APPENDICES
to the
Draft Environmental Impact Report
City of San Ramon General Plan 2030
San Ramon, Contra Costa County, California

State Clearinghouse Number 2000082002

Prepared for:

Planning/Community Development Department
Planning Services Division
2222 Camino Ramon
San Ramon, CA 94583
925.973.2560

Contact: Mr. Lauren Barr, Senior Planner

Prepared by:

Michael Brandman Associates
Bishop Ranch 3
2633 Camino Ramon, Suite 460
San Ramon, CA 94583
925.830.2733

Contact: Jason M. Brandman. Project Director

April 5, 2010

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Appendix A:
Notice of Preparation and Responses

A.1 - Notice of Preparation

City of San Ramon
Notice of Preparation
City of San Ramon General Plan Update

Date: Thursday, January 14, 2010

To: Public Agencies and Interested Parties

From: Mr. Lauren Barr, Senior Planner

Subject: Notice of Preparation of a Draft Environmental Impact Report for the City of San Ramon General Plan Update

The City of San Ramon will be the Lead Agency and will prepare an Environmental Impact Report (EIR) for the project identified below.

The project description, location, and probable environmental effects of the City of San Ramon General Plan Update are described in the attached materials. The City of San Ramon is soliciting comments regarding the scope and content of the environmental information, which are germane to your agency's statutory responsibilities in connection with the proposed project. Your agency may need to use the EIR when considering permitting or other approvals. Because of time limits mandated by State Law, your response must be received at the earliest possible date but not later than 30 days after receipt of this notice.

Please provide your written response to the address shown below by **5 p.m., Friday, February 12 2010**. We will need the name of a contact person in your agency.

City of San Ramon
Planning/Community Development Department
2226 Camino Ramon
San Ramon, CA 94583
Attn: Mr. Lauren Barr, Senior Planner
Phone: (925) 973-2567
Fax: (925) 806-0118
Email: lbarr@sanramon.ca.gov

CITY OF SAN RAMON GENERAL PLAN UPDATE

1.1 - Project Location

The project location consists of the San Ramon Planning Area located in Contra Costa County, California. The Planning Area consists of approximately 24,815 acres (38.77 square miles), bounded by Alameda County (west), the Town of Danville and unincorporated Contra Costa County (north), unincorporated Contra Costa County (east), and Alameda County/City of Dublin (south); refer to Exhibit 1. The Planning Area is located on the Diablo, California, United States Geological Survey 7.5-minute quadrangle, Township 2 South, Range 1 West (Latitude 37°46’00” North; Longitude 121°56’00” West).

1.2 - Existing Conditions

1.2.1 - Overview

The City of San Ramon is a suburban community located in the central portion of Contra Costa County, within the nine-county San Francisco Bay Area region. The City incorporated in 1983 and has experienced substantial growth during the past three decades. Relevant characteristics are provided in Table 1.

Table 1: City of San Ramon Characteristics (2009)

Population	Dwelling Units	Average Household Size	Labor Force
63,176	25,113	2.602	28,200
Source: California Department of Finance, 2009; California Employment Development Department, 2009.			

1.2.2 - Planning Area Characteristics

The current General Plan establishes a Planning Area, which consists of the area within the city limits, the area within Sphere of Influence (i.e., areas outside the City limits, but which can be annexed into the City), and the area outside the Sphere of Influence in which the City of San Ramon has a planning interest. The Planning Area characteristics are summarized in Table 2. The existing Planning Area is depicted in Exhibit 2.

Table 2: Existing Planning Area Characteristics

Planning Area	Sphere of Influence	City Limits
24,815 acres (38.77 square miles)	19,567 acres (30.57 square miles)	11,973 acres (18.43 square miles)
Source: City of San Ramon, 2010.		

As shown in Exhibit 2, the Planning Area encompasses all of the developed areas of San Ramon, as well as rural and undeveloped areas of unincorporated Contra Costa County located in Bollinger Canyon, the Tassajara Valley, and within the East Bay Hills along the Alameda County line.

The existing Sphere of Influence is generally coterminous with the existing city limits to the north and south and extends to the Alameda County line to the west and the eastern boundary of the Dougherty Valley Specific Plan to the east. The unincorporated Bollinger Canyon and Norris Canyon Estates areas are within the City's existing Sphere of Influence.

1.2.3 - Existing General Plan

The current General Plan, which was approved by the San Ramon electorate in March 2002, serves as a blueprint for development and land use activities within the city limits. The General Plan establishes goals, policies, and land use designations that are intended to facilitate orderly and planned growth within the city. The current General Plan anticipates a buildout population of 96,020 and a buildout labor force of 59,000.

There are four existing Specific Plans in place: Crow Canyon, Dougherty Valley, Northwest, and Westside. The existing General Plan contemplates a fifth, the Eastside Specific Plan, which would guide future development and land use activities in the Tassajara Valley.

The existing General Plan establishes an Urban Growth Boundary, which limits new urban development to either infill areas or undeveloped areas contiguous to existing development. General Plan Policy 4.6-I-3 requires voter review of the Urban Growth Boundary in 2010.

The existing General Plan land use map is shown in Exhibit 2.

1.3 - Project Description

The proposed project consists of a comprehensive update to the City of San Ramon General Plan. The update would encompass the following items, discussed in detail below:

- Urban Growth Boundary Adjustment
- Sphere of Influence Adjustment
- Review of Ordinance 197
- Land Use Map Amendments
- General Plan Element Updates

1.3.1 - Urban Growth Boundary Adjustment

The existing Urban Growth Boundary would be adjusted outward in three places to add 2,227 acres (3.48 square miles). Each adjustment is described below.

- **Eastside Specific Plan Area:** The boundary would be adjusted eastward to encompass 1,624 acres of the Tassajara Valley. The adjusted boundary would be bounded by a point north of Johnston Road (north), Camino Tassajara (east), and the Alameda County line (south). The area within the adjusted boundary would serve as the Eastside Specific Plan Area. This adjustment would be the next logical step to establish the City's probable future physical boundary, eliminate uncertainty in the planning process, and provide for a systematic approach to land use controls associated with any future development process.
- **Norris Canyon Estates:** The boundary would be adjusted to encompass the existing 588-acre Norris Canyon Estates residential community (371 units) and would be coterminous with the existing boundaries of the development. This adjustment seeks to reconcile the limits of the Urban Growth Boundary with this existing unincorporated development that is within the City's Sphere of Influence.
- **Laborer's Property:** The boundary would be adjusted to encompass the existing 15-acre Laborer's Property and would be conterminous with the existing property boundaries. This adjustment seeks to reconcile the limits of the Urban Growth Boundary with this existing development that is within the City limits.

The Urban Growth Boundary adjustments are shown in Exhibit 3. The proposed Urban Growth Boundary adjustment would be placed on the ballot for voter consideration.

1.3.2 - Sphere of Influence Adjustment

The existing Sphere of Influence would be adjusted to encompass the Eastside Specific Plan Area, which would be coterminous with the proposed Urban Growth Boundary adjustment.

1.3.3 - Review of Ordinance 197

In accordance with General Plan Policy 8.4-I-17, Ordinance 197 would be reviewed as part of the General Plan Update. The review would focus on consistency with the proposed Urban Growth Boundary adjustment as well as revisions to reflect changes that have occurred since it was last reviewed. Proposed revisions to Ordinance 197 would be placed on the ballot for voter consideration.

1.3.4 - Land Use Map Amendments

The following amendments would be made to the General Plan Land Use Map

- **North Camino Ramon Specific Plan Area:** All parcels within the proposed North Camino Ramon Specific Plan boundaries that are currently not designated Mixed Use would be re-designated to Mixed Use. This re-designation would achieve consistency with the densities and uses that are envisioned by the proposed North Camino Ramon Specific Plan.
- **El Nido Property:** Property owner-initiated request filed in June 2009 to re-designate the El Nido Property from Parks to Multi-Family High Density Residential.

- **Elimination of Land Use Designations:** The Manufacturing and Warehouse land use designation and the Commercial Service land use designation would be eliminated, as these designations would be obviated by the North Camino Ramon Specific Plan re-designation (see first bullet).

1.3.5 - General Plan Element Updates

The existing General Plan Elements would be revised and several new General Plan Elements would be created, as described below:

Existing General Plan Elements

Revisions would be made to the following existing elements as part of the General Plan Update:

- Economic Development
- Growth Management
- Land Use
- Traffic and Circulation
- Parks and Recreation
- Public Facilities and Utilities
- Open Space and Conservation
- Safety
- Noise
- Housing

Specific revisions are anticipated to include but are not limited to:

- Addition of policies associated with the proposed North Camino Ramon Specific Plan
- Addition and revision of policies associated with the proposed Eastside Specific Plan
- Addition and revision of policies associated with the Economic Development Strategic Plan Update

New General Plan Elements

Several new elements would be created as part of the General Plan Update:

- Air Quality and Greenhouse Gas Emissions
- Water Resources and Supply (optional)

In conjunction with the Air Quality and Greenhouse Gas Emissions Element, the City would prepare a Climate Action Plan to identify specific strategies to achieve greenhouse gas emissions reductions.

1.4 - Required Approvals and Intended Uses

The actions contemplated by General Plan Update require the following discretionary approvals:

- Plan Adoption – City Council
- Urban Growth Boundary Adjustment – City Council (placement on the ballot) and vote of San Ramon electorate

- Sphere of Influence Adjustment – City Council, and Contra Costa County Local Agency Formation Commission
- Review of Ordinance 197 – City Council (placement on the ballot) and vote of San Ramon electorate

Furthermore, the General Plan Update EIR is intended to provide coverage for the following activities that would occur concurrent with or after adoption of the General Plan Update:

- Annexations of Areas Within Sphere of Influence
- Municipal Code Revisions
- Climate Action Plan
- Housing Element Update
- Economic Development Strategic Plan Update
- Development Fee Schedule Update

1.5 - Environmental Review

1.5.1 - Potential Environmental Effects

The EIR will evaluate whether the proposed project may potentially result in one or more significant environmental effects. The topics listed below will be further analyzed in the EIR.

- Aesthetics, Light, and Glare
- Agricultural Resources
- 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

1.5.2 - Effects Found Not To Be Significant

Based on project characteristics, the following topical areas will be scoped out to the Effects Found Not To Be Significant section of the EIR.

Mineral Resources

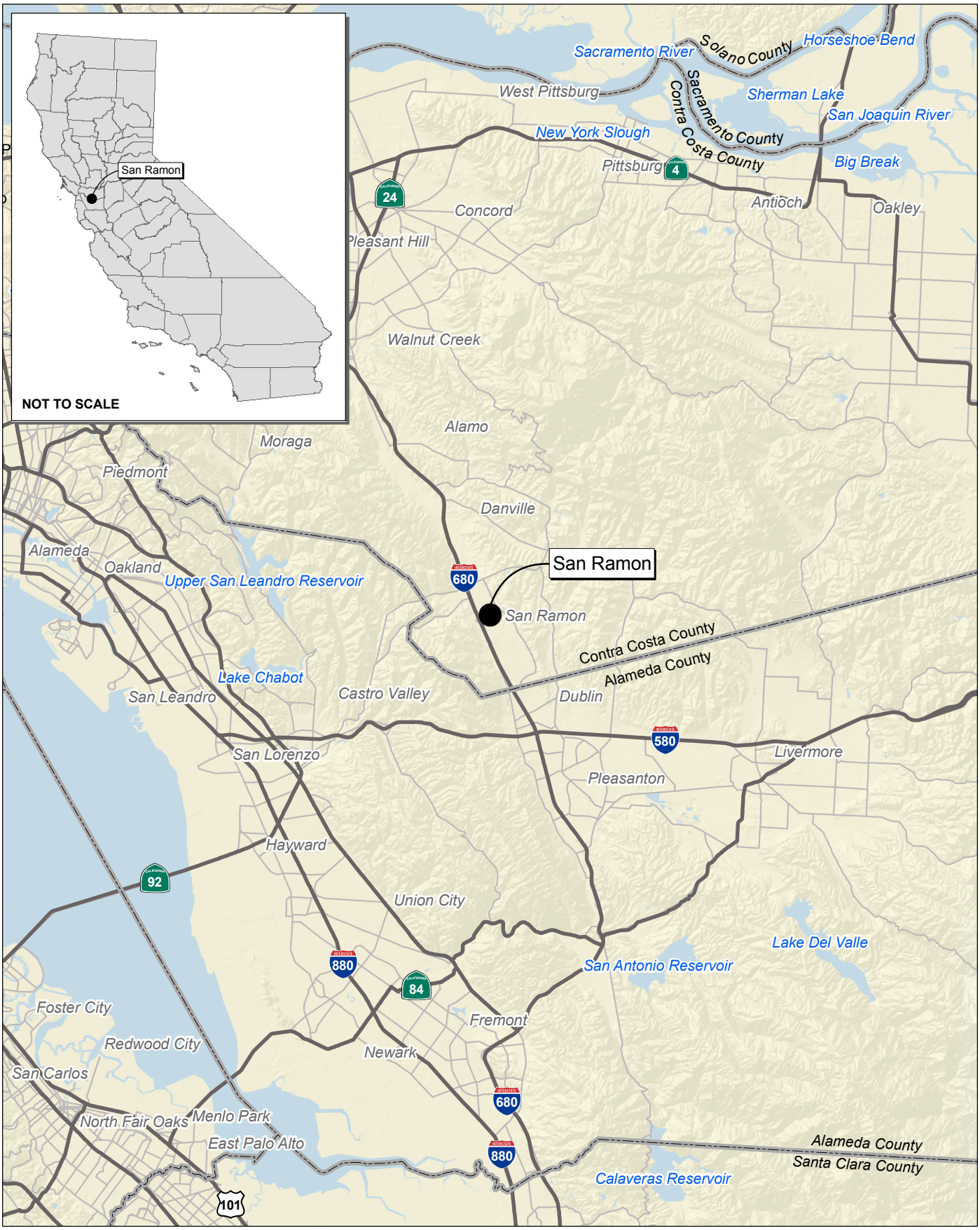
The Planning Area does not contain any known mineral deposits or active mineral extraction operations. This condition precludes the possibility of the loss of important mineral resources as a result of development and land use activities contemplated by the General Plan Update.

1.6 - Scoping Meeting

A public scoping meeting will be held by the City of San Ramon Zoning Administrator at **3 p.m., Thursday, January 28, 2010,** at the following location:

City of San Ramon
Council Chambers
2222 Camino Ramon
San Ramon, CA 94583

At this meeting, agencies, organizations, and members of the public will be able to review the proposed project and provide comments on the scope of the environmental review process.



Source: Census 2000 Data, The CaSIL, MBA GIS 2009.

Michael Brandman Associates

NORTH

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Exhibit 1
Regional Location Map

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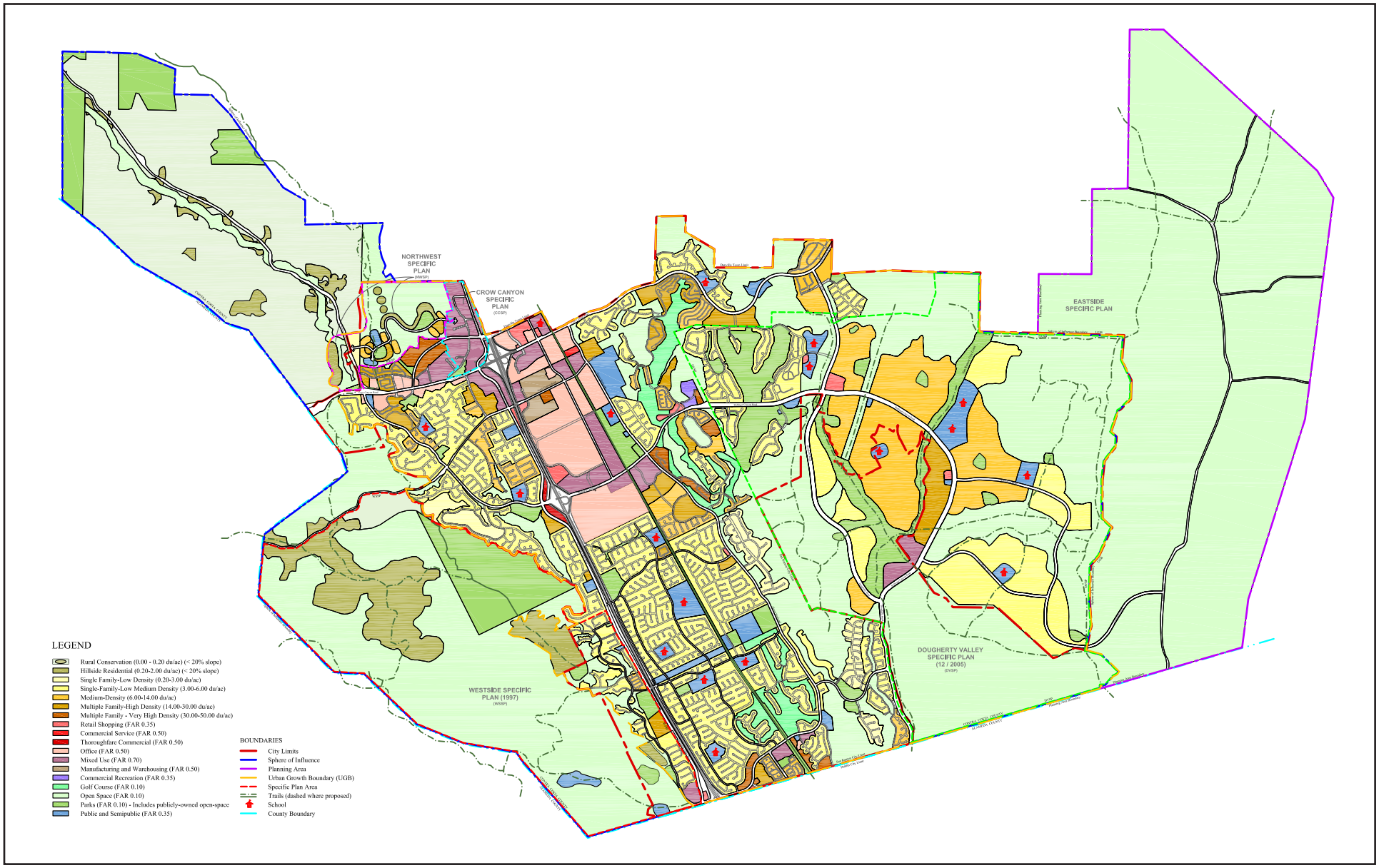
CITY OF SAN RAMON • GENERAL PLAN 2030 UPDATE
NOTICE OF PREPARATION



Source: City of San Ramon Planning Department, General Plan 2020 Land Use Map (April 10, 2009).

NORTH

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Exhibit 2
Existing General Plan Map

Michael Brandman Associates

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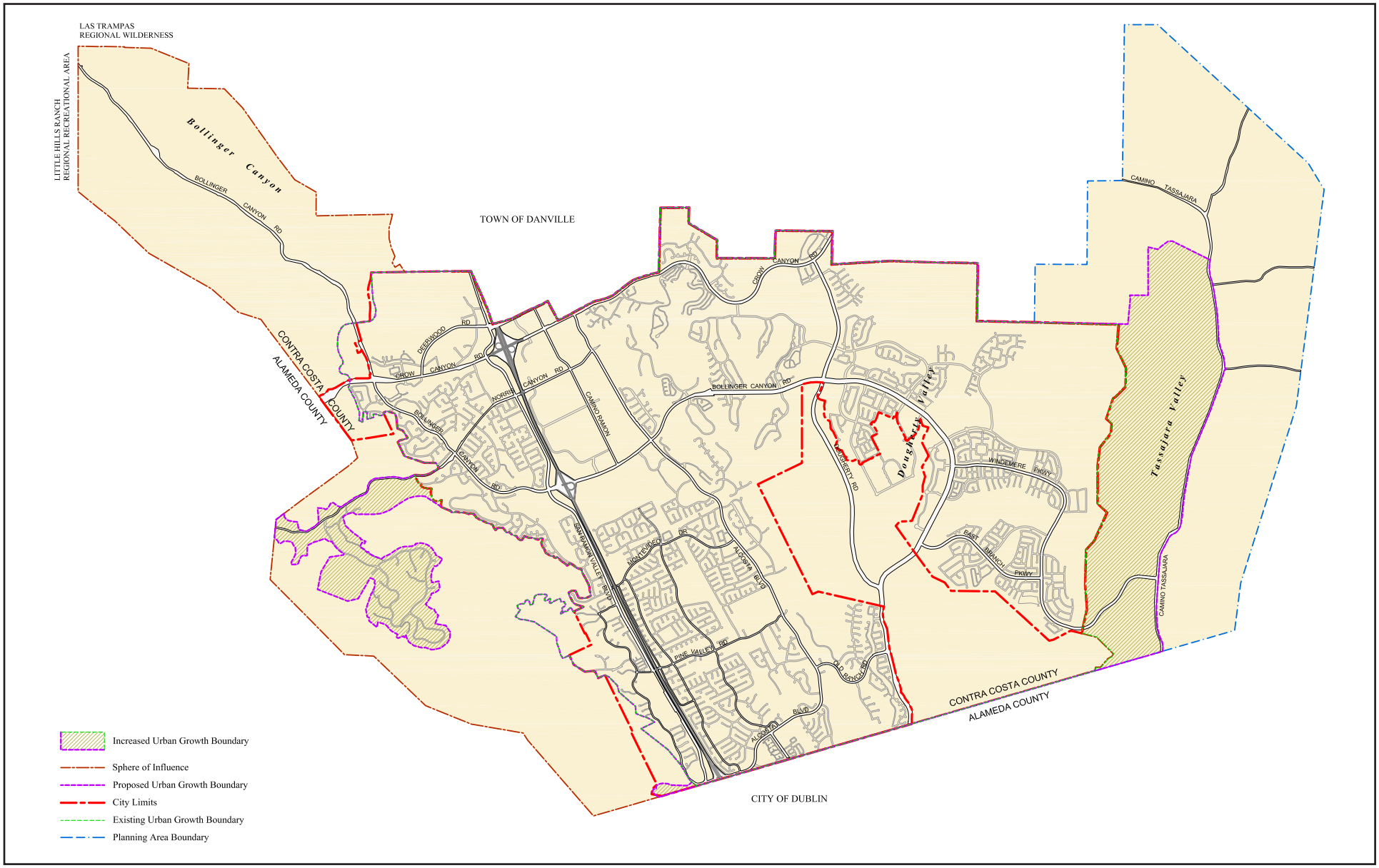

Source: City of San Ramon Planning Department, Planning Area and Urban Growth Boundaries (January 5, 2010).

