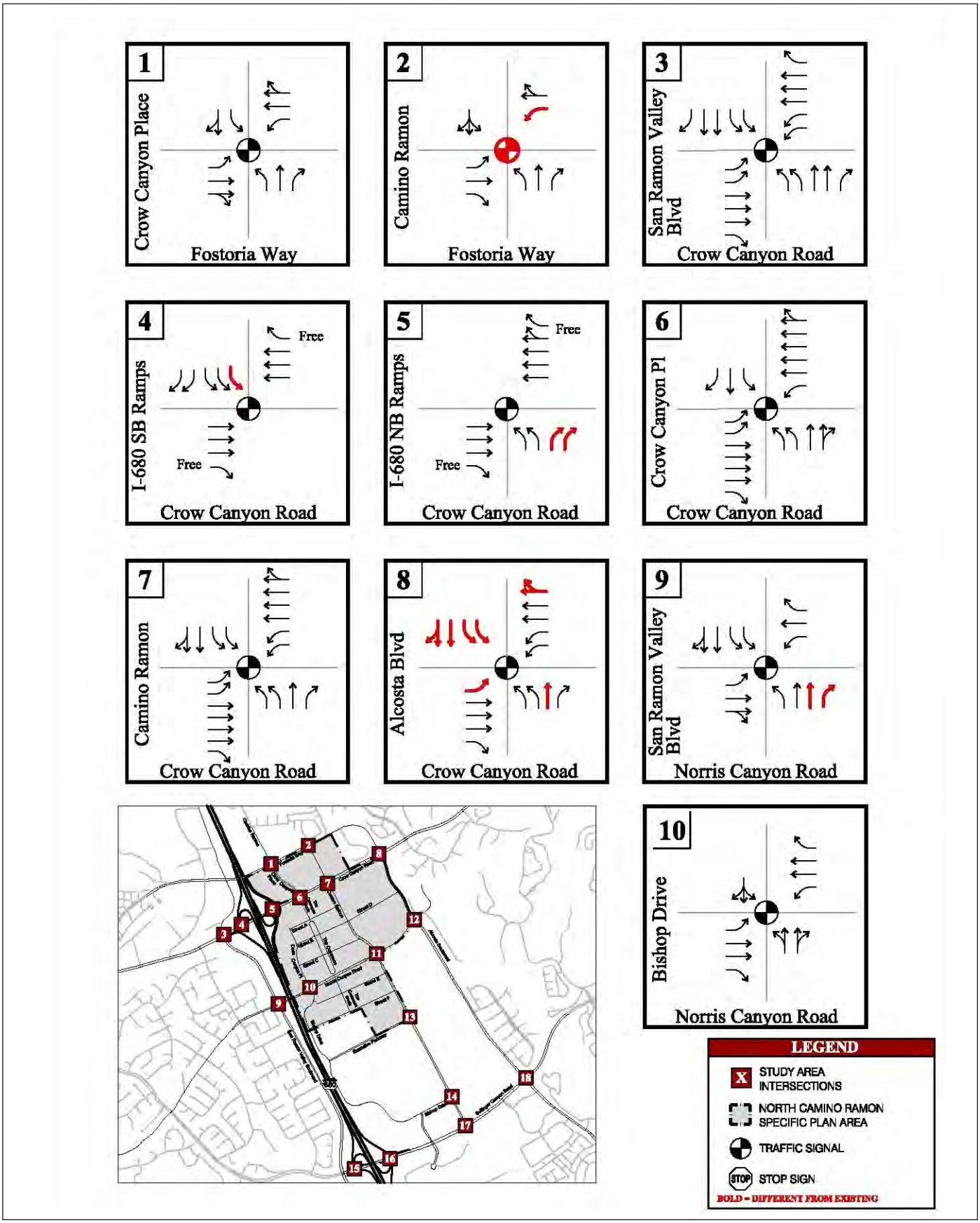
Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

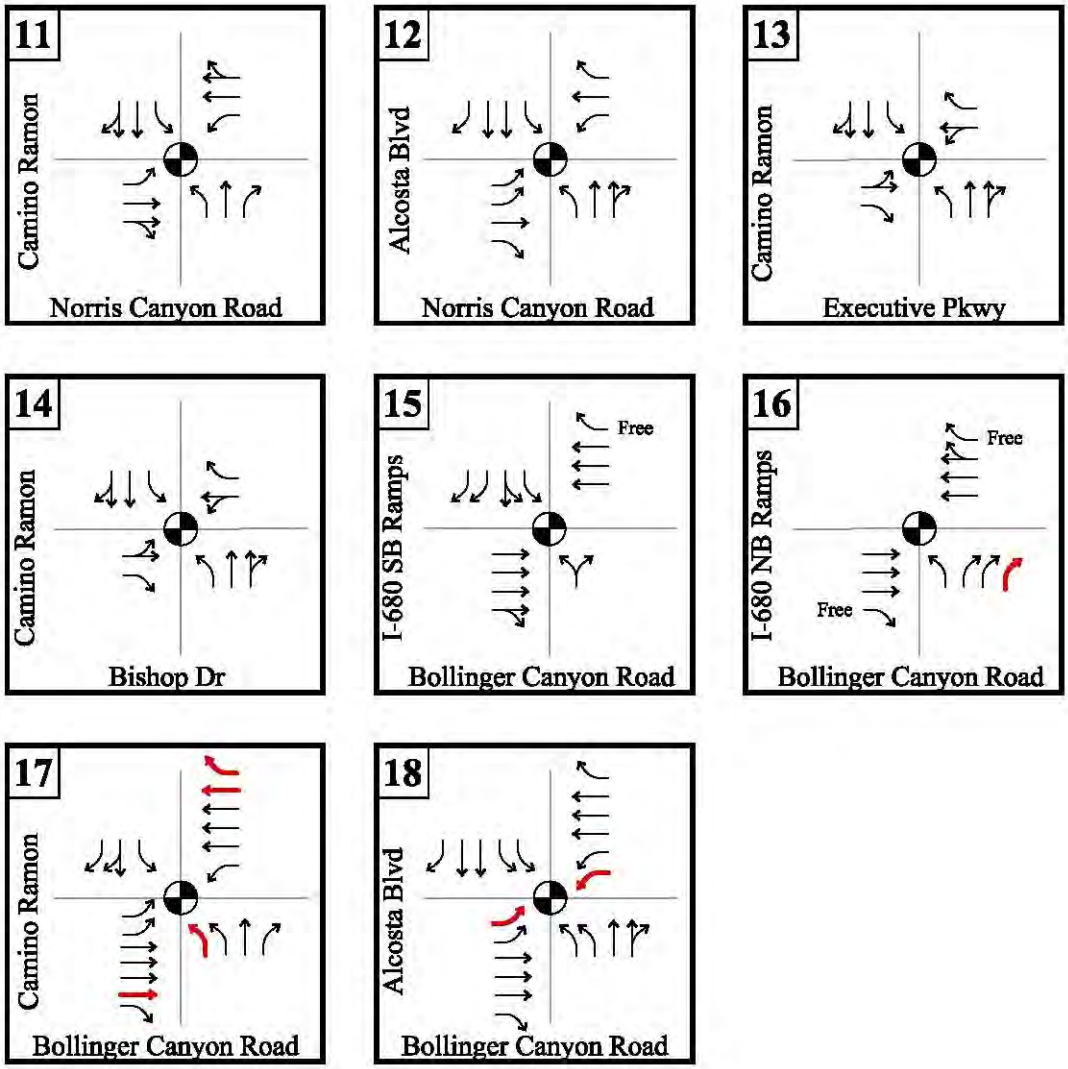
Less than significant impact.

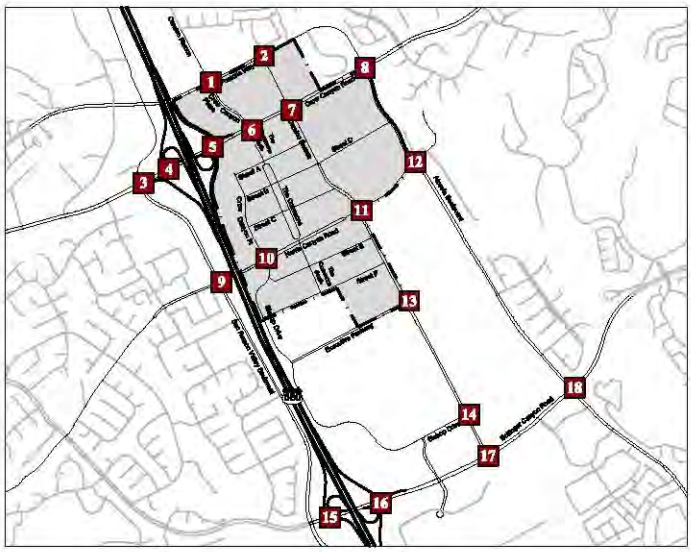


Source: Kimley-Horn and Associates, Inc., 2012.

Michael Brandman Associates

Exhibit 3.12-10a
Cumulative (2030) Conditions
Lane Geometry and Traffic Control

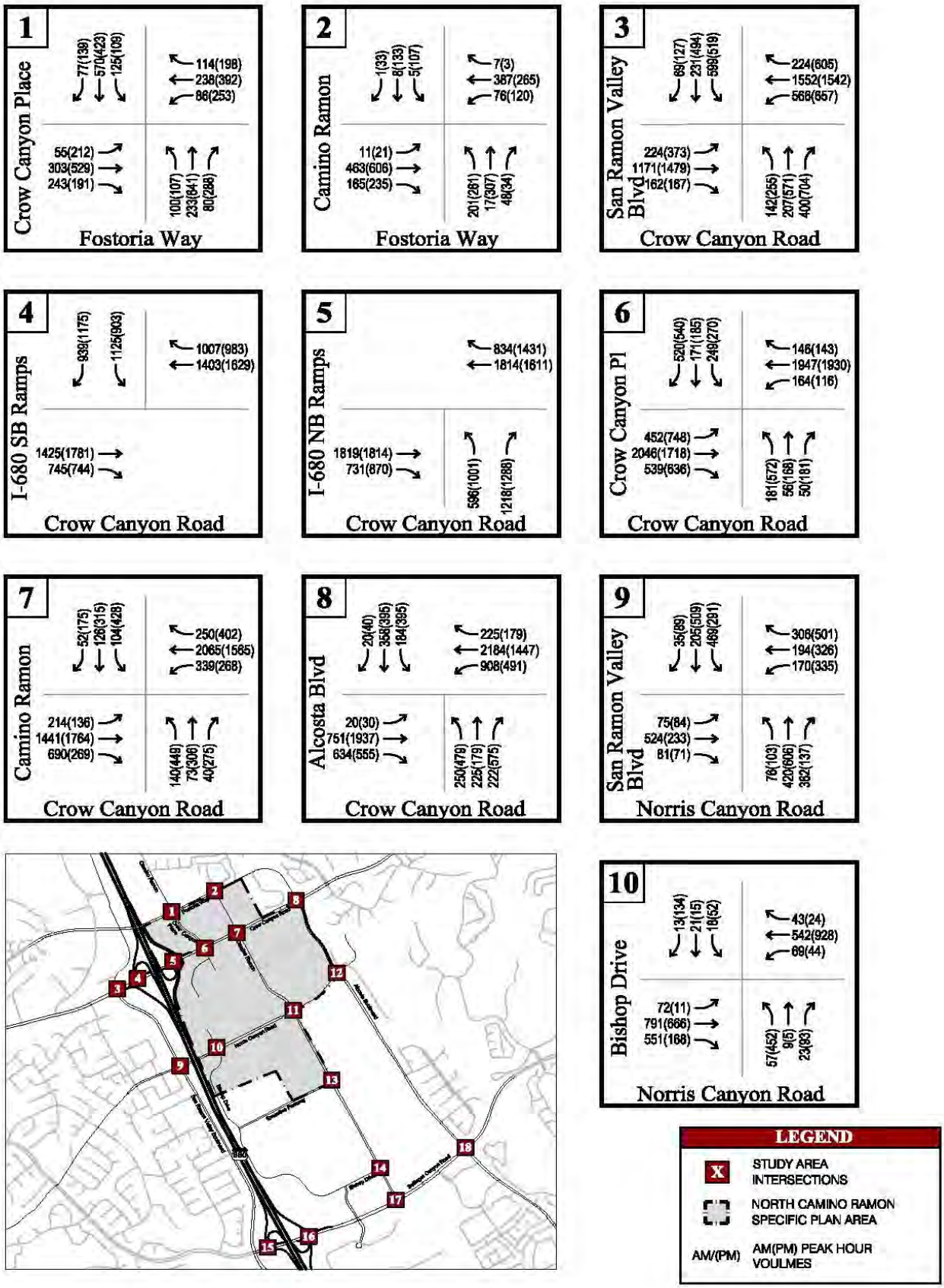




Source: Kimley-Horn and Associates, Inc., 2012.

Michael Brandman Associates

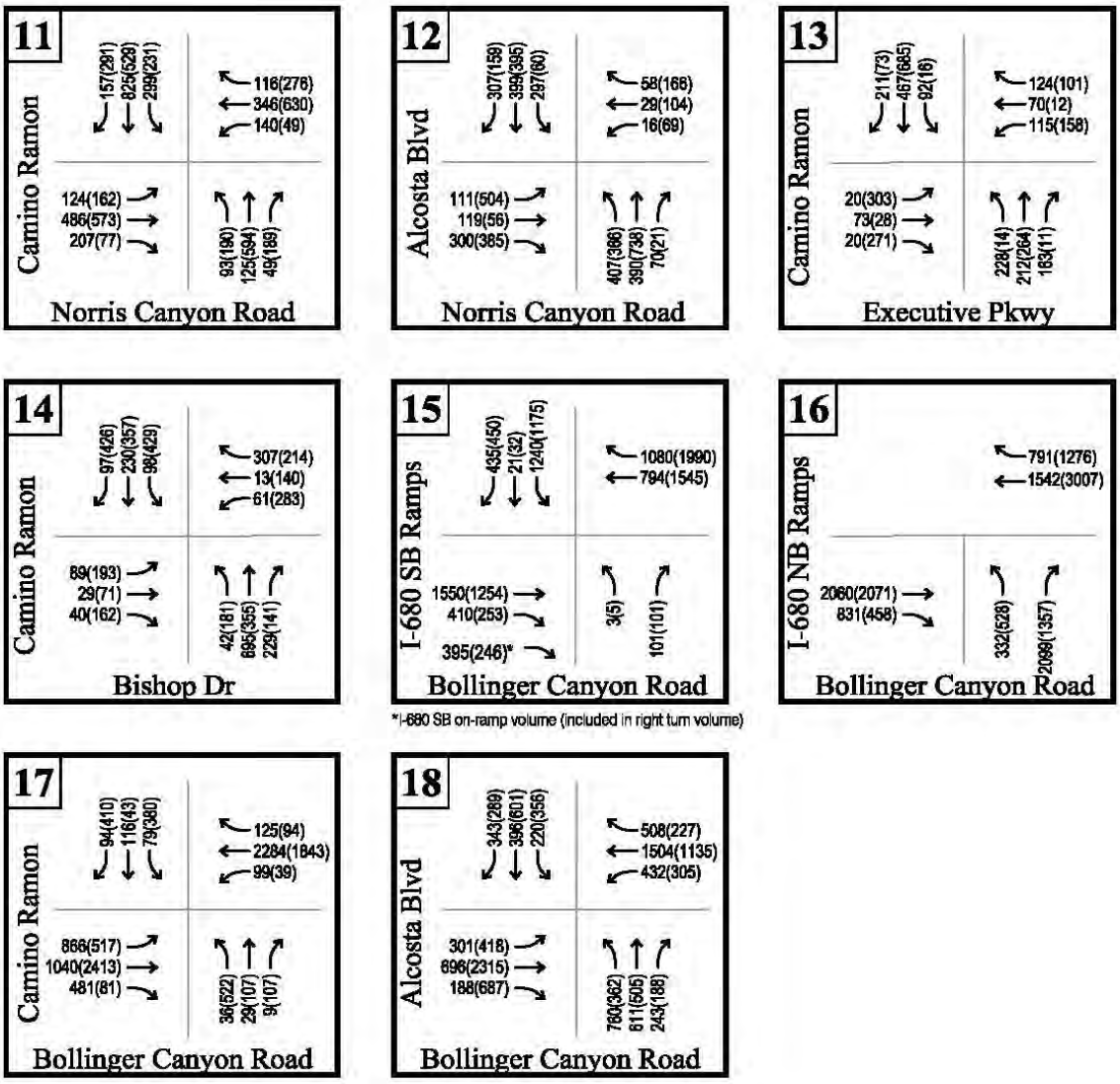
Exhibit 3.12-10b
Cumulative (2030) Conditions
Lane Geometry and Traffic Control



Source: Kimley-Horn and Associates, Inc., 2012.

Michael Brandman Associates

Exhibit 3.12-11a
Cumulative (2030) Conditions
Peak-Hour Turning Movement Volumes

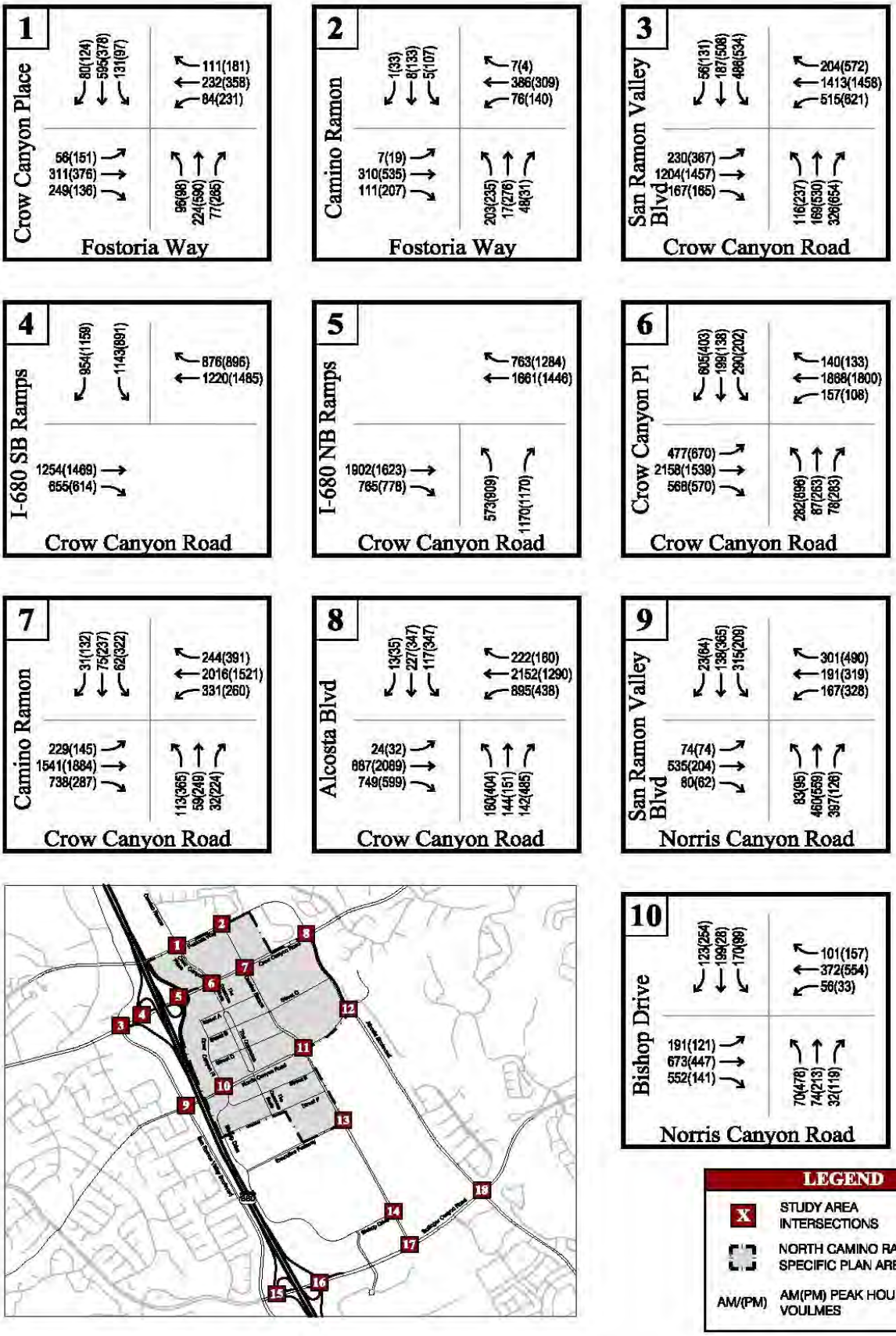


*I-680 SB on-ramp volume (included in right turn volume)

Source: Kimley-Horn and Associates, Inc., 2012.

Michael Brandman Associates

Exhibit 3.12-11b
Cumulative (2030) Conditions
Peak-Hour Turning Movement Volumes



Source: Kimley-Horn and Associates, Inc., 2012.

Michael Brandman Associates

Exhibit 3.12-12a
Cumulative (2030) Plus Project Conditions
Peak-Hour Turning Movement Volumes

Source: Kimley-Horn and Associates, Inc., 2012.

Michael Brandman Associates

Exhibit 3.12-12b
Cumulative (2030) Plus Project Conditions
Peak-Hour Turning Movement Volumes

Roadway Safety

Impact TRANS-4: Development and land use activities contemplated by the Specific Plan would not result in hazardous roadway designs features or incompatible uses.

Impact Analysis

As previously explained, the existing roadway network within the Specific Plan area consists of high-capacity arterial and collector roadways in a conventional, widely spaced suburban grid. The Specific Plan proposes a grid of smaller, pedestrian-scaled blocks consisting of walkable local streets integrated with active commercial frontages, landscaping, streetscape features, public spaces, and other amenities; refer to Exhibit 2-9. The smaller, pedestrian-scaled block system is intended to encourage walking, bicycling, and exploration of the Mixed Use Core and encourages a park-once, walk and shop environment. The street grid forms a framework for development of compact commercial and residential mixed-use buildings as well as flexibility for larger retailers, office complexes, and multi-family residential blocks. The vehicular circulation system also serves to provide emergency access to all parts of the Specific Plan area. All of the streets (and service corridors) are dimensioned to accommodate the San Ramon Valley Fire Protection District's travel way clearances.

The Specific Plan area's roadway network reflects the street classification system established in the City of San Ramon General Plan 2030. New roadways contemplated by the Specific Plan would adhere to roadway sections set forth in General Plan 2030, which establish requirements for lane geometry, width, bicycle facilities, and pedestrian facilities. As such, new roadways would be consistent with City standards and industry standards for mixed-use development.

As shown in Exhibit 2-9, all new intersections are proposed at 90-degree angles or near-90-degree angles, maximizing visibility for all approaches. All new public streets would have through connections to other streets; no cul-de-sacs or dead-ends are proposed. In higher density areas such as The Commons, the Specific Plan contemplates the use of service corridors to allow for delivery access to the rear of buildings, which would serve to minimize potential safety issues associated with truck circulation and parking.

For these reasons, development and land use activities contemplated by the Specific Plan would not result in hazardous roadway design features or incompatible uses. Impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Bicycles, Pedestrians and Public Transit

Impact TRANS-5:	**Development and land use activities contemplated by the Specific Plan would not conflict with plans for or access to public transit, bicycles, or pedestrians.**

Impact Analysis

The Specific Plan would be considered to have a significant impact if it conflicted with adopted policies, plans, or programs supporting alternative transportation or generate pedestrian, bicycle, or transit travel demand that would not be accommodated by current pedestrian facilities, bicycle development plans, or long-range transit plans.

Currently, sidewalks and pedestrian paths exist along the vast majority of roadways within the plan boundaries. There are also several planned and proposed bicycle facilities within the Specific Plan area, as identified in current bike plans; refer to Exhibit 3.12-13. The project's traffic generation or site access would not create any changes to the existing or planned bicycle facilities. In addition, there are several additional bicycle facilities proposed as part of the Specific Plan. The proposed project would not interfere with any of the existing or proposed bicycle facilities, or conflict with currently adopted pedestrian goals or policies. Therefore, the project would not result in any adverse impacts to bicyclists.

The development of the proposed land use plan is expected to generate transit ridership. As noted in the project trip generation section, a conservative transit mode share of 2 percent for office and residential tips was assumed for the purposes of estimating the project trip generation for use in the traffic capacity analysis. However, recent travel survey data collected by 511 Southwest Contra Costa indicate that the transit mode share (including BART, ACE rail service, and bus) for weekday commute travel represented may represent as much as 6 percent of commute trips in the San Ramon Valley.

If 6-percent transit mode share is assumed during peak AM and PM commute periods for office and residential uses within the plan area, the proposed project could be anticipated to generate a conservative estimate of roughly 60 net new transit trips during the AM peak hour, and 50 net new transit trips during the PM peak hour. Bus ridership and seating capacity data is not readily available for transit routes currently serving the Specific Plan area. However, considering that the net new transit trips are distributed among multiple service routes throughout the peak-hour periods, the existing transit system is anticipated to sufficiently accommodate the additional transit demand generated by the proposed project.

As transit ridership increases over time, it is the responsibility of transit providers, particularly CCCTA (County Connection), to ensure that sufficient transit services are provided within the Specific Plan area. The potential formation of a TMA within the Specific Plan area would provide

additional opportunity to coordinate with CCCTA to guide transit improvements and to encourage transit use through effective areawide TDM strategies.

As discussed previously, when needed, it is proposed that the existing transit center, currently located on Executive Parkway near Camino Ramon, be moved to a new location within the vicinity of The Commons at Norris Canyon Road. The specific location and design are undetermined at this time; however, relocating the transit center to this general area provides the benefit of positioning all parcels in the Specific Plan area within a 10-minute walk, making transit access to jobs, stores, and restaurants more convenient for residents within the area. Further, the new transit center location will benefit from the construction of HOV ramps at Norris Canyon Road and I-680, which will improve the regional transit network and enhance access for express bus, carpools, and vanpools to the area. This would also locate the transit center farther from the planned City Center transit facility, which improves the distribution of transit services within the City. With the proposed transit center relocation, CCCTA will have the responsibility to determine how existing County Connection bus routes will need to be re-routed, and current bus stop locations and amenity conditions will need to be reassessed.

The proposed project would not interfere with existing or planned pedestrian or bicycle facilities. The potential relocation of the existing transit center provides improved access to transit services, and dispersion of the project-generated riders to the various planned bus routes is expected to result in a minimal effect on transit capacity. Thus, the project's impact on pedestrian, bicycle, and transit facilities is determined to be less than significant.

Level of Significance Before Mitigation

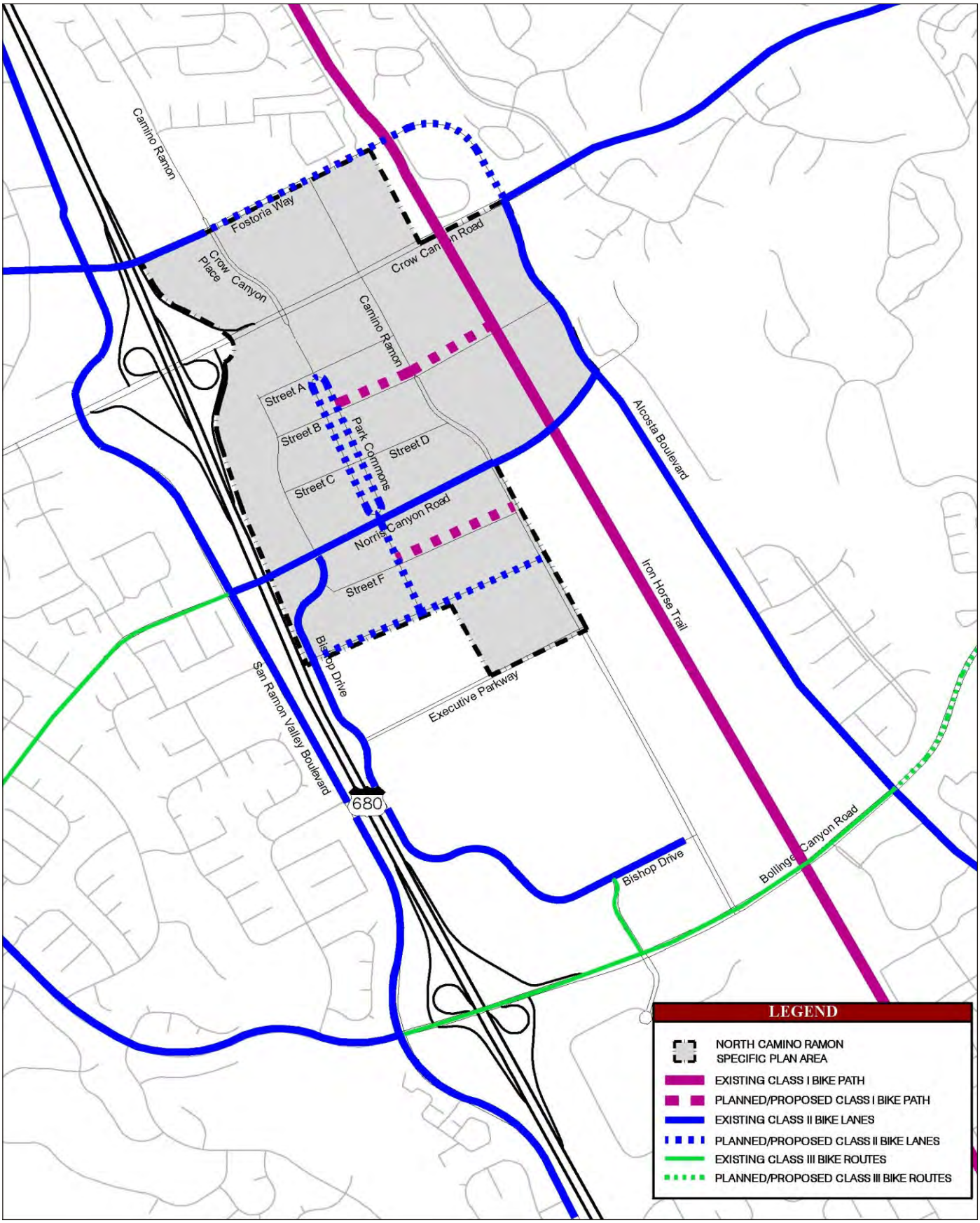
Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.



Source: Kimley-Horn and Associates, Inc., 2012.

Michael Brandman Associates

Exhibit 3.12-13
Proposed Bicycle Network

3.13 - Utility Systems

3.13.1 - Introduction

This section describes the existing utility systems setting and potential effects from implementation of the Specific Plan on the affected area and its surroundings. Descriptions and analysis in this section are based on information contained in the North Camino Ramon Specific Plan, and the North Camino Ramon Specific Plan Water Supply Assessment, prepared in November 2010 by the East Bay Municipal District and included in this EIR as Appendix F.

3.13.2 - Environmental Setting

Potable Water

East Bay Municipal Utility District (EBMUD) and Dublin San Ramon Services District (DSRSD) provide potable water service to the City of San Ramon. EBMUD provides potable water service to the northern and western portions of San Ramon, including the Specific Plan area. DSRSD does not serve the Specific Plan area with potable water; therefore, this EIR will focus on EBMUD.

East Bay Municipal Utility District

Service Area

EBMUD serves northern Alameda County and western and central Contra Costa County with potable water supply. The 2010 Service Area population is estimated to be 1,380,000.

Distribution System

EBMUD's distribution and storage system consists of 4,085 miles of pipelines and 833 million gallons of storage capacity. EBMUD operates five terminal reservoirs: Briones, Chabot, Lafayette, San Pablo, and Upper San Leandro.

Potable water destined for San Ramon is treated at the Walnut Creek Water Treatment Plant and conveyed south down a transmission line within the Iron Horse Trail right-of-way through Alamo and Danville. In 2006, EBMUD completed a $180 million project to improve water quality and reliability along the main transmission line. The project consisted of capacity expansion and seismic upgrades at the Walnut Creek Water Treatment Plant, upgrading a pumping plant in Alamo, and installing 4 miles of water pipeline in Walnut Creek and Alamo.

There are several existing, large-diameter water transmission lines within the Fostoria Way, Camino Ramon, and Norris Canyon Road rights-of-way.

Water Supply

EBMUD obtains approximately 90 percent of its water supply from the Mokelumne River watershed in Alpine, Amador, and Calaveras counties in the Sierra Nevada Mountains. EBMUD impounds Mokelumne River within Comanche Reservoir (upstream) and Pardee Reservoir (downstream). Both facilities are operated jointly by EBMUD. EBMUD has water rights that allow for delivery of up to a maximum of 325 million gallons per day (mgd) from the Mokelumne River, subject to the availability

of Mokelumne River runoff and to the senior water rights of other users, downstream fishery flow requirements, and other Mokelumne River water uses. The remaining 10 percent is provided by local runoff collected in its five terminal reservoirs.

Raw water from Pardee Reservoir is transported approximately 91 miles to EBMUD water treatment plans and terminal reservoirs through the Pardee Tunnel, the Mokelumne aqueducts, and the Lafayette aqueducts. Water flowing by gravity from Pardee Reservoir takes 30 to 45 hours to reach the East Bay.

Urban Water Management Plan Projections

The EBMUD 2010 Urban Water Management Plan, adopted in June 2011, provides a comparison of demand and supply under various scenarios through the year 2040. Table 3.13-1 summarizes the water supply projections contained in the EBMUD 2010 Urban Water Management Plan.

Table 3.13-1: EBMUD Demand and Supply Projections (2015 – 2040)

Scenario	Category	Year (million gallons per day)					
		2015	2020	2025	2030	2035	2040
Demand	Planning Level of Demand	223	221	224	229	229	230
Normal Water Year	Available Supply	>223	>221	>224	>229	>229	>230
Single Dry Year (Year 1)	Available Supply	217	215	218	223	222	222
	Supplemental Supply Needed	6	6	7	7	8	8
Multiple Dry Years (Year 2)	Available Supply	189	188	190	194	194	195
	Customer Rationing	15%	15%	15%	15%	15%	15%
	Supplemental Supply Needed	21	21	21	22	22	22
Multiple Dry Years (Year 3)	Available Supply	189	188	190	194	194	195
	Customer Rationing	15%	15%	15%	15%	15%	15%
	Supplemental Supply Needed	21	21	21	33	53	73
Three-Year Drought	Total Supplemental Supply Needed (Thousands of Acre-Feet)	54	54	55	69	93	115

Notes:
Planning Level of Demand accounts for customer demand adjusted for cumulative conservation from implementation of the 2011 Water Conservation Master Plan and recycled water savings. Cumulative conservation and recycled water savings increase over time, thereby offsetting growth from customer demand.
Source: East Bay Municipal Utility District, 2011.

EBMUD evaluates and forecasts water supply availability for any calendar year based on forecasted runoff and existing storage levels in the reservoirs. A “normal year” is a year in which EBMUD does not need to implement a Drought Management Program. For a normal year, the April projection of the total system storage at the end of September would be 500,000 acre-feet or greater. EBMUD can meet customer demands through the year 2040 during normal year conditions; therefore, the available supply is considered equal to or greater than demand. However, unless supplemental water supplies

are developed and while EBMUD's Mokelumne River supply continues to decrease, the frequency of normal year-types will decrease in the future. The frequency of dry years that require customer rationing is expected to increase.

In evaluating its water supply availability, EBMUD takes into account diversions of both upstream and downstream water right holders and fishery releases. The available water supply shown in Table 3.13-1 in years 1, 2, and 3 of a multiple-year drought is derived from EBMUDSIM analyses with the following assumptions:

- EBMUD's drought planning sequence is used for 1976, 1977, and 1978;
- Total system storage is depleted to minimum operating levels by the end of the third year of the drought planning sequence;
- EBMUD will implement its Drought Management Program when necessary;
- The diversions by Amador and Calaveras counties upstream of Pardee Reservoir continues to increase up to 47,000 acre-feet in 2040;
- Releases from Camanche Reservoir are sufficient to meet the requirements of downstream senior water right holders;
- Minimum instream flow requirements for the Lower Mokelumne River are in accordance with the 1998 Joint Settlement Agreement;
- Dry-year supply of Central Valley Project water, through the Freeport Regional Water Facility, is available beginning in 2010; and
- Bayside Groundwater Project, Phase 1, is available beginning in 2010.

In Table 3.13-1, "Single Dry Year" (equivalent to Multiple Dry Years - Year 1) is a year in which EBMUD would implement Drought Management Program elements at the "moderate" stage with the goal to achieve a reduction between 0 and 10 percent in customer demand. Based on this EBMUD rationing policy, rationing in the first year of a drought is estimated at 2 percent of the planning level of demand in 2010, and 4 percent in 2040 only if additional supplemental supplies beyond the dry year supply available through the Freeport Regional Water Facility and through the Bayside Groundwater Facility are obtained. Therefore, deficiencies continue to exist unless additional supplemental supplies are obtained. Year 2 of "Multiple Dry Years" is a year in which EBMUD would implement Drought Management Program elements at the "severe" stage with the goal to achieve a reduction between 10 and 15 percent in customer demand. Year 3 of "Multiple Dry Years" is a year in which EBMUD would implement Drought Management Program elements at the "critical" stage. Despite water savings from EBMUD's aggressive conservation and recycling programs and rationing of up to 15 percent, additional supplemental supplies beyond those provided through the Freeport Regional Water Facility and the Bayside Groundwater Facility will be needed

during Years 2 and 3 of a three-year drought. In Table 3.13-1, the term "Supplemental Supply Need" is the additional amount of water necessary to limit customer rationing to 15 percent during droughts while meeting the requirements of senior downstream water right holders and the provisions of the 1998 Joint Settlement Agreement. The forecasted need for supplemental supply ranges from 21 mgd in 2010 to 73 mgd by 2040 during Year 3 of a three-year drought.

As indicated in Table 3.13-1, EBMUD has a total supplemental supply need of 69,000 over multiple dry years for 2030 level demands, beyond the current supplemental supplies provided through the Freeport Regional Water Facility and the Bayside Groundwater Facility. EBMUD plans to meet this need by relying on short-term supplemental supply sources that include the Northern California Water Transfers (expected to provide up to 13 mgd [15,000 acre-feet/year] of dry-year water), and the Bayside Groundwater Project Expansion (expected to provide up to 9 mgd [10,000 acre-feet/year] of dry-year water). Beyond 2030 and outside the current required 20-year planning horizon of the Urban Water Management Plan (UWMP), EBMUD's supplemental supply needs will be met by implementing long-term conceptual supplemental supply sources, whose project capacities can only be quantified in subsequent UWMPs through refined project developments.

In a normal year, conservation and recycled water programs will play a very important role in future reliability of EBMUD's supply. In a normal year for a 312-mgd demand, conservation is expected to offset about 20 percent of the needed supply, and recycled water programs will offset about 6 percent. For a 312-mgd demand in an average drought year of a three-year-drought sequence projected for year 2040, rationing and supplemental supply will account for 25 percent, and the projected shortfall to be met by developing supplemental water supply sources will be about 11 percent.

Recycled Water

The DSRSD/EBMUD Recycled Water Authority (DERWA) provides recycled water to the City of San Ramon. DERWA was established in 1995 by DSRSD and EBMUD through a joint-powers agreement to serve as a recycled water wholesaler to both water agencies, which in turn deliver recycled water to their customers. DERWA operates the San Ramon Valley Recycled Water Program, a multi-phased program to supply the DSRSD and EBMUD service areas with recycled water.