NORTH 6,000 3,000 0 6,000 Feet

Michael Brandman Associates

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Exhibit 3
Proposed Urban Growth Boundary Adjustment

CITY OF SAN RAMON • GENERAL PLAN 2030 UPDATE
NOTICE OF PREPARATION

A.2 - Responses

ARNOLD SCHWARZENEGGER
GOVERNOR

Cal E·M·A
CALIFORNIA EMERGENCY MANAGEMENT AGENCY

MATTHEW R. BETTENHAUSEN
SECRETARY

January 29, 2010

RECEIVED
FEB 2 - 2010
CITY OF SAN RAMON
PLANNING SERVICES

Lauren Barr
City of San Ramon
2226 Camino Ramon
San Ramon, CA 94583

RE: Notice of Preparation for a Draft Environmental Impact Report for the City of San Ramon's General Plan Update, SCH# 2000082002

Dear Ms. Barr:

Thank you for the opportunity to comment on your Notice of Preparation for a Draft Environmental Impact Report (DEIR) for the city's general plan update. In preparing the general plan and accompanying DEIR, the city should examine the sections of state planning law that involve potential hazards the city may face. For your information, I have underlined specific sections of state planning law where identification and analysis of hazards are discussed (see Attachment A).

Prior to the release of the draft general plan or within the DEIR, city staff or your consultants should examine each of the requirements in state planning law and determine if there are hazard issues within the community which the general plan should address. A table in the DEIR (or general plan) which identifies these specific issues and where they are addressed in the general plan would be helpful in demonstrating the city has complied with these requirements. If the DEIR determines that state planning law requirements have not been met, it should recommend that these issues be addressed in the general plan as a mitigation measure.

We note that state planning law includes a requirement for consultations with state agencies in regard to information related to hazards. CalEMA would be happy to share all available information at our disposal to facilitate the city's ability to comply with state planning and environmental laws.

If you have any questions about these comments, please contact Andrew Rush at (916) 845-8269 or andrew.rush@OES.ca.gov.

Sincerely,

Dennis Castrillo

Dennis Castrillo
Environmental Officer

cc: State Clearinghouse

3650 SCHRIEVER AVENUE • MATHER, CA 95655
RECOVERY BRANCH
(916) 845-8200 [OFFICE] • (916) 845-8385 [FAX]

Attachment A
Hazards and State Planning Law Requirements

General Plan Consistency

65300.5. In construing the provisions of this article, the Legislature intends that the general plan and elements and parts thereof comprise an integrated, internally consistent and compatible statement of policies for the adopting agency.

Seven Mandated Elements

65302. The general plan shall consist of a statement of development policies and shall include a diagram or diagrams and text setting forth objectives, principles, standards, and plan proposals. The plan shall include the following elements:

(a) A land use element that designates the proposed general distribution and general location and extent of the uses of the land for housing, business, industry, open space, including agriculture, natural resources, recreation, and enjoyment of scenic beauty, education, public buildings and grounds, solid and liquid waste disposal facilities, and other categories of public and private uses of land. The location and designation of the extent of the uses of the land for public and private uses shall consider the identification of land and natural resources pursuant to paragraph (3) of subdivision (d). The land use element shall include a statement of the standards of population density and building intensity recommended for the various districts and other territory covered by the plan. The land use element shall identify and annually review those areas covered by the plan that are subject to flooding identified by flood plain mapping prepared by the Federal Emergency Management Agency (FEMA) or the Department of Water Resources. The land use element shall also do both of the following:

(1) Designate in a land use category that provides for timber production those parcels of real property zoned for timberland production pursuant to the California Timberland Productivity Act of 1982, Chapter 6.7 (commencing with Section 51100) of Part 1 of Division 1 of Title 5.

(2) Consider the impact of new growth on military readiness activities carried out on military bases, installations, and operating and training areas, when proposing zoning ordinances or designating land uses covered by the general plan for land, or other territory adjacent to military facilities, or underlying designated military aviation routes and airspace.

(A) In determining the impact of new growth on military readiness activities, information provided by military facilities shall be considered. Cities and counties shall address military impacts based on information from the military and other sources.

(B) The following definitions govern this paragraph:

(i) "Military readiness activities" mean all of the following:

(I) Training, support, and operations that prepare the men and women of the military for combat.

(II) Operation, maintenance, and security of any military installation.

(III) Testing of military equipment, vehicles, weapons, and sensors for proper operation or suitability for combat use.

(ii) "Military installation" means a base, camp, post, station, yard, center, homeport facility for any ship, or other activity under the jurisdiction of the United States Department of Defense as defined in paragraph (1) of subsection (e) of Section 2687 of Title 10 of the United States Code.

(b) A circulation element consisting of the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, any military airports and ports, and other local public utilities and facilities, all correlated with the land use element of the plan.

(c) A housing element as provided in Article 10.6 (commencing with Section 65580).

(d) (1) A conservation element for the conservation, development, and utilization of natural resources including water and its hydraulic force, forests, soils, rivers and other waters, harbors, fisheries, wildlife, minerals, and other natural resources. The conservation element shall consider the effect of development within the jurisdiction, as described in the land use element, on natural resources located on public lands, including military installations. That portion of the conservation element including waters shall be developed in coordination with any countywide water agency and with all district and city agencies, including flood management, water conservation, or groundwater agencies that have developed, served, controlled, managed, or conserved water of any type for any purpose in the county or city for which the plan is prepared. Coordination shall include the discussion and evaluation of any water supply and demand information described in Section 65352.5, if that information has been submitted by the water agency to the city or county.

(2) The conservation element may also cover all of the following:

(A) The reclamation of land and waters.

(B) Prevention and control of the pollution of streams and other waters.

(C) Regulation of the use of land in stream channels and other areas required for the accomplishment of the conservation plan.

(D) Prevention, control, and correction of the erosion of soils, beaches, and shores.

(E) Protection of watersheds.

(F) The location, quantity and quality of the rock, sand and gravel resources.

(3) Upon the next revision of the housing element on or after January 1, 2009, the conservation element shall identify rivers, creeks, streams, flood corridors, riparian habitats, and land that may accommodate floodwater for purposes of groundwater recharge and stormwater management.

(e) An open-space element as provided in Article 10.5 (commencing with Section 65560).

(f) (1) A noise element which shall identify and appraise noise problems in the community. The noise element shall recognize the guidelines established by the Office of Noise Control in the State Department of Health Care Services and shall analyze and quantify, to the extent practicable, as determined by the legislative body, current and projected noise levels for all of the following sources:

(A) Highways and freeways.

(B) Primary arterials and major local streets.

(C) Passenger and freight on-line railroad operations and ground rapid transit systems.

(D) Commercial, general aviation, heliport, helistop, and military airport operations, aircraft overflights, jet engine test stands, and all other ground facilities and maintenance functions related to airport operation.

(E) Local industrial plants, including, but not limited to, railroad classification yards.

(F) Other ground stationary noise sources, including, but not limited to, military installations, identified by local agencies as contributing to the community noise environment.

(2) Noise contours shall be shown for all of these sources and stated in terms of community noise equivalent level (CNEL) or day-night average level (Ldn). The noise contours shall be prepared on the basis of noise monitoring or following generally accepted noise modeling techniques for the various sources identified in paragraphs (1) to (6), inclusive.

(3) The noise contours shall be used as a guide for establishing a pattern of land uses in the land use element that minimizes the exposure of community residents to excessive noise.

(4) The noise element shall include implementation measures and possible solutions that address existing and foreseeable noise problems, if any. The adopted noise element shall serve as a guideline for compliance with the state's noise insulation standards.

(g) (1) A safety element for the protection of the community from any unreasonable risks associated with the effects of seismically induced surface rupture, ground shaking, ground failure, tsunami, seiche, and dam failure; slope instability leading to mudslides and landslides; subsidence, liquefaction, and other seismic hazards identified pursuant to Chapter 7.8 (commencing with Section 2690) of Division 2 of the Public Resources Code, and other geologic hazards known to the legislative body; flooding; and wild land and urban fires. The safety element shall include mapping of known seismic and other geologic hazards. It shall also address evacuation routes, military installations, peakload water supply requirements, and minimum road widths and clearances around structures, as those items relate to identified fire and geologic hazards.

(2) The safety element, upon the next revision of the housing element on or after January 1, 2009, shall also do the following:

(A) Identify information regarding flood hazards, including, but not limited to, the following:

(i) Flood hazard zones. As used in this subdivision, "flood hazard zone" means an area subject to flooding that is delineated as either a special hazard area or an area of moderate or minimal hazard on an official flood insurance rate map issued by the Federal Emergency Management Agency. The identification of a flood hazard zone does not imply that areas outside the flood hazard zones or uses permitted within flood hazard zones will be free from flooding or flood damage.

(ii) National Flood Insurance Program maps published by FEMA.

(iii) Information about flood hazards that is available from the United States Army Corps of Engineers.

(iv) Designated floodway maps that are available from the Central Valley Flood Protection Board.

(v) Dam failure inundation maps prepared pursuant to Section 8589.5 that are available from the Office of Emergency Services.

(vi) Awareness Floodplain Mapping Program maps and 200-year flood plain maps that are or may be available from, or accepted by, the Department of Water Resources.

(vii) Maps of levee protection zones.

(viii) Areas subject to inundation in the event of the failure of project or nonproject levees or floodwalls.

(ix) Historical data on flooding, including locally prepared maps of areas that are subject to flooding, areas that are vulnerable to flooding after wildfires, and sites that have been repeatedly damaged by flooding.

(x) Existing and planned development in flood hazard zones, including structures, roads, utilities, and essential public facilities.

(xi) Local, state, and federal agencies with responsibility for flood protection, including special districts and local offices of emergency services.

(B) Establish a set of comprehensive goals, policies, and objectives based on the information identified pursuant to subparagraph (A), for the protection of the community from the unreasonable risks of flooding, including, but not limited to:

(i) Avoiding or minimizing the risks of flooding to new development.

(ii) Evaluating whether new development should be located in flood hazard zones, and identifying construction methods or other methods to minimize damage if new development is located in flood hazard zones.

(iii) Maintaining the structural and operational integrity of essential public facilities during flooding.

(iv) Locating, when feasible, new essential public facilities outside of flood hazard zones, including hospitals and health care facilities, emergency shelters, fire stations, emergency command centers, and emergency communications facilities or identifying construction methods or other methods to minimize damage if these facilities are located in flood hazard zones.

(v) Establishing cooperative working relationships among public agencies with responsibility for flood protection.

(C) Establish a set of feasible implementation measures designed to carry out the goals, policies, and objectives established pursuant to subparagraph (B).

(3) After the initial revision of the safety element pursuant to paragraph (2), upon each revision of the housing element, the planning agency shall review and, if necessary, revise the safety element to identify new information that was not available during the previous revision of the safety element.

(4) Cities and counties that have flood plain management ordinances that have been approved by FEMA that substantially comply with this section, or have substantially equivalent provisions to this subdivision in their general plans, may use that information in the safety element to comply with this subdivision, and shall summarize and incorporate by reference into the safety element the other general plan provisions or the flood plain ordinance, specifically showing how each requirement of this subdivision has been met.

(5) Prior to the periodic review of its general plan and prior to preparing or revising its safety element, each city and county shall consult the California Geological Survey of the Department of Conservation, the Central Valley Flood Protection Board, if the city or county is located within the boundaries of the Sacramento and San Joaquin Drainage District, as set forth in Section 8501 of the Water Code, and the Office of Emergency Services for the purpose of including information known by and available to the department, the office, and the board required by this subdivision.

(6) To the extent that a county's safety element is sufficiently detailed and contains appropriate policies and programs for adoption by a city, a city may adopt that portion of the county's safety element that pertains to the city's planning area in satisfaction of the requirement imposed by this subdivision.

Consistency with Airport Land Use Plans

65302.3. (a) The general plan, and any applicable specific plan prepared pursuant to Article 8 (commencing with Section 65450), shall be consistent with the plan adopted or amended pursuant to Section 21675 of the Public Utilities Code.

Review of Safety Element

65302.5. (a) At least 45 days prior to adoption or amendment of the safety element, each county and city shall submit to the Division of Mines and Geology of the Department of Conservation

one copy of a draft of the safety element or amendment and any technical studies used for developing the safety element. The division may review drafts submitted to it to determine whether they incorporate known seismic and other geologic hazard information, and report its findings to the planning agency within 30 days of receipt of the draft of the safety element or amendment pursuant to this subdivision. The legislative body shall consider the division's findings prior to final adoption of the safety element or amendment unless the division's findings are not available within the above prescribed time limits or unless the division has indicated to the city or county that the division will not review the safety element. If the division's findings are not available within those prescribed time limits, the legislative body may take the division's findings into consideration at the time it considers future amendments to the safety element. Each county and city shall provide the division with a copy of its adopted safety element or amendments. The division may review adopted safety elements or amendments and report its findings. All findings made by the division shall be advisory to the planning agency and legislative body.

(1) The draft element of or draft amendment to the safety element of a county or a city's general plan shall be submitted to the State Board of Forestry and Fire Protection and to every local agency that provides fire protection to territory in the city or county at least 90 days prior to either of the following:

(A) The adoption or amendment to the safety element of its general plan for each county that contains state responsibility areas.

(B) The adoption or amendment to the safety element of its general plan for each city or county that contains a very high fire hazard severity zone as defined pursuant to subdivision (b) of Section 51177.

(2) A county that contains state responsibility areas and a city or county that contains a very high fire hazard severity zone as defined pursuant to subdivision (b) of Section 51177, shall submit for review the safety element of its general plan to the State Board of Forestry and Fire Protection and to every local agency that provides fire protection to territory in the city or county in accordance with the following dates as specified, unless the local government submitted the element within five years prior to that date:

(A) Local governments within the regional jurisdiction of the San Diego Association of Governments: December 31, 2010.

(B) Local governments within the regional jurisdiction of the Southern California Association of Governments: December 31, 2011.

(C) Local governments within the regional jurisdiction of the Association of Bay Area Governments: December 31, 2012.

(D) Local governments within the regional jurisdiction of the Council of Fresno County Governments, the Kern County Council of Governments, and the Sacramento Area Council of Governments: June 30, 2013.

(E) Local governments within the regional jurisdiction of the Association of Monterey Bay Area Governments: December 31, 2014.

(F) All other local governments: December 31, 2015.

(3) The State Board of Forestry and Fire Protection shall, and a local agency may, review the draft or an existing safety element and report its written recommendations to the planning agency within 60 days of its receipt of the draft or existing safety element. The State Board of Forestry and Fire Protection and local agency shall review the draft or existing safety element and may

offer written recommendations for changes to the draft or existing safety element regarding both of the following:
(A) Uses of land and policies in state responsibility areas and very high fire hazard severity zones that will protect life, property, and natural resources from unreasonable risks associated with wildland fires.
(B) Methods and strategies for wildland fire risk reduction and prevention within state responsibility areas and very high hazard severity zones.
(b) Prior to the adoption of its draft element or draft amendment, the board of supervisors of the county or the city council of a city shall consider the recommendations made by the State Board of Forestry and Fire Protection and any local agency that provides fire protection to territory in the city or county. If the board of supervisors or city council determines not to accept all or some of the recommendations, if any, made by the State Board of Forestry and Fire Protection or local agency, the board of supervisors or city council shall communicate in writing to the State Board of Forestry and Fire Protection or to the local agency, its reasons for not accepting the recommendations.

Open Space Plans

65560. (a) "Local open-space plan" is the open-space element of a county or city general plan adopted by the board or council, either as the local open-space plan or as the interim local open-space plan adopted pursuant to Section 65563.
(b) "Open-space land" is any parcel or area of land or water that is essentially unimproved and devoted to an open-space use as defined in this section, and that is designated on a local, regional or state open-space plan as any of the following:
(1) Open space for the preservation of natural resources including, but not limited to, areas required for the preservation of plant and animal life, including habitat for fish and wildlife species; areas required for ecologic and other scientific study purposes; rivers, streams, bays and estuaries; and coastal beaches, lakeshores, banks of rivers and streams, and watershed lands.
(2) Open space used for the managed production of resources, including but not limited to, forest lands, rangeland, agricultural lands and areas of economic importance for the production of food or fiber; areas required for recharge of groundwater basins; bays, estuaries, marshes, rivers and streams which are important for the management of commercial fisheries; and areas containing major mineral deposits, including those in short supply.
(3) Open space for outdoor recreation, including but not limited to, areas of outstanding scenic, historic and cultural value; areas particularly suited for park and recreation purposes, including access to lakeshores, beaches, and rivers and streams; and areas which serve as links between major recreation and open-space reservations, including utility easements, banks of rivers and streams, trails, and scenic highway corridors.
(4) Open space for public health and safety, including, but not limited to, areas which require special management or regulation because of hazardous or special conditions such as earthquake fault zones, unstable soil areas, flood plains, watersheds, areas presenting high fire risks, areas required for the protection of water quality and water reservoirs and areas required for the protection and enhancement of air quality.

DEPARTMENT OF TRANSPORTATION
111 GRAND AVENUE
P. O. BOX 23660
OAKLAND, CA 94623-0660
PHONE (510) 622-5491
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PLANNING SERVICES

February 10, 2010

CCGEN181
SCH#2000082002

Mr. Lauren Barr, Senior Planner
Planning/Community Development Department
City of San Ramon
2226 Camino Ramon
San Ramon, CA 94583

Dear Mr. Barr:

City of San Ramon General Plan Update— Notice of Preparation (NOP)

Thank you for including the California Department of Transportation (Department) in the environmental review process for the City of San Ramon General Plan Update. The following comments are based on the NOP. As lead agency, the City of San Ramon is responsible for all project mitigation, including any needed improvements to State highways. The project's fair share contribution, financing, scheduling, and implementation responsibilities as well as lead agency monitoring should be fully discussed for all proposed mitigation measures and the project's traffic mitigation fees should be specifically identified in the environmental document. Any required roadway improvements should be completed prior to issuance of project occupancy permits. An encroachment permit is required when the project involves work in the State's right of way (ROW). The Department will not issue an encroachment permit until our concerns are adequately addressed. Therefore, we strongly recommend that the lead agency ensure resolution of the Department's California Environmental Quality Act (CEQA) concerns prior to submittal of the encroachment permit application; see the end of this letter for more information regarding the encroachment permit process.

Community Planning

The Department encourages the City of San Ramon to locate any needed housing, jobs and neighborhood services near major mass transit nodes, and connect these nodes with streets configured to facilitate walking and biking, as a means of promoting mass transit use and reducing regional vehicle miles traveled and traffic impacts on the state highways.

Please consider developing and applying pedestrian, bicycling and transit performance or level/quality of service measures and modeling pedestrian, bicycle and transit trips that your project will generate. Mitigation measures resulting from the analysis could improve pedestrian and bicycle access to transit facilities, thereby reducing traffic impacts on state highways.

In addition, please analyze secondary impacts on pedestrians and bicyclists that may result from any traffic impact mitigation measures. Describe any pedestrian and bicycle mitigation measures that would in turn be needed as a means of maintaining and improving access to transit facilities and reducing traffic impacts on state highways.

Traffic Impact Study

The environmental document should include an analysis of the impacts of the proposed project on State highway facilities in the vicinity of the project site. Please ensure that a Traffic Impact Study (TIS) is prepared providing the information detailed below:

1. Information on the plan's traffic impacts in terms of trip generation, distribution, and assignment. The assumptions and methodologies used in compiling this information should be addressed. The study should clearly show the percentage of project trips assigned to State facilities.

2. Current Average Daily Traffic (ADT) and AM and PM peak hour volumes on all significantly affected streets, highway segments and intersections.

3. Schematic illustration and level of service (LOS) analysis for the following scenarios: 1) existing, 2) existing plus project, 3) cumulative and 4) cumulative plus project for the roadways and intersections in the project area.

4. Calculation of cumulative traffic volumes should consider all traffic-generating developments, both existing and future, that would affect the State highway facilities being evaluated.