In addition, EBMUD has future plans that identify a network of recycled water lines servicing both the Bishop Ranch Business Park and the North Camino Ramon Specific Plan Area. EMBUD is currently planning/designing recycled water pipelines in the following roadways:

- Camino Ramon from Bollinger Canyon Road north to Crow Canyon Road
- Crow Canyon Road from the Camino Ramon Intersection east to the El Capitan Drive intersection
- Executive Parkway from Camino Ramon west to Bishop Drive

- Norris Canyon Road from Camino Ramon west to the Bishop Drive/Annabel Lane Intersection
- From Camino Ramon through the existing private office development to Crow Canyon Place

When completed, all proposed recycled water mains will be operated and maintained by EBMUD, separate from DERWA.

Production and Distribution System

Recycled water is tertiary-treated wastewater and is produced at the DSRSD Recycled Water Treatment Facility in Pleasanton, which is part of the agency's Regional Wastewater Treatment Facility. Recycled water meets California Title 22 requirements for unrestricted use. The DERWA recycled water system consists of 151 miles of pipelines and two elevated reservoirs with capacity for 2 million gallons. The system extends throughout the Dougherty Valley and Southern San Ramon.

Treated effluent at the R1 tertiary treatment plant in Pleasant is filtered and disinfected for appropriate irrigation reuse. Within the Specific Plan area, recycled water is conveyed to Camino Ramon via a backbone line located within the Iron Horse Trail right-of-way.

Recycled Water Supply Projections

Table 3.13-2 summarizes DERWA demand and supply projections between 2010 and 2030, as contained in the DSRSD 2005 Urban Water Management Plan. As shown in the table, adequate recycled water supplies would be available to meet projected demand through 2030.

Table 3.13-2: DERWA Demand and Supply Projections (2010 - 2030)

Scenario	Category	Acre-Feet				
		2010	2015	2020	2025	2030
Normal Year	Demand	2,700	3,250	3,700	3,700	3,700
	Supply	2,700	3,250	3,700	3,700	3,700
Supply – Single Dry Year	Demand	2,700	3,250	3,700	3,700	3,700
	Supply	2,700	3,250	3,700	3,700	3,700
Supply – Multiple Dry Years	Demand	2,700	3,250	3,700	3,700	3,700
	Supply	2,700	3,250	3,700	3,700	3,700

Notes:
Single Dry Year and Multiple Dry Years assume demand reductions.
Source: Dublin San Ramon Services District, 2005.

Wastewater

Central Contra Costa Sanitary District (CCCSD) provides wastewater collection and treatment to the northern and central portions of the City of San Ramon including the Specific Plan area.

Central Contra Costa Sanitary District (CCCSD)

Collection System

CCCSD's sewer collection infrastructure consists of approximately 1,500 miles of underground pipe ranging from 4 to 102 inches in diameter and 18 lift stations. Wastewater flows from San Ramon are conveyed north to CCCSD's wastewater treatment plant via the San Ramon Interceptor located within the Iron Horse Trail corridor. CCCSD indicates that the San Ramon Interceptor may be expanded at the end of the decade (approximately 2018) to accommodate future growth. All upgrades to the backbone interceptor will be paid for by fees collected on a CCCSD system-wide basis.

In addition to the San Ramon Interceptor within the Iron Horse Trail corridor, there are various existing collection mains ranging from 8 to 15 inches that provide sewer service to existing users within the project area. In general, wastewater flows in an east or west direction via the existing sewer mains in Executive Parkway, Norris Canyon Road, Crow Canyon Road, and Fostoria Way to the existing 15-inch truck main or 24-to 30-inch interceptor where it flows in a northerly direction to the treatment plant.

Treatment Plant

CCCSD treats sewage at its treatment plant in Martinez. The treatment plant has a dry weather effluent discharge limit of 53.8 million gallons per day (mgd). In 2009, the average daily dry weather flow at the treatment plant was 32.5 mgd. CCCSD indicates that the treatment plant has a "reliable" physical capacity of 53.8 mgd and is expected to be sufficient to accommodate effluent from "currently planned growth" within the service area over the next 15 years. The treatment plant uses ultraviolet disinfection and has secondary treatment capabilities. A portion of the treated effluent receives additional treatment and is used as recycled water; the remaining effluent is released into Suisun Bay via an outfall. The treatment plant is in compliance with all applicable federal and state environmental health and safety standards for treated wastewater.

Storm Drainage

The City of San Ramon owns and maintains drainage facilities within the City limits. The Specific Plan area is divided into two major drainage basins. The northern portion of the site is drained by a network of storm drainpipes ranging from 15 to 48 inches. All runoff from this portion of the site eventually flows to a 60-inch storm drain located within the Iron Horse Trail corridor. This 60-inch storm drainpipe conveys runoff in a northerly direction into the drainage systems of Danville, Alamo, and Walnut Creek ultimately discharging into Suisun Bay. The southern portion of the project area drains to the south via a network of storm drainpipes into a 72-inch storm drain located under Camino Ramon that transitions to an 84-inch-diameter pipe south of the Bollinger Canyon Road and ultimately, to a 96-inch-diameter pipeline located under the Bishop Ranch 1 surface parking areas.

The 96-inch-diameter pipeline crosses Bishop Ranch 1 to the Iron Horse Trail corridor, discharges into South San Ramon Creek, and ultimately flows to the Lower San Francisco Bay.

According to the Specific Plan, there are no known deficiencies within the existing stormwater drainage system.

Solid Waste

Solid waste collection and disposal in San Ramon is provided by Valley Waste Management, which is a part of Waste Management, Inc. Valley Waste Management provides solid waste collection services under an exclusive franchise agreement with the City of San Ramon. These services include collection of solid waste from commercial, industrial, and residential customers; collection of residential recyclables and yard trimmings; and management of the San Ramon Recycling Center. Commercial recycling services are provided by several companies that have been granted permits by the City of San Ramon, and are available to all San Ramon businesses on a competitive basis.

Landfill Capacity

Valley Waste Management transports solid waste to the Vasco Road Sanitary Landfill in Livermore. Currently the landfill has capacity until 2025.

Table 3.13-3: Landfill Summary

Landfill	Location	Maximum Daily Throughput	Remaining Capacity	Closure Date
Vasco Road Sanitary Landfill	Livermore	2,250 tons	9.8 million cubic yards	2025
Source: City of San Ramon, 2012.				

Energy

Pacific Gas and Electric Company (PG&E) provides electricity and natural gas service to the City of San Ramon. Below is a discussion of each energy source.

Electricity

PG&E provides electricity service to all or part of 47 counties in California, including Contra Costa County, constituting most of the northern and central portions of the State. As of December 31, 2010, PG&E provided electricity to approximately 5.2 million customers. In 2010, PG&E obtained 43 percent of electricity from its own generation sources and the remaining 57 percent from outside sources. PG&E-owned generating facilities include nuclear, fossil fuel, hydroelectric, and solar with a net generating capacity of more than 7,300 megawatts. Outside suppliers to PG&E include the California Department of Water Resources, irrigation districts, renewable energy suppliers, and other fossil fuel-fired suppliers. PG&E operates approximately 160,000 circuit miles of transmission and distribution lines. PG&E is interconnected with electric power systems in the western Electricity

Coordinating Council, which includes 14 western states; Alberta and British Columbia, Canada; and parts of Mexico.

In 2010, PG&E delivered 83,908 gigawatt-hours of electricity to its customers.

Natural Gas

PG&E provides natural gas service to all or part of 39 counties in California, including Contra Costa County, constituting most of the northern and central portions of the State. As of December 31, 2010, PG&E provided electricity to approximately 4.3 million customers. PG&E obtains more than 59 percent of its natural gas supplies from western Canada and the balance from U.S. sources. PG&E operates approximately 49,000 miles of transmission and distribution pipelines.

3.13.3 - Regulatory Framework

State

California Urban Water Management Planning Act

The Urban Water Management Planning Act (California Water Code Sections 10610-10656) requires that all urban water suppliers with at least 3,000 customers prepare urban water management plans and update them every five years. The act requires that urban water management plans include a description of water management tools and options used by that entity to maximize resources and minimize the need to import water from other regions. Specifically, urban water management plans must:

- Provide current and projected population, climate, and other demographic factors affecting the supplier's water management planning;
- Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier;
- Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage;
- Describe plans to supplement or replace that source with alternative sources or water demand management measures;
- Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis (associated with systems that use surface water);
- Quantify past and current water use;
- Provide a description of the supplier's water demand management measures, including schedule of implementation, program to measure effectiveness of measures, and anticipated water demand reductions associated with the measures; and
- Assess water supply reliability.

EBMUD's Urban Water Management Plan was last updated in 2011 and projects water demand and supply through 2040.

Model Water Efficient Landscape Ordinance

The Model Water Efficient Landscape Ordinance was adopted by the Office of Administrative Law in September 2009 and requires local agencies to implement water efficiency measures as part of their review of landscaping plans. Local agencies can either adopt the Model Water Efficient Landscape Ordinance or incorporate provisions of the ordinance into code requirements for landscaping. For new landscaping projects of 2,500 square feet or more that require a discretionary or ministerial approval, the applicant is required to submit a detailed "Landscape Documentation Package" that discusses water efficiency, soil management, and landscape design elements.

California Integrated Waste Management Act

To minimize the amount of solid waste that must be disposed of by transformation and land disposal, the State Legislature passed Assembly Bill (AB) 939, the California Integrated Waste Management Act of 1989, effective January 1990. The legislation required each local jurisdiction in the State to set diversion requirements of 25 percent by 1995 and 50 percent by 2000; established a comprehensive statewide system of permitting, inspections, enforcement, and maintenance for solid waste facilities; and authorized local jurisdictions to impose fees based on the types or amounts of solid waste generated. In 2007, Senate Bill (SB) 1016, Wiggins, Chapter 343, Statutes of 2008, introduced a new per capita disposal and goal measurement system that moves the emphasis from an estimated diversion measurement number to using an actual disposal measurement number as a per capita disposal rate factor. As such, the new disposal-based indicator (pounds per person per year) uses only two factors: a jurisdiction's population (or in some cases employment) and its disposal as reported by disposal facilities. The City of San Ramon's disposal rate goal is 5.7 pounds per person per year.

California Public Utilities Commission

The California Public Utilities Commission (CPUC) regulates privately owned telecommunication, electric, natural gas, water, railroad, rail transit, and passenger transportation companies. It is the responsibility of the CPUC to (1) assure California utility customers safe, reliable utility service at reasonable rates; (2) protect utility customers from fraud; and (3) promote a healthy California economy. The Public Utilities Code, adopted by the legislature, defines the jurisdiction of the CPUC.

Title 24, California's Energy Efficiency Standards for Residential and Nonresidential Buildings

Title 24, Part 6, of the California Code of Regulations establishes California's Energy Efficiency Standards for Residential and Nonresidential Buildings. The standards were updated in 2005 and recently amended in 2008. The 2008 standards set a goal of reducing growth in electricity use by 561.2 gigawatt-hours per year (GWh/y) and growth in natural gas use by 19 million therms per year (therms/y). The savings attributable to new nonresidential buildings are 151.2 GWh/y of electricity savings and 3.3 million therms. For nonresidential buildings, the standards establish minimum energy efficiency requirements related to building envelope, mechanical systems (e.g., heating,

ventilation, and air conditioning [HVAC] and water heating systems), indoor and outdoor lighting, and illuminated signs.

Local

City of San Ramon

General Plan

- **Implementing Policy 2.3-I-20:** Evaluate the ability of new development to pay for its infrastructure, its share of public and community facilities, and the incremental operating costs it imposes.
- **Implementing Policy 2.3-I-23:** Assure adequate revenue sources to finance City capital facilities and program initiatives.
- **Implementing Policy 2.3-I-24:** Assure that ongoing budgets provide for adequate maintenance of the City's capital facilities, and establish fees commensurate with services rendered (e.g., application processing fees, planning, building and safety and engineering) to recover costs of these services.
- **Guiding Policy 3.1-G-1:** Manage the City's growth in a way that balances existing and planned transportation facilities, protection of open space and ridgelines, provision of diverse housing options, and the preservation of high quality community facilities and services.
- **Implementing Policy 3.1-I-7:** Allow urban development only within the City's Urban Growth Boundary (see Implementing Policies 4.6-I-1 through 4.6-I-5) and only in accord with a plan for full urban services (police, fire, parks, water, sanitation, streets and storm drainage) to which all providers are committed.
- **Guiding Policy 3.2-G-1:** Ensure the attainment of public facility and service standards through the City's development review process, Capital Improvement Program (CIP), and a variety of funding mechanisms to maintain existing facilities and help fund expansion.
- **Implementing Policy 3.2-I-1:** Adopt "Findings of Consistency" that ensure new projects will comply with the City's performance standards through its development review process.
- **Implementing Policy 3.2-I-3:** Require new development to fund public facilities and infrastructure that is deemed necessary to mitigate the impact of that new development.
- **Implementing Policy 3.2-I-4:** Levy local, sub-regional, and regional mitigation fees for public facilities and infrastructure improvements in proportion to a new development's impact.
- **Guiding Policy 7.5-G-1:** Manage solid waste so that State goals are exceeded and the best possible service is provided to the citizens and businesses of San Ramon.
- **Implementing Policy 7.5-I-1:** Provide the best possible service for the collection of garbage, recyclables, and green waste at the lowest possible cost.
- **Implementing Policy 7.5-I-2:** Provide and promote opportunities to reduce waste in all sectors of San Ramon, including residential, commercial, non-profit, government, and educational sectors.
- **Implementing Policy 7.5-I-3:** Develop consumer friendly, convenient, affordable options for community serving recycling services.

- **Implementing Policy 7.5-I-4:** Through the development review process, encourage the provision of convenient recyclable material storage locations.
- **Implementing Policy 7.5-I-5:** Comply with State requirements for proper handling and storage of solid waste, recyclables, and hazardous materials, diversion of solid waste from landfills, and provision of programs to make these activities feasible.
- **Implementing Policy 7.5-I-6:** Ensure that solid waste programs effectively address community needs and issues.
- **Implementing Policy 7.5-I-7:** Provide options for the safe disposal of hazardous waste and materials.
- **Implementing Policy 7.5-I-8:** Encourage solid waste diversion (e.g. waste prevention, reuse, recycling, and composting).
- **Implementing Policy 7.5-I-9:** Require new development projects to comply with the Municipal Code's construction and demolition debris diversion requirements.
- **Implementing Policy 7.5-I-10:** Provide convenient recycling opportunities at large public events and venues.
- **Implementing Policy 7.5-I-11:** Promote public and private efforts to recycle electronic waste.
- **Guiding Policy 8.6-G-1:** Promote the implementation of water quality and conservation programs and measures by San Ramon employers, residents, and public agencies.
- **Implementing Policy 8.6-I-1:** Require new development projects to implement indoor water conservation and demand management measures.
- **Implementing Policy 8.6-I-2:** Require new development projects to implement outdoor water conservation and demand management measures.
- **Implementing Policy 8.6-I-3:** New development in areas where recycled water service exists or is planned shall be plumbed with "purple pipe" and other measures necessary to accommodate non-potable water service.
- **Implementing Policy 8.6-I-4:** Require new development to meet the State Model Water Efficient Landscape Ordinance (MWELO).
- **Implementing Policy 8.6-I-5:** Collaborate with DERWA (Dublin San Ramon Services District and East Bay Municipal Utilities District Recycled Water Authorities) to expand the recycled water distribution system in an efficient and timely manner.
- **Implementing Policy 8.6-I-6:** Continue implementation of the City of San Ramon Stormwater Management Program to reduce storm water pollution, provide public education, and to protect the water quality of the City's local creeks and streams.
- **Guiding Policy 9.4-G-1:** Protect the community from risks to lives and property posed by flooding and stormwater runoff.
- **Implementing Policy 9.4-I-2:** Require new development to prepare hydrologic studies to assess storm runoff impacts on the local and subregional storm drainage systems and/or creek corridors. New development shall implement all applicable and feasible recommendations from the studies.

- **Implementing Policy 9.4-I-3:** Require new development to provide a funding mechanism for ongoing maintenance of drainage facilities and other stormwater control measures. Maintenance may be by the City under contract, or by a private entity.
- **Implementing Policy 9.4-I-7:** All new developments shall not increase runoff to the 100-year peak flow in the City's flood control channels or to local creeks and shall be substantially equal to pre-development conditions. All new storm water systems shall be in compliance with the requirements of the City's Stormwater Municipal Regional Permit issued by the San Francisco Regional Water Quality Control Board.
- **Guiding Policy 11.21-G-4:** Promote energy conserving practices in the location, construction, renovation, and maintenance of San Ramon's housing units.
- **Implementing Policy 11.4-I-4:** Enforce the State's energy conservation standards for new residential construction and renovations to existing structures.
- **Implementing Policy 11.4-I-5:** Encourage innovative designs to maximize passive energy efficiencies, while retaining compatibility with surrounding neighborhoods.

San Ramon Municipal Code

San Ramon Municipal Code Division C4 Chapter VIII (Ordinance No. 218) requires that water conservation features be incorporated into landscaping plans. The ordinance includes provisions requiring the use of drought-tolerant landscaping, climate-sensitive irrigation systems, use of water-efficient sprinkler heads, and other water conservation practices and technologies where feasible.

East Bay Municipal Utility District

EBMUD Policy 8.01 requires that customers use recycled water for non-domestic purpose when it is of adequate quality and quantity, available at reasonable cost, not detrimental to public health, and not injurious to plants or wildlife.

3.13.4 - Methodology

EBMUD prepared a Water Supply Assessment for the proposed project in November 2010. The Water Supply Assessment was required by state law, because the proposed project would develop a mixed-use project that would demand an equivalent or greater amount of water as a 500-unit residential project. Note that the proposed project would also exceed the thresholds related to 500,000 square feet of retail space and 250,000 square feet of office space. The Water Supply Assessment provided demand projections for the proposed project and evaluated those projections in relation to those contained in EBMUD's 2005 Urban Water Management Plan[1]. The Water Supply Assessment is contained in Appendix F of this DEIR.

Michael Brandman Associated (MBA) evaluated utility system impacts using the Water Supply Assessment, as well as utility information provided in the City of San Ramon General Plan, the City

[1] At the time the Water Supply Assessment was prepared (November 2010), EBMUD had not yet adopted the 2010 Urban Water Management Plan and, therefore, used the adopted 2005 Urban Water Management Plan. Regardless, the 2010 Urban Water Management Plan accounts for the Specific Plan's demand projections.

of San Ramon General Plan EIR, the EBMUD 2010 Urban Water Management Plan, and the PG&E 10-k Annual Report. MBA also reviewed information posted on agency websites, including EBMUD, DERQA, and the United States Energy Information Administration.

3.13.5 - Thresholds of Significance

According to the CEQA Guidelines' Appendix G Environmental Checklist, to determine whether impacts to utilities and service systems are significant environmental effects, the following questions are analyzed and evaluated. Would the project:

a.) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

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?

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?

d.) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

e.) Result in a determination by the wastewater 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?

f.) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

g.) Comply with federal, state, and local statutes and regulations related to solid waste?

3.13.6 - Project Impacts and Mitigation Measures

Water

Impact US-1:	**Development and land use activities contemplated by the Specific Plan would not result in a need for additional water supplies or additional treatment capacity.**

Impact Analysis

Land uses within the Specific Plan area are served with potable water supplied by EBMUD. As previously discussed, EBMUD project's adequate supplies under various hydrologic conditions through 2030. According to the EBMUD, the Specific Plan Area currently uses approximately 455,000 gallons per day (gpd) of water.