5. The procedures contained in the 2000 update of the Highway Capacity Manual should be used as a guide for the analysis. We also recommend using the Department's *"Guide for the Preparation of Traffic Impact Studies";* it is available on the following web site: http://www.dot.ca.gov/hq/traffops/developserv/operationalsystems/reports/tisguide.pdf .

6. Mitigation measures should be identified where plan implementation is expected to have a significant impact. Mitigation measures proposed should be fully discussed, including financing, scheduling, implementation responsibilities, and lead agency monitoring.

We encourage the City of San Ramon to coordinate preparation of the study with our office, and we would appreciate the opportunity to review the scope of work.

We look forward to reviewing the TIS, including Technical Appendices, and environmental document for this project. Please send two copies to the address at the top of this letterhead, marked ATTN: Lisa Carboni, Mail Stop #10D.

Encroachment Permit

Any work or traffic control within the State ROW requires an encroachment permit that is issued by the Department. Traffic-related mitigation measures will be incorporated into the construction plans during the encroachment permit process. See the following website link for more information: http://www.dot.ca.gov/hq/traffops/developserv/permits/

To apply for an encroachment permit, submit a completed encroachment permit application, environmental documentation, and five (5) sets of plans which clearly indicate State ROW to the address at the top of this letterhead, marked ATTN: Michael Condie, Mail Stop #5E.

Should you have any questions regarding this letter, please call me at (510) 622-5491.

Sincerely,

Lisa Carboni

LISA CARBONI
District Branch Chief
Local Development - Intergovernmental Review

c: State Clearinghouse

Contra Costa County
Flood Control
& Water Conservation District

Julia R. Bueren,
ex officio Chief Engineer
R. Mitch Avalon,
Deputy Chief Engineer

February 18, 2010

Mr. Lauren Barr
Senior Planner
City of San Ramon
2226 Camino Ramon
San Ramon, CA 94583

RE: Notice of Preparation for Draft Environmental Report for General Plan 2030
Our Files: 97-101A09

Dear Mr. Barr:

We have reviewed the Notice of Preparation (NOP) for the Draft Environmental Report (DEIR) for the City of San Ramon (City) General Plan Update, which we received on January 19, 2010, and submit the following comments:

General Project Comments

1. The project area is within San Ramon Creek, South San Ramon Creek, and Alamo Creek/Tassajara Creek watersheds. We recommend that all developments in the San Ramon Creek Watershed be required to mitigate their adverse drainage impact upon the natural creeks. The following should be added to the mitigation measures for the future developments:

   Mitigation for San Ramon Creek

   - Mitigate the impact of additional stormwater runoff from those developments on San Ramon Creek by either of the following methods:
   - Remove 1 cubic yard of channel excavation material from the inadequate portion of San Ramon Creek for each 50 square feet of new impervious surface area created by the development. All excavated material shall be disposed of offsite by the developer at his own cost. The site selection, land rights, and construction staking will be performed by the Contra Costa County Flood Control & Water Conservation District (FC District).

     OR, upon written request by the developer:

   - Provide for a cash payment in lieu of actual excavation and removal of material from the inadequate portion of San Ramon Creek. The cash payment will be calculated at a rate of $0.10 per square foot of new impervious surface area created by the development. The added impervious surface area created by the development will be based on the FC District's standard impervious surface area ordinance. The FC District will use these funds to work on San Ramon Creek annually.

2. We request that the DEIR provide a map of the watersheds where the urban growth boundary adjustments and the land use map amendments will be located, including watershed boundaries, show all existing watercourses, tributaries, and man-made drainage facilities within the project site that could be impacted by the City's General Plan Amendment and also identify FC District's right of way.

3. The DEIR should note that portions of the proposed project area consisting of a comprehensive update in terms of Ordinance 197, Land Use Map Amendments, and General Plan Element Updates may affect Drainage Areas 75, 75A, and 101, unformed drainage areas, and Drainage Area 101A, a formed drainage area. There are no fees due at this time for unformed drainage areas.

4. The DEIR should include, as a mitigation measure, any new impervious surfaces within Drainage Area 101A for which a mitigation fee is due in accordance with Flood Control Ordinance Number 88-36. By ordinance, all building permits or subdivision maps filed in this area are subject to the provisions of the drainage fee ordinance. Effective July 9, 1988, the current fee in this drainage area is *$0.20* per square foot of newly created impervious surface.

5. Portions of the proposed project area consisting of a comprehensive update in terms of the Eastside Specific Plan, as shown on Exhibit 2, and the Urban Growth Boundary Adjustment, as shown on Exhibit 3, are within Drainage Area 95 (Southwest San Ramon Drainage Area) and Drainage Area 102 (Tassajara Drainage Area), unformed drainage areas. There are no fees due at this time for unformed drainage areas.

Hydrology

1. We recommend that the DEIR quantify the amount of runoff that would be generated by the urban growth boundary adjustments and the land use map amendments and discuss how the runoff entering and originating from these areas will be distributed between the natural watercourses and to any man-made drainage facilities.

2. The DEIR should discuss the adverse impacts of the runoff from the urban growth boundary adjustments and the land use map amendments to the existing drainage facilities and drainage problems in the downstream areas, including those areas outside of the project site.

3. We recommend that the DEIR stipulate that future developments should design and construct storm drain facilities to adequately collect and convey stormwater runoff, without diversion of the watershed, entering or originating within the development to the nearest natural watercourse or adequate man-made drainage facility.

4. We recommend that the adequacy and stability of the drainage facilities within the project area be studied to determine if local drainage design criteria are met, as well as FEMA National Floodplain Insurance requirements. If those are not met, then the DEIR should discuss the potential impacts and propose mitigation measures to address those impacts. The discussion should also include an analysis of the capacity and erosion potential of the existing watercourses.

5. The DEIR should discuss how the project will comply with the current NPDES (National Pollutant Discharge Elimination System) requirements under the City's Stormwater Management and Discharge Control Ordinances and the C.3 Guidebook.

Land Transactions

1. If the implementation of this project will include land transactions involving the FC District, we recommend that the project's CEQA document state that in the appropriate sections of it.

Regulatory Permits

1. We recommend that the DEIR request the appropriate environmental regulatory agencies, such as the U.S. Army Corps of Engineers, the State Department of Fish and Game and the State Regional Water Quality Control Board, to explore the permits, special conditions, and mitigation that may be necessary for this project.

2. The DEIR should discuss mitigation measures required by the aforementioned agencies that may be necessary and that would impact any of the creeks under the FC District's jurisdiction. Any mitigation measures within San Ramon Creek will require a separate Flood Control Permit. Any mitigation measures for Tassajara Creek will require a County Drainage 1010 Permit.

Conclusion

1. The FC District should be included in the review of all drainage facilities that have a region-wide benefit, that impact region-wide facilities, or that impact FC District-owned facilities. The FC District is available to provide technical assistance during the development of the DEIR, including hydrology and hydraulic information and our HYDRO6 method, under our Fee-for-Service program.

2. Portions of the project within the increased urban growth boundary areas, as shown on Exhibit 3, lie within the 100-year flood boundary, as designated on the Federal Emergency Flood Rate Maps. The City should be aware of the requirements of the Federal Flood Insurance Program and the County Flood Plain Management Ordinance as they pertain to future construction of any structures within the Project Areas. Future developers/applicants may need to apply for a floodplain permit.

3. The General Plan Update states that the Eastside Specific Plan would guide future development and land use activities in the Tassajara Valley. Exhibit 2 shows the existing general plan; any future developments that would alter the existing drainage pattern and increase runoff that would exceed the capacity of the existing and planned drainage systems would need to consider any population density increase. We recommend that the City or future developers draft and implement a Drainage Master Plan reflecting the change in proposed land use on the Eastside Specific Plan.

4. The Drainage Master Plan should closely analyze any increased flowrate and volumes of the stormwater runoff caused by this project and the Eastside Specific Plan. The Master Drainage Plan should result in a plan with descriptions of proposed upsizing of existing flood control facilities or new flood control facilities (which typically includes basins, channels, and storm drains), compliance with discharge requirements, cost estimate, and schedules. We request the opportunity to review the Drainage Master Plan when it becomes available.

We appreciate the opportunity to review projects involving drainage matters and welcome continued coordination. If you should have any questions, please call me at (925) 313-2264 or e-mail me at hshaf@pw.cccounty.us; alternately, you may contact Teri Rie at (925) 313-2363 or trie@pw.cccounty.us.

Sincerely,

Homira Shafaq

Homira Shafaq
Staff Engineer
Contra Costa County Flood Control
& Water Conservation District

HS:cw
G:\fldctl\CurDev\CITIES\San Ramon\San Ramon General Plan 2030 Update\comments 01 NOP of DEIR.doc

c: G. Connaughton, Flood Control
P. Detjens, Flood Control
T. Jensen, Flood Control
T. Rie, Flood Control
C. Roner, Flood Control

State of California – The Natural Resources Agency
DEPARTMENT OF FISH AND GAME
Bay Delta Region
Post Office Box 47
Yountville, California 94599
(707) 944-5500
www.dfg.ca.gov

ARNOLD SCHWARZENEGGER, Governor
John McCamman, Director

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CITY OF SAN RAMON
PLANNING SERVICES

February 4, 2010

Ms. Lauren Barr
City of San Ramon
2226 Camino Ramon
San Ramon, CA 94583

Dear Ms. Barr:

Subject: City of San Ramon General Plan Update 2030, Notice of Preparation, SCH #2000082002, City of San Ramon, Contra Costa County

The Department of Fish and Game (DFG) has reviewed the documents provided for the subject project, and we have the following comments.

Please provide a complete assessment (including but not limited to type, quantity and locations) of the habitats, flora and fauna within and adjacent to the project area, including endangered, threatened, and locally unique species and sensitive habitats. The assessment should include the reasonably foreseeable direct and indirect changes (temporary and permanent) that may occur with implementation of the project. Rare, threatened and endangered species to be addressed should include all those which meet the California Environmental Quality Act (CEQA) definition (see CEQA Guidelines, Section 15380). DFG recommended survey and monitoring protocols and guidelines are available at http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/Protocols_for_Surveying_and_Evaluating_Impacts.pdf.

Please be advised that a California Endangered Species Act (CESA) Permit must be obtained if the project has the potential to result in take of species of plants or animals listed under CESA, either during construction or over the life of the project. Issuance of a CESA Permit is subject to CEQA documentation; therefore, the CEQA document must specify impacts, mitigation measures, and a mitigation monitoring and reporting program. If the project will impact CESA listed species, early consultation is encouraged, as significant modification to the project and mitigation measures may be required in order to obtain a CESA Permit.

For any activity that will divert or obstruct the natural flow, or change the bed, channel, or bank (which may include associated riparian resources) of a river or stream, or use material from a streambed, DFG may require a Lake and Streambed Alteration Agreement (LSAA), pursuant to Section 1600 et seq. of the Fish and Game Code, with the applicant. Issuance of an LSAA is subject to CEQA. DFG, as a responsible agency under CEQA, will consider the CEQA document for the project. The CEQA document should fully identify the potential impacts to the stream or riparian resources and provide adequate avoidance, mitigation, monitoring and reporting commitments for completion of the agreement. To obtain information about the LSAA notification process, please access our website at http://www.dfg.ca.gov/habcon/1600/; or to request a notification package, contact the Lake and Streambed Alteration Program at (707) 944-5520.

If you have any questions, please contact Ms. Suzanne Gilmore, Environmental Scientist, at (707) 944-5536; or Mr. Liam Davis, Habitat Conservation Supervisor, at (707) 944-5529.

Sincerely,

Cindy Catalano

Charles Armor
Regional Manager
Bay Delta Region

cc: State Clearinghouse

DUBLIN
SAN RAMON
SERVICES
DISTRICT

7051 Dublin Boulevard
Dublin, California 94568
Phone: 925 828 0515
FAX: 925 829 1180
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January 28, 2010

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Mr. Lauren Barr, Senior Planner
City of San Ramon
Planning/Community Development Department
2226 Camino Ramon
San Ramon, CA 94583

Subject: **Notice of Preparation of a Draft Environmental Impact Report**
City of San Ramon General Plan Update

Dear Mr. Barr:

Thank you for the opportunity to comment on the scope and content of this document. The Dublin San Ramon Services District (DSRSD) supports the City of San Ramon in the process to solicit comments on this upcoming EIR.

Portions of the project area are within the service area of DSRSD. DSRSD provides sanitary sewer services for the southern portion of the City and potable water and recycled water services for the Dougherty Valley area of the City. We will be a responsible agency involved in the EIR to analyze the expansion of services for new areas in the city's sphere of influence. As the City implements its general plan, DSRSD may need to conduct service studies.

Thank you for the opportunity to comment on the upcoming Draft Environmental Impact Report. If you have any questions regarding these comments, please contact Stan Kolodzie at (925) 875-2253.

Sincerely,

RHODORA N. BIAGTAN
Principal Engineer

RB/SK/ST
cc: Dave Requa
Stan Kolodzie
Chron/File

EAST BAY
MUNICIPAL UTILITY DISTRICT

February 9, 2010

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CITY OF SAN RAMON
PLANNING SERVICES

Lauren Barr, Senior Planner
City of San Ramon
Planning / Community Development Department
2226 Camino Ramon
San Ramon, CA 94583

Re: Notice of Preparation - City of San Ramon General Plan Update

Dear Mr. Barr:

East Bay Municipal Utility District (EBMUD) appreciates the opportunity to comment on the Notice of Preparation of a Draft Environmental Impact Report for the City of San Ramon (City) General Plan Update. EBMUD has the following comments.

WATER SERVICE

The Notice of Preparation does not reference specific development projects. Any development project associated with the City of San Ramon General Plan Update will be subject to the following general requirements.

Main extensions that may be required to serve any specific development projects that will provide adequate domestic water supply, fire flows, and system redundancy will be at the project sponsor's expense. Pipeline and fire hydrant relocations and replacements due to modifications of existing streets, and off-site pipeline improvements, also at the project sponsor's expense, may be required depending on EBMUD metering requirements and fire flow requirements set by the local fire department. All project sponsors should contact EBMUD's New Business Office and request a water service estimate to determine costs and conditions of providing water service to the development. Engineering and installation of new and relocated pipeline and services requires substantial lead-time, which should be provided for in the project sponsor's development schedule.

Please note that depending on the size and/or square footage, the lead agency for future individual projects within the General Plan, Specific Plan, and Zoning Ordinance areas should contact EBMUD to request a Water Supply Assessment (WSA) that meets the threshold of a WSA pursuant to Section 15155 of the California Environmental Quality Act Guidelines, and Section 10910-10915 of the California Water Code. EBMUD requires project sponsors to provide future specific land use

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data estimates for individual project sites for the water demand analysis of the WSA. For unique manufacturing industries, an estimate of water demand will be needed. Please be aware that the WSA can take up to 90 days to complete from the day on which the request is received.

The project sponsor should be also be aware that EBMUD will not inspect, install or maintain pipeline in contaminated soil or groundwater (if groundwater is present at any time during the year at the depth piping is to be installed) that must be handled as a hazardous waste or that may pose a health and safety risk to construction or maintenance personnel wearing Level D personal protective equipment. Nor will EBMUD install piping in areas where groundwater contaminant concentrations exceed specified limits for discharge to sanitary sewer systems or sewage treatment plants. Applicants for EBMUD services requiring excavation in contaminated areas must submit copies of existing information regarding soil and groundwater quality within or adjacent to the project boundary. In addition, the applicant must provide a legally sufficient, complete and specific written remedial plan establishing the methodology, planning and design of all necessary systems for the removal, treatment, and disposal of all identified contaminated soil and/or groundwater.

EBMUD will not design the installation of pipelines until such time as soil and groundwater quality data and remediation plans are received and reviewed and will not install pipelines until remediation has been carried out and documentation of the effectiveness of the remediation has been received and reviewed. If no soil or groundwater quality data exists or the information supplied by the applicant is insufficient, EBMUD may require the applicant to perform sampling and analysis to characterize the soil being excavated and groundwater that may be encountered during excavation or perform such sampling and analysis itself at the applicant's expense.

WATER RECYCLING

EBMUD's Policy 8.01 requires that customers use non-potable water for non-domestic purposes when it is of adequate quality and quantity, available at reasonable cost, not detrimental to public health and not injurious to plant life, fish and wild life to offset demand on EBMUD's limited potable water supply. The City of San Ramon's Planning Area is located within EBMUD's recycled water service boundaries. Currently, EBMUD is implementing the San Ramon Valley Recycled Water Program that is a multi-phase, joint regional project between EBMUD and the Dublin San Ramon Services District (DSRSD) to serve recycled water to their customers within portions of the Blackhawk, Danville, Dublin, and San Ramon areas. The two agencies formed a Joint Powers Authority in 1995 called the DSRSD-EBMUD Recycled Water Authority (DERWA) to implement the program. DERWA's mission is to provide a safe, reliable, and consistent supply of recycled water, and to maximize the amount of recycled water delivered.

As part of the water supply planning, EBMUD will consider the feasibility of providing recycled water to the City's Planning Area for appropriate uses including landscape irrigation, commercial and industrial process uses, toilet and urinal flushing in non-residential buildings and other applications. EBMUD requests that the City require developers of new or redevelopment projects within the City Planning Area to coordinate and consult with EBMUD regarding the feasibility of providing recycled water for appropriate non-potable purposes.

WATER CONSERVATION

Individual projects within the City's updated General Plan may present an opportunity to incorporate water conservation measures. EBMUD requests that the City include in its conditions of approval a requirement that the project sponsor comply with the City's Efficient Landscape Requirements and Water Conservation Ordinance. Project sponsors should be aware that Section 31 of EBMUD's Water Service Regulations requires that water service shall not be furnished for new or expanded service unless all the applicable water-efficiency measures described in the regulation are installed at the project sponsor's expense.

If you have any questions concerning this response, please contact David J. Rehnstrom, Senior Civil Engineer, Water Service Planning at (510) 287-1365.

Sincerely,

William R. Kirkpatrick
Manager of Water Distribution Planning

WRK:AMW:sb
sb10_026.doc

East Bay Regional Park District
2950 PERALTA OAKS COURT P.O. BOX 5381 OAKLAND CALIFORNIA 94605-0381
T. 1 888 EBPARKS F. 510 569 4319 TDD. 510 633 0460 WWW.EBPARKS.ORG

February 9, 2010

Mr. Lauren Barr
Senior Planner
Planning/Community Development Dept.
2226 Camino Ramon
San Ramon, CA 94583

Subject: **San Ramon General Plan Update Draft EIR– Notice of Preparation**

Dear Mr. Barr:

The East Bay Regional Park District (the "District") appreciates the opportunity to review and comment on the Notice of Preparation (NOP) for the City of San Ramon General Plan Update draft environmental impact report (EIR). The District has a number of facilities within or adjacent to the City's planning area including Las Trampas Regional Wilderness, Bishop Ranch Regional Preserve, the Iron Horse Regional Trail, Calaveras Ridge Trail, and Tassajara Creek Regional Trail.

In addition, the District is interested in the application of growth management and land use policies throughout the County that relate to the District's core mission of establishing a system of interconnected parklands throughout the East Bay region.

The draft EIR for the San Ramon General Plan Update should evaluate the potential for impacts to District facilities as well as the potential for growth inducing impacts that would have the potential to result in the loss of open space and sensitive habitats throughout the region.

Measure WW

The Regional Open Space, Wildlife, Shoreline, and Parks Bond Extension known as Measure WW was overwhelmingly passed by voters in Contra Costa and Alameda Counties by nearly 72% in November of 2008. The General Plan and General Plan EIR should address projects within and adjacent to the San Ramon Planning Area that were approved by Measure WW.

Tassajara Creek Trail

The District's Master Plan Map as amended in 2007 includes a general alignment of the Tassajara Creek Trail through the eastern portion of San Ramon's planning area within the Eastside Specific Plan area.

The Tassajara Creek Trail exists through Dublin and the Tassajara Creek Regional Open Space before entering San Ramon's Planning Area. The trail continues through Dougherty Valley Open Space and is

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2950 PERALTA OAKS COURT P.O. BOX 5381 OAKLAND CALIFORNIA 94605-0381
T. 1 888 EBPARKS F. 510 569 4319 TDD 510 633 0460 WWW.EBPARKS.ORG

proposed to continue through the Alamo Creek Subdivision, across Camino Tassajara to connect to Mt. Diablo State Park.

The Draft EIR and the General Plan need to include the Tassajara Creek Trail as proposed through the San Ramon Planning area and evaluate any potential impacts to the proposed trail arising from development contemplated.

Alternatives

In addition to the proposed project and the required "no project" alternative, the draft EIR will need to consider a number of other alternatives. One alternative should consider retaining the Urban Growth Boundary in its current state on the east side of the city and only making adjustments for the Norris Canyon Estates area and the Laborer's property. Additionally, an alternative should consider a reduced Sphere of Influence expansion with regards to the Eastside Specific Plan area and perhaps be limited to Camino Tassajara.