The proposed project consists of the adoption and implementation of the North Camino Ramon Specific Plan. The Specific Plan includes redevelopment from a low-density commercial area to a transit- and pedestrian-oriented neighborhood with a mix of uses. Implementation of development

within the plan boundaries would result in an increased demand for potable water. Pursuant to state law, EBMUD prepared a Water Supply Assessment in November 2010. The findings of the Water Supply Assessment are summarized below and the complete document is available in Appendix F of this Draft EIR.

The Water Supply Assessment indicates that existing potable water demand within the Specific Plan area currently constitutes approximately 455,000 gallons per day (gpd) and projects that, at buildout, water demand would be approximately 892,000 gpd. The Water Supply Assessment states that the water demands for the Specific Plan are accounted for in EBMUD's 2005 Urban Water Management Plan[2], which concluded that adequate water supplies are available to serve existing and projected water demands through 2030. Furthermore, EBMUD recently updated its demand projections as part of the development of its Water Supply Management Program 2040. EBMUD indicated that the Specific Plan would not change demand projections included in the Water Supply Management Program 2040.

As previously discussed, EBMUD's 2010 Urban Water Management Plan projects customer rationing during the Single Dry Year and Multiple Dry Years scenarios to offset decreases in supply. Additionally, the 2010 Urban Water Management Plan anticipates that recycled water programs will offset demand for potable water by using non-potable water for irrigation.

As identified in the Specific Plan, development within the plan boundaries would be required to comply with the Model Water Efficient Landscape Ordinance, which requires that plans and water usage estimates for landscape irrigation be submitted prior to the issuance of ministerial permits. This has been incorporated as a mitigation measure.

Furthermore, Specific Plan Policy UTL-1.1 requires water conservation and Low Impact Development best management practices to be incorporated into all public improvement and private development projects in the Specific Plan area.

In summary, the Specific Plan would cause a net increase in potable water demand by 437,000 gallons per day in relation to existing demand within the plan boundaries. EBMUD indicated that this demand is accounted for in its long-term water supply planning and would not require the development of additional supplies. While EBMUD's 2010 Urban Water Management Plan forecasts a worst-case scenario of a three-year drought that would result in a need for supplemental water supply, the proposed project would not exacerbate this projected deficit because its demand is accounted for in this total. Furthermore, it should be emphasized that this projection is based on a number of adverse conditions occurring simultaneously and, therefore, is considered a "worst case" planning scenario. The Specific Plan includes a number of policies requiring water conservation measures to be incorporated into development that occurs pursuant to the plan. These policies are

[2] As previously noted, the 2010 Urban Water Management Plan was adopted in June 2011 and accounts for the Specific Plan's projected demand.

binding, and future development and land use activities that occur pursuant to the Specific Plan would be required to implement them.

Finally, as shown in Exhibit 2-12, the Specific Plan contemplates a comprehensive network of potable water and recycled water distribution facilities. The implementation of these facilities would ensure that adequate infrastructure is available to serve the Specific Plan uses.

For these reasons, the Specific Plan would have a less than significant impact on water.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Wastewater

Impact US-2:	**Development and land use activities contemplated by the Specific Plan would not require or result in the construction of new water or wastewater treatment facilities or expansion of offsite existing facilities.**

Impact Analysis

Land uses within the Specific Plan area are served with wastewater collection and treatment service provided by CCCSD. As previously discussed, CCCSD has adequate collection and treatment capacity to serve development within its service area.

The proposed project consists of the adoption and implementation of the North Camino Ramon Specific Plan. The Specific Plan includes redevelopment from a low-density commercial area to a transit- and pedestrian-oriented neighborhood with a mix of uses. Implementation of development within the plan boundaries would result in an increased need for wastewater services.

As stated in the Specific Plan, CCCSD has indicated that the Specific Plan would not create capacity deficiencies in the existing trunk system and adequate treatment plan capacity is available. Furthermore, as shown in Exhibit 2-14, the Specific Plan contemplates a network of sewer collection facilities that would ensure that development that occurs pursuant to the plan would be adequately served with wastewater collection and treatment. Impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Storm Drainage

Impact US-3:	**Development and land use activities contemplated by the Specific Plan would not result in a need for new or expanded offsite storm drainage facilities.**

Impact Analysis

The existing Specific Plan area is highly developed with a significant footprint of impervious surfaces (buildings, parking lots, and roadways). The proposed Specific Plan would alter development types in the area, but it is not anticipated to increase the quantity of impervious surfaces.

Development within the Specific Plan boundaries would be required to comply with the California Regional Water Quality Control Board, San Francisco Region's new regional municipal permit. A key element of the permit would require new development to employ Low Impact Development techniques to minimize and treat stormwater runoff. According to the Regional Water Quality Control Board, the goal of Low Impact Development is to "reduce runoff and mimic a site's predevelopment hydrology . . . by infiltrating, storing, detaining, evapotranspiring, and/or biotreating stormwater runoff close to its source." As such, each development within the plan boundaries would be required to demonstrate that it adequately treats any site runoff to insure the proper quality of the runoff leaving the site; does not increase the quantity, duration, or peak flow of runoff from a site; and employs proper construction management techniques through the construction process to insure sediment and erosion control (addressed through the state National Pollutant Discharge Elimination System requirements).

Accordingly, new development within the Specific Plan boundaries would not increase flows within the existing drainage system. As indicated by the Specific Plan, there are no known deficiencies within the existing drainage system. Furthermore, as shown in Exhibit 2-16, the Specific Plan contemplates a network of storm drainage facilities that would ensure that development that occurs pursuant to the plan would be adequately served with drainage.

New drainage infrastructure required by the Specific Plan would be limited to that required for new roadways and would be appropriately sized and modeled through the existing drainage system to insure proper sizing to handle stormwater flows. As such, the Specific Plan would not result in an increased need for offsite stormwater drainage facilities and impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Solid Waste

Impact US-4:	**Development and land use activities contemplated by the Specific Plan would generate substantial amounts of solid waste that may result in the unnecessary use of regional landfill capacity.**

Impact Analysis

Solid waste would be generated by short-term construction activities and long-term operational activities. Each is discussed below.

Construction Waste Generation

Implementation of development in accordance with the Specific Plan would include the demolition of approximately 2.65 million square feet of commercial uses, and the construction of 5.07 million square feet of commercial uses and 1.65 million square feet of residential uses. Using construction and demolition debris waste generation rates published by the U.S. Environmental Protection Agency, an estimate of the total construction and demolition debris generated by the proposed project is provided in Table 3.13-4. Note that nonresidential and residential construction activities were calculated separately because of differences in waste generation rates.

Table 3.13-4: Construction and Demolition Waste Generation

Activity	Type	Waste Generation Rate	Square Footage	Total (tons)
Demolition	Nonresidential	155 pounds/square foot	2,650,000	205,375
Construction	Nonresidential	3.89 pounds/square foot	5,070,000	9,861
	Residential	4.38 pounds/square foot	1,650,000	3,613
			Total	**218,850**

Notes:
1 ton = 2,000 pounds
Source: U.S. Environmental Protection Agency, 1998; Michael Brandman Associates, 2012.

Implementation of the Specific Plan is estimated to generate 218,850 tons of construction and demolition debris. This tonnage would be spread out over the length of construction activities and the actual volumes of construction waste disposed of at any one time are not expected to be more than several tons of debris. However, because 218,850 tons represents a significant amount of construction and demolition waste, mitigation is proposed that would require the applicant to implement construction and demolition recycling to the maximum extent feasible. The implementation of this mitigation measure would reduce short-term solid waste generation

substantially. Therefore, short-term construction impacts on landfill capacity would be less than significant.

Operational Waste Generation

Daily and annual operational solid waste generation estimates are provided in Table 3.13-5. Operational solid waste generation for non-residential and residential uses was calculated using a standard waste generation rates provided by the California Integrated Waste Management Board. Note that the estimates in the table are considered conservative estimates and likely overstate actual operational solid waste generation.

Table 3.13-5: Operational Net Solid Waste Generation

Use	Size	Waste Generation Rate	Daily Total (tons)	Annual Total (tons)
Non-Residential	4,325,000	0.1 pound/square foot/day	216.25	78,931.25
Residential	1,500 units	10 pounds/unit/day	7.5	2,737.50
		Net Total	**223.75**	**81,668.75**

Notes:
1 ton = 2,000 pounds
Source: Michael Brandman Associates 2012.

The proposed project is estimated to generate a net total of 233.75 tons of solid waste on a daily basis and 81,668.75 tons on an annual basis. While regional landfill capacity would be available to accommodate this amount of solid waste, this figure could be substantially reduced through recycling and waste reduction practices and would avoid the unnecessary use of landfill capacity. Mitigation is proposed that would require development projects within the Specific Plan boundaries to implement operational recycling and waste reduction practices to the maximum extent feasible. The implementation of this mitigation measure would reduce operational solid waste generation substantially and conserve landfill capacity. Therefore, long-term operational impacts on landfill capacity would be less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM US-4a Prior to the issuance of demolition and construction permits, project applicants within the Specific Plan area shall submit a recycling plan to the City of San Ramon identifying the procedures by which construction and demolition would be salvaged and recycled to the maximum extent feasible. The plan shall include proof that a construction and demolition debris recycler is under contract to the applicant to perform this work.

MM US-4b Prior to the issuance of occupancy permits, project applicants within the Specific Plan area shall submit a Recycling and Waste Reduction Plan to the City of San Ramon identifying practices they and their tenants would implement during project operations that demonstrate at least 50-percent diversion.

Operation recycling and waste reduction practices shall include but not be limited to:

- Contracting with one or more City-licensed commercial recycling providers to serve all project commercial uses. Recyclable materials collection containers shall be provided in common commercial tenant disposal areas and be equipped to accept aluminum, cardboard, glass, green waste, mixed paper, and plastic materials, and, where feasible, food scraps.
- Compliance with City of San Ramon's 50-percent waste diversion ordinance.
- Installation of common recycling facilities in all residential uses. These facilities shall be equipped to accept aluminum, cardboard, glass, mixed paper, and plastic materials and contain signage clearly identifying accepted materials.
- Periodic notification of residents and commercial tenants about the location of recycling facilities and accepted materials.
- Installation of recyclable materials receptacles in public places (along streets in public parks, plazas, and outside of the Transit Center, etc.). Recycling receptacles shall be of high-quality design and shall display signage clearly identifying accepted materials.
- Common commercial and residential disposal areas shall be designed with sufficient space to accommodate separate containers for solid waste, recyclables, organics, and—for restaurants—tallow, subject to approval of the franchise waste provider and City of San Ramon. Plans should include adequate and safe access for solid waste and recycling vehicles to access and collect materials.

Level of Significance After Mitigation

Less than significant impact.

Energy

Impact US-5: **Development and land use activities contemplated by the Specific Plan would not result in the unnecessary, wasteful, or inefficient use of energy.**

Impact Analysis

Using consumption figures provided by PG&E and the U.S. Energy Information Administration, the proposed project's estimated building electricity and natural gas consumption following construction is summarized in Table 3.13-6. As shown in the table, the proposed project is estimated to demand a net total of 80.6 million kilowatt hours (kWH) and 327.1 million cubic feet of natural gas annually at full buildout.

Table 3.13-6: Estimated Energy Consumption

Use	Energy Source	Annual Consumption Rate	Unit	Estimated Annual Consumption
Commercial	Electricity	15.7 kWH/square foot	4,325,000 square feet	67.9 million kWH
	Natural Gas	58.3 cubic feet/square foot		252.1 million cubic feet
Residential	Electricity	8,492 kWH/per household	1,500 households	12.7 million kWH
	Natural Gas	50,000 cubic feet/per household		75.0 million cubic feet
Total	Electricity	—	—	**80.6 million kWH**
	Natural Gas			**327.1 million cubic feet**

Notes:
kWH = kilowatt hours
Source: Pacific Gas and Electric Company, 2011; Energy Information Administration, 2007.

Policy UTL-5.1 of the Specific Plan requires that new residential and commercial development within the plan boundaries comply with the San Ramon Climate Action Plan's Energy Conservation and Alternative Energy strategies that include but are not limited to LEED certification, use of photovoltaic panels, and sustainable design. Policy UTL-5.2 of the Specific Plan requires new residential and commercial development within the plan boundaries to demonstrate a 15-percent increase in energy efficiency compared with Title 24 standards. As such, implementation of the Specific Plan would not result in the unnecessary, wasteful, or inefficient use of energy. Impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

SECTION 4: CUMULATIVE EFFECTS

4.1 - Introduction

CEQA Guidelines Section 15130 requires the consideration of cumulative impacts within an EIR when a project's incremental effects are cumulatively considerable. 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." In identifying projects that may contribute to cumulative impacts, the CEQA Guidelines allow the use of a list of past, present, and reasonably anticipated future projects, producing related or cumulative impacts, including those which are outside of the control of the lead agency.

In accordance with CEQA Guidelines Section 15130(b), " . . . the discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, the discussion need not provide as great [a level of] detail as is provided for the effects attributable to the project alone." The discussion should be guided by standards of practicality and reasonableness, and it should focus on the cumulative impact to which the identified other projects contribute rather than on the attributes of other projects that do not contribute to the cumulative impact.

The proposed project's cumulative impacts were considered in conjunction with the General Plan 2030 buildout projections. The General Plan 2030's cumulative impacts were considered in conjunction with the Association of Bay Area Government's (ABAG's) Projections 2009 for Alameda and Contra Costa counties. These two counties were selected because the General Plan's Planning Area is wholly contained in Contra Costa County and is geographically adjacent to Alameda County. Furthermore, these two counties form the East Bay region, which is where any cumulative effects of the General Plan 2030 buildout projections would be most acutely observed. Table 4-1 provides a summary of projections.

Table 4-1: Alameda County/Contra Costa County 2030 Projections

Jurisdiction	Population	Jobs
Alameda County	1,874,600	970,490
Contra Costa County	1,273,700	516,910
Total	**3,148,300**	**1,487,400**
Source: Association of Bay Area Governments, 2009.		

4.2 - Cumulative Impact Analysis

4.2.1 - Aesthetics, Light, and Glare

The analysis area for evaluation of cumulative impacts on aesthetics, light, and glare is the City of San Ramon. The City is characterized as a suburban community located within the San Ramon Valley. The valley bottom is mostly developed with urban uses, while significant portions of the hillsides and nearly all of the ridgelines have remained undeveloped. Mt. Diablo, Wiedemann Hill, and the Dougherty Hills are prominent visual features. Interstate 680 (I-680) is designated as a State Scenic Highway through San Ramon.

The proposed project, in conjunction with development contemplated by the City of San Ramon General Plan, would result in changes to views from I-680, visual character, and light and glare. However, the incremental changes that would occur relative to the baseline conditions would not be cumulatively considerable because of the extent and nature of existing development in San Ramon. Moreover, planned development would be required to comply with development guidelines and would be reviewed by the City to ensure consistency with architectural standards, viewshed policies, and lighting requirements. Therefore, the proposed project, in conjunction with other future development projects, would not have cumulatively considerable impacts on aesthetics, light, and glare.

4.2.2 - Air Quality and Greenhouse Gases

The analysis area for evaluation of cumulative impacts to air quality includes the San Francisco Bay Area Air Basin (Air Basin), which is identical to the boundaries of the San Francisco Bay Area Air Quality Management District. The Air Basin consists of Napa, Marin, San Francisco, Contra Costa, Alameda, San Mateo, and Santa Clara counties; the southern portion of Sonoma County; and the western portion of Solano County.

Cumulative impact analysis is guided by buildout assumptions identified in regional population projections for the Air Basin. BAAQMD, which oversees air quality in the Air Basin, uses the ABAG population and vehicle miles traveled (VMT) growth projections as the basis for its air pollutant projections and reduction strategies contained in its Clean Air Plan (CAP). The proposed project would be consistent with the 2010 CAP after implementation of mitigation, and the projected increase in VMT would be less than the projected population increase. The project would not result in a cumulatively considerable net increase of criteria pollutants after implementation of mitigation. Therefore, the proposed project would be consistent with the 2010 Clean Air Plan and would not have a cumulatively considerable impact associated with inconsistency with regional air quality planning or a cumulative net increase in nonattainment pollutants. In addition, the proposed project would not result in an air quality violation or contribute substantially to an existing or project air quality violation, after incorporation of mitigation, nor would it expose sensitive receptors to substantial air pollutants after mitigation.

Finally, the proposed project would be consistent with the City of San Ramon's Climate Action Plan, and it is considered a key component in the Climate Action Plan to help the City achieve its emission reduction goals, because of its infill, increased density, mixed-use, transit-oriented, pedestrian-oriented, and compact development design characteristics. In addition, the project is intended to provide infill and improved pedestrian and transit orientation that will reduce overall growth in VMT generation in the City by increasing use of alternative modes of travel in the Plan area. The project also meets many of the goals of the Bay Area-wide effort, "Focusing our Vision" (FOCUS) program, guided by the Joint Policy Committee, which seeks to strengthen existing city centers, locate more housing near existing and future rail stations and quality bus lines, encourage more compact and walkable suburbs, and protect regional open space. Growth in the Plan area will produce lower VMT per capita and per employee than would otherwise occur without the adoption of the North Camino Ramon Specific Plan. Therefore, the project would not significantly contribute to a cumulative greenhouse gas impact.

4.2.3 - Biological Resources

The analysis area for evaluation of cumulative impacts to biological resources includes the North Camino Ramon Specific Plan Area. The entire Specific Plan area is heavily developed and is considered an urban environment. The area does contain landscaped areas in small patches in parking lots, adjacent to buildings, along streets, and within medians.

Nesting birds protected by the Migratory Bird Treaty Act (MTBA) are the only special-status species with the potential to occupy this area. Development activities associated with the proposed project, as well as other future development projects in the area, may impact nesting birds. Standard pre-construction surveys and, if necessary, avoidance procedures would be required for any project with the potential to affect nesting birds. Therefore, the proposed project, in conjunction with other future development projects, would not have cumulatively considerable impacts on biological resources. Because of the urban, built-up nature of the North Camino Ramon Specific Plan area, there is no potential for any other significant individual or cumulative biological resource impacts.

4.2.4 - Cultural Resources

The analysis area for evaluation of cumulative impacts to cultural resources includes the North Camino Ramon Specific Plan area. The entire Specific Plan area is mostly built out and considered an urban environment. Nearly all of the land within the Specific Plan area has been previously graded and developed or substantially disturbed. In addition, there are no known cultural resources within the Specific Plan area. Development activities associated with the proposed project, as well as other future development projects in the Specific Plan area, would result in ground-disturbing activities that may encounter previously undiscovered cultural resources. Standard construction monitoring and, if necessary, avoidance or recovery procedures would be required for any project with the potential to adversely affect cultural resources. Therefore, the proposed project, in

conjunction with other future development projects, would not have cumulatively considerable impacts on cultural resources.

4.2.5 - Geology, Soils, and Seismicity

The analysis area for evaluation of cumulative impacts to geology, soils, and seismicity includes the North Camino Ramon Specific Plan area. The Specific Plan area is mostly built out and is considered an urban environment. Nearly all of the land within the Specific Plan area has been previously graded and developed or substantially disturbed. There are no known geologic hazards within the subarea (active faults, liquefaction zones, steep slopes, etc.). Development activities associated with the proposed project, as well as other future development projects in the Specific Plan area, would be required to comply with building code standards for foundations and structures to ensure that buildings are adequately supported to withstand seismic events and abate any unstable soil conditions. In addition, future development would be required to implement standard erosion control measures to ensure that ground-disturbing activities do not create offsite hazards. Therefore, the proposed project, in conjunction with other future development projects, would not have cumulatively considerable impacts on geology, soils, and seismicity.