Water Resources and Supply

The Notice of Preparation states that a new General Plan element, Water Resources and Supply, would be optional. The District would urge the City to include Water Resources and Supply as a new General Plan amendment. California has been in a multi-year drought and growth has continued throughout the state during that time, further increasing demands on water supply. The San Ramon General Plan adopted in 2002 states that the East Bay Municipal Water District does not have an adequate, reliable water supply for its existing and projected customers and that they oppose any annexations that would extend its existing ultimate service boundary. The annexation of the Eastside Specific Plan area would increase demands on water supply throughout the East Bay. The City should thoroughly analyze and consider water supply and potential sources in the draft EIR and through preparation of a Water Resources and Supply General Plan Element.

Open Space and Conservation

The Open Space and Conservation Element of the adopted San Ramon General Plan 2020 includes a number of policies working towards open space protection and resource conservation. A number of policies call for coordination with the East Bay Regional Park District and other agencies in exploring financing mechanisms and other options for open space acquisitions. Such policies should be carried forward into the General Plan Update. Any policy changes in the General Plan Update that remove policies designed to acquire and protect open space will need to be evaluated for aesthetic, biologic, and other resource impacts in the draft EIR.

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Pat O'Brien, General Manager

East Bay Regional Park District
2950 PERALTA OAKS COURT P.O. BOX 5381 OAKLAND CALIFORNIA 94605 0381
T. 1 888 EBPARKS F. 510 569 4319 TDD 510 633 0460 WWW.EBPARKS.ORG

The expansion of the city's urban growth boundary and sphere of influence would result in the development of lands that are currently maintained as open space and agricultural land. The General Plan and General Plan EIR will need to address the potential significant loss of grassland and creek habitat in the area. The General Plan EIR should identify a comprehensive mitigation plan for the potential impacts to sensitive habitats and species and consider the preparation of a city-wide Habitat Conservation Plan to address impacts to endangered species.

Additionally, any changes to Ordinance 197 that would result in fewer protections for ridgelines and resource conservation zones will need to be fully evaluated for the potential for aesthetic, biologic, and other potentially significant impacts arising from increased development potential.

Growth Inducement

Expansion of the City's Sphere of Influence and Urban Growth Boundary will have the potential to result in the inducement of a substantial amount of growth throughout the Tassajara Valley region. The DEIR will need to consider the potential for growth inducement and what affects such growth would have on traffic, biologic resources, cultural resources, greenhouse gas emissions, and other issues throughout the area.

The District appreciates the opportunity to review and comment on the NOP for the San Ramon General Plan Update DEIR and looks forward to reviewing the comprehensive environmental analysis. Please feel free to contact me at (510) 544-2623, or by email at bholt@ebparks.org, should you have any questions.

Respectfully,

Brian W. Holt, AICP
Senior Planner

Board of Directors

Doug Siden, President, Ward 4
Beverly Lane, Vice-President, Ward 6
Carol Severin, Treasurer, Ward 3
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Pat O'Brien, General Manager

GREENBELT ALLIANCE
Open Spaces & Vibrant Places

February 9, 2010

City of San Ramon
Planning/Community Development
2226 Camino Ramon
San Ramon, CA 94583
Attn: Mr. Lauren Barr, Senior Planner

RE: Notice of Preparation of an Environmental Impact Report for the City of San Ramon General Plan Update

Dear Mr. Barr,

Thank you for allowing Greenbelt Alliance the opportunity to provide comments for this proposed project and for the City's consideration of these comments as part of the California Environmental Quality Act (CEQA) process.

Project Description
The City of San Ramon is updating its General Plan that was adopted by voters in 2002. The horizon for the update is 2030 and it will serve as a blueprint for development and land use activities within the City limits. The General Plan Update will address issues such as adjustments to the Urban Growth Boundary, land use designation changes, and revision of existing and additions of new General Plan goals and policies to reflect changes that have occurred in the past decade. The update will also include a new Air Quality Greenhouse Gas Element to conform to recent State Legislation (AB32 and SB375) to reduce greenhouse gas emissions.

Greenbelt Alliance Comments

To assist the City of San Ramon's analysis and evaluation of this project, and aid in the determination of the adequacy of the Draft Environmental Impact Report (DEIR), Greenbelt Alliance requests that the following comments be addressed in the DEIR under preparation by the lead agency.

MAIN OFFICE • 631 Howard Street, Suite 510, San Francisco, CA 94105 • (415) 543-6771 • Fax (415) 543-6781
SOUTH BAY OFFICE • 1922 The Alameda, Suite 213, San Jose, CA 95126 • (408) 983-0856 • Fax (408) 983-1001
EAST BAY OFFICE • 1601 North Main Street, Suite 105, Walnut Creek, CA 94596 • (925) 932-7776 • Fax (925) 932-1970
SONOMA-MARIN OFFICE • 555 5th Street, Suite 300B, Santa Rosa, CA 95401 • (707) 575-3661 • Fax (707) 575-4275
SOLANO-NAPA OFFICE • 725 Texas Street, Fairfield, CA 94533 • (707) 427-2308 • Fax (707) 427-2315
INFO@GREENBELT.ORG • WWW.GREENBELT.ORG

Climate Change
The Draft Environmental Impact Report should include context setting around climate change. We applaud the city for incorporating a new element, Air Quality and Greenhouse Gas Emissions and encourage the city to add a Climate Action Plan to this element. This new element should include background on climate change impacts on the state, region and City of San Ramon. There should also be background on state and regional regulations, targets and inventories such as AB32, SB375, the Mayor's Climate Protection Agreement and the recent settlement between the City of Stockton and the Attorney General on that City's General Plan.

The Draft Environmental Impact Report should analyze the projected greenhouse gas emissions and vehicle miles traveled (VMT) from the plan as well as the cumulative impacts. The analysis should include the greenhouse gas impacts of the following variables:

- Residential density
- Mix of uses
- Levels of housing affordability
- Proximity to transit
- Bicycle and Pedestrian amenities
- Decreased parking requirements
- Jobs/ Housing ratio

Then the Draft EIR should propose mitigations, including on-site mitigations, such as increasing density, decreasing parking, ensuring new development is within a half mile of a fixed transit station, etc.

Proposed Expansion of the Urban Growth Boundary
The General Plan update includes a substantial change in the voter approved Urban Growth Boundary. The current General Plan's direction to review the voter-adopted UGB in 2010 offers the City an excellent opportunity to evaluate the benefits the UGB has provided to date. It is important to note that the proposed change in the UGB line by San Ramon would allow for urban development outside the existing Contra Costa County Urban Limit Line. In 2006 the voters of Contra Costa County and every city including San Ramon approved a ULL, with the Tassajara Valley outside of the line. The proposed change threatens the integrity of the voter approved ULL in Contra Costa County and if enacted would set a dangerous precedent.

We believe the current Urban Growth Boundary ensures that San Ramon is able to address the many concerns related to climate change, San Ramon's goals for its City Center Mixed-use District and the goals of SB375. An expansion of 2,227 acres, especially the 1,674 acres into the undeveloped Tassajara Valley, opens the door to unnecessary, and even counter-productive development. A full, detailed analysis of the impacts (to traffic, habitat, water supply, air quality, etc) of the proposed change should be included in the environmental impact report so that San Ramon residents can evaluate for themselves the appropriateness of this proposed change.

Alternatives Analysis
Climate change is perhaps the most serious environmental threat facing California, and as the City of San Ramon looks to 2030 it must plan to accommodate all projected new growth in a sustainable manner. Growth projections to 2030 for San Ramon envision the addition of approximately 22,100 people and 10,000 new jobs[1]. We ask the City to accommodate this growth within its existing urban footprint and be a model for the rest of the Bay Area. Please include an alternative in your environmental report that analyzes this option.

If you have any questions regarding these comments, please contact me at 415-543-6771 X303. Again, thank you for your consideration of these comments.

Sincerely,

Melissa Hippard
Campaigns Director

[1] *Building Momentum Projections and Priorities 2009, San Francisco Bay Area Population, Household, and Job Forecasts.* Association of Bay Area Governments.

CONTRA COSTA LOCAL AGENCY FORMATION COMMISSION
651 Pine Street, Sixth Floor • Martinez, CA 94553-1229
e-mail: LTexe@lafco.cccounty.us
(925) 335-1094 • (925) 646-1228 FAX

February 12, 2010

Lauren Barr, Senior Planner
Planning/Community Development Department
City of San Ramon
2226 Camino Ramon
San Ramon, CA 94583

SUBJECT: Notice of Preparation - City of San Ramon General Plan 2030 Update

Dear Mr. Barr:

Thank you for including the Contra Costa Local Agency Formation Commission (LAFCO) in the environmental review process for the above project. We have reviewed the NOP and offer comments below.

General Comments

As a Responsible Agency pursuant to the CEQA, LAFCO may need to rely on the City's environmental document in consideration of a future boundary change [e.g., sphere of influence (SOI) amendment].

LAFCO is an independent, regulatory agency with discretion to approve or disapprove, with or without amendment, wholly, partially or conditionally, changes of organization or reorganization. In accordance with the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (CKH Act), LAFCO is required to consider a variety of factors when evaluating a proposal, including, but not limited to the proposal's potential impacts on agricultural land and open space, provision of municipal services and infrastructure to the project site, timely and available supply of water, fair share of regional housing, etc..

The factors relating to SOI and boundary changes are contained in Government Code Sections 56425 and 56668 (attached). Local LAFCO policy requires that as a precursor to boundary changes, requests for SOI amendments should address all relevant factors of Section 56668 (attached). We encourage the City to reference these factors, as appropriate, in its environmental document(s). In addition, LAFCO is now subject to the provisions of SB 375. We encourage local agencies to utilize the most current standards and thresholds of significance with respect to air quality and greenhouse gas emissions analyses. Addressing these factors will help facilitate the LAFCO application process. Failure to do so may result in additional CEQA compliance work.

If LAFCO will be asked to rely on the City's environmental document for a future boundary change, the document should specifically 1) reference the LAFCO action(s) in the Project Description, 2) list LAFCO as Other Public Agencies Whose Approval is Required, and 3) most importantly, the LAFCO action(s) and relevant factors should be adequately evaluated in the environmental document. For example, if the project will require an SOI amendment, this action and the relevant analysis should be specifically addressed in the City's environmental document.

Specific Comments

- Please correct the document to reflect Contra Costa ~~County~~ LAFCO (delete "County").
- We are aware that the City will pursue an SOI amendment to encompass the Eastside Specific Plan Area. If the City intends to rely on this EIR for future LAFCO action (i.e., SOI amendment), the EIR should address the relevant LAFCO factors pursuant to Sections 56425 and 56668. Addressing these factors will help facilitate the LAFCO application process. Failure to do so may result in additional CEQA compliance work.

Thank you for your consideration of our comments. We look forward to receiving copies of any future environmental notices and documents relating to this project. Please contact the LAFCO office if you have any questions.

Sincerely,

Lou Ann Texeira
Executive Officer

Attachments

c: LAFCO Planner

Commission to give great weight to agreement

Consistency with agreement

Commission review if no agreement reached

Review and update every five years

Recommended reorganizations

District sphere requirements; written statements; special district functions and services; latent powers

56425. (a) In order to carry out its purposes and responsibilities for planning and shaping the logical and orderly development and coordination of local governmental agencies *** to advantageously provide for the present and future needs of the county and its communities, the commission shall develop and determine the sphere of influence of each local governmental agency within the county and enact policies designed to promote the logical and orderly development of areas within the sphere.

(b) Prior to a city submitting an application to the commission to update its sphere of influence, representatives from the city and representatives from the county shall meet to discuss the proposed new boundaries of the sphere and explore methods to reach agreement on development standards and planning and zoning requirements within the sphere to ensure that development within the sphere occurs in a manner that reflects the concerns of the affected city and is accomplished in a manner that promotes the logical and orderly development of areas within the sphere. If an agreement is reached between the city and county, the city shall forward the agreement in writing to the commission, along with the application to update the sphere of influence. The city shall forward the agreement in writing to the commission, along with the application to update the sphere of influence. The commission shall consider and adopt a sphere of influence for the city consistent with the policies adopted by the commission pursuant to this section, and the commission shall give great weight to the agreement to the extent that it is consistent with commission policies in its final determination of the city sphere.

(c) If the commission's final determination is consistent with the agreement reached between the city and county pursuant to subdivision (b), the agreement shall be adopted by both the city and county after a noticed public hearing. Once the agreement has been adopted by the affected local agencies and their respective general plans reflect that agreement, then any development approved by the county within the sphere shall be consistent with the terms of that agreement.

(d) If no agreement is reached pursuant to subdivision (b), the application may be submitted to the commission and the commission shall consider a sphere of influence for the city consistent with the policies adopted by the commission pursuant to this section.

(e) In determining the sphere of influence of each local agency, the commission shall consider and prepare a written statement of its determinations with respect to each of the following:

(1) The present and planned land uses in the area, including agricultural and open-space lands.

(2) The present and probable need for public facilities and services in the area.

(3) The present capacity of public facilities and adequacy of public services that the agency provides or is authorized to provide.

(4) The existence of any social or economic communities of interest in the area if the commission determines that they are relevant to the agency.

(f) Upon determination of a sphere of influence, the commission shall adopt that sphere.

(g) On or before January 1, 2008, and every five years thereafter, the commission shall, as necessary, review and update each sphere of influence.

(h) The commission may recommend governmental reorganizations to particular agencies in the county, using the spheres of influence as the basis for those recommendations. Those recommendations shall be made available, upon request, to other agencies or to the public. The commission shall make all reasonable efforts to ensure wide public dissemination of the recommendations.

(i) When adopting, amending, or updating a sphere of influence for a special district, the commission shall do all of the following:

(1) Require existing districts to file written statements with the commission specifying the functions or classes of services provided by those districts.

(2) Establish the nature, location, and extent of any functions or classes of services provided by existing districts.

56668. Factors to be considered in the review of a proposal shall include, but not be limited to, all of the following:

(a) Population and population density; land area and land use; per capita assessed valuation; topography, natural boundaries, and drainage basins; proximity to other populated areas; the likelihood of significant growth in the area, and in adjacent incorporated and unincorporated areas, during the next 10 years.

(b) The need for organized community services; the present cost and adequacy of governmental services and controls in the area; probable future needs for those services and controls; probable effect of the proposed incorporation, formation, annexation, or exclusion and of alternative courses of action on the cost and adequacy of services and controls in the area and adjacent areas.

"Services," as used in this subdivision, refers to governmental services whether or not the services are services which would be provided by local agencies subject to this division, and includes the public facilities necessary to provide those services.

(c) The effect of the proposed action and of alternative actions, on adjacent areas, on mutual social and economic interests, and on the local governmental structure of the county.

(d) The conformity of both the proposal and its anticipated effects with both the adopted commission policies on providing planned, orderly, efficient patterns of urban development, and the policies and priorities set forth in Section 56377.

(e) The effect of the proposal on maintaining the physical and economic integrity of agricultural lands, as defined by Section 56016.

(f) The definiteness and certainty of the boundaries of the territory, the nonconformance of proposed boundaries with lines of assessment or ownership, the creation of islands or corridors of unincorporated territory, and other similar matters affecting the proposed boundaries.

(g) **A regional transportation plan adopted pursuant to Section 65080, and** consistency with city or county general and specific plans.

(h) The sphere of influence of any local agency which may be applicable to the proposal being reviewed.

(i) The comments of any affected local agency or other public agency.

(j) The ability of the newly formed or receiving entity to provide the services which are the subject of the application to the area, including the sufficiency of revenues for those services following the proposed boundary change.

(k) Timely availability of water supplies adequate for projected needs as specified in Section 65352.5.

(l) The extent to which the proposal will affect a city or cities and the county in achieving their respective fair shares of the regional housing needs as determined by the appropriate council of governments consistent with Article 10.6 (commencing with Section 65580) of Chapter 3 of Division 1 of Title 7.

(m) Any information or comments from the landowner or owners, voters, or residents of the affected territory.

(n) Any information relating to existing land use designations.

(o) The extent to which the proposal will promote environmental justice. As used in this subdivision, "environmental justice" means the fair treatment of people of all races, cultures, and incomes with respect to the location of public facilities and the provision of public services.

(Amended by Stats. 2009, Ch. 570)

CONTRA COSTA LAFCO POLICIES (EXCERPT)

2.1. POLICIES AND STANDARDS

B. Policy on Spheres of Influence and Annexations

The goals of the Contra Costa Local Agency Formation Commission include promotion of orderly growth and development by determining logical local agency boundaries [§56001], preservation of open space by encouraging development of vacant land within cities before annexation of vacant land adjacent to cities [§56377(b)], and the preservation of prime agricultural land by guiding development away from presently-undeveloped prime agricultural lands [§56377(a)].

In order to accomplish these and other goals, LAFCO is required to review and update every five years the spheres of influence (SOIs) of local agencies in Contra Costa County [§56425].

An SOI is a plan for the probable physical boundaries and service area of a local agency [§56076] and includes policies for directing growth patterns. In accordance with State law, inclusion in an SOI makes land eligible for annexation but does not assure annexation. LAFCO must consider numerous other factors when considering an annexation, reorganization or change of organization.

SOIs may be amended by the Commission. When an SOI amendment is requested, the proponent shall submit documentation to support the determinations the Commission must make pursuant to §56425(a). For a city seeking an SOI amendment, particular attention should be paid to the current land uses in the county and city, the land uses planned for the city's present SOI and the land uses proposed for territory sought to be added to the SOI. Areas to remain in agricultural and open space should be clearly specified [§§56425(a), 56377].

As a precursor to boundary changes, requests for SOI amendments should address all relevant factors of §56668. Such requests should also specify how the policies of the CKH Act will be fostered with respect to the 1) orderly formation of local agencies [§56001] and 2) preservation of open space [§56059] and prime agricultural land [§56064], both within the existing boundaries of the agency and the proposed SOI of the agency [§56377].

LAFCO discourages inclusion of land in an agency's SOI if a need for services provided by that agency within a 5-10 year period cannot be demonstrated. To demonstrate that a proposed SOI amendment is timely, an applicant should indicate expected absorption and development rates for land already in the SOI, as well as land proposed to be added.

A request to expand an SOI should designate clearly the territory that may be sought for annexation and the anticipated timeframe. An agency should propose a reduction in its SOI to remove territory that the agency does not believe will be developed within 20 years.

Territory proposed to be annexed to an agency should be within the Urban Service Area [§56080] of the agency. Related infrastructure improvements should be included in the agency's 5-year Capital Improvement Program. Each agency expected to serve any portion of a city's SOI during the period should provide the city and LAFCO with an "intent to serve" statement. Such statements should demonstrate the reason, intent and capacity to serve the area by such evidence as resolutions of the governing boards establishing service area boundaries and ultimate service areas. The applicant shall also submit an adopted plan for financed infrastructure. [§56378].

Requests for changes of SOIs should be accompanied by summaries of the studies used to establish the SOI areas, copies of any 5-year Capital Improvement Program, and copies of any master service agreements, resolutions, or other such documentation for local agencies that may provide service to the area.

A Municipal Service review will be required prior to processing a substantial SOI amendment (§56430). LAFCO may find an SOI request inadvisable and/or premature if the Commission is unable to determine from the application that the goals of the CKH Act would be served by approving the request [§§56425, 56426, 56668, 56377, 56001].

Territory for which an annexation is proposed should be within the adopted SOI of the annexing agency. If not, an SOI amendment will be required prior to consideration of the annexation. Territory for which an annexation is proposed should be within the area shown as the 5-year SOI-Urban Service Area in the adopted SOI of the annexing agency. Annexations proposed for territory beyond the 5-year SOI-Urban Service Area usually will be denied unless overriding reasons demonstrate need for the annexation at the present time. Whenever feasible, annexation to all agencies that are expected to provide urban services to the area should be submitted at the same time.

SOIs generally will not be amended concurrently with an action on the related change of organization or reorganization. A change of organization or reorganization will not be approved solely because an area falls within the SOI of any agency.

Proponents of an annexation must demonstrate that the proposed development within the annexation area will meet the annexing jurisdiction's adopted performance standards for facilities, services and traffic and that an adopted Capital Improvement Plan will provide for these facilities.

Annexation proposals should avoid creation of "islands" or corridors of territory not served by the annexing agency, and boundaries that are not definite and certain or do not conform to lines of assessment or ownership. The Commission's approval of boundary change proposals containing split parcels will typically be subject to a condition requiring the recordation of a parcel map, lot line adjustment or other instrument to avoid creating remnants of legal lots.

Territory to be annexed by a city shall be pre-zoned by the city. A map submitted by the proponents should show all zoning designations for the territory to be annexed.

STATE OF CALIFORNIA Arnold Schwarzenegger, Governor

NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-4082
FAX (916) 657-5390

January 28, 2010

Mr. Lauren Barr
City of San Ramon
2226 Camino Ramon
San Ramon, CA 94583

Sent Via Fax: 925-806-0118
# of Pages: 2

RE: SB 18 Tribal Consultation: City of San Ramon General Plan Update, Contra Costa County

Dear Mr. James:

Government Code §65352.3 requires local governments to consult with California Native American tribes identified by the Native American Heritage Commission (NAHC) for the purpose of protecting, and/or mitigating impacts to cultural places. Attached is a consultation list of tribes with traditional lands or cultural places located within the requested General Plan boundaries.

As a part of consultation, the NAHC recommends that local governments conduct record searches through the NAHC and California Historic Resources Information System (CHRIS) to determine if any cultural places are located within the area(s) affected by the proposed action. NAHC Sacred Lands File requests must be made in writing. All requests must include: county, USGS quad map name, township, range and section. Local governments should be aware, however, that records maintained by the NAHC and CHRIS are not exhaustive, and a negative response to these searches does not preclude the existence of a cultural place. A tribe may be the only source of information regarding the existence of a cultural place.

If you receive notification of change of addresses and phone numbers from Tribes, please notify me. With your assistance we are able to assure that our consultation list contains current information.

If you have any questions, please contact me at (916) 653-4038.

Sincerely,

Debbie Pilas-Treadway
Environmental Specialist III

Native American Tribal Consultation List
City of San Ramon
January 27, 2009

Amah/MutsunTribal Band
Irene Zwierlein, Chairperson
789 Canada Road
Woodside , CA 94062
amah_mutsun@yahoo.com
(650) 851-7747 - Home

Ohlone/Costanoan

Indian Canyon Mutsun Band of Costanoan
Ann Marie Sayers, Chairperson
P.O. Box 28
Hollister , CA 95024
ams@garlic.com
831-637-4238

Ohlone/Costanoan

Muwekma Ohlone Indian Tribe of the SF Bay Area
Rosemary Cambra, Chairperson
PO Box 360791
Milpitas , CA 95036
muwekma@muwekma.org
408-434-1668

Ohlone / Costanoan

The Ohlone Indian Tribe
Andrew Galvan
PO Box 3152
Fremont , CA 94539
chochenyo@AOL.com
(510) 882-0527 - Cell

Ohlone/Costanoan
Bay Miwok
Plains Miwok
Patwin

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is applicable only for consultation with Native American tribes under Government Code Section 65352.3

STATE OF CALIFORNIA

GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH

STATE CLEARINGHOUSE AND PLANNING UNIT

ARNOLD SCHWARZENEGGER
GOVERNOR

CYNTHIA BRYANT
DIRECTOR

Notice of Preparation

RECEIVED
JAN 27 2010
CITY OF SAN RAMON
PLANNING SERVICES

January 14, 2010

To: Reviewing Agencies

Re: City of San Ramon General Plan Update 2030
SCH# 2000082002

Attached for your review and comment is the Notice of Preparation (NOP) for the City of San Ramon General Plan Update 2030 draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Lauren Barr
City of San Ramon
2226 Camino Ramon
P.O. Box 5148
San Ramon, CA 94583

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan
Acting Director

Attachments
cc: Lead Agency

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044
(916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Document Details Report
State Clearinghouse Data Base

SCH# 2000082002
Project Title City of San Ramon General Plan Update 2030
Lead Agency San Ramon, City of

Type NOP Notice of Preparation

Description The proposed project consists of a comprehensive update to the City of San Ramon General Plan. The update would encompass the following items, discussed:

- Urban Growth Boundary Adjustment
- Sphere of Influence Adjustment
- Review of Ordinance 197
- Land Use Map Amendments
- General Plan Element Updates

Lead Agency Contact

Name Lauren Barr
Agency City of San Ramon
Phone 925-973-2560 **Fax**
email
Address 2226 Camino Ramon
P.O. Box 5148
City San Ramon **State** CA **Zip** 94583

Project Location

County Contra Costa
City San Ramon
Region
Cross Streets Citywide
Lat / Long
Parcel No. Citywide
Township **Range** **Section** **Base**

Proximity to:

Highways I-580 & I-680
Airports
Railways
Waterways
Schools San Ramon Valley USD
Land Use Various

Project Issues Air Quality; Archaeologic-Historic; Drainage/Absorption; Economics/Jobs; Geologic/Seismic; Landuse; Noise; Public Services; Population/Housing Balance; Recreation/Parks; Schools/Universities; Sewer Capacity; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Water Quality; Water Supply; Wildlife; Cumulative Effects; Aesthetic/Visual; Growth Inducing; Agricultural Land; Biological Resources

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Reviewing Agencies Resources Agency; Office of Historic Preservation; Department of Parks and Recreation; Department of Water Resources; Department of Fish and Game, Region 3; CA Department of Public Health; Office of Emergency Services; Native American Heritage Commission; Department of Housing and Community Development; Caltrans, District 4; State Water Resources Control Board, Divison of Financial Assistance; Department of Toxic Substances Control; Regional Water Quality Control Board, Region 2

Date Received 01/14/2010 **Start of Review** 01/14/2010 **End of Review** 02/16/2010

Note: Blanks in data fields result from insufficient information provided by lead agency.

NOP Distribution List

County: Contra Costa

SCH# [illegible]

esources Agency

- [ ] **Resources Agency**
  Nadell Gayou
- [ ] **Dept. of Boating & Waterways**
  Mike Sotelo
- [ ] **California Coastal Commission**
  Elizabeth A. Fuchs
- [ ] **Colorado River Board**
  Gerald R. Zimmerman
- [ ] **Dept. of Conservation**
  Rebecca Salazar
- [ ] **California Energy Commission**
  Eric Knight
- [ ] **Cal Fire**
  Allen Robertson
- [x] **Office of Historic Preservation**
  Wayne Donaldson
- [ ] **Dept of Parks & Recreation**
  Environmental Stewardship Section
- [ ] **Central Valley Flood Protection Board**
  James Herota
- [ ] **S.F. Bay Conservation & Dev't. Comm.**
  Steve McAdam
- [x] **Dept. of Water Resources**
  Resources Agency
  Nadell Gayou
- [ ] _____
  Conservancy

sh and Game

- [ ] **Depart. of Fish & Game**
  Scott Flint
  Environmental Services Division
- [ ] **Fish & Game Region 1**
  Donald Koch
- [ ] **Fish & Game Region 1E**
  Laurie Harnsberger
- [ ] **Fish & Game Region 2**
  Jeff Drongesen
- [x] **Fish & Game Region 3**
  Charles Armor
- [ ] **Fish & Game Region 4**
  Julie Vance
- [ ] **Fish & Game Region 5**
  Don Chadwick
  Habitat Conservation Program
- [ ] **Fish & Game Region 6**
  Gabrina Gatchel
  Habitat Conservation Program
- [ ] **Fish & Game Region 6 I/M**
  Brad Henderson
  Inyo/Mono, Habitat Conservation Program
- [ ] **Dept. of Fish & Game M**
  George Isaac
  Marine Region

Other Departments

- [ ] **Food & Agriculture**
  Steve Shaffer
  Dept. of Food and Agriculture
- [ ] **Depart. of General Services**
  Public School Construction
- [ ] **Dept. of General Services**
  Anna Garbeff
  Environmental Services Section
- [x] **Dept. of Public Health**
  Bridgette Binning
  Dept. of Health/Drinking Water

Independent Commissions,Boards

- [ ] **Delta Protection Commission**
  Linda Flack
- [x] **Office of Emergency Services**
  Dennis Castrillo
- [ ] **Governor's Office of Planning & Research**
  State Clearinghouse
- [ ] **Native American Heritage Comm.**
  Debbie Treadway
- [ ] **Public Utilities Commission**
  Leo Wong
- [ ] **Santa Monica Bay Restoration**
  Guangyu Wang
- [ ] **State Lands Commission**
  Marina Brand
- [ ] **Tahoe Regional Planning Agency (TRPA)**
  Cherry Jacques

Business, Trans & Housing

- [ ] **Caltrans - Division of Aeronautics**
  Sandy Hesnard
- [ ] **Caltrans - Planning**
  Terri Pencovic
- [ ] **California Highway Patrol**
  Scott Loetscher
  Office of Special Projects
- [x] **Housing & Community Development**
  CEQA Coordinator
  Housing Policy Division

Dept. of Transportation

- [ ] **Caltrans, District 1**
  Rex Jackman
- [ ] **Caltrans, District 2**
  Marcelino Gonzalez
- [ ] **Caltrans, District 3**
  Bruce de Terra
- [x] **Caltrans, District 4**
  Lisa Carboni
- [ ] **Caltrans, District 5**
  David Murray
- [ ] **Caltrans, District 6**
  Michael Navarro
- [ ] **Caltrans, District 7**
  Elmer Alvarez
- [ ] **Caltrans, District 8**
  Dan Kopulsky
- [ ] **Caltrans, District 9**
  Gayle Rosander
- [ ] **Caltrans, District 10**
  Tom Dumas
- [ ] **Caltrans, District 11**
  Jacob Armstrong
- [ ] **Caltrans, District 12**
  Chris Herre

Cal EPA

Air Resources Board

- [ ] Airport Projects
  Jim Lerner
  - [ ] Transportation Projects
    Douglas Ito
  - [ ] Industrial Projects
    Mike Tollstrup
- [ ] **California Department of Resources, Recycling & Recovery**
  Sue O'Leary
- [x] **State Water Resources Control Board**
  Regional Programs Unit
  Division of Financial Assistance
- [ ] **State Water Resources Control Board**
  Student Intern, 401 Water Quality Certification Unit
  Division of Water Quality
- [ ] **State Water Resouces Control Board**
  Steven Herrera
  Division of Water Rights
- [x] **Dept. of Toxic Substances Control**
  CEQA Tracking Center
- [ ] **Department of Pesticide Regulation**
  CEQA Coordinator

Regional Water Quality Control Board (RWQCB)

- [ ] **RWQCB 1**
  Cathleen Hudson
  North Coast Region (1)
- [x] **RWQCB 2**
  Environmental Document Coordinator
  San Francisco Bay Region (2)
- [ ] **RWQCB 3**
  Central Coast Region (3)
- [ ] **RWQCB 4**
  Teresa Rodgers
  Los Angeles Region (4)
- [ ] **RWQCB 5S**
  Central Valley Region (5)
  - [ ] **RWQCB 5F**
    Central Valley Region (5)
    Fresno Branch Office
  - [ ] **RWQCB 5R**
    Central Valley Region (5)
    Redding Branch Office
- [ ] **RWQCB 6**
  Lahontan Region (6)
  - [ ] **RWQCB 6V**
    Lahontan Region (6)
    Victorville Branch Office
- [ ] **RWQCB 7**
  Colorado River Basin Region (7)
- [ ] **RWQCB 8**
  Santa Ana Region (8)
- [ ] **RWQCB 9**
  San Diego Region (9)

- [ ] **Other** _____

Last Updated on 01/04/2010

save MOUNT DIABLO

Board of Directors

Malcolm Sproul
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Scott Hein
David Husted
Doug Knauer
Allan Prager
David Sargent
David Trotter
Directors

Staff
Ronald Brown
Executive Director

Seth Adams
Director, Land Programs

Julie Seelen
Development Director

Monica E. Oei
Finance & Admin. Manager

Mailing Address
1901 Olympic Blvd., # 220
Walnut Creek, CA 94596
Tel: (925) 947-3535
Fax: (925) 947-0642

Website
www.savemountdiablo.org

Founders
Arthur Bonwell
Mary L. Bowerman

Proud member of

Land Trust Alliance

CALIFORNIA COUNCIL OF LAND TRUSTS

BAY AREA OPEN SPACE COUNCIL

February 12, 2010

Mr. Lauren Barr, Senior Planner
City of San Ramon
Planning/Community Development Department
2226 Camino Ramon
San Ramon, CA 94583

Re: City of San Ramon General Plan Update
Notice of Preparation of Draft Environmental Impacts Report

Mr. Barr,

We appreciate the opportunity to provide information on the scoping of the draft environmental impact report (dEIR) for the proposed City of San Ramon General Plan Update.

Save Mount Diablo's primary concerns with the General Plan Update are the proposed Sphere of Influence and Urban Growth Boundary (UGB) expansions to include the East Side Specific Plan area, encompassing 1,624 acres of the Tassajara Valley.

The purpose of the following comments is to raise our concerns with these proposed expansions and identify what we believe should be addressed in the Environmental Impact Report related to these issues.

Urban Growth Boundary Expansion into the Tassajara Valley

The Tassajara Valley is an area of special interest to Save Mount Diablo. The Valley is an agricultural buffer between a number of open spaces linked by Tassajara Creek. It is part of a largely uninterrupted agricultural and open space corridor, extending east from San Ramon and Danville and north of Dublin and Livermore to the Altamont Pass and beyond. Mt. Diablo State Park, Morgan Territory Regional Preserve, Los Vaqueros Watershed, and Brushy Peak Regional Preserve create a corridor of protected open spaces to the north of this agricultural swath of land.

The Tassajara Valley includes a variety of sensitive resources and provides habitat for a number of special-status plant and animal species. The Valley serves

as a wildlife corridor for animals traveling across the grasslands and along the Tassajara Creek corridor. Largely undeveloped, the beautiful landscape of the Valley's rolling hills offers a respite from the growing development of the Tri-Valley area.

Existing protected public lands in the vicinity preserve the biological resources and aesthetic values of the area while promoting recreational uses for the area's residents. Additional parks and preserves are planned as well.

Expanding the Urban Growth Boundary to include the Tassajara Valley would have potentially significant impacts on aesthetics, agriculture, rare and listed endangered species and their habitats, trees, open space and nearby public lands, wetlands, creeks, hydrology, water quality and unstable slopes.

Special attention should be paid to cumulative and growth inducing impacts. Contra Costa County is currently considering a number of development proposals in the area – including the 186-unit New Farm development project (GP 07-0009), and the 220-acre Creekside Memorial Park Cemetery (LP 05-2096). Just south of the proposed UGB expansion, in Alameda County, the City of Dublin has approved a number of projects resulting in the construction of thousands of homes, some of which have already been built out and are occupied.

The EIR should discuss how these projects relate to the proposed SOI and UGB expansions.

Background of the San Ramon Urban Growth Boundary and the County Urban Limit Line

In 1999 the voters of San Ramon passed Measure G which called for the creation of an Urban Growth Boundary (UGB) in the new General Plan. The General Plan EIR states that the "'smart growth' concept should be pursued within the UGB in order to discourage urban sprawl and preserve open space" (San Ramon General Plan 2020 EIR, p. 1-2).

In 2006 Contra Costa County updated the countywide Urban Limit Line (ULL) and decided to make the ULL coterminous with San Ramon's Urban Growth Boundary. Once again a majority of San Ramon voters confirmed the location of the urban limit line.

A proposal to expand the UGB into the Tassajara Valley in 2010 is an affront to a voter mandate in San Ramon which has been upheld twice in the last 11 years.

Voters in San Ramon and countywide have made a determination regarding what land is appropriate for development and what land should be saved from sprawl. By proposing the UGB and SOI expansions into the Tassajara Valley, the City of San Ramon is acting in opposition to the will of the voters.

San Ramon General Plan 2020 Urban Growth Boundary Policy

The Notice of Preparation for the project, prepared by the City, states that "General Plan Policy 4.6-I-3 requires voter review of the Urban Growth Boundary in 2010."

San Ramon General Plan 2020 Policy 4.6-I-3 states:

> **4.6-I-3** – Provide for a voter review of the Urban Growth Boundary in the year 2010.

> The review of the UGB in 2010 is intended to coincide with the expiration of the Contra Costa County Urban Limit Line (ULL), which mirrors the planning horizon of the current County Plan, and expiration of Ordinance 197, as adopted in August 1990. The update would be by means of a City voter review to consider the maintenance or amendment of the UGB and related policy. City voter approval would be required for any amendment to the UGB.

Careful review of GP Policy 4.6-I-3 raises questions about the timing of the UGB amendment and the City's proposal to expand the UGB. The following issues/questions should be addressed in the environmental impact report.

Timing of Voter Review of the Urban Growth Boundary - According to GP Policy 4.6-I-3, the intention of providing voter review of the Urban Growth Boundary in 2010 is to "coincide with the expiration of the Contra Costa County Urban Limit Line (ULL)." However, expiration of the Contra Costa County ULL in 2010 was based on the original adoption of the 65/35 Plan in 1990. In 2000, the County updated the ULL map and re-set the expiration date for 2026.

According to the Contra Costa County General Plan, "Any change to the ULL proposed as a result of any review authorized by this section must be adopted to the procedures set forth in this section. These provisions are effective until December 31, 2026." (Contra Cost County General Plan, Chapter 3, Page 3-11)

Given these changes in the County ULL expiration date, if the intention of Policy 4.6-I-3 is to align voter review of the San Ramon UGB with the expiration of the County ULL, why isn't review of the San Ramon UGB being postponed until 2026? Simply put, what is the purpose of reviewing the San Ramon UGB at this time if the County ULL is not expiring?

Further, the voters of San Ramon approved the updated Urban Limit Line in 2006. Asking the voters to address this issue only 4 years after the previous vote seems redundant and unnecessary.

Proposed Expansion of the Urban Growth Boundary – San Ramon GP Policy 4.6-I-3 states that the General Plan update "would be by means of a City voter review to consider the maintenance or amendment of the UGB and related policy." Nothing in the policy requires San Ramon to propose an expansion of the UGB rather than maintaining the line or even contracting it.

The Environmental Impact Report should include a detailed discussion explaining why the City has decided to propose an expansion of the UGB rather than maintenance or contraction. The environmental impact report should include alternatives that study all three options – the proposed expansion, maintenance, and contraction – so the public and the City Council can review impacts analysis based on all of the voter's options.

Measure J

The Urban Limit Line was updated in 2006 as a requirement of the Measure J Transportation Sales Tax measure, which also linked growth management provisions to smart growth efforts and return to source funding for various transportation improvements.

Save Mount Diablo submitted a letter to the Contra Costa Transportation Authority on November 12, 2009 asking specific questions concerning Measure J violations. Specifically,

what types of actions are considered violations of the ULL and would have implications for cities like San Ramon potentially losing these return to source funds for proposed transportation improvements. Legal counsel for the CCTA has started investigating the questions raised in our letter but has not publically released any conclusions to date.

The Environmental Impact Report should include a discussion addressing how the UGB and SOI expansions proposed in the San Ramon General Plan Update relate to Measure J.

Potentially Significant Impacts of the Proposed SOI and UGB Expansion

Growth Inducing Impacts - Good Faith Duty to Investigate and Forecast Future Growth

A lead agency has a duty to investigate and make a good faith effort to identify all environmental impacts. "Drafting an EIR or preparing a Negative Declaration necessarily involves some degree of forecasting. While foreseeing the unforeseeable is not possible, an agency must use its best efforts to find out and disclose all that it reasonably can." CEQA Guidelines, § 15144. Further, CEQA mandates that "*[a]ll* phases of project planning, implementation, and operation must be considered in the Initial Study of the project." Guidelines, § 15063(a)(1), (emphasis added).

A lead agency's avoidance of discussion of foreseeable future impacts is not permissible. Indeed, "[t]he agency [will] not be allowed to hide behind its own failure to gather relevant data. . . . CEQA places the burden of environmental investigation on government rather than the public." *Gentry v. City of Murrieta* (1995) 36 Cal.App.4th 1359, at 1378-1379 (citing *Sundstrom,* 202 Cal.App.3d 296, 311.

Finally, "the fact that future development may take several forms, or that it may never occur does not excuse environmental review of the project which is the catalyst for the projected future growth." *City of Antioch v. City Council,* 187 Cal.App.3d 1325, 232 Cal.Rptr. 507(1986) (citations omitted). In *Antioch*, the respondents argued that the preparation of an EIR was not necessary because their road and sewer construction project involved no building construction and it was not known what type of development would occur. The court rejected this argument.

The proposed expansion of the SOI and the UGB to cover 1,624 acres of the Tassajara Valley could allow a massive amount of development and have significant growth inducing impacts. The EIR for the General Plan Update should consider the level of development that would occur in the Tassajara Valley, what type of development would occur, and how this development would impact the variety of resources in the area.

The SOI and UGB expansions would be a catalyst for growth in the area and impacts should be studied in the EIR.

The following issues should be considered.

Issues

Below, we have listed potential issues in the expansion of the SOI and UGB would have on the Tassajara Valley that should be studied in the EIR.

1. Aesthetics

The Tassajara Valley, along with the Tassajara Hills to the east, remains a largely undeveloped, beautiful landscape of rolling hills and sweeping canyons serving as the backdrop for San Ramon and the Tri-Valley.

Thousands of people travel through the Tassajara Valley on their daily commute and residents throughout the area are able to enjoy this undeveloped and dramatic landscape.

Expansion of the SOI and UGB into the Tassajara Valley would have impacts on scenic vistas, damage scenic resources, degrade the visual character of the site, and create a new source of substantial glare.

The Tassajara Valley is adjacent to preserved park lands, such as Hidden Valley Open Space, used for recreation and in close proximity to others. Residents hiking in the protected park lands currently enjoy a magnificent view looking across the Tassajara Valley and Tassajara Hills to a mostly undeveloped landscape.

Development on 1,624 acres could easily have significant impacts on aesthetic issues and should be considered in the EIR.

Visual simulation analysis from trails in Hidden Valley Open Space, Mt. Diablo State Park, and other nearby open spaces should be conducted and included in the EIR.

2. Agriculture

The Tassajara Valley is included in lands that have been identified by the Contra Costa County General Plan (Page 8-22, Figure 8-2) as among "the most important agricultural lands found in the County." Farming has started to make a come back as a major land use in the Tassajara Valley in addition to grazing since the County Urban Limit Line was relocated to exclude the area.

The Initial Study/Negative Declaration for San Ramon's SOI Amendment proposal in February of 2008 stated that 2,100 acres of land within the Tassajara Valley is Williamson Act preserve agricultural lands.