4.2.6 - Hazards and Hazardous Materials

The analysis area for evaluation of cumulative impacts to hazards and hazardous materials includes the North Camino Ramon Specific Plan area. The Specific Plan area is mostly built out and contains a mix of commercial and office buildings. A number of land uses within the Specific Plan area currently use or formerly used hazardous materials. Mitigation is proposed that would require development activities associated with the proposed project and located within the Aerojet General/Aerotest Facility to conduct Environmental Site Assessments. Other future development projects potentially impacted by these sites would also be required to remediate any potential hazardous materials. The proposed project, as well as future development projects, would be required to comply with all applicable hazardous materials handling and storage requirements to ensure that public health and safety are not at risk. Therefore, the proposed project, in conjunction with other future development projects, would not have cumulatively considerable impacts on hazards and hazardous materials.

4.2.7 - Hydrology and Water Quality

The analysis area for evaluation of cumulative impacts to hydrology and water quality includes the Specific Plan area. The Specific Plan area is mostly built out and contains a mix of commercial and office buildings. Development activities associated with the proposed project may impact water quality. Mitigation is proposed requiring the implementation of a Storm Water Pollution Prevention Plan and Best Management Practices that would minimize water quality impacts. Other future development projects in the Specific Plan area would be required to implement similar mitigation. Therefore, the proposed project, in conjunction with other future development projects, would not have cumulatively considerable impacts on hydrology and water quality.

4.2.8 - Land Use and Planning

The analysis area for evaluation of cumulative impacts on land use is the City of San Ramon. Most of the City contains urban development. The Specific Plan and its contemplated land uses were found to be consistent with the City of San Ramon General Plan and Zoning Ordinance. Future development projects would be required to demonstrate consistency with General Plan policies and Zoning Ordinance policies and ensure that they do not create land use conflicts with adjacent properties. Therefore, the proposed project, in conjunction with other future development projects, would not have cumulatively considerable impacts on land use.

4.2.9 - Noise

The analysis area for evaluation of cumulative noise impacts encompasses the ambient noise environment around the project site, which includes the Specific Plan area, as well as roadways that would experience increases in traffic volumes from project-generated trips.

The cumulative noise impact analysis is guided by evaluating increases in ambient noise levels in the project vicinity relative to existing conditions. Construction noise would result in temporary increases in ambient noise levels, and mitigation is proposed that would require implementation of noise control measures during construction activities. Because construction would be temporary, ambient noise levels would not experience a permanent increase; therefore, no cumulatively considerable increase would occur. Vehicular trips generated by the proposed project would not cause ambient noise levels along any affected roadway segment to exceed acceptable noise standards for sensitive receptors under near-term or Year 2030 conditions. Therefore, the proposed project would not have a cumulatively considerable impact related to increased ambient noise levels on nearby roadways. Residential uses proposed within the Specific Plan area would be exposed to noise levels above acceptable noise standards. Mitigation is proposed that would require an acoustical study to be prepared for any residential development within the Specific Plan area and the subsequent implementation of measures to reduce exterior and interior noise impacts to a less than significant level. The proposed project may result in potentially significant construction and operational vibration to offsite sensitive receptors or proposed onsite sensitive receptors. Mitigation is proposed that would require a vibration analysis to be performed to determine if significant impacts would occur and identify vibration attenuation measures to reduce impacts to a level of less than significant. Offsite and proposed onsite sensitive receptors would not be exposed to significant sources of vibration, and impacts would not be cumulatively considerable. Therefore, the proposed project, in conjunction with other future development projects, would not have cumulatively considerable impacts on noise.

4.2.10 - Population and Housing

The analysis area for evaluation of cumulative impacts to population and housing encompasses the nine-county San Francisco Bay Area region. The proposed project would be consistent with the population projections contained in the General Plan; however, the General Plan is inconsistent with

the projections contained in ABAG's 2009 Projections. Because the Specific Plan's growth is included in the General Plan 2030, it would not further exacerbate the City of San Ramon's exceedance of ABAG growth estimates. Implementation of the Specific Plan would add 1,500 housing units to the City's housing supply. Several residential development and redevelopment sites are identified by the General Plan within the North Camino Ramon Specific Plan boundaries. The housing units would contribute to fulfilling the City's Regional Housing Heeds Allocation. Other projects within San Ramon would be required to demonstrate consistency with population projections and residential land use designations of the General Plan. Therefore, the proposed project, in conjunction with other future development projects, would not have cumulatively considerable impacts on population and housing.

4.2.11 - Public Services and Recreation

The analysis area for evaluation of cumulative impacts to public services and recreation is the City of Sam Ramon. The proposed project and future development projects would increase demands for fire protection, police protection, schools, libraries, parks, trails, and other recreational facilities. These projects would be required to provide development fees to finance capital improvements to the facilities to maintain acceptable service ratios and performance standards. The proposed project would provide a police contact and public outreach station and more than 10 acres of additional park facilities and public spaces. The facilities would be sized to accommodate increased demands resulting from planned growth and, therefore, would be a cumulative benefit of the proposed project. As applicable, future development projects may also be required to dedicate parkland or provide in-lieu-of fees to mitigate for impacts on parks and recreational facilities. Therefore, the proposed project, in conjunction with other future development projects, would not have cumulatively considerable impacts on public services and recreation.

4.2.12 - Transportation

The analysis area for evaluation of cumulative impacts to transportation is the City of San Ramon. The proposed project, in conjunction with other development projects contemplated by the City of San Ramon, would increase traffic volumes at intersections within the City limits under Existing Plus Project conditions. With the addition of trips generated by the proposed project, several intersections would operate at deficient levels of service. Mitigation is proposed that would require improvements to intersections resulting in acceptable performance levels under Existing Plus Project and Year 2030 Plus Project conditions. As such, impacts would not be cumulatively considerable. The proposed project and other future development projects would be required to provide appropriate transit, bicycle, and pedestrian facilities and, therefore, would ensure that cumulative impacts associated with alternative transportation would not be considerable.

4.2.13 - Utility Systems

The proposed projects cumulative impacts to utility systems are discussed separately below.

Potable Water

Potable water demand from the proposed project, in conjunction with other planned growth in the East Bay Municipal Utility District service area, is accounted for in the agency's 2010 Urban Water Management Plan. As indicated in the Urban Water Management Plan, the proposed project's water demand was accounted for in its long-term water supply planning; therefore, the agency has adequate existing and planned water supplies to satisfy projected demand, even during drought-year scenarios, through 2030. In addition, the proposed project and future projects would be required to implement water-efficiency measures to reduce the demand for potable water. Furthermore, the proposed project and some future development projects would be served by recycled water systems for outdoor irrigation, which would further reduce the demand for potable water. Therefore, the proposed project, in conjunction with other future development projects, would not have cumulatively considerable impacts on potable water.

Wastewater

Wastewater generation by the proposed project, as well as with other planned growth in the Central Contra Costa Sanitary District service area, is factored into the agency's long-range planning projections. The agency indicates that there is adequate collection and treatment capacity to serve development in the Specific Plan area and such development would not create capacity deficiencies. In addition, the agency is undertaking capital improvements to its conveyance system, including upsizing the San Ramon Interceptor in anticipation of planned growth in the San Ramon area. Therefore, the proposed project, in conjunction with other future development projects, would not have cumulatively considerable impacts on wastewater.

Storm Drainage

The proposed Specific Plan would alter development types in the area, but it is not anticipated to increase the quantity of impervious surfaces and, therefore, would not increase storm drainage needs. Future development projects would be required to demonstrate no net increase in storm drainage or provide drainage impoundment facilities that would detain runoff prior to discharge into the storm drain facilities. Therefore, the proposed project, in conjunction with other future development projects, would not have cumulatively considerable impacts on storm drainage.

Solid Waste

The proposed project and other future development projects would generate construction and operational solid waste that would need to be disposed of in landfills in the San Francisco Bay Area region. Landfill capacity in the region is available to serve the proposed project, as well as other planned projects, through 2025. Mitigation is proposed that would require development within the Specific Plan area to implement waste diversion measures, including recycling, to reduce waste generation. Other future development projects would be required to implement similar measures. Therefore, the proposed project, in conjunction with other future development projects, would not have cumulatively considerable impacts on solid waste.

Energy

The proposed project, in conjunction with future development in the Pacific Gas and Electric Company (PG&E) service area, would increase demand for electricity and natural gas. PG&E has adequate existing energy supplies to meet existing demand and has access to other energy supplies necessary to meet future demand. In addition, the proposed project and future projects would be required to implement energy-efficient measures in accordance with the Title 24 standards to reduce energy demand. Therefore, the proposed project, in conjunction with other future development projects, would not have cumulatively considerable impacts on energy.

SECTION 5: ALTERNATIVES TO THE PROPOSED PROJECT

5.1 - Introduction

In accordance with CEQA Guidelines Section 15126.6, this Environmental Impact Report (EIR) contains a comparative impact assessment of alternatives to the North Camino Ramon Specific Plan. The primary purpose of this section is to provide decision-makers and the general public with a reasonable number of feasible project alternatives that could attain most of the basic project objectives, while avoiding or reducing any of the project's significant adverse environmental effects. Important considerations for these alternatives analyses are noted below (as stated in CEQA Guidelines Section 15126.6).

- An EIR need not consider every conceivable alternative to a project;
- An EIR should identify alternatives that were considered by the lead agency, but rejected as infeasible during the scoping process;
- Reasons for rejecting an alternative include:
  - Failure to meet most of the basic project objectives;
  - Infeasibility; or
  - Inability to avoid significant environmental effects.

5.1.1 - Significant Unavoidable Impacts

The proposed project would not result in any significant unavoidable impacts.

5.1.2 - Alternatives to the Proposed Project

The three alternatives to the proposed project analyzed in this section are as follows:

- **No Project Alternative:** The North Camino Ramon Specific Plan would not be implemented. The entire Specific Plan area would be designated "Mixed Use," pursuant to the General Plan 2030 land use diagram; however, there would be no Specific Plan to guide the transition of this area.
- **Office/Retail Intensification Alternative:** An alternative Specific Plan emphasizing office and retail use intensification would be implemented in the Specific Plan area and would create a commercial district with a wide range of retail and support commercial uses, supported by nearby office campus and residential neighborhoods.
- **Suburban Village Alternative:** A Specific Plan that emphasizes residential use intensification would be implemented and would seek to create a fully integrated horizontal and vertical mixed-use suburban village with a vibrant commercial core, lifestyle residential neighborhoods, and abundant open park space amenities.

The three alternatives to the proposed project are analyzed below. These analyses compare the proposed project with each project alternative. In several cases, the description of the impact may be the same under each alternative when compared with the CEQA Thresholds of Significance (i.e., both the project and the alternative would result in a less than significant impact). The actual degree of impact may be slightly different between the proposed project and each alternative, and this relative difference is the basis for a conclusion of greater or lesser impacts.

5.2 - Project Objectives

As stated in Section 2, Project Description, the objectives of the proposed project are to:

- Enhance quality of life for residents and employees.
- Promote economic growth through new capital investment, the creation of new jobs, the development of new housing opportunities, and expansion of the tax base.
- Facilitate the redevelopment of the Specific Plan area from an automobile-dominated, low-density commercial area to a transit- and pedestrian-oriented neighborhood that will be a community focal point with a mix of uses.
- Complement the San Ramon City Center project and support the large office population within the Bishop Ranch Business Park.
- Expand the City's retail offerings by identifying sites for retail opportunities , as well as neighborhood-serving commercial uses.
- Enhance all modes of circulation within the plan area and connectivity to surrounding land uses.
- Facilitate the use of alternative modes of transportation through an enhanced circulation system, site planning and design techniques.
- Emphasize the use of the Iron Horse Trail and connectivity between the Plan Area and other parts of the City.
- Provide workforce housing close to employment centers.
- Minimize adverse impacts to sensitive uses through the use of site planning and design techniques.

5.3 - Alternative 1 – No Project Alternative

Under the No Project Alternative, the North Camino Ramon Specific Plan would not be implemented. The entire Specific Plan area is designated "Mixed Use," pursuant to the General Plan 2030 land use diagram. Therefore, pursuant to CEQA Guidelines Section 15126.6(e)(3), the "No Project

Alternative" consists of the Specific Plan area building out in accordance with General Plan 2030, as this represents the most likely "circumstance under which the project does not proceed."

Table 5-1 summarizes the No Project Alternative. As shown in Table 5-1, the No Project Alternative would result in 4.9 million square feet of commercial space and 1,224 dwelling units. By comparison, the proposed project would have 5.07 million square feet of commercial space and 1,500 residential dwelling units, a difference of 168,000 less commercial square footage and 376 fewer dwellings.

Table 5-1: No Project Alternative Summary

Scenario	Maximum Buildout Potential (Square Feet)		
	Commercial	Residential (dwelling units)	Total
No Project Alternative (General Plan 2030)	4,902,000	1,236,400 (1,224 dwelling units)	6,138,400
Proposed Project	5,070,000	1,650,000 (1,500 dwelling units)	6,720,000
Difference	**(168,000)**	**(413,600) (376 dwelling units)**	**(581,600)**
Source: City of San Ramon, 2012.			

5.3.1 - Impact Analysis

Aesthetics, Light, and Glare

Under the No Project Alternative, the Specific Plan area would maintain existing development and land use activities for the foreseeable future. The proposed project's impacts on State Scenic Highways and visual character were found to be less than significant and did not require mitigation; therefore, the No Project Alternative would also have less than significant impacts on these areas. With 168,000 fewer square feet of commercial space and 376 fewer residential dwelling units, the No Project Alternative would result in fewer new sources of light and glare than the proposed project. Mitigation similar to the proposed project would be required to reduce this impact to a level of less than significant. Therefore, the No Project Alternative would have fewer impacts on aesthetics, light, and glare than the proposed project.

Air Quality/Greenhouse Gas Emissions

This alternative would result in a reduction of 168,000 square feet of commercial square footage and 376 fewer residential dwelling units relative to the proposed project. Under the proposed project, all construction and long-term operational air quality and greenhouse gas impacts would be less than significant with mitigation. From a construction standpoint, the No Project Alternative would result in fewer emissions associated with both demolition and construction of commercial and residential buildings. From any operational standpoint, the project is also expected to have reduced air quality

impacts compared with the proposed project, even though under the No Project Alternative, several design features that are part of the proposed project that would reduce traffic would not be constructed. Notably, the No Project Alternative, which does not include residential development, would have reduced potential air quality impacts associated with exposure of sensitive receptors to air pollutants generated by commercial land uses and vehicle traffic on Interstate 680 (I-680) beyond the project site. In summary, the No Project Alternative would have less impact on air quality and greenhouse gases than the proposed project.

Biological Resources

Under the No Project Alternative, 168,000 fewer square feet of commercial building space and 376 fewer dwellings would be constructed within the Specific Plan area compared with the proposed project. Nonetheless, this alternative would have the potential to impact nesting birds and would require mitigation similar to the proposed project. The implementation of mitigation would reduce impacts to a level of less than significant. Therefore, this alternative would have less impact on biological resources than the proposed project.

Cultural Resources

Under the No Project Alternative, 168,000 fewer square feet of commercial building space and 376 fewer dwelling units would be constructed within the Specific Plan area compared with the proposed project. Even so, this alternative would have the potential to impact previously undiscovered buried cultural resources, albeit to a lesser degree than the proposed project, and would require mitigation similar to the proposed project. The implementation of mitigation would reduce impacts to a level of less than significant. Therefore, this alternative would have less impact on cultural resources than the proposed project.

Geology, Soils, and Seismicity

Under the No Project Alternative, 168,000 fewer square feet of commercial building space and 376 fewer dwelling units would be constructed within the Specific Plan area. Nonetheless, development would have the potential to expose people or structures to seismic hazards, unstable soils, or expansive soils and create erosion during construction, but to a lesser degree than the proposed project. Therefore, this alternative would require mitigation similar to the proposed project, the implementation of which would reduce impacts to a level of less than significant. This alternative would have less impact related to geology, soils, and seismicity than the proposed project.

Hazards and Hazardous Materials

Under the No Project Alternative, 168,000 fewer square feet of commercial building space and 376 fewer dwelling units would be constructed within the Specific Plan area. Similar to the proposed project, employees and patrons would have the potential to be exposed to existing contamination. However, since no residential development is included, exposure would be less. The implementation

of mitigation would reduce impacts to a level of less than significant. Therefore, this alternative would have less impact on hazards and hazardous materials compared with the proposed project.

Hydrology and Water Quality

Under the No Project Alternative, 168,000 fewer square feet of commercial building space and 376 fewer dwelling units would be constructed within the Specific Plan area. New development would have the potential to create water quality problems in downstream waterways. As such, this alternative would require mitigation similar to the proposed project, the implementation of which would reduce impacts to level of less than significant. Therefore, this alternative would have less impact on hydrology and water quality than the proposed project.

Land Use

Similar to the proposed project, the No Project Alternative would maintain the existing Mixed Use General Plan and Zoning Ordinance designations of the Specific Plan area. Buildout of the Specific Plan area under General Plan 2030 would be required to comply with applicable General Plan and Zoning Ordinance policies. Therefore, this alternative would have impacts on land use similar to the proposed project.

Noise

This alternative provides for the construction of 4.9 million square feet of commercial space and 1,224 dwelling units. This is a net decrease of 168,000 square feet of commercial space and 376 dwelling units relative to the proposed project. Construction activities would be required to implement mitigation similar to the proposed project that would ensure short-term noise impacts are less than significant. Unlike the proposed project, the No Project Alternative does not include any residential uses; therefore, it would not be necessary to implement the vibration and interior noise control mitigation measures identified for the proposed project. In addition, because the No Project Alternative would generate fewer daily trips, it would have a smaller contribution to noise levels on local roadways. Therefore, the No Project Alternative would have less impact on noise than the proposed project.

Population and Housing

This alternative would result in a net decrease of 168,000 square feet of commercial space relative to the proposed project, and 376 dwelling units would be developed. Under this alternative, 4.9 million square feet of commercial space and 1,224 dwelling units would be developed. The population and employment growth contemplated by General Plan 2030 within the Specific Plan area have already been accounted for in local and regional forecasts because it would be consistent with the General Plan. Therefore, similar to the proposed project, population and employment growth that would occur under this alternative would not exceed forecasted population growth assumptions. As such, this alternative would have impacts on population and housing similar to the proposed project.

Public Services and Recreation

This alternative provides for 4.9 million square feet of commercial space and 1,224 dwelling units. This would represent a net decrease of 168,000 square feet relative to the proposed project and 376 dwelling units relative to the proposed project. Because this alternative would reduce the total number of dwelling units and create fewer employment opportunities, it would result in correspondingly lower impacts on public services and recreation through fewer calls for service, student generation, and public facility usage. The 4.9million square feet of commercial space would be required to implement fire protection mitigation similar to the proposed project. However, because this alternative would not include space for a police contact and public outreach station, or provide additional park facilities, it would not result in the beneficial impacts of the provision of such facilities. Therefore, the No Project Alternative would have greater impacts on public services and recreation than the proposed project.

Transportation

The No Project Alternative would result in a net decrease of 168,000 square feet of commercial space and 376 dwelling units relative to the proposed project. The No Project Alternative would generate fewer daily trips relative to the proposed project, including fewer trips during the morning and afternoon peak hours. While peak-hour trips would be reduced under the No Project Alternative, intersection operation impacts would still occur, and mitigation would be required to reduce impacts to a level of less than significant. The No Project Alternative would not implement the secondary street grid and would not increase circulation in the Specific Plan area. Furthermore, this alternative would not relocate the Transit Center or construct the Iron Horse Trail pedestrian overcrossings, which would not result in the beneficial impacts of the provision of such facilities. Therefore, the No Project Alternative would have greater impact on transportation than the proposed project.