Expanding the SOI and UGB to cover 1,624 acres of the Tassajara Valley, much of it within Williamson Act preserves, would have significant impacts on the agricultural viability in the area. These impacts should be considered in the EIR.

The *Open Space and Agriculture* section of the San Ramon General Plan 2020 EIR includes considerable discussion of the importance of agricultural and open space resources in the Tassajara Valley. "As part of the Measure G mandate, the (General Plan Review Commission) prepared a plan for the acquisition of ridgeline areas and agricultural lands to be preserved for open space purposes" (GP 2020 EIR, p. 4-53).

Many of the mitigation measures suggested to offset the loss of open space and agricultural land in areas planned for development include the acquisition and preservation of similar lands in areas not planned for development. The Tassajara Valley includes thousands of acres of agricultural land and open space suitable for preservation. The EIR should evaluate how SOI and UGB expansions could impact the preservation of open space and agricultural lands in the Tassajara Valley, and therefore impact the ability to offset and mitigate development in San Ramon.

The SOI and UGB expansions will be the catalyst for development in the Tassajara Valley. What impacts will major development have on agricultural resources in the Tassajara Valley? How will the viability of Williamson Act preserves be impacted by the expansion of the UGB and SOI? The EIR should consider how the direct and growth inducing impacts of this project will affect agricultural and open space resources.

3. Air Quality

Residents, commuters, at risk populations, plant and animal species are affected by adverse changes in the air quality.

San Ramon is located in the southernmost part of Contra Costa County on the border of Alameda County. According to the American Lung Association State of the Air 2009 report, Contra Costa County receives a grade of "F" for High Ozone days and a failing grade of "F" for particle pollution. Alameda County receives a failing grade of "F" for High Ozone days, and a "C" for particle pollution. [1] A variety of at risk populations are affected even more than the general population in both counties, including those under 18, 65 & over and those who suffer from pediatric and adult asthma, chronic bronchitis, emphysema, cardiovascular disease or diabetes.

The expansion of the UGB and the SOI would open the Tassajara Valley to a significant amount of development. The development of a 1,624 acre area will result in a major population and traffic increase, congesting local roads and intersections and have a significant impact on air quality in the area.

The EIR should consider adverse changes to air quality due to development and how it will impact residents, commuters, at risk populations, plant and animal species.

4. Biological Resources

The expansion of the UGB and the SOI would open the Tassajara Valley to a significant amount of development that would have impacts on special status-species habitat, riparian habitat, federally protected wetlands, wildlife corridors, and tree preservation standards.

The Tassajara Valley is dominated by sloping grasslands scattered with trees and is traversed by Tassajara Creek and a number of drainages flowing into the creek.

The creeks and drainages provide potential riparian and wetland habitat and wildlife corridors for a variety of species.

Scattered oaks and other trees offer nesting sites and the open spaces provide foraging habitat for many raptors including the golden eagle, which prey mostly upon small rodents common in grasslands.

The open grassland provides suitable habitat for a number of different species, including San Joaquin kit fox and the American badger.

Potentially significant impacts to onsite habitats should be evaluated.

Information from Surrounding Projects

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[1] *American Lung Association State of the Air 2006* report, April 2006, http://lungaction.org/reports/stateoftheair2006.html

Biotic information that has been collected for various parcels within the area demonstrates that development in the Tassajara Valley will have significant impacts on wildlife. Over time, as development has spread across the Tri-Valley, impacts on remaining areas have only become more critical.

Biotic surveys conducted for the East Contra Costa County Habitat Conservation Plan, the 1997 Tassajara Project (County File GPA #930008 and RZ #943022), and the Creekside Cemetery Project (County File # LP 05-2096) all provide information about the biological resources in the Tassajara Valley.

The Tassajara Valley is separated from the **East Contra Costa County Habitat Conservation Plan Inventory Area** by only 5 miles of undeveloped grasslands. According to the HCP, a total of 69 special-status wildlife and 11 special-status fish species are known to occur or have the potential to occur within the inventory area – which has similar habitat types.

The **1997 Tassajara Valley Project,** covering most of the same area, was studied extensively in an Environmental Impact Report, although the report was never certified. According to the Draft EIR, thirty (30) special status species have the potential to occur in the project area and fourteen (14) of these species were observed during field surveys.

In June of 2009, biological studies were conducted for the ***Creekside Memorial Park Cemetery***, located within the Tassajara Valley. Those biological studies conclude that 41 special status wildlife species "have at least some potential to occur within the region or to have been recorded historically in the project vicinity. Of these, thirteen species are considered present or have high potential to occur on the site." (Draft Biological Resources, Creekside Memorial Park, EDAW, June 2009, page 15)

In total, studies from other projects in the vicinity of the Tassajara Valley conclude that a total of 42 plant species and 47 wildlife species may occur in the vicinity of the project.

Plant Species
Rock sanicle *(Sanicula saxatilis)*
Big-scale balsamroot (*Balsamorhiza macrolepis Sharp var. macrolepis)*
Big tarweed (*Blepharizonia plumose)*
Congdon's tarplant (*Centromadia parryi* ssp. *congdonii*)
Livermore tarplant (*Deinandra bacigalupii)*
Diablo helianthella *(Helianthella castanea)*
Contra Costa goldfields *(Lasthenia conjugens)*
Showy madia *(Madia radiate)*
Rayless ragwort *(Senecio aphanactis)*
Large-flowered fiddleneck *(Amsinckia grandiflora)*
Bent-flowered fiddleneck *(Amsinckia lunaris)*
Hairless popcorn-flower *(Plagiobothrys glaber)*
Mount Diablo jewel-flower *(Streptanthus hispidus)*
Caper-fruited tropidocarpum *(Tropidocarpum capparideum)*
Brittlescale *(Atriplex depressa)*
San Joaquin spearscale *(Atriplex joaquiniana)*
Mount Diablo manzanita *(Arctostaphylos auriculata)*
Contra Costa manzanita *(Arctostaphylos manzanita ssp. Laevigata)*
Alkali milk-vetch *(Astragalus tener var. tener)*
Round-leaved filaree *(Erodium macrophyllum)*
Mount Diablo phacelia *(Phacelia phacelioides)*
Mount Diablo fairy lantern *(Calochortus pulchellus)*
Fragrant fritillary *(Fritillaria liliacea)*
Brewer's western flax *(Hesperolinon breweri)*
Hall's bush mallow *(Malacothamnus hallii)*
Diamond-petaled California poppy *(Eschscholzia rhombipetala)*
Mount Diablo buckwheat *(Eriogonum truncatum)*
Hospital Canyon larkspur *(Delphinium californicum ssp. Interius)*
Recurved larkspur *(Delphinium recurvatum)*
Hispid bird's-beak *(Cordylanthus mollis* ssp. *Hispidus)*
Mount Diablo bird's beak *(Cordylanthus nidularius)*
Palmate-bracted bird's beak *(Cordylanthus palmatus)*
Heart-leaved saltbrush *(Atriplex cordulata)*
Robust spineflower *(Chorizanthe robusta)*

Hoover's cryptantha *(Cryptantha hooveri)*
Stinkbells *(Fritillaria agrestis)*
Wedge-leaved horkelia *(Horkelia cuneata)*
Northern California black walnut *(Juglans hindsii)*
Lobb aquatic buttercup *(Ranunculus lobbii)*
Metcalf Canyon jewelflower (*Streptanthus albidus* ssp. *albidus*)
Showy Indian clover *(Trifolium amoenum)*

Wildlife Species
Longhorn fairy shrimp
Vernal pool fairy shrimp
Valley elderberry longhorn beetle
Bridges Coast Range shoulderband snail
Ricksecker's water scavenger beetle
Curved-foot hygrotus diving beetle
San Francisco forktail damselfly
California linderiella
California tiger salamander
California red-legged frog
Foothill yellow-legged frog
Western spadefoot toad
Western pond turtle
San Joaquin whipsnake
Alameda whipsnake
California horned lizard
Cooper's hawk
Sharp-shinned hawk
Tricolored blackbird
Golden eagle
Short-eared owl
Burrowing owl
Ferruginous hawk
Swainson's hawk
Vaux swift
Northern harrier
Black swift
California yellow warbler
White-tailed kite
California horned lark
Merlin
Prairie falcon
American peregrine falcon
Loggerhead shrike
Long-billed curlew
Bank swallow
Yellow warbler
Black-shouldered kite
Bald eagle
San Joaquin kit fox
American badger
Berkeley kangaroo rat
California mastiff bat
Townsend western big-eared bat
Pallid bat
Western red bat
Western small-footed myotis bat
Long eared myotis bat

Wildlife Corridor
The Tassajara Valley is part of an open space wildlife corridor stretching north through Mount Diablo State Park and the Concord Naval Weapons Station to the Suisun Bay and east through to Livermore and the Altamont Hills to the rest of the Diablo Range. Unfortunately, as Contra Costa and Alameda Counties continue to develop, open spaces and wildlife corridors are becoming increasingly fragmented and cut off from one another. Each development approval in this region creates greater fragmentation and narrows a major wildlife corridor. Expansion of the SOI and UGB would be a catalyst for development in the area and encroachment into an open space corridor and would have negative impacts on wildlife habitat and movement corridors.

The EIR should evaluate how development in the Tassajara Valley resulting from the expansion of the UGB and SOI will cause loss of special-status species habitat.

5. Cultural and Historical Resources
Numerous Native American historical sites have been recorded in Mt. Diablo State Park and throughout the surrounding foothills and flatlands. A variety of tribes lived and gathered food in and around the area and their history is a significant part of the region's heritage. According to the San Ramon General Plan, Native American archeological sites have been found throughout the area.

The long agricultural and ranching history of Contra Costa and Alameda Counties has diminished throughout the area as a result of rapid development. The Tassajara Valley is one of the few areas where historical and cultural resources related to agriculture may still be preserved.

Impacts on historical resources, archeological resources, paleontological resources, unique geological features, and the potential disruption of human remains should be studied in the EIR. Development on 1,624 acres could easily have significant impacts on some of these cultural and historic resource issues, and must be considered in a full EIR.

6. Geology, Soils and Seismicity

Activities that expose and disturb soil, such as grading, construction and development, could impact soil resources and increase soil erosion, soil compaction, loss of soil productivity, etc. The EIR for San Ramon's General Plan states that "Much of the Tassajara Valley and Bollinger Canyon areas are steeply sloped, with existing and potential new landslides posing concerns for potential new development in these areas" (GP EIR p. 4-120).

The topography of the Tassajara Valley presents concerns about the grading and construction that would be associated with potential development if the Sphere of Influence and Urban Growth Boundary are expanded. Hilly terrain covers the area with slopes rising and dropping from drainages throughout the Valley. The area is known to be unstable and has suffered from landslides in the past.

The EIR should include an analysis of geologic impacts and detail mitigation measures to limit such impacts.

7. Hydrology and Water Quality

Expanding the SOI and UGB to cover 1,624 acres of the Tassajara Valley would lead to development that would have significant impacts on hydrology and water quality issues. The EIR should analyze impacts on water quality standards, groundwater supplies, drainage patterns, pollution runoff, and 100-year flood hazard areas.

Tassajara Creek and its tributaries pass through the middle of Tassajara Valley and provide habitat for a number of wildlife species, some of which are protected such as the California tiger salamander and the California red-legged frog. Parts of its flood plain are subject to flooding, including 100 year floods. The Valley experiences problems with over drafting of groundwater.

Development of the Tassajara Valley would lead to an increase in run-off and point source pollution which has the potential to impact the water quality and diminish riparian habitat in the area.

The EIR should evaluate how hydrology and water quality as well as riparian habitat and related wildlife could be impacted by development that occurs as the result of the proposed Sphere of Influence and Urban Growth Boundary expansion.

8. Land Use and Growth Management

Reviewing the San Ramon General Plan and the EIR for the General Plan provides insight into the planned land uses of the Tassajara Valley. Save Mount Diablo's interpretation is that the General Plan EIR did not foresee development in the Tassajara Valley, but rather, based assumptions about impacts on planned protection of the Tassajara Valley outside the UGB to justify development in other areas inside the UGB.

The EIR for the San Ramon General Plan describes the Tassajara Valley by saying that "much of the land in the Valley is in agricultural use, such as spring pasture and livestock grazing, with a few orchards, small horse ranches, and five-acre ranchettes" (General Plan EIR, Land Use and Growth Management, p. 4-9). The Tassajara Valley Subarea is not discussed in the section titled *Major Development Areas* (GP EIR, p. 4-10) and is not included in *Table 4.1-2 Existing Land Use by Planning Subarea* (GP EIR, p. 4-11). It is clear that the Tassajara Valley Planning Subarea was not being considered for development in the General Plan EIR. This fact is explicitly stated in the General Plan EIR when the claim is made that "policies in the 2020 General Plan do not propose any development in the Tassajara Valley" (GP EIR, p. 4-13).

While potential impacts - such as loss of open space, development that may alter the scale or character of the City, and the alteration of views in the City - are considered in the General Plan EIR, no reference is made to the Tassajara Valley during the discussion of these impacts. In fact, the amount of open space that was preserved by the Measure G UGB, including land in the Tassajara Valley, was used to offset the loss of open space due to development.

The EIR should evaluate whether expansion of the SOI and UGB as part of the General Plan amendment would conflict with the General Plan or any other land use plan adopted for the purpose of avoiding or mitigating an environmental effect.

9. Parks and Recreation

The area proposed for SOI and UGB expansion is adjacent to Hidden Valley Open Space in San Ramon and in close proximity to Mount Diablo State Park, Morgan Territory Regional Preserve and the Brown Ranch which has been preserved as mitigation for development in Dublin. The Cities of Livermore, Dublin and the East Bay Regional Park District have begun efforts to create a new regional park in the vicinity. The Tassajara Valley is visible from a number trails and from open space within these preserved areas. Hikers, bikers, and equestrians using the trails on the south side of Mount Diablo currently enjoy beautiful sweeping views of the mostly undeveloped Tassajara Valley. Hikers in San Ramon's Hidden Valley Open Space look directly down into the Tassajara Valley from atop its western ridge.

Sphere of Influence and Urban Growth Boundary expansions would be the catalyst for potential development which would degrade views from Hidden Valley and the State Park and diminish the recreational experiences and aesthetic values of the area.

Impacts on these parks and on the recreational experiences of visitors should be evaluated in an EIR for the project.

10. Traffic and Circulation

The EIR should evaluate impacts on the capacity of the street system, congestion management, emergency access, parking capacity, and alternative transportation.

Expansion of the SOI and UGB into the Tassajara Valley would open the door to the development of 1,624 acres eight miles away from Highway 680, 4 miles away from Highway 580, and no where near any major public transit. New development would have significant impacts on San Ramon streets and on Highways 580 and 680, which already experience severe commuter traffic congestion.

The EIR should study how development in the Tassajara Valley could further impact traffic, circulation and transportation in San Ramon.

Thank you for your consideration of our comments.

Sincerely,

Troy Bristol
Land Conservation Associate

A.3 - Sign-In Sheet

San Ramon General Plan 2030 Scoping Meeting

3:00 p.m. January 28, 2010

Interested Parties Sign-In Sheet

Name	Affiliation	Mailing Address
Roz Rogoff	San Ramon Express	9913 Mangos
Jim Blickenstaff	Mt. Diablo Sierra Club	8301929
Jim Gibbon	S.R.O.G.	
Brian Holt	East Bay Reg. Park Dist.	

Appendix B:
Air Quality Supporting Data

City of San Ramon General Plan 2030
Air Quality and Greenhouse Gas Emissions
Background Report
City of San Ramon, Contra Costa County, California

Prepared for:

City of San Ramon
Planning/Community Development Department
2226 Camino Ramon
San Ramon, CA 94583
925.973.2560

Contact: Debbie Chamberlain, Planning Manager

Prepared by:

Michael Brandman Associates
Bishop Ranch 3
2633 Camino Ramon, Suite 460
San Ramon, CA 94583
925.830.2733

Contact: Jason M. Brandman, Project Director
Author: Dave Mitchell, Air Quality Services Manager

March 4, 2010

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SECTION 1: INTRODUCTION

1.1 - Purpose of this Report

This report was produced in support of the Air Quality and Climate Change Element of the City of San Ramon 2030 General Plan Update. It describes the air quality in the City of San Ramon (City), the region, and California.

The City of San Ramon is located in Contra Costa County within the Bay Area Air Basin (Exhibit 1) and is bordered by the City of Danville, the City of Dublin, and unincorporated lands in Contra Costa and Alameda counties (Exhibit 2). Air quality affects many important aspects of everyday life. Poor air quality is detrimental to our health, environment, economy, and well-being. Securing and preserving healthy air quality is a priority of federal, state, and local agencies. Under California planning law, air quality is an optional General Plan element. In recognition that this region continues to experience poor air quality on a number of days each year and contributes greenhouse gas emissions thought to result in global climate change, the City of San Ramon is including an Air Quality and Greenhouse Gas Element in its General Plan Update. The Air Quality and Greenhouse Gas Element provides air quality data and analysis, goals, policies and objectives, and feasible implementation strategies to improve air quality and reduce greenhouse gas emissions.

The General Plan provides a useful location for the City to outline its framework for addressing greenhouse gas emissions. With the passage of Assembly Bill 32 (AB 32), the Global Warming Solutions Act of 2006, local governments throughout California are now implementing actions to address greenhouse gas emissions. Many of the actions that help reduce emissions harmful to health such as ozone and particulate matter also reduce greenhouse gas emissions. The Air Quality and Greenhouse Gas Emissions Element and this Background Report provide a venue for addressing both topics through a single venue and in a coordinated manner. Supplementing AB 32 was the enactment of Senate Bill 375, which requires a process to set regional greenhouse gas emission reduction targets for 2020 for each region of California. Baseline emission inventories for greenhouse gases are the first step in developing local targets for SB 375 compliance.

This report is intended to provide decision makers and the public with City of San Ramon specific air quality information and data that will provide a context for the policies and implementation strategies being pursued in the Air Quality and Greenhouse Gas Element. The report provides the following information:

- Local air quality conditions
- Attainment status
- Applicable state and federal air quality plans and transportation plans
- Air quality monitoring data
- Baseline emission inventories

- Lists of significant pollution source categories
- A summary of local, Air District, state, and federal policies, programs, and regulations that improve air quality in the City.

Given the serious impacts of poor air quality and climate change, the City of San Ramon is committed to doing its part to accelerate progress toward achieving clean air and its share in California's efforts to reduce greenhouse gases. The Air Quality and Greenhouse Gas Emissions Element fulfills a number of objectives towards this end. Most importantly, it will ensure that growth occurs in ways that protect and enhance the health of city residents. Secondly, it creates an air quality and climate change strategy that promotes a land use pattern and transportation system that provides a healthy living environment and increased opportunities for residents to engage in lifestyle changes that are beneficial to air quality.

1.2 - Structure of this Report

The Background Report is divided into two parts. The first part provides information on health-based air pollutants. The second part of the report provides information on greenhouse gases and climate change. The health-based pollutants have a long, well-established regulatory structure and abundant data to draw upon. Greenhouse gases and climate change have only recently come under regulation, with most regulations still under development or just beginning implementation. Quantification methods for greenhouse gases at the local level are also in their infancy. Separating the discussions provides each area with the attention each topic deserves.

Source: Census 2000 Data, The CaSIL, MBA GIS 2009.