Utility Systems

The No Project Alternative would result in the development of 4.9 million square feet of commercial space and 1,224 dwelling units within the Specific Plan area, resulting in 168,000 million fewer square feet of commercial space and 376 fewer dwelling units than the proposed project. The reduced development intensity of this alternative would have correspondingly less demand for potable water relative to the proposed project. Similar to the proposed project, this alternative would be required to comply with the Model Water Efficient Landscape Ordinance and use recycled water for irrigation to the extent practicable. The proposed project's wastewater and storm drainage impacts were determined to be less than significant; therefore, the No Project Alternative would have less than significant impacts on these utility systems. The No Project alternative would result in less demolition and construction waste; however, the development of 4.9 million square feet of commercial space would be considered significant enough to require demolition and construction debris recycling. In addition, this alternative would also generate substantial amounts of operational solid waste and require mitigation similar to the proposed project to reduce potential impacts to a level of less than significant. The No Project Alternative would have a substantially lower demand for energy, but would not be guided by Specific

Plan policies to implement energy conservation and alternative energy strategies and, therefore, would require mitigation to reduce potential impacts to a level of less than significant. The No Project Alternative would have less impact on utility systems compared with the proposed project.

5.3.2 - Conclusion

The No Project Alternative would have less impact than the proposed project in most impact categories. It would have impacts similar to the proposed project on land use and population and housing, and it would have greater impacts than the proposed project on public services and recreation and transportation.

The No Project Alternative would meet the project objectives relating to the promotion of economic growth, the creation of new jobs, and supporting the Bishop Ranch office population, but to a lesser extent than the proposed project. The No Project Alternative would not meet the objectives of developing capital investment, new housing opportunities, a transit- and pedestrian-oriented neighborhood, alternative modes of transportation, emphasized use of the Iron Horse Trail, or the provision of workforce housing close to employment centers.

5.4 - Alternative 2 – Office/Retail Intensification Alternative

The Office/Retail Intensification Alternative consists of implementing a version of the Specific Plan that emphasizes office and retail use intensification. The Specific Plan contemplated by this alternative would seek to create a vibrant commercial district with a wide range of retail and support commercial uses, supported by nearby office campus and residential neighborhoods.

Commercial uses would consist of the following:

- Pedestrian-oriented retail with larger, mid-sized floor plate stores along an extended Crow Canyon Place between Crow Canyon Road and Norris Canyon Road
- One- and two-story commercial structures oriented to a new grid of streets to provide increase retail-oriented frontages, vehicular circulation options, and to encourage a pedestrian retail environment
- Larger floor plate uses (such as supermarkets and drug stores) in the central block oriented to Camino Ramon
- Vertical, mixed-use structures with residential units over ground-floor commercial along the Camino Ramon and Norris Canyon Road frontages
- A modern office campus east of Camino Ramon
- Consolidation of Bishop Ranch 6 office structures into a node adjacent to Bishop Ranch 8 to free up land for support of commercial and residential uses
- Other infill development and parcel intensification as market forces allow

Residential uses would consist of:

- Residential neighborhoods with a variety of densities to support project area and City Center commercial uses, and provide housing close to work for the large number of office employees in the area. Large residential neighborhood south of Norris Canyon Road to provide easy pedestrian access to Bishop Ranch employment centers, City Center, and the central block commercial core.
- Residential units over ground-floor commercial uses along Camino Ramon and Norris Canyon Road frontages.
- Residential development adjacent to the Iron Horse Trail.

This alternative would feature the following transportation-related improvements:

- Relocation of the existing Transit Center on Executive Parkway to the project area's central block
- New roadway link between Crow Canyon Place and Annabel Lane
- New local traffic retail/commercial street connecting Crow Canyon Road and Norris Canyon Road
- Network of streets to create and pedestrian-friendly commercial environment in the central block, and in the new residential neighborhoods.
- Extension of Alcosta Boulevard to Fostoria Way
- Strong pedestrian and bicycle linkage between the Iron Horse Trail and the Project Area's central block.
- Pedestrian arcades in the central block's commercial core, linking primary streets to mid-block parking resources

Table 5-2 summarizes the Office/Retail Intensification Alternative Summary. As shown in Table 5-2, the Office/Retail Intensification Alternative would result in 5.195 million square feet of commercial space and 1,877 residential dwelling units. By comparison, the proposed project would have 5.07 million square feet of commercial space and 1,500 residential dwelling units, a difference of 125,300 fewer square feet of commercial space and the addition of 377 dwelling units.

The Office/Retail Intensification Alternative reflects a version of the North Camino Ramon Specific Plan that was initially considered by the City of San Ramon, but was not selected as the preferred alternative.

Table 5-2: Office/Retail Intensification Alternative Summary

Scenario	Maximum Buildout Potential		
	Commercial (square feet)	Residential (dwelling units)	Total (square feet)
Office/Retail Intensification Alternative	5,195,300	1,877	7,260,000
Proposed Project	5,070,000	1,500	6,720,000
Difference	**125,300**	**377**	**540,000**
Source: City of San Ramon, 2012.			

5.4.1 - Impact Analysis

Aesthetics, Light, and Glare

The Office/Retail Intensification Alternative would result in 125,300 more commercial square footage and 377 more residential dwelling units than would be permitted under the proposed project. The proposed project's impacts on State Scenic Highways and visual character were found to be less than significant and did not require mitigation. The Office/Retail Intensification Alternative would also have less than significant impacts on these areas, since the additional commercial and residential dwellings would not be more visible from offsite than those in the proposed project, due to the two-story limit on building height. The Office/Retail Intensification Alternative would result in more new sources of light and glare than the proposed project, and mitigation similar to the proposed project would be required to reduce this impact to a level of less than significant. Therefore, the No Project Alternative would have greater aesthetics, light, and glare impacts than the proposed project.

Air Quality/Greenhouse Gas Emissions

The Office/Retail Intensification Alternative would result in the addition of 135,300 square feet of commercial space and 377 more residential dwelling units than the proposed project. Under the proposed project, all construction and long-term operational air quality and greenhouse gas impacts would be less than significant with mitigation. From a construction standpoint, the Office/Retail Intensification Alternative would result in more emissions associated with both commercial and residential construction. From any operational standpoint, the Office/Retail Intensification Alternative is also expected to have increased air quality impacts compared with the proposed project. In particular, the increased residential development would potentially increase sensitive receptor exposure to air quality impacts associated with air pollutants generated by commercial land uses and vehicle traffic on I-680 beyond the project site. Although the Office/Retail Intensification Alternative would result in overall greater generation of greenhouse gases, the increased density may result in a higher reduction from the business-as-usual emissions scenario than the proposed project. In summary, this alternative would have greater impacts than the proposed project.

Biological Resources

Under the Office/Retail Intensification Alternative, 125,300 more commercial square footage and 377 more residential dwelling units would be constructed than would be permitted under the proposed project. This alternative would have the potential to impact nesting birds to a greater degree than the proposed project, and would require mitigation similar to the proposed project. However, as with the proposed project, the implementation of mitigation would reduce potential impacts to a level of less than significant. Therefore, this alternative would have greater impacts on biological resources than the proposed project.

Cultural Resources

Under the Office/Retail Intensification Alternative, 125,300 more commercial square footage and 377 more residential dwelling units would be constructed than under the proposed project. As such, this alternative would have the potential to impact previously undiscovered buried cultural resources to a greater degree than the proposed project, and would require mitigation similar to the proposed project. However, the implementation of mitigation would reduce impacts to a level of less than significant. Therefore, this alternative would have greater impacts on cultural resources than the proposed project.

Geology, Soils, and Seismicity

Under the Office/Retail Intensification Alternative, 125,300 more square footage of commercial space and 377 more residential dwelling units would be constructed than under the proposed project. This alternative would have the potential to expose a greater number of people and structures to seismic hazards, unstable soils, or expansive soils and create erosion during construction than the proposed project. This alternative would require mitigation similar to the proposed project, the implementation of which would reduce impacts to a level of less than significant. Therefore, this alternative would have greater geology, soils, and seismicity impacts than the proposed project.

Hazards and Hazardous Materials

Under the Office/Retail Intensification Alternative, 125,300 more square footage of commercial space and 377 more residential dwelling units would be constructed than under the proposed project. Similar to the proposed project, persons employed or living on the site would have the potential to be exposed to existing contamination, but to a greater extent due to increased building occupancy. The implementation of mitigation would reduce impacts to a level of less than significant. Therefore, this alternative would have a greater impact related to hazards and hazardous materials than the proposed project.

Hydrology and Water Quality

Under the Office/Retail Intensification Alternative, more impervious surface area would be constructed within the Specific Plan area than under the proposed project, which, similar to the proposed project, would have the potential to create water quality problems in downstream

waterways. As such, this alternative would require mitigation similar to the proposed project, the implementation of which would reduce impacts to level of less than significant. Therefore, this alternative would have greater impacts on hydrology and water quality than the proposed project.

Land Use

Similar to the proposed project, the Office/Retail Intensification Alternative would maintain the existing Mixed Use General Plan and Zoning Ordinance designations of the project site. The construction of the commercial space would be required to comply with applicable General Plan and Zoning Ordinance policies, as would be required for the proposed project. Therefore, this alternative would have impacts on land use similar to the proposed project.

Noise

The Office/Retail Intensification Alternative would increase the amount of commercial square footage by 125,300 square feet and increase by 377 the number of dwellings compared with the proposed project. Like the proposed project, noise impacts would occur during construction activities but to a greater extent, given the additional development included under this alternative. Construction activities would be required to implement mitigation similar to the proposed project that would ensure short-term noise impacts are less than significant. The Office/Retail Intensification Alternative includes a greater number of residential dwellings than the proposed project. It will be necessary to implement similar vibration and interior noise control mitigation measures to those identified for the proposed project. In addition, because the Office/Retail Intensification Alternative would generate an increased number of daily trips compared with the proposed project, it would have a greater contribution to ambient noise levels on local roadways, although the proposed project's contribution was not determined to be significant. The Office/Retail Intensification Alternative would have greater noise impacts than the proposed project.

Population and Housing

This alternative would result in an increase of 125,300 commercial square feet and 377 additional dwellings relative to the proposed project. As with the proposed project, direct population growth would occur under the Office/Retail Intensification Alternative. The direct population growth and employment growth created by this alternative have already been accounted for in local and regional forecasts because it would be consistent with the General Plan. Therefore, similar to the proposed project, population and employment growth that would occur under this alternative would not exceed forecasted population growth assumptions. Therefore, the impact is similar to that of the proposed project.

Public Services and Recreation

The Office/Retail Intensification Alternative would result in a net increase of 125,300 square feet of commercial space and 377 additional dwellings relative to the proposed project. Because this alternative would contain more residential uses and generate greater employment opportunities than

the proposed project, it would result in correspondingly greater impacts on public services and recreation through increased calls for service, student generation, and public facility usage. This alternative would be required to implement fire protection mitigation similar to the proposed project. In conclusion, the Office/Retail Intensification Alternative would have greater impacts on public services and recreation than the proposed project.

Transportation

The Office/Retail Intensification Alternative would result in a net increase of 125,300 square feet of commercial space and 377 dwelling units relative to the proposed project. The Office/Retail Intensification Alternative would generate more daily trips relative to the proposed project, including more trips during the morning peak hour and more trips during the afternoon peak hour. Peak-hour trips would be increased under the Office/Retail Intensification Alternative, intersection operation impacts would still occur, and mitigation would be required to reduce impacts to a level of less than significant. The Office/Retail Intensification Alternative would implement the secondary street grid, which would increase circulation in the Specific Plan area. Furthermore, this alternative would relocate the Transit Center and construct the Iron Horse Trail pedestrian overcrossings, which would result in the beneficial impacts of the provision of such facilities. Therefore, the Office/Retail Intensification Alternative would have less impact on transportation than the proposed project.

Utility Systems

The Office/Retail Intensification Alternative would result in the development of 125,300 more square footage of commercial space and 377 more dwellings than the proposed project. The increased development intensity of this alternative would have correspondingly greater demand for potable water and wastewater disposal and treatment relative to the proposed project. Similar to the proposed project, this alternative would be required to comply with the Model Water Efficient Landscape Ordinance and use recycled water for irrigation to the extent practicable. The proposed project's wastewater and storm drainage impacts were determined to be less than significant. Therefore, the Office/Retail Intensification Alternative would have less than significant impacts on these utility systems. This alternative would result in greater demolition and construction waste; however, development would be considered significant enough to require demolition and construction debris recycling. In addition, this alternative would generate substantial amounts of operational solid waste and require mitigation similar to the proposed project to reduce potential impacts to a level of less than significant. The Office/Retail Intensification Alternative would have a greater demand for energy, but would be guided by Specific Plan policies to implement energy conservation and alternative energy strategies that would reduce potential impacts to a level of less than significant. Therefore, this alternative would have impacts on utility systems greater than the proposed project.

5.4.2 - Conclusion

The Office/Retail Intensification Alternative would have impacts similar to the proposed project relative to land use and population and would have less impact on transportation than the proposed project. In all other impact categories, it would have greater environmental impacts.

The Office/Retail Intensification Alternative would meet all of the project objectives relating to the promotion of economic growth, the creation of new jobs, and supporting the Bishop Ranch office population. It would also meet the objectives of developing capital investment, new housing opportunities, a transit- and pedestrian-oriented neighborhood, alternative modes of transportation, emphasized use of the Iron Horse Trail, or the provision of workforce housing close to employment centers.

5.5 - Alternative 3 – Suburban Village Alternative

The Suburban Village Alternative consists of implementing a version of the Specific Plan that emphasizes residential use intensification. The Specific Plan contemplated by this alternative would seek to create a fully integrated horizontal and vertical mixed-use suburban village with a vibrant commercial core, lifestyle residential neighborhoods, and abundant open park space amenities.

Commercial uses would consist of the following:

- Ground floor commercial uses with residential uses above, along a linear park linking Crow Canyon Road and Norris Canyon Road
- Auto-oriented retail with larger, mid-sized floor plate stores such as Best Buy, REI, etc. along an extended Crow Canyon Place between Crow Canyon Road and Norris Canyon Road
- Larger floor plate uses (e.g., supermarkets, drug stores, etc.) in the central block oriented to Camino Ramon
- A modern office campus east of Camino Ramon
- Consolidation of Bishop Ranch 6 office structures into a node adjacent to Bishop Ranch 8 to free up land that would support commercial and residential uses
- Other infill development and parcel intensification as market forces allow

Residential uses would consist of:

- Two stories of residential units above ground floor retail along a linear park linking Crow Canyon Road and Norris Canyon Road
- Lifestyle neighborhoods with abundant open space and resident amenities

- Residential neighborhoods in the central block to encourage nighttime activity (such as open retail shops, restaurants, events in the parks)

This alternative would feature the following transportation-related improvements:

- Relocation of the existing Transit Center on Executive Parkway to the Project Area's central block
- New roadway link between Crow Canyon Place and Annabel Lane
- Network of streets to create and pedestrian-friendly commercial environment in the central block, and in the new residential neighborhoods
- Extension of Alcosta Boulevard to Fostoria Way
- Strong pedestrian and bicycle linkage between the Iron Horse Trail and the Project Area's central block
- Pedestrian arcades in the central block's commercial core, linking primary streets to mid-block parking resources

Table 5-3 summarizes the Suburban Village Alternative Summary. As shown in Table 5-3, the Suburban Village Alternative would result in 5.567 million square feet of commercial space and 3,285 residential dwelling units. By comparison, the proposed project would have 5.07 million square feet of commercial space and 1,500 residential dwelling units, a difference of 496,500 more square feet of commercial space and 1,785 more dwelling units.

The Suburban Village Alternative reflects a version of the North Camino Ramon Specific Plan that was initially considered by the City of San Ramon, but was not selected as the preferred alternative.

Table 5-3: Suburban Village Alternative Summary

Scenario	Maximum Buildout Potential		
	Commercial (square feet)	Residential (dwelling units)	Total (square feet)
Suburban Village Alternative	5,566,500	3,285	9,180,000
Proposed Project	5,070,000	1,500	6,720,000
Difference	**496,500**	**1,785**	**2,460,000**
Source: City of San Ramon, 2012.			

5.5.1 - Impact Analysis

Aesthetics, Light, and Glare

The Suburban Village Alternative would result in 496,500 more commercial square footage and 1,785 more residential dwelling units than the proposed project. The proposed project's impacts on State Scenic Highways and visual character were found to be less than significant and did not require mitigation. This alternative would also have less than significant impacts on these areas, since the relatively small increase in commercial square footage and additional residential dwellings would not be more visible from offsite than those in the proposed project due to height limitations. This alternative would result in more new sources of light and glare than the proposed project, and mitigation similar to the proposed project would be required to reduce this impact to a level of less than significant. Therefore, the Suburban Village Alternative would have greater aesthetics, light, and glare impacts than the proposed project.

Air Quality/Greenhouse Gas Emissions

The Suburban Village Alternative would result in the addition of 496,500 square feet of commercial space and 1,785 more residential dwelling units than the proposed project. Under the proposed project, all construction and long-term operational air quality and greenhouse gas impacts would be less than significant with mitigation. From a construction standpoint, the Suburban Village Alternative would result in more emissions associated with both commercial and residential construction. From any operational standpoint, the Suburban Village Alternative is also expected to have increased air quality impacts compared with the proposed project. In particular, the significantly increased residential development component would potentially increase exposure of sensitive receptors to air quality impacts associated with air pollutants generated by commercial land uses and vehicle traffic on I-680 beyond the project site. Although the Suburban Village Alternative would result in overall greater generation of greenhouse gases, the increased density may result in a higher reduction from the business-as-usual emissions scenario than the proposed project. In summary, the Suburban Village Alternative would have greater impacts than the proposed project.

Biological Resources

Under the Suburban Village Alternative, 496,500 more commercial square footage and 1,785 more residential dwelling units would be constructed than under the proposed project. Similar to the proposed project, this alternative would have the potential to impact nesting birds, but to a greater degree than the proposed project. Mitigation similar to that required for the proposed project would be required. As with the proposed project, the implementation of mitigation would reduce potential impacts to a level of less than significant. Consequently, this alternative would have greater impacts on biological resources than the proposed project.

Cultural Resources

Under this alternative, 496,500 more commercial square footage and 1,785 more residential dwelling units would be constructed than under the proposed project. This alternative would have the potential

to impact previously undiscovered buried cultural resources to a greater degree than the proposed project, and it would require mitigation similar to the proposed project. The implementation of mitigation would reduce impacts to a level of less than significant. Therefore, this alternative would have greater impacts on cultural resources than the proposed project.

Geology, Soils, and Seismicity

Under this alternative, 496,500 more commercial square footage and 1,785 more residential dwelling units would be constructed than under the proposed project. This alternative would have the potential to expose people or structures to seismic hazards, unstable soils, or expansive soils and create erosion during construction, but to a greater extent than the proposed project due to the increased residential and commercial occupancy. This alternative would require mitigation similar to the proposed project, the implementation of which would reduce impacts to a level of less than significant. Therefore, this alternative would have greater geology, soils, and seismicity impacts than the proposed project.

Hazards and Hazardous Materials

Under the Suburban Village Alternative, 496,500 more square feet of commercial space and 1,785 more residential dwelling units would be constructed than under the proposed project. Similar to the proposed project, persons employed or living on the site would have the potential to be exposed to existing contamination, but to a greater extent due to increased occupancy. The implementation of mitigation would reduce impacts to a level of less than significant. Therefore, this alternative would have greater impacts related to hazards and hazardous materials than the proposed project.

Hydrology and Water Quality

Under this alternative, more impervious surface area would be created in conjunction with an increased amount of commercial uses and increased number of residential dwellings compared with the proposed plan. Similar to the proposed project, this alternative would have the potential to create water quality problems in downstream waterways. As such, this alternative would require mitigation similar to the proposed project, the implementation of which would reduce impacts to level of less than significant. Therefore, this alternative would have greater impacts on hydrology and water quality than the proposed project.