Michael Brandman Associates

NORTH

5 2.5 0 5 Miles

Exhibit 1
Regional Location Map

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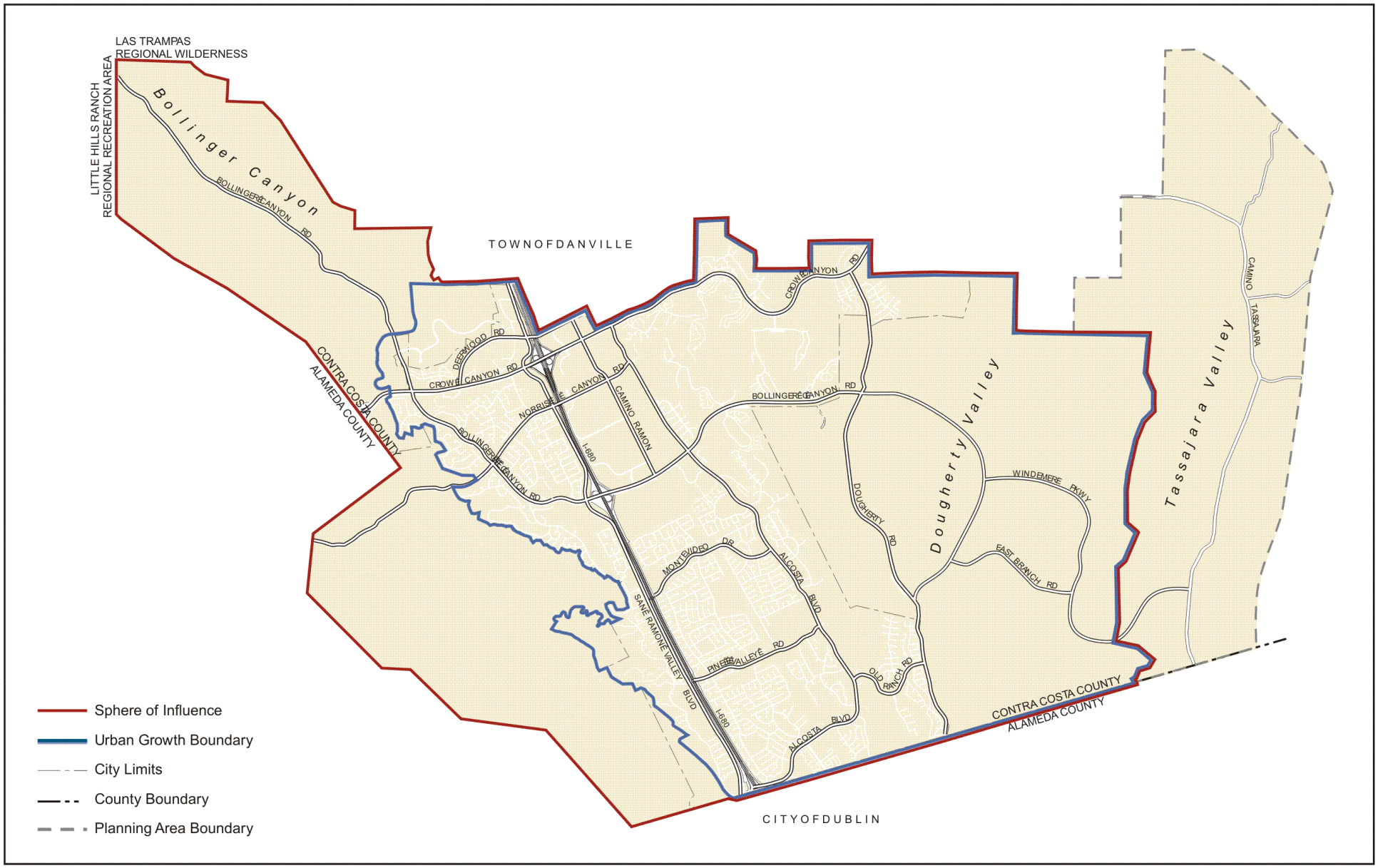
CITY OF SAN RAMON • GENERAL PLAN 2030 UPDATE
AIR QUALITY AND GREENHOUSE GAS ELEMENT BACKGROUND REPORT



Source: City of San Ramon.

NORTH

1 .5 0 1 Mile

Michael Brandman Associates

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Exhibit 2
San Ramon Existing Planning Area and Boundaries

SECTION 2: AIR QUALITY BACKGROUND FOR HEALTH-BASED POLLUTANTS

2.1 - Regulatory Setting

Air pollutants are regulated at the national, state, and air basin level; each agency has a different degree of control. The United States Environmental Protection Agency (EPA) regulates at the national level. The California Air Resources Board (CARB) regulates at the state level. The Bay Area Air Quality Management District (BAAQMD or District) regulates at the air basin level.

2.1.1 - Ambient Air Quality Standards

The EPA handles 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 in air pollution programs, and sets National Ambient Air Quality Standards (NAAQS or national standards). There are national standards for six common air pollutants, called criteria air pollutants, which were identified from provisions of the federal Clean Air Act of 1970. The six criteria pollutants are:

- Ozone (O_3)
- Particulate matter (PM_{10} and $PM_{2.5}$)
- Nitrogen dioxide (NO_2)
- Carbon monoxide (CO)
- Lead
- Sulfur dioxide (SO_2)

The national 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.

The State Implementation Plan for the State of California is administered by CARB, which has overall responsibility for statewide air quality maintenance and air pollution prevention. 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 national standards. The State Implementation Plan incorporates individual federal attainment plans for regional air districts. Federal attainment plans prepared by each air district are sent to CARB 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.

CARB also administers California Ambient Air Quality Standards (CAAQS), or state standards, for the 10 air pollutants designated in the California Clean Air Act. All of the national criteria pollutants are regulated by the State, but California adds four pollutants. The additional state air pollutants are:

- Visibility-reducing particulates
- Hydrogen sulfide
- Sulfates
- Vinyl chloride

The national and state ambient air quality standards and the most relevant effects are summarized in Table 1.

Table 1: Ambient Air Quality Standards

Air Pollutant	Averaging Time	California Standard	National Standard	Most Relevant Effects
Ozone	1 hour	0.09 ppm	—	(a) Pulmonary function decrements 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) risk to public health implied by 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
	8 hour	0.070 ppm	0.075 ppm	
Carbon monoxide (CO)	1 hour	20 ppm	35 ppm	(a) Aggravation of angina pectoris 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
	8 hour	9.0 ppm	9 ppm	
Nitrogen dioxide (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
	Mean	0.030 ppm	0.053 ppm	
Sulfur dioxide (SO_2)	1 hour	0.25 ppm	—	Bronchoconstriction accompanied by symptoms which may include wheezing, shortness of breath and chest tightness, during exercise or physical activity in persons with asthma
	3 Hour	—	0.5 ppm	
	24 hour	0.04 ppm	0.14 ppm	
	Mean	—	0.030 ppm	
Particulate matter (PM_{10})	24 hour	50 $\mu g/m^3$	150 $\mu g/m^3$	(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
	Mean	20 $\mu g/m^3$	—	
Particulate matter ($PM_{2.5}$)	24 hour	—	35 $\mu g/m^3$	
	Mean	12 $\mu g/m^3$	15.0 $\mu g/m^3$	
Hydrogen sulfide	1 hour	0.03 ppm	—	It can irritate the eyes and respiratory tract and cause symptoms like headache, nausea, vomiting, and coughing.
Sulfates	24 hour	25 $\mu g/m^3$	—	(a) Decrease in ventilatory function; (b) aggravation of asthmatic symptoms; (c) aggravation of cardio-pulmonary disease; (d) vegetation damage; (e) degradation of visibility; (f) property damage

Table 1 (cont.): Ambient Air Quality Standards

Air Pollutant	Averaging Time	California Standard	National Standard	Most Relevant Effects
Lead	30-day	1.5 µg/m^3	—	(a) Learning disabilities; (b) impairment of blood formation and nerve conduction
	Quarter	—	1.5 µg/m^3	

Notes:
National 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 SO2, 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.
EPA established a new 1-hour nitrogen dioxide standard of 100 ppb or 188 ug/m3, which will become effective April 12, 2010.
Abbreviations:
ppm = parts per million µg/m^3 = micrograms per cubic meter
Mean = Annual Arithmetic Mean 30-day = 30-day average Quarter = Calendar quarter
Sources: CARB 2010 and SCAQMD 2007.

For some criteria pollutants, separate standards have been set for different periods. For example, for the California ozone standard, there are 1-hour and 8-hour standards. Most standards have been set to protect public health. For some pollutants, standards have been based on other values, such as protection of crops, protection of materials, or avoidance of nuisance conditions.

2.1.2 - California Air Resources Board Regulation

CARB is authorized to adopt standards, rules, and regulations to achieve the maximum degree of emission reduction possible from vehicular and other mobile sources in order to accomplish the attainment of the state ambient air quality standards at the earliest practicable date. The Health and Safety Code directed the CARB, no later than January 1, 1992, to take whatever actions are necessary, cost-effective, and technologically feasible in order to achieve, by December 31, 2000, a reduction in reactive organic gases of at least 55 percent; at least a 15-percent reduction in the emissions of oxides of nitrogen from motor vehicles; and the maximum feasible reductions in particulate matter, carbon monoxide, and toxic air contaminants from vehicular sources. One major component of CARB's efforts to achieve these targets is through the regulation of fuels. CARB's fuels effort is made up of several components that broadly fall into two categories: (1) adopting and enforcing fuel specifications, and (2) controlling emissions from marketing and distributing fuels in California (CARB 2009a).

CARB is responsible for developing statewide programs and strategies to reduce the emission of smog-forming pollutants and toxics by mobile sources. These include both on- and off-road sources such as passenger cars, motorcycles, trucks, buses, heavy-duty construction equipment, recreational vehicles, marine vessels, lawn and garden equipment, and small utility engines (CARB 2009b).

California regulates toxics primarily through the Tanner Air Toxics Act (AB 1807) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588). The Tanner Act sets forth a formal procedure for ARB to designate substances as toxic air contaminants. This includes research,

public participation, and scientific peer review before ARB can designate a substance as a toxic air contaminant. To date, ARB has identified over 21 toxic air contaminants, and adopted the EPA's list of hazardous air pollutants as toxic air contaminants. Once a toxic air contaminant is identified, ARB's then adopts an Airborne Toxics Control Measure for sources that emit that particular contaminant. If there is a safe threshold for a substance at which there is no toxic effect, the control measure must reduce exposure below that threshold. If there is no safe threshold, the measure must incorporate toxics best available control technology to minimize emissions. None of the TACs identified by ARB have a safe threshold.

CARB has set Airborne Toxic Control Measures on mobile sources such as cargo handling equipment, school buses, and trucks, and stationary sources such as engines, gasoline stations, and waste incinerators (CARB 2009c).

The CARB has many regulations that may or may not pertain to pollution generated in the City of San Ramon. The following are some regulations that may apply to the sources within the City.

CARB Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling adopts new section 2485 within Chapter 10, Article 1, Division 3, title 13 in the California Code of Regulations. The measure limits the idling of diesel vehicles to reduce emissions of toxics and criteria pollutants. The driver of any vehicle subject to this section: (1) shall not idle the vehicle's primary diesel engine for greater than five (5) minutes at any location; and (2) shall not idle a diesel-fueled auxiliary power system for more than five (5) minutes to power a heater, air conditioner, or any ancillary equipment on the vehicle if it has a sleeper berth and the truck is located within 100 feet of a restricted area (homes and schools).

CARB Final Regulation Order, Requirements to Reduce Idling Emissions from New and In-Use Trucks, would require that new 2008 and subsequent model-year heavy-duty diesel engines shall 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 trucks manufactured after 2008 would be consistent with this rule, which would ultimately reduce air emissions.

CARB Regulation for In-Use Off-Road Diesel Vehicles. On July 26, 2007, the CARB adopted a regulation to reduce diesel particulate matter and NOx 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 CARB and labeled in 2009; and then in 2010 begins gradual requirements for fleets to clean up their fleet 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 the largest fleets to comply by 2010, medium fleets by 2013, and smaller fleets by 2015.

Statewide Truck and Bus Rule. On December 12, 2008, the CARB approved a new regulation to significantly reduce emissions from existing on-road diesel vehicles operating in California. The regulation requires affected trucks and buses to meet performance requirements between 2011 and 2023. By January 1, 2023 all vehicles must have a 2010 model year engine or equivalent. The regulation applies to all on-road heavy-duty diesel fueled vehicles with a gross vehicle weight rating greater than 14,000 pounds, agricultural yard trucks with off-road certified engines, and certain diesel fueled shuttle vehicles of any gross vehicle weight rating. Out-of-state trucks and buses that operate in California are also subject to the regulation.

CARB Air Toxic Control Measure to Limit School Bus Idling and Idling at Schools limits idling times for school buses, transit buses, and other commercial vehicles (gross vehicle weight greater than 10,001 pounds, except for pickup trucks) when they are stopping at a school or located within 100 feet of a school (schools at or below the 12th grade level). This regulation also requires that drivers of buses and commercial vehicles be informed of this regulation by the motor carrier (i.e., vehicle owner) and that the motor carrier keep records of compliance/noncompliance with this regulation.

California Health and Safety Code Section 42301.6. This Code requires an inventory of air toxics emissions from individual existing facilities, an assessment of health risks, and notification of potential significant health risks when found to be present. In addition, the H&S Code requires new or modified sources of air contaminants within 1,000 feet from the outer boundary of a school to give public notice to the parents of the schoolchildren before an air pollution permit is granted.

California Education Code Section 17213 and Public Resources Code Section 21151.4. These codes require school districts to consider off-site sources of hazardous air emissions before acquiring property for a school site or approving an environmental impact report or negative declaration for a school site acquisition or new school construction project. These sections require school districts to consult with appropriate agencies to identify facilities including, but not limited to freeways and other busy traffic corridors, large agricultural operations, and rail yards within one fourth of a mile of a proposed school site that might reasonably be expected to emit hazardous air pollutants.

California Public Resources Code Section 21151.8. This section requires, among other things, a demonstration using dispersion modeling that the air quality at the proposed school site is such that neither the short-term nor long-term exposures pose significant health risks to pupils for a school site boundary that is located within 500 feet of the edge of the closest lane of a freeway or other busy traffic corridor.

The California Clean Air Act, Section 39610 (a), directs the CARB to "identify each district in which transported air pollutants from upwind areas outside the district cause or contribute to a violation of the ozone standard and to identify the district of origin of transported pollutants." The information regarding the transport of air pollutants from one basin to another was to be quantified to assist interrelated basins in the preparation of plans for the attainment of State ambient air quality standards. Numerous studies conducted by the CARB have identified air basins that are impacted by pollutants transported from other air basins (as of 1993). Among the air basins affected by air pollution transport from the San Francisco Bay Area Air Basin are the North Central Coast Air Basin, the Mountain Counties Air Basin, the San Joaquin Valley Air Basin, and the Sacramento Valley Air Basin. The San Francisco Bay Area Air Basin was also identified as an area impacted by the transport of air pollutants from the Sacramento region.

2.1.3 - Bay Area Air Quality Management District

The San Francisco Bay Area Air Basin (Basin) consists 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 local agency with jurisdiction over air quality in the Basin is the BAAQMD—California's first regional agency to deal with air pollution. It was created by the California Legislature in 1955. The District is responsible for controlling and permitting industrial pollution sources (such as power plants, refineries, and manufacturing operations) and widespread, areawide sources (such as bakeries, dry cleaners, service stations, and commercial paint applicators), and for adopting local air quality plans and rules.

Air Quality Plans

The latest air quality plan in the Basin is the Bay Area 2005 Ozone Strategy, which was prepared in cooperation with the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG), and was adopted on January 4, 2006. The Strategy shows "how the San Francisco Bay Area will achieve compliance with the State one-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." (BAAQMD 2006)

The BAAQMD is currently preparing the 2010 Clean Air Plan (Plan), an update to the Bay Area 2005 Ozone Strategy. The 2010 Clean Air Plan is scheduled to be released for public review shortly. The BAAQMD will develop the Plan in association with its regional agency partners, the MTC, ABAG, and the Bay Conservation and Development Commission (BAAQMD 2009a). The Plan will:

- Review progress in improving Bay Area air quality to date.
- Establish a control strategy including "all feasible measures" to achieve state ozone standards by the earliest practicable date and reduce transport of ozone precursors to neighboring air basins.

- Address ozone, particulate matter, air toxics, and greenhouse gas emissions in a single integrated plan.

Air quality plans are required to address transportation control measures requirements of the federal Clean Air Act and California Clean Air Act. Transportation control measures are defined as "any strategy to reduce vehicle trips, vehicle use, vehicle miles traveled, vehicle idling, or traffic congestion for the purpose of reducing motor vehicle emissions. The Bay Area has extensive experience with developing and implementing transportation control measures. The first regional plan prepared pursuant to the California Clean Air Act, the 1991 Clean Air Plan, included 23 transportation control measures to meet state planning requirements (State transportation control measures). Plan updates in 1994 and 1997 included revisions to the transportation control measures. The regional strategy contained in the Bay Area 2005 Ozone Strategy contains 19 transportation control measures that cover the full spectrum of transportation strategies, including:

- Bus transit
- Rail transit
- Ferry service
- Carpooling and vanpooling
- Bicycle and pedestrian enhancements
- Land use programs
- Pricing measures
- Traffic management
- Employer programs and youth programs
- Public education and episodic measure

The MTC is the agency that takes the lead on the transportation control measures development process in the Bay Area. (BAAQMD 2006)

BAAQMD Rules and Regulations

New and Modified Source Review

All new stationary sources of air pollution within Bay Area are subject to applicable rules for new and modified sources set by the federal and state governments and the BAAQMD. BAAQMD Regulation (Reg.) 2, Rule 2: New Source Review outlines the process by which new and modified stationary sources are reviewed and permitted. Reg. 2, Rule 2 is applicable to all new sources and modification to sources, of state and federal criteria pollutants above the applicability thresholds. The rule contains emission thresholds that, if exceeded, require the applicant to provide offsets. Stationary sources of air pollutants that that are categorized as 'major sources', as defined by the rule, are subject to Title V federal permitting requirements and are considered federally enforceable and must comply with Reg. 2, Rule 8: Major Facility Review.

Rules Regulating Specific Pollutant Emission Sources

The BAAQMD has adopted over 100 rules regulating specific source types and specific pollutant emissions from sources. For example, Reg. 8, Rule 3: Architectural Coatings regulates emissions of organic gases emitted from architectural coatings; Reg. 9, Rule 6: Nitrogen Oxides Emissions from Natural Gas-Fired Water Heaters regulates nitrogen oxides; and Reg. 6, Rule 3: Wood-burning Devices regulates particulate matter from wood burning.

Toxic Air Contaminants/Hazardous Air Pollutants

Toxic air contaminants are chemicals that have the potential to cause adverse health effects, such as cancer, birth defects, and organ damage. Health effects of toxic air contaminants are further discussed below. The BAAQMD is responsible for implementing the Federal Toxics Rules – National Emissions Standards for Hazardous Air Pollutants Maximum Achievable Control Technology Standards regulating toxics. The BAAQMD also has responsibilities under the California Air Toxic Contaminant Act (AB 1807), and the California Air Toxic "Hot Spot" Program (AB 2588), which regulate and monitor toxic air contaminant emissions. BAAQMD Reg. 2, Rule 5: New Source Review of Toxic Air Contaminants regulates the permitting of toxic sources of emissions. Permits may be granted to these operations if they are constructed and operated in accordance with applicable regulations, including new source review standards and air toxics control measures. The BAAQMD limits emissions and public exposure to contaminants through a number of programs. The BAAQMD prioritizes contaminant-emitting stationary sources based on the quantity and toxicity of the emissions and the proximity of the facilities to sensitive receptors. In addition, the BAAQMD has adopted Regulation 11 Rules 2 and 14, which address asbestos demolition renovation, manufacturing, and standards for asbestos containing serpentine.

2.1.4 - Local Government

Local government's responsibility for air quality increased significantly with the passage of the California Clean Air Act and amendments to the federal Clean Air Act of 1990. Both pieces of legislation place new emphasis on reducing motor vehicle trips and vehicle miles traveled at the local level. Although the BAAQMD is required to address air quality standards by way of transportation control measures and indirect source programs in its air quality attainment plans, cities and counties, through their Regional Transportation Planning Agencies are responsible for much of the implementation. The Bay Area Metropolitan Transportation Commission (MTC) is the Regional Transportation Planning Agency for the Bay Area.

Another important local government responsibility with a significant relationship to air quality is land use authority. State law places responsibility for land use planning in the hands of city and county governments. With this responsibility comes the authority to approve development projects. This authority is supported by police power and powers of incorporation. As part of their duties, cities and counties are required to prepare a "general plan." The general plan is a comprehensive document that sets a community's goals and policies for development over a long period (often 20 years) and designates in general terms where certain land uses will be allowed. The General Plan provides the opportunity to plan development in ways that supports alternative modes of travel like walking, bicycling, and transit. Land use policies and practices, including planning, zoning, and siting activities, can play a critical role in avoiding incompatible land uses and thus reduce localized air pollution exposure that can result in adverse health impacts, especially for sensitive individuals.

Recent state legislation added more local government requirements. AB 1358 (Ch. 357) requires a local government to include in the circulation element of its general plan, a plan for a balanced, multimodal transportation network. AB 3005 (Ch. 692) requires local governments to establish lower traffic impact developer fees for specified transit-oriented housing developments unless the local government makes a specific finding.

2.2 - Pollutants of Concern

The criteria pollutants of greatest concern in the Bay Area are ozone (O_3), inhalable particulate matter (PM_{10}), fine particulate matter ($PM_{2.5}$), and carbon monoxide (CO). Other pollutants of concern are toxic air contaminants and asbestos.

2.2.1 - Ozone

Ozone is not emitted directly into the air but is formed by a photochemical reaction in the atmosphere. Ozone precursors, which include reactive organic gases (ROG) and oxides of nitrogen (NO_x), react in the atmosphere in the presence of sunlight to form ozone. Because photochemical reaction rates depend on the intensity of ultraviolet light and air temperature, ozone is primarily a summer air pollution problem. Often, the effects of emitted ROG and NO_x are felt a distance downwind of the emission sources. Ozone is subsequently considered a regional pollutant. Ground-level ozone is a respiratory irritant and an oxidant that increases susceptibility to respiratory infections and can cause substantial damage to vegetation and other materials.

Ozone can irritate lung airways and cause inflammation much like a sunburn. Other symptoms include wheezing, coughing, pain when taking a deep breath, and breathing difficulties during exercise or outdoor activities. People with respiratory problems are most vulnerable, but even healthy people who are active outdoors can be affected when ozone levels are high. Chronic ozone exposure can induce morphological (tissue) changes throughout the respiratory tract, particularly at the junction of the conducting airways and the gas exchange zone in the deep lung. Anyone who spends time outdoors in the summer is at risk, particularly children and other people who are active outdoors. Even at very low levels, ground-level ozone triggers a variety of health problems, including aggravated asthma, reduced lung capacity, and increased susceptibility to respiratory illnesses like pneumonia and bronchitis.