Land Use

Similar to the proposed project, this alternative would maintain the existing Mixed Use General Plan and Zoning Ordinance designations of the project site. The construction of the commercial space would be required to comply with applicable General Plan and Zoning Ordinance policies, as would be required for the proposed project. Therefore, this alternative would have impacts on land use similar to the proposed project.

Noise

Under the Suburban Village Alternative 496,500 more commercial square footage and 1,785 more residential dwelling units would be constructed than under the proposed project. Similar to the

proposed project, noise impacts would occur during construction activities but to a greater extent, given the increased development included under this alternative. Construction activities would be required to implement mitigation similar to the proposed project that would ensure short-term noise impacts are less than significant. This alternative includes significantly more residential dwellings than the proposed project. As such, it will be necessary to implement vibration and interior noise control mitigation measures identified for the proposed project. This alternative would generate an increased number of daily trips compared with the proposed project. Accordingly, it would have a greater contribution to noise levels on local roadways, although the proposed project's contribution was determined not to be significant. Therefore, this alternative would have noise impacts greater than the proposed project.

Population and Housing

This alternative would increase the commercial square footage of the project by 496,500 square feet and increase residential development by 1,785 dwellings as compared to the proposed project. As with the proposed project, direct population growth would occur under this alternative. The direct population growth and employment growth created by this alternative have already been accounted for in local and regional forecasts, and this alternative would be consistent with the General Plan. Therefore, similar to the proposed project, population and employment growth that would occur under this alternative would not exceed forecasted population growth assumptions. The population and housing impacts would be similar to those of the proposed project.

Public Services and Recreation

The Suburban Village Alternative would result in 496,500 more commercial square footage and 1,785 more residential dwelling units than would be constructed under the proposed project. Because this alternative would contain significantly more residential uses and increased employment opportunities relative to the proposed project, it would result in greater impacts on public services and recreation through increased calls for service, student generation, and public facility usage. This alternative would be required to implement fire protection mitigation similar to the proposed project. In conclusion, this alternative would have greater impacts on public services and recreation than the proposed project.

Transportation

The Suburban Village Alternative would result in a net increase of 496,500 square feet of commercial space and 1,785 dwelling units relative to the proposed project. The Suburban Village Alternative would generate more daily trips relative to the proposed project, including more trips during the morning and afternoon peak hours. Peak-hour trips would be increased under the Suburban Village Alternative, intersection operation impacts would still occur, and mitigation would be required to reduce impacts to a level of less than significant. The Suburban Village Alternative would implement the secondary street grid and, therefore, would increase circulation in the Specific Plan area. Furthermore, this alternative would relocate the Transit Center and construct the Iron Horse Trail

pedestrian overcrossings, which would result in the beneficial impacts of the provision of such facilities. However, the large addition of dwelling units would cause the Suburban Village Alternative to have greater impacts on transportation than the proposed project.

Utility Systems

The Suburban Village Alternative would result in 496,500 more commercial square footage and 1,785 more residential dwelling units than would be constructed under the proposed project. The increased residential development under this alternative would have correspondingly greater demand for potable water and wastewater disposal and treatment relative to the proposed project, and there would be increased demand for these utilities associated with commercial development. Similar to the proposed project, this alternative would be required to comply with the Model Water Efficient Landscape Ordinance and use recycled water for irrigation to the extent practicable. The proposed project's wastewater and storm drainage impacts were determined to be less than significant. Therefore, this alternative would have less than significant impacts on these utility systems. This alternative would result in increased demolition and construction waste that would be considered significant enough to require demolition and construction debris recycling. In addition, this alternative would generate substantial amounts of operational solid waste and require mitigation similar to the proposed project to reduce potential impacts to a level of less than significant. This alternative would have an increased demand for energy, and would be guided by Specific Plan policies to implement energy conservation and alternative energy strategies that would reduce potential impacts to a level of less than significant. Therefore, this alternative would have impacts on utility systems greater than the proposed project.

5.5.2 - Conclusion

The Suburban Village Alternative would have impacts similar to the proposed project relative to land use and population. In all other impact categories, it would have greater environmental impacts.

The Suburban Village Alternative would meet all of the project objectives relating to the promotion of economic growth, the creation of new jobs, and supporting the Bishop Ranch office population. It would also meet the objectives of developing capital investment, new housing opportunities, a transit- and pedestrian-oriented neighborhood, alternative modes of transportation, emphasized use of the Iron Horse Trail, or the provision of workforce housing close to employment centers.

5.6 - Environmentally Superior Alternative

CEQA Guidelines Section 15126(e)(2) requires an EIR to identify an "environmentally superior" alternative. The qualitative environmental effects of each alternative in relation to the proposed project described earlier in the section are summarized in Table 5-4.

Table 5-4: Comparison of Alternatives

Environmental Topic Area	No Project Alternative	Office/Retail Intensification Alternative	Suburban Village Alternative
Aesthetics, Light, and Glare	Less Impact	Greater Impact	Greater Impact
Air Quality and Greenhouse Gas Emissions	Less Impact	Greater Impact	Greater Impact
Biological Resources	Less Impact	Greater Impact	Greater Impact
Cultural Resources	Less Impact	Greater Impact	Greater Impact
Geology, Soils, and Seismicity	Less Impact	Greater Impact	Greater Impact
Hazards and Hazardous Materials	Less Impact	Greater Impact	Greater Impact
Hydrology and Water Quality	Less Impact	Greater Impact	Greater Impact
Land Use	Similar Impact	Similar Impact	Similar Impact
Noise	Less Impact	Greater Impact	Greater Impact
Population and Housing	Similar Impact	Similar Impact	Similar Impact
Public Services and Recreation	Greater Impact	Greater Impact	Greater Impact
Transportation	Greater Impact	Less Impact	Greater Impact
Utility Systems	Less Impact	Greater Impact	Greater Impact
Source: Michael Brandman Associates, 2012.			

As shown in Table 5-4, the No Project Alternative is the environmentally superior alternative, as the project area would consist of existing land uses and land use activities allowed under the Mixed Use land use classification for the foreseeable future.

In accordance with CEQA requirements, if the No Project Alternative is the environmentally superior alternative, the EIR must also identify an environmentally superior alternative from among the other alternatives. In this instance, the Office/Retail Intensification Alternative is the environmentally superior alternative: it would less impact on transportation relative to the proposed project, while the Suburban Village Alternative would have greater impact on this topical area relative to the proposed project.

5.7 - Alternatives Rejected From Further Consideration

The following alternative was initially considered, but rejected from further consideration for the reasons described below.

5.7.1 - Alternative Location

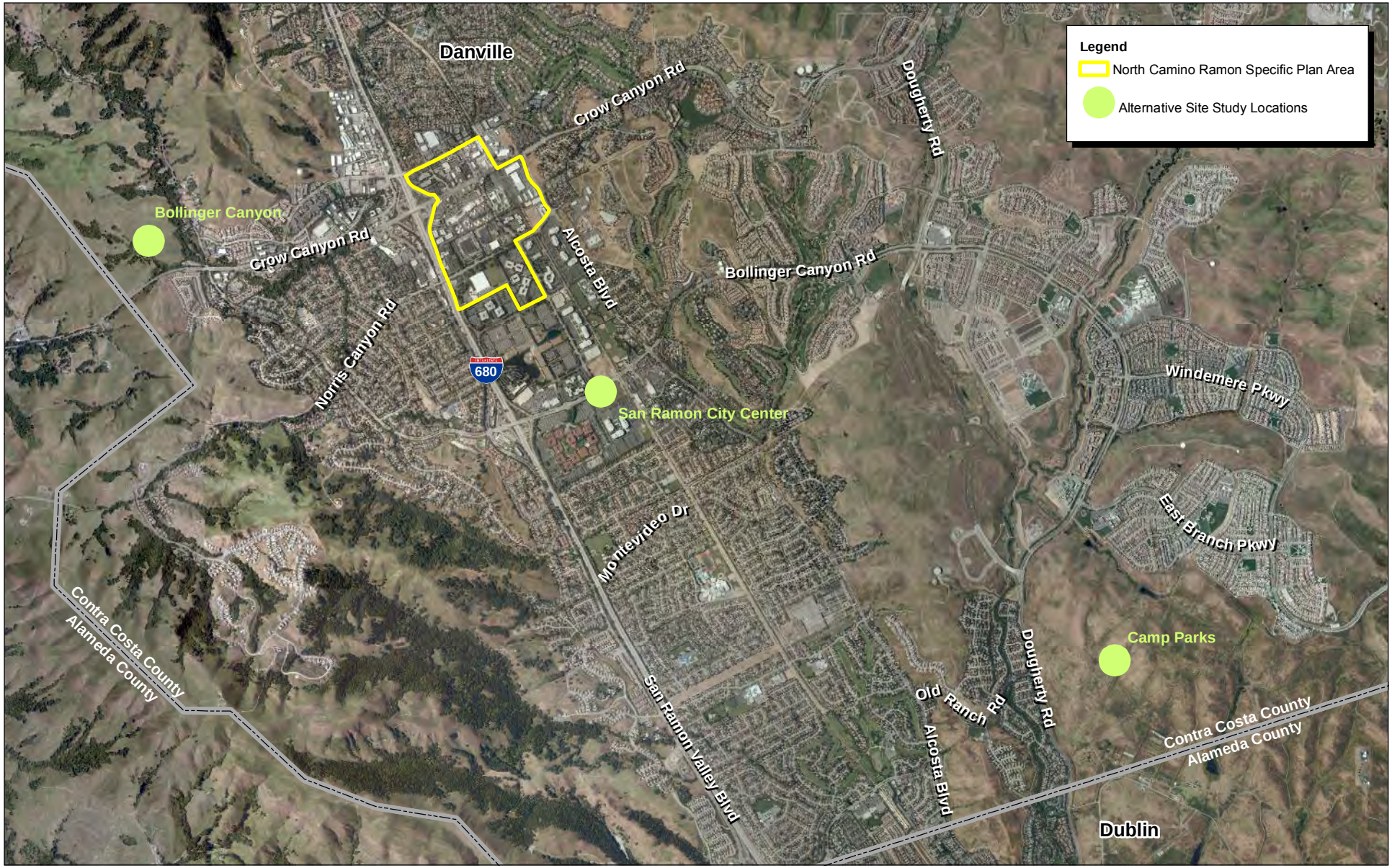
The following discussion will first describe the CEQA requirements for evaluation of alternative project locations and then evaluate potential alternative locations.

CEQA Guidelines Section 15126.6(f)(2) sets forth considerations to be used in evaluating an alternative location. The section states that the "key question" is whether any of the significant effects of the project would be avoided or substantially lessened by relocating the project. The CEQA Guidelines identify the following factors that may be taken into account when addressing the feasibility of an alternative location:

1.) Site suitability
2.) Economic viability
3.) Availability of infrastructure
4.) General Plan consistency
5.) Other plans or regulatory limitations
6.) Jurisdictional boundaries
7.) Whether the project applicant can reasonably acquire, control, or otherwise have access to the alternative site

The CEQA Guidelines establishes that only locations that would accomplish this objective should be considered as alternative locations for the proposed project.

Table 5-5 summarizes the feasibility of three alternative study locations. Exhibit 5-1 depicts the locations of the three alternative study sites. As shown in the table, none of the three study sites are considered feasible for a variety of reasons; therefore, developing the proposed project at an alternative location has been rejected from further consideration.



Source: State of CA NAIP, 2010.

Michael Brandman Associates

NORTH

4,000 2,000 0 4,000 Feet

Exhibit 5-1
Alternative Site Study Locations

Table 5-5: Alternative Study Location Feasibility Analysis

Location	Description	Feasibility Analysis
San Ramon City Center	Approximately 44 acres located on all four quadrants of the intersection of Bollinger Canyon Road/Camino Ramon in the City of San Ramon. This site contains undeveloped land, surface parking areas associated with the Bishop Ranch 1 office complex, and the entire Bishop Ranch 2 office complex. Most of this site is designated "Mixed Use" by the City of San Ramon General Plan; a small portion is designated "Office." This site is adjacent to the Iron Horse Trail and is within 0.25 mile of the I-680/Bollinger Canyon Road interchange.	**Not Feasible:** This site is currently entitled for the San Ramon City Center Project, a 2.1-million-square-foot, mixed-use project. The City Center Project is a public-private venture between the City of San Ramon and Sunset Development. Although construction has not begun on the project, the entitlements are still in effect and, therefore, this location is considered committed to another higher-and-better use. Additionally, the acreage of this site (44 acres) is less than one-fifth of the acreage of the Specific Plan area (255 acres) and, thus, is too small to accommodate the level of development contemplated by the proposed project. Finally, a key objective of the proposed Specific Plan is to complement the San Ramon City Center Project. Developing the proposed project at the City Center site would be contrary to this objective. These factors preclude the possibility of developing the project at this location.
Bollinger Canyon	Approximately 64 acres located west of Bollinger Canyon Road and north of Crow Canyon Road in the City of San Ramon. This site contains grazing land and rural residences. This site is designated "Hillside Residential," "Open Space," and "Parks" by the City of San Ramon General Plan.	**Not Feasible:** This site is currently entitled for residential development (200 dwelling units), open space, and parks by the Northwest Specific Plan. Although construction has not begun on the project, the entitlements are still in effect and, therefore, this location is considered committed to another higher-and-better use. Additionally, the acreage of this site (64 acres) is one-quarter of the acreage of the Specific Plan area (255 acres) and, thus, is too small to accommodate the level of development contemplated by the proposed project. Lastly, this site is not well suited for the high-density mixed uses contemplated by the project, as it is located at the urban fringe of San Ramon and is more than 1 mile from I-680. It also lacks adjacency to major employment centers (e.g., Bishop Ranch Business Park), which is a key objective of the Specific Plan. These factors preclude the possibility of developing the project at this location.

Table 5-5 (cont.): Alternative Study Location Feasibility Analysis

Location	Description	Feasibility Analysis
Camp Parks	Approximately 910 acres located adjacent to the Dougherty Valley in unincorporated Contra Costa County, adjacent to the San Ramon city limits. (Camp Parks totals more than 2,000 acres; however, only the 910 acres located in Contra Costa County are being considered as a potential alternative site). This site is designated "Public/Semi-Public" by the Contra Costa County General Plan. This site is also designated "Open Space" by the City of San Ramon General Plan, a non-binding designation. This site is within the City of San Ramon's Urban Growth Boundary and Sphere of Influence.	**Not Feasible:** The United States Department of Defense controls Camp Parks and has not indicated that the portion of the base within Contra Costa County is a candidate for closure or conversion to civilian use. As such, the City of San Ramon does not have the ability to acquire, control, or otherwise access this site. Additionally, this site is not well suited for the high-density mixed uses contemplated by the project, as it is located more than 2 miles from I-680 and I-580. It also lacks adjacency to any employment centers (e.g., Bishop Ranch Business Park), which is a key objective of the Specific Plan. These factors preclude the possibility of developing the project at this location.
Source: Michael Brandman Associates, 2012.		

SECTION 6: OTHER CEQA CONSIDERATIONS

6.1 - Significant Unavoidable Impacts

CEQA Guidelines Section 15126.2(a)(b) requires an EIR to identify and focus on the significant environmental effects of the proposed project, including effects that cannot be avoided if the proposed project were implemented.

The proposed project would not result in any significant unavoidable impacts.

6.2 - Growth-Inducing Impacts

There are two types of growth-inducing impacts that a project may have: direct and indirect. To assess the potential for growth-inducing impacts, the project's characteristics that may encourage and facilitate activities that individually or cumulatively may affect the environment must be evaluated (CEQA Guidelines Section 15126.2(d)).

Direct growth-inducing impacts occur when the development of a project imposes new burdens on a community by directly inducing population growth, or by leading to the construction of additional developments in the same area. Also included in this category are projects that remove physical obstacles to population growth (such as a new road into an undeveloped area or a wastewater treatment plant with excess capacity that could allow additional development in the service area). Construction of these types of infrastructure projects cannot be considered isolated from the development they facilitate and serve. Projects that physically remove obstacles to growth, or projects that indirectly induce growth may provide a catalyst for future unrelated development in an area such as a new residential community that requires additional commercial uses to support residents.

At buildout, the Specific Plan boundaries would contain 6.72 million square feet of commercial and residential uses, with approximately 5.98 million square feet consisting of new development. The residential units envisioned by the Specific Plan would be expected to result in direct population growth. The proposed project consists of the implementation of the North Camino Ramon Specific Plan and related development and land uses. The Specific Plan is a tool for the systematic implementation of the San Ramon General Plan and establishes a link between the policies of the General Plan and the individual development proposals in the Specific Plan area. Thus, development and land use activities that occur within the Specific Plan boundaries that are consistent with the Specific Plan are inherently "planned growth." As such, the development of housing within the North Camino Ramon Specific Plan area would not be considered growth-inducing.

Development and land use activities contemplated by the Specific Plan would include the expansion or redevelopment of roads, potable water, recycled water, wastewater, and stormwater facilities.

However, the plan area is already served by such services and, therefore, the expansion would not result in indirect growth. Furthermore, the implementation of increased commercial space would not cause indirect growth as significant commercial space already exists in the plan area, which is located in already highly urbanized region with a sufficient workforce.

In summary, development of land use and infrastructure that are contemplated by the Specific Plan have been planned for by the General Plan and therefore would not be considered as resulting in significant direct or indirect growth-inducing effects.

6.2.1 - Consistency with Regional Growth Projections

Evaluating consistency with regional growth projections is a second way for assessing growth inducement potential, particularly for long-range planning documents such as a Specific Plan. In the nine-county San Francisco Bay region, ABAG oversees regional growth forecasts and regularly issues updates to Projections, its official population and employment estimate document. ABAG's forecasts are used in various regional planning activities, including air quality management and affordable housing strategies. The most recent version of Projections was issued in 2009.

Table 6.2-1 compares population and employment projections for 2030 as forecast by the proposed General Plan 2030 and ABAG's 2009 Projections. As shown in the table, the proposed General Plan 2030 anticipates more population and employment growth than does ABAG.

Table 6.2-1: San Ramon Population and Employment Projections (2030)

Category	2030 Projections	
	General Plan 2030	ABAG
Population	92,031	85,200
Employment	58,769	49,490
Source: City of San Ramon 2010. Association of Bay Area Governments, 2009.		

The discrepancy between the City of San Ramon General Plan's and ABAG's population and employment growth figures is not new and dates back at least a decade. The existing General Plan projected higher population and employment growth than several ABAG forecasts, including the most recent (Projections 2009). Furthermore, historic population growth during the past decade has matched the General Plan 2020's projections more closely than ABAG's various forecasts.

Regardless, as previously noted, ABAG's growth estimates are used for various regional planning activities. Because the Specific Plan's growth is included in the General Plan 2030 it would not further exacerbate the City of San Ramon's exceedance of ABAG growth estimates.

6.3 - Energy Conservation

Public Resources Code Section 21100(b)(3) and CEQA Guidelines Section 15126.4 require EIRs to describe, where relevant, the wasteful, inefficient, and unnecessary consumption of energy caused by a project. In 1975, largely in response to the oil crisis of the 1970s, the State Legislature adopted AB 1575, which created the California Energy Commission (CEC). The statutory mission of the CEC is to forecast future energy needs, license thermal power plants of 50 megawatts or larger, develop energy technologies and renewable energy resources, plan for and direct State responses to energy emergencies, and—perhaps most importantly—promote energy efficiency through the adoption and enforcement of appliance and building energy efficiency standards. AB 1575 also amended Public Resources Code Section 21100(b)(3) to require EIRs to consider the wasteful, inefficient, and unnecessary consumption of energy caused by a project. Thereafter, the State Resources Agency created Appendix F of the CEQA Guidelines. Appendix F is an advisory document that assists EIR preparers in determining whether a project will result in the inefficient, wasteful, and unnecessary consumption of energy. For the reasons set forth below, this EIR concludes that the proposed project will not result in the wasteful, inefficient, and unnecessary consumption of energy, will not cause the need for additional natural gas or electrical energy-producing facilities, and, therefore, will not create a significant impact on energy resources.

6.3.1 - Regulatory Setting

Federal and state agencies regulate energy use and consumption through various means and programs. At the federal level, the United States Department of Transportation, the United States Department of Energy, and the United States Environmental Protection Agency are three federal agencies with substantial influence over energy policies and programs. Generally, federal agencies influence and regulate transportation energy consumption through establishment and enforcement of fuel economy standards for automobiles and light trucks, through funding of energy-related research and development projects, and through funding for transportation infrastructure improvements. At the State level, the California Public Utilities Commission (CPUC) and the CEC are two agencies with authority over different aspects of energy. The CPUC regulates privately owned utilities in the energy, rail, telecommunications, and water fields. The CEC collects and analyzes energy-related data, prepares statewide energy policy recommendations and plans, promotes and funds energy efficiency programs, and adopts and enforces appliance and building energy efficiency standards. California is exempt under federal law from setting State fuel economy standards for new on-road motor vehicles. Some of the more relevant federal and State energy-related laws and plans are discussed below.

Federal Energy Policy and Conservation Act

The Federal Energy Policy and Conservation Act of 1975 sought to ensure that all vehicles sold in the U.S. would meet certain fuel economy goals. Through this Act, Congress established the first fuel economy standards for on-road motor vehicles in the U.S. Pursuant to the Act, the National Highway

Traffic and Safety Administration, which is part of the United States Department of Transportation, is responsible for establishing additional vehicle standards and for revising existing standards. Since 1990, the fuel economy standard for new passenger cars has been 27.5 miles per gallon. Since 1996, the fuel economy standard for new light trucks (gross vehicle weight of 8,500 pounds or less) has been 20.7 miles per gallon. Heavy-duty vehicles (i.e., vehicles and trucks over 8,500 pounds gross vehicle weight) are not currently subject to fuel economy standards. Compliance with federal fuel economy standards is not determined for each individual vehicle model; rather, compliance is determined on the basis of each manufacturer's average fuel economy for the portion of their vehicles produced for sale in the United States. The Corporate Average Fuel Economy (CAFE) program, which is administered by United States Environmental Protection Agency, was created to determine vehicle manufacturers' compliance with the fuel economy standards. The United States Environmental Protection Agency calculates a CAFE value for each manufacturer that is based on city and highway fuel economy test results and vehicle sales. On the basis of the information generated under the CAFE program, the United States Department of Transportation is authorized to assess penalties for noncompliance. In the course of its over 30-year history, this regulatory program has resulted in vastly improved fuel economy throughout the nation's vehicle fleet.

Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA)

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) promoted the development of inter-modal transportation systems to maximize mobility as well as address national and local interests in air quality and energy. ISTEA contained factors that Metropolitan Planning Organizations (MPOs) such as ABAG were required to address in developing transportation plans and programs, including some energy-related factors. To meet the new ISTEA requirements, MPOs adopted explicit policies defining the social, economic, energy, and environmental values that were to guide transportation decisions in that metropolitan area. The planning process for specific projects would then address these policies. Another requirement was to consider the consistency of transportation planning with federal, State, and local energy goals. Through this requirement, energy consumption was expected to become a decision criterion, along with cost and other values that determine the best transportation solution.

The Transportation Equity Act for the 21st Century (TEA-21)

The Transportation Equity Act for the 21st Century (TEA-21) was signed into law in 1998 and builds upon the initiatives established in the ISTEA legislation discussed above. TEA-21 authorizes highway, highway safety, transit, and other efficient surface transportation programs. TEA-21 continues the program structure established for highways and transit under ISTEA, such as flexibility in the use of funds, emphasis on measures to improve the environment, and focus on a strong planning process as the foundation of good transportation decisions. TEA-21 also provides for investment in research and its application to maximize the performance of the transportation system through, for example, deployment of Intelligent Transportation Systems, to help improve operations and management of transportation systems and vehicle safety.

State of California Energy Plan

The CEC is responsible for preparing the State Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The plan calls for the State to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including providing assistance to public agencies and fleet operators, encouraging urban designs that reduce vehicle miles traveled, and accommodating pedestrian and bicycle access.

Title 24, Energy Efficiency Standards

Title 24, which was promulgated by the CEC in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption, provides energy efficiency standards for residential and nonresidential buildings. According to the CEC, since the energy efficiency standards went into effect in 1978, it is estimated that California residential and nonresidential consumers have reduced their utility bills by at least $15.8 billion. The CEC further estimates that by 2011, residential and nonresidential consumers will save an additional $43 billon in energy costs.

In 2008, the CEC adopted new energy efficiency standards. Effective January 1, 2010, all projects that apply for a building permit must adhere to the new 2008 standards. The 2008 standards reflect the greenhouse gas reduction requirements of the California Global Warming Solutions Act of 2006 (Assembly Bill 32).

Because the adoption of Title 24 post-dates the adoption of AB 1575, it has generally been the presumption throughout the State that compliance with Title 24 (as well as compliance with the federal and state regulations discussed above) ensures that projects will not result in the inefficient, wasteful, and unnecessary consumption of energy. As is the case with other uniform building codes, Title 24 is designed to provide certainty and uniformity throughout the State while ensuring that the efficient and non-wasteful consumption of energy is carried out through design features. For the vast majority of residential and nonresidential projects, adherence to Title 24 is deemed necessary to ensure that no significant impacts occur from the inefficient, wasteful, and unnecessary consumption of energy. As a further example, the adoption of federal vehicle fuel standards, which have been continually improved since their original adoption in 1975, have also protected against the inefficient, wasteful, and unnecessary use of energy.

Pursuant to the California Building Standards Code and the Title 24 Energy Efficiency Standards, the City will review the design and construction components of the project's Title 24 compliance when specific building plans are submitted.

6.3.2 - Energy Requirements of the Proposed Specific Plan

The proposed Specific Plan itself would not result in changes to energy consumption patterns. However, development and land use activities that occur pursuant to the Specific Plan would consume energy. Below are discussions of short-term construction and long-term operational energy consumption and associated Specific Plan policies.

Short-Term Construction

Development and land use activities contemplated by the Specific Plan would include short-term construction activities that would consume energy, primarily in the form of diesel fuel (e.g., mobile construction equipment) and electricity (e.g., power tools). It is not possible to reasonably estimate the amount of energy consumed by construction activities, as a number of hard-to-predict variables influence energy consumption (e.g., length of activities, size of buildings, equipment fleet, management practices, etc.).

Construction taking place within the Specific Plan area would be required to abide by General Plan 2030 Implementing Policy 11.3-I-3 requiring that air quality emissions be evaluated using applicable regulatory guidance such as the BAAQMD CEQA Guidelines. The policy indirectly relates to construction energy consumption because construction air pollutant emissions are reduced through functions of energy consumption. As such, evaluation of air quality emissions on a project by project basis would likely energy-reducing activities such as anti-idling measures, limits on duration of activities, and the use of alternative fuels, thereby reducing energy consumption. Furthermore, Policy UTL-5.1 of the Specific Plan requires that new residential and commercial development within the plan boundaries comply with the San Ramon Climate Action Plan's Energy Conservation and Alternative Energy strategies, which include but are not limited to LEED certification, use of photovoltaic panels, and sustainable design. Policy UTL-5.2 of the Specific Plan requires new residential and commercial development within the plan boundaries to demonstrate a 15 percent increase in energy efficiency when compared to Title 24 standards.

Finally, there are no aspects of the Specific Plan that would foreseeably result in the inefficient, wasteful, or unnecessary consumption of energy during construction activities. For example, there are no policies that would directly or indirectly cause construction activities to be any less efficient than would otherwise occur elsewhere (e.g., restrictions on equipment, labor, types of activities, etc.).

In summary, the Specific Plan would not result in the inefficient, wasteful, or unnecessary consumption of energy during construction activities

Long-Term Operations

Development and land use activities contemplated by the Specific Plan would include long-term operational activities that would consume energy, both in the form of transportation fuel and building/equipment energy (e.g., electricity and natural gas). It is not possible to reasonably estimate

the amount of energy consumed by operational activities, as a number of hard-to-predict variables influence energy consumption.

A key aspect of the Specific Plan is to reduce vehicles miles traveled (which reduce transportation fuel consumption) through the development of a pedestrian- and transit-oriented mixed-use neighborhood. Furthermore, the Specific Plan includes energy efficiency measures, including Policy UTL-5.1 and UTL-5.2 as discussed above, which would ensure buildings developed within the plan boundaries require less energy. Furthermore, development within the plan boundaries would be required to be consistent with General Plan 2030 Policy 11.7-I-1 through Policy 11.7-I-8, which require additional energy efficiency measures.

Finally, there are no aspects to the General Plan 2030 that would foreseeably result in the inefficient, wasteful, or unnecessary consumption of energy during operational activities. For example, there are no policies that preclude the use of VMT reduction or energy efficiency measures.

In summary, the Specific Plan would not result in the inefficient, wasteful, or unnecessary consumption of energy during operational activities.

SECTION 7: EFFECTS FOUND NOT TO BE SIGNIFICANT

7.1 - Introduction

This section is based on the Notice of Preparation (NOP), dated September 8, 2010, and contained in Appendix A of this Environmental Impact Report (EIR). The NOP was prepared to identify the potentially significant effects of the Specific Plan and was circulated for public review between September 8, 2010 and October 7, 2010. In the course of this evaluation, certain impacts were found to be less than significant because the proposed project's characteristics would not create such impacts. This section provides a brief description of effects found not to be significant or less than significant, based on the NOP comments or more detailed analysis conducted as part of the EIR preparation process. Note that a number of impacts that are found to be less than significant are addressed in the various EIR topical sections (Sections 3.1 through 3.13) to provide more comprehensive discussion of why impacts are less than significant, in order to better inform decision-makers and the general public.

7.2 - Effects Found Not To Be Significant

7.2.1 - Aesthetics, Light, and Glare

Scenic Vistas

The City of San Ramon General Plan does not identify any scenic vistas within the Specific Plan area. The primary scenic vistas visible from the Specific Plan area are the Dougherty Hills, Wiedemann Hill, and Mt. Diablo. Views of these features as seen from throughout the Specific Plan area are intermittent because of the existing urban land uses. Implementation of development and land uses within the Specific Plan area would increase the existing density, but would not be expected to result in significant impacts to existing views of the Dougherty Hills, Wiedemann Hill, and Mt. Diablo. No impacts would occur.

7.2.2 - Agriculture Resources

Important Farmland

The project site does not contain any active farmland or agricultural operations and, therefore, is not eligible for an Important Farmland designation. This condition precludes the possibility of the Specific Plan converting Important Farmland to non-agricultural use. No impacts would occur.

Williamson Act Contracts or Agricultural Zoning

The project site does not contain agricultural uses and is not eligible for a Williamson Act contract. No conflicts with a Williamson Act contract would occur. Parcels within the Specific Plan are zoned for commercial uses; therefore, no conflicts with agricultural zoning would occur. No impacts would occur.

Conversion of Neighboring Farmland to Non-Agricultural Use

No farmland is present within any of the areas surrounding the Specific Plan. This precludes the possibility of the proposed project contributing to the conversion of neighboring farmland to non-agricultural use. No impacts would occur.

Conversion of Forest Land to Non-Forest Use

The Specific Plan area does not contain any forest land or timberland. Therefore, land use and development activities contemplated by the Specific Plan would not impact these resources. No impacts would occur.

Conflicts with Forest Zoning

The Specific Plan area does not contain any areas zoned for forest. Therefore, land use and development activities contemplated by the Specific Plan would not impact these resources. No impacts would occur.

7.2.3 - Biological Resources

Riparian Habitat or Other Sensitive Natural Community

The Specific Plan area consists of urban, built-up land uses and does not contain any riparian habitat or other sensitive natural communities. This condition precludes the possibility of adverse impacts these resources. No impact would occur.

Federally Protected Wetlands

The Specific Plan area consists of urban, built-up land uses and does not contain any federally protected wetlands. This condition precludes the possibility of adverse impacts on these resources. No impact would occur.

Native Resident or Migratory Fish or Wildlife Species

The Specific Plan area consists of urban, built-up land uses and is surrounded on all sides by urban development. The Specific Plan area does not contain any features that would facilitate fish or wildlife movement (e.g., creeks, arroyos, or ridgelines). This condition precludes the possibility of adverse impacts on these resources. No impacts would occur.

Habitat, Natural Community, or Other Conservation Plan

The Specific Plan area is not within the boundaries of an adopted Habitat Conservation Plan or Natural Community Conservation Plan. This condition precludes the possibility of land use and development activities contemplated by the Specific Plan conflicting with the provisions of such a plan. No impacts would occur.

7.2.4 - Geology, Soils, and Seismicity

Septic or Alternative Wastewater Disposal Systems

The Specific Plan area is served by sewer service provided by the Central Contra Costa Sanitary District. No septic or alternative wastewater disposal systems exist within the plan boundaries and none would be installed as a result of development within the Specific Plan area. No impacts would occur.

7.2.5 - Hazards and Hazardous Materials

Exposure of Schools to Hazardous Materials

The nearest school to the Specific Plan area is Iron Horse Middle School located 0.20 mile away. Development and land use activities contemplated by the Specific Plan would not involve large-quantity users or producers of hazardous materials. Therefore, land use and development activities contemplated by the Specific Plan would not expose schools to hazardous materials. No impacts would occur.

Airports

The Specific Plan area does not contain any airports and does not overlap with any airport influence areas. The closest airport to the Specific Plan area is Livermore Municipal Airport, located approximately 9 miles to the southeast. Therefore, land use and development activities contemplated by the Specific Plan would not expose persons residing or working in the Specific Plan area to aviation safety hazards. No impacts would occur.

Private Airstrips

The Specific Plan boundaries do not contain any private airstrips. Therefore, land use and development activities contemplated by the Specific Plan would not impact private airstrips. No impacts would occur.

Wildland Fires

The Specific Plan area is mostly developed and completely surrounded by urban uses. The City of San Ramon General Plan does not identify any areas within the Specific Plan boundaries as having wildland fire risks. Therefore, development of the Specific Plan area would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. No impacts would occur.

7.2.6 - Hydrology and Water Quality

100-Year Flood Hazards

The Specific Plan is not located within a 100-Year Flood Zone as indicated by Federal Emergency Management Agency Flood Insurance Rate Maps. No impact would occur.

Levee or Dam Failure

The Specific Plan area does not contain any levees or dams, nor are any such facilities located upstream of the Specific Plan area. Therefore, land use and development activities contemplated by the Specific Plan would not be susceptible to flooding from levee or dam failure. No impacts would occur.

Seiches, Tsunamis, or Mudflows

The Specific Plan area does not contain any large bodies of water that would be susceptible to a seiche. The Specific Plan area is approximately 29 miles from the Pacific Ocean, a condition that precludes the possibility of tsunami inundation. The Specific Plan area does not contain and is not located adjacent to areas susceptible to mudflows. Therefore, land use and development activities contemplated by the Specific Plan would not be exposed to hazards associated with seiches, tsunamis, or mudflows. No impacts would occur.

7.2.7 - Land Use

Division of an Established Community

The Specific Plan area does not contain any residential land uses. Land use and development activities contemplated by the Specific Plan would not sever any linkages between any surrounding land uses; rather, they would implement linkages and public spaces to provide greater community connectivity. These conditions preclude the division of an established community. No impacts would occur.

Conservation Plans

The Specific Plan is not within the boundaries of an adopted Habitat Conservation Plan or Natural Community Conservation Plan. Therefore, land use and development activities contemplated by the Specific Plan would not conflict with the provisions of such a plan. No impacts would occur.

7.2.8 - Mineral Resources

Mineral Resources of Statewide or Local Importance

The Specific Plan area does not contain any mineral extraction operations or known deposits of minerals of statewide or local importance (such as aggregate, oil, or precious metals). Therefore, land use and development activities contemplated by the Specific Plan would not result in the loss of availability of minerals of statewide or local importance. No impacts would occur.

7.2.9 - Noise

Aviation Noise

The nearest airport, Livermore Municipal Airport, is located approximately 9 miles from the Specific Plan area. There are no private airstrips within the project vicinity. Therefore, land use and development activities contemplated by the Specific Plan would not expose persons residing or

working in the project area to hazards associated with public airports or private airstrips. No impacts would occur.

7.2.10 - Population and Housing

Displacement of Persons or Housing

At the time of Draft EIR release, there were no inhabited dwelling units within the Specific Plan boundaries. The St. James Place residential project was under construction at the time of the Draft EIR release, and that project is consistent with the Specific Plan's contemplated for that site. As such, implementation of the Specific Plan would not result in the displacement of persons or housing. No impacts would occur.

7.2.11 - Transportation

Air Traffic Patterns

The Specific Plan area does not contain any airports and does not overlap with any airport influence areas. The closest airport to the Specific Plan area is Livermore Municipal Airport, located approximately 9 miles to the southeast. Therefore, land use and development activities contemplated by the Specific Plan would not alter air traffic patterns. No impacts would occur.

SECTION 8: PERSONS AND ORGANIZATIONS CONSULTED/ LIST OF PREPARERS

8.1 - Persons and Organizations Consulted

8.1.1 - Lead Agency

City of San Ramon

City Manager's Office

City Manager ..... Greg Rogers

City Attorney's Office

City Attorney ..... Sheryl Schaffner

Planning/Community Development Department

Director ..... Phil Wong
Planning Manager ..... Debbie Chamberlain
Transportation Manager ..... Lisa Bobadilla
Senior Planner ..... Lauren Barr

8.1.2 - Public Agencies

State Agencies

Department of Transportation, District 4

District Branch Chief ..... Lisa Carboni

Office of Planning and Research, State Clearinghouse

Senior Planner ..... Scott Morgan

Local Agencies

East Bay Municipal Utility District

Manager of Water Distribution Planning ..... William R. Kirkpatrick

East Bay Regional Park District

Regional Trails Department Representative ..... Sean M. Dougan

Contra Costa Health Services

Supervising Environmental Health Specialist ..... Joseph G. Doser, REHS

8.2 - List of Preparers

8.2.1 - Lead Agency

City of San Ramon

City Manager's Office

City Manager ..... Greg Rogers

City Attorney's Office

City Attorney ..... Sheryl Schaffner

Planning/Community Development Department

Director ..... Phil Wong
Planning Manager ..... Debbie Chamberlain
Senior Planner ..... Lauren Barr

8.2.2 - Lead Consultant

Michael Brandman Associates

Project Director ..... Jason M. Brandman
Project Manager ..... Grant Gruber
Assistant Project Manager ..... Janna Waligorski
Air Quality Scientist ..... Chryss Meier
Senior Noise Analyst ..... Gregory Tonkovich, AICP, INCE
Senior Project Archaeologist ..... Carrie Wills, RPA
Technical Editor ..... Ed Livingston
GIS Technician ..... Karlee McCracken
GIS Technician ..... Brandon Price
Administrative Assistant ..... Alicia Yuen
Reprographics ..... José Morelos
Reprographics ..... Cole Forbes

8.3 - Technical Subconsultants

8.3.1 - Kimley-Horn and Associates, Inc.

Traffic Engineer ..... Peter Reinhofer
Traffic Engineer ..... Luke Schwartz

8.4 - North Camino Ramon Specific Plan Preparers

8.4.1 - Cannon Design Group

President ..... Larry L. Cannon, AICP

8.4.2 - Ruggeri-Jensen-Azar Engineers, Planners, Surveyors

Principal ..... John S. Zellmer, P.E.
Project Manager ..... Steve B. Bowman, P.E

8.4.3 - Keyser Marston Associates

President ..... Timothy C. Kelly

8.4.4 - Peter M. Hasselman FAIA

Architect ..... Peter M. Hasselman, FAIA

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