Ozone also damages vegetation and ecosystems. It leads to reduced agricultural crop and commercial forest yields; reduced growth and survivability of tree seedlings; and increased susceptibility to diseases, pests, and other stresses such as harsh weather. In the United States alone, ozone is responsible for an estimated $500 million in reduced crop production each year. Ozone also damages the foliage of trees and other plants, affecting the landscape of cities, national parks and forests, and recreation areas. In addition, ozone causes damage to buildings, rubber, and some plastics.

Ozone is a regional pollutant, as the reactions forming it take place over time, and it materializes downwind from the sources of the emissions. As a photochemical pollutant, ozone is formed only during daylight hours under appropriate conditions, but it is destroyed throughout the day and night. Thus, ozone concentrations vary, depending upon both the time of day and the location. Even in pristine areas, some ambient ozone forms from natural emissions that are not controllable. This is termed background ozone. The average background ozone concentrations near sea level are in the range of 0.015 to 0.035 parts per million (ppm), with a maximum of about 0.040 ppm (CARB 2005A). This can be compared with the new federal 8-hour standard for ozone of 0.075 ppm.

Reactive Organic Gases

ROG are defined as any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participate in atmospheric photochemical reactions. ROG consist of nonmethane hydrocarbons and oxygenated hydrocarbons. Hydrocarbons are organic compounds that contain only hydrogen and carbon atoms. Nonmethane hydrocarbons are hydrocarbons that do not contain the unreactive hydrocarbon, methane. Oxygenated hydrocarbons are hydrocarbons with oxygenated functional groups attached.

It should be noted that there are no state or national ambient air quality standards for ROG because they are not classified as criteria pollutants. They are regulated, however, because a reduction in ROG emissions reduces certain chemical reactions that contribute to the formulation of ozone. ROG also are transformed into organic aerosols in the atmosphere, which contribute to higher PM_{10} and lower visibility.

Nitrogen Oxides

During combustion of fossil fuels, oxygen reacts with nitrogen to produce nitrogen oxides or NO_x. This occurs primarily in motor vehicle internal combustion engines and fossil fuel-fired electric utility and industrial boilers. Whereas one form of NO_x, nitrogen dioxide (NO_2), is a criteria pollutant, NO_2 by itself is not a pollutant of concern in the Basin. Of concern is the property of NO_x as an ozone precursor, which means that when it is emitted into the atmosphere, it helps form or cause ozone to be formed. When NO_x and ROG are released in the atmosphere, they can chemically react with one another in the presence of sunlight to form ozone. NO_x can also be a precursor to PM_{10} and $PM_{2.5}$.

Because NO_x and ROG are ozone precursors, the health effects associated with ozone (as discussed above) are also indirect health effects associated with significant levels of NO_x and ROG emissions.

2.2.2 - Particulate Matter (PM_{10} and $PM_{2.5}$)

Particulate matter (PM) is the term for a mixture of solid particles and liquid droplets found in the air. Some particles, such as dust, dirt, soot, or smoke, are large or dark enough to be seen with the naked eye. Others are so small they can only be detected using an electron microscope.

Particle pollution includes "inhalable coarse particles," with diameters larger than 2.5 micrometers and smaller than 10 micrometers (PM_{10}) and "fine particles," with diameters that are 2.5 micrometers and smaller ($PM_{2.5}$). For reference, $PM_{2.5}$ is approximately one-thirtieth the diameter of the average human hair.

These particles come in many sizes and shapes and can be made up of hundreds of different chemicals. Some particles, known as primary particles, are emitted directly from a source, such as construction sites, unpaved roads, fields, smokestacks, or fires. Others form in complicated reactions in the atmosphere of chemicals such as sulfur dioxides and nitrogen oxides that are emitted from power plants, industries, and automobiles. These particles, known as secondary particles, make up most of the fine particle pollution in the country.

Particle exposure can lead to a variety of health effects. For example, numerous studies link particle levels to increased hospital admissions and emergency room visits—and even to death from heart or lung diseases. Both long- and short-term particle exposures have been linked to health problems. Long-term exposures, such as those experienced by people living for many years in areas with high particle levels, have been associated with problems such as reduced lung function and the development of chronic bronchitis, and even premature death. Short-term exposures to particles (hours or days) can aggravate lung disease, causing asthma attacks and acute bronchitis, and may increase susceptibility to respiratory infections. In people with heart disease, short-term exposures have been linked to heart attacks and arrhythmias. Healthy children and adults have not been reported to suffer serious effects from short-term exposures, although they may experience temporary minor irritation when particle levels are elevated.

2.2.3 - Carbon Monoxide

Carbon monoxide (CO) is a colorless, odorless gas that is formed when carbon in fuel is not burned completely. The highest levels of CO in the outside air typically occur during the colder months of the year when inversion conditions are more frequent. The air pollution becomes trapped near the ground beneath a layer of warm air.

CO is a public health concern because it combines readily with hemoglobin, reducing the amount of oxygen transported in the bloodstream. The health threat from lower levels of CO is most serious for those who suffer from such heart-related diseases as angina, clogged arteries, or congestive heart failure. For a person with heart disease, a single exposure to CO at low levels may cause chest pain and reduce that person's ability to exercise; repeated exposures may contribute to other cardiovascular effects. High levels of CO can affect even healthy people. People who breathe high levels of CO can develop vision problems, reduced ability to work or learn, reduced manual dexterity, and difficulty performing complex tasks. At extremely high levels, CO is poisonous and can cause death.

2.2.4 - Other Criteria Pollutants

The standards for the other criteria pollutants are either being met or are unclassified in Contra Costa County, and the latest pollutant trends suggest that these standards will not be exceeded in the foreseeable future.

2.2.5 - Toxic Air Contaminants

In addition to the criteria pollutants listed above, toxic air contaminants are another group of pollutants of concern. CARB has designated almost 200 compounds as toxic air contaminants. Additionally, the CARB has implemented control strategies for a number of compounds that pose high health risk and show potential for effective control.

Sources of toxic air contaminants include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Cars and trucks release at least 40 different toxic air contaminants. The most important, in terms of health risk, are diesel particulates, benzene, formaldehyde, 1,3-butadiene, and acetaldehyde. Public exposure to toxic air contaminants can result from emissions from normal operations as well as from accidental releases. Health effects of toxic air contaminants include cancer, birth defects, neurological damage, and death.

Toxic air contaminants are less pervasive in the urban atmosphere than the criteria air pollutants but are linked to short-term (acute) or long-term (chronic or carcinogenic) adverse human health effects. There are hundreds of different types of toxic air contaminants, with varying degrees of toxicity. Sources of toxic air contaminants include industrial processes, commercial operations (e.g., gasoline stations and dry cleaners), and motor vehicle exhaust.

Diesel Particulate Matter

According to the 2009 California Almanac of Emissions and Air Quality (CARB 2009d), the majority of the estimated health risk from toxic air contaminants can be attributed to relatively few compounds, the most important of which is diesel particulate matter , which comprised 79 percent of the excess cancer risk in California in 2007. Diesel particulate matter is a subset of $PM_{2.5}$ because the size of diesel particles are typically 2.5 microns and smaller. The identification of diesel particulate matter as a toxic air contaminant in 1998 led CARB to adopt the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-fueled Engines and Vehicles (Plan) in September 2000. The Plan's goals are a 75-percent reduction in diesel particulate matter by 2010 and an 85-percent reduction by 2020 from the 2000 baseline. Diesel engines emit a complex mixture of air pollutants, composed of gaseous and solid material. The visible emissions in diesel exhaust—particulate matter, or PM—include carbon particles or "soot." Diesel exhaust also contains a variety of harmful gases and over 40 other cancer-causing substances. California's identification of diesel particulate matter as a toxic air contaminant was based on its potential to cause cancer, premature deaths, and other health problems. Exposure to diesel particulate matter is a health hazard, particularly to children

whose lungs are still developing and to the elderly who may have other serious health problems. Overall, diesel engine emissions are responsible for the majority of California's potential airborne cancer risk from combustion sources (CARB 2000).

Asbestos

Asbestos is the name given to a number of naturally occurring fibrous silicate minerals that have been mined for their useful properties such as thermal insulation, chemical and thermal stability, and high tensile strength. The three most common types of asbestos are chrysotile, amosite, and crocidolite. Chrysotile, also known as white asbestos, is the most common type of asbestos found in buildings. Chrysotile makes up approximately 90 to 95 percent of all asbestos contained in buildings in the United States. CARB identified asbestos as a toxic air contaminant in 1986.

Project construction sometimes requires the demolition of existing buildings where construction occurs. Buildings often include materials that contain asbestos. Most demolitions and many renovations are subject to an asbestos inspection prior to start of activity. The demolition, renovation, or removal of asbestos-containing building materials is subject to the limitations of the NESHAP regulations as listed in the Code of Federal Regulations requiring notification, inspection, and compliance with local air district regulations (in this case, BAAQMD Reg. 11, Rule 2: Hazardous Materials; Asbestos Demolition, Renovation and Manufacturing).

In addition, asbestos is found in a natural state. Exposure and disturbance of rock and soil that naturally contain asbestos can result in the release of fibers into the air and consequent exposure to the public. Asbestos most commonly occurs in ultramafic rock that has undergone partial or complete alteration to serpentine rock (serpentinite) and often contains chrysotile asbestos. In addition, another form of asbestos, tremolite, can be found associated with ultramafic rock, particularly near faults. Sources of asbestos emissions include unpaved roads or driveways surfaced with ultramafic rock, construction activities in ultramafic rock deposits, or rock quarrying activities where ultramafic rock is present.

To address some of the health concerns associated with exposure to asbestos from these activities, CARB has adopted two Airborne Toxic Control Measures. CARB has an Airborne Toxic Control Measures for construction, grading, quarrying, and surface mining operations requiring the implementation of mitigation measures to minimize emissions of asbestos-laden dust. This Airborne Toxic Control Measures applies to road construction and maintenance, construction and grading operations, and quarries and surface mines when the activity occurs in an area where naturally occurring asbestos is likely to be found. Areas are subject to the regulation if they are identified on maps published by the Department of Conservation as ultramafic rock units, or if the Air Pollution Control Officer or owner/operator has knowledge of the presence of ultramafic rock, serpentine, or naturally occurring asbestos on the site. The Airborne Toxic Control Measures also applies if ultramafic rock, serpentine, or asbestos is discovered during any operation or activity.

In addition, CARB has an Airborne Toxic Control Measure for surfacing applications. This Airborne Toxic Control Measure applies to any person who produces, sells, supplies, offers for sale or supply, uses, applies, or transports any (1) aggregate material extracted from property where any portion of the property is located in a geographic ultramafic rock unit or (2) aggregate material extracted from property that is not located in a geographic ultramafic rock unit, if the material has been evaluated at the request of the Air Pollution Control Officer and has been determined to be ultramafic rock or serpentine; tested at the request of the Air Pollution Control Officer and determined to have an asbestos content of 0.25 percent or greater; or determined by the owner/operator of a facility to be ultramafic rock, serpentine, or material that has an asbestos content of 0.25 percent or greater. The Airborne Toxic Control Measure prohibits person from using, applying, selling, supplying, or offering for sale or supply any restricted material for surfacing unless it has been tested and determined to have an asbestos content that is less than 0.25 percent.

2.2.6 - Odors and Dust

Other air quality issues of concern in the Basin include nuisance impacts of odors and dust. Objectionable odors may be associated with a variety of pollutants. Common sources of odors include wastewater treatment plants, landfills, composting facilities, refineries and chemical plants. Similarly, nuisance dust may be generated by a variety of sources including quarries, agriculture, grading and construction. Odors rarely have direct health impacts, but they can be very unpleasant and can lead to anger and concern over possible health effects among the public. Each year the BAAQMD receives thousands of citizen complaints about objectionable odors. Dust emissions can contribute to increased ambient concentrations of PM_{10}, and can also contribute to reduced visibility and soiling of exposed surfaces.

2.3 - Physical Setting

2.3.1 - Bay Area Climate

Regional and local air quality is impacted by dominant airflows, topography, atmospheric inversions, location, season, and time of day. A semi-permanent, high-pressure area centered over the northeastern Pacific Ocean dominates the summer climate of the West Coast. Because this high-pressure cell is quite persistent, storms rarely affect the California coast during the summer. Thus, the conditions that persist along the coast of California during summer are a northwesterly airflow and negligible precipitation. A thermal low-pressure area from the Sonoran-Mojave Desert also causes air to flow onshore over the San Francisco Bay Area much of the summer. [1]

The steady northwesterly flow around the eastern edge of the Pacific high-pressure cell exerts stress on the ocean surface along the west coast. This induces upwelling of cold water from below. Upwelling produces a band of cold water off San Francisco approximately 80 miles wide. During July, the surface waters off San Francisco are 3 degrees Fahrenheit (°F) cooler than those off

[1] Note that a large portion of this section is from the BAAQMD Air Quality Guidelines (BAAQMD 2009d).

Vancouver, more than 700 miles farther north. Air approaching the California coast, already cool and moisture-laden from its long trajectory over the Pacific, is further cooled as it flows across this cold bank of water near the coast, thus accentuating the temperature contrast across the coastline. This cooling is often sufficient to produce condensation—a high incidence of fog and stratus clouds along the Northern California coast in summer.

In winter, the Pacific High weakens and shifts southward, upwelling ceases, and winter storms become frequent. Almost all of the Bay Area's annual precipitation takes place in the November through April period. During the winter rainy periods, inversions are weak or nonexistent, winds are often moderate, and air pollution potential is very low. During some periods in winter when the Pacific high becomes dominant, inversions become strong and often are surface-based; winds are light and pollution potential is high. These periods are characterized by winds that flow out of the Central Valley into the Bay Area.

Topography

The San Francisco Bay Area 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. Normal wind flow over the area is distorted in the lowest levels. This is particularly true when the air mass is stable and the wind velocity is not strong. With stronger winds and unstable air masses moving over the area, this distortion is reduced. The distortion is greatest when low-level inversions are present with the surface air beneath the inversion, flowing independently of the air above the inversion. This latter condition is very common in the summer, the surface air mass being the sea breeze.

The only major break in California's Coast Range occurs in the Basin. Here the Coast Range splits into western and eastern ranges. Between the two ranges lies San Francisco Bay. The gap in the western coast range is known as the Golden Gate, and the gap in the eastern coast range is the Carquinez Strait. These gaps allow air to pass into and out of the Basin and the Central Valley.

The hills and mountains in the Basin contribute to the high pollution potential of some areas. During the day, or at night during windy conditions, areas in the lee sides of mountains are sheltered from the prevailing winds, thereby reducing turbulence and downwind transport. At night, when wind speeds are low, the upper atmospheric layers are often decoupled from the surface layers during radiation conditions. If elevated terrain is present, it will tend to block pollutant transport in that direction. Elevated terrain also can create a recirculation pattern by inducing upvalley air flows during the day and reverse downvalley flows during the night, allowing little inflow of fresh air.

The areas having the highest air pollution potential tend to be those that experience the highest temperatures in the summer and the lowest temperatures in the winter. The coastal areas are exposed to the prevailing marine air , creating cooler temperatures in the summer, warmer temperatures in winter, and stratus clouds all year. The inland valleys are sheltered from the marine air and

experience hotter summers and colder winters. Thus, the topography of the inland valleys creates conditions conducive to high air pollution potential.

Winds

In summer, the northwesterly winds to the west of the Pacific coastline are drawn into the interior through the Golden Gate and over the lower portions of the San Francisco Peninsula. Immediately to the south of Mount Tamalpais, the northwesterly winds accelerate considerably and come more nearly from the west as they stream through the Golden Gate. This channeling of the flow through the Golden Gate produces a jet that sweeps eastward but widens downstream producing southwesterly winds at Berkeley and northwesterly winds at San Jose; a branch curves eastward through the Carquinez Strait and into the Central Valley. Wind speeds may be locally strong in regions where air is channeled through a narrow opening such as the Carquinez Strait, the Golden Gate, or San Bruno Gap. For example, the average wind speed at San Francisco International Airport from 3 a.m. to 4 p.m. in July is about 20 miles per hour (mph), compared with only about 8 mph at San Jose and less than 7 mph at the Farallon Islands.

The sea breeze between the coast and the Central Valley commences near the surface along the coast in late morning or early afternoon; it may be first observed only through the Golden Gate. Later in the day, the layer deepens and intensifies while spreading inland. As the breeze intensifies and deepens, it flows over the lower hills farther south along the Peninsula. This process frequently can be observed as a bank of stratus clouds “rolling over” the coastal hills on the west side of the Bay. The depth of the sea breeze depends in large part upon the height and strength of the inversion. The generally low elevation of this stable layer of air prevents marine air from flowing over the coastal hills. It is unusual for the summer sea breeze to flow over terrain exceeding 2000 feet in elevation.

In winter, the Bay Area experiences periods of storminess and moderate-to-strong winds and periods of stagnation with very light winds. Winter stagnation episodes are characterized by outflow from the Central Valley, nighttime drainage flows in coastal valleys, weak onshore flows in the afternoon, and otherwise light and variable winds.

Low wind speed contributes to the buildup of air pollution because it allows more pollutants to be emitted into the air mass per unit of time. Light winds occur most frequently during periods of low sun (fall and winter, and early morning) and at night. These are also periods when air pollutant emissions from some sources are at their peak, namely, commute traffic (early morning) and wood burning appliances (nighttime). The problem can be compounded in valleys, when weak flows carry the pollutants upvalley during the day, and cold air drainage flows move the air mass downvalley at night. Such restricted movement of trapped air provides little opportunity for ventilation and leads to buildup of pollutants to potentially unhealthful levels.

Temperature

In summer, the distribution of temperature near the surface over the Bay Area is determined in large part by the effect of differential heating between land and water surfaces. This process produces a large-scale gradient between the coast and the Central Valley, as well as small-scale, local gradients along the shorelines of the ocean and bays. The temperature contrast between coastal ocean water and land surfaces 15 to 20 miles inland reaches 35°F or more on many summer afternoons. At night, this contrast usually decreases to less than 10°F.

The winter mean temperature maxima and minima reverse the summer relationship in that daytime variations are small while mean minimum (nighttime) temperatures show large differences and strong gradients. The moderating effect of the ocean influences warmer minimums along the coast and penetrating the Bay. Coldest temperatures are in the sheltered valleys, implying strong radiation inversions and very limited vertical diffusion. An anomaly of warmer temperatures in the Santa Clara Valley over San Jose is clearly an urban "heat island" effect, most pronounced on winter nights. Such heat islands are proportional to structure density and appear over San Francisco and Oakland.

The areas having the highest air pollution potential tend to be those that experience the highest temperatures in the summer and the lowest temperatures in the winter. The coastal areas are exposed to the prevailing marine air, creating cooler temperatures in the summer, warmer temperatures in winter, and stratus clouds all year. The inland valleys are sheltered from the marine air and experience hotter summers and colder winters. Thus, the topography of the inland valleys creates conditions conducive to high air pollution potential.

The frequency of hot, sunny days during the summer months in the Basin is another important factor that affects air pollution potential. It is at the higher temperatures that ozone is formed. In the presence of ultraviolet sunlight and warm temperatures, reactive organic gases and oxides of nitrogen react to form secondary photochemical pollutants, including ozone.

Because temperatures in many of the Basin inland valleys are so much higher than near the coast, the inland areas are especially prone to photochemical air pollution. In late fall and winter, solar angles are low, resulting in insufficient ultraviolet light and warming of the atmosphere to drive the photochemical reactions. Ozone concentrations do not reach significant levels in the Basin during these seasons.

Inversions

A primary factor in air quality is the mixing depth (i.e., the vertical dimension available for dilution of contaminant sources near the ground). Over the Bay Area, the frequent occurrence of temperature inversions limits mixing depth and, consequently, limits the availability of air for dilution. A temperature inversion may be described as a layer of warmer air over cooler air.

On most days, higher altitudes mean lower air temperatures. This is because most of the sun's energy is converted to sensible heat at the ground, which in turn warms the air at the surface. The warm air rises in the atmosphere, where it expands and cools. Sometimes, however, the temperature of air actually increases with height. This condition is known as temperature inversion, because the temperature profile of the atmosphere is inverted from its usual state. There are two major types of temperature inversion: surface inversions, which occur near the Earth's surface, and aloft inversions, which occur higher above the ground than surface inversions. Surface inversions are the most important in the study of air quality.

For the most part, surface inversion patterns correlate with seasonality. The strong inversions typical of summer are formed by subsidence, the heating of downward-moving air in the high-pressure anticyclone over the western Pacific. The surface inversions typical of winter are formed by radiation as air is cooled in contact with the Earth's cold surface at night. While these seasonal correlations are most prevalent, both inversion mechanisms may operate at any time of the year. At times, surface inversions formed by radiational cooling may reinforce the subsidence inversion aloft, particularly in fall and winter. The thick, strong inversion resulting in this case is especially effective in trapping pollutants.

The vertical temperature structure over the Bay Area is taken by the National Weather Service twice daily, at 4 a.m. and 4 p.m., at Oakland International Airport. Inversion types found vary widely in seasonal patterns and over a 24-hour period. Localized inversion variations resulting from the numerous terrain types within the Bay Area have also been observed.

In the morning, the seasonal variations are most dramatic. From June through September, there are only two days per year, on average, with no inversion below 5,000 feet. March and April have fewer morning inversions. The occurrence of surface inversions is highest from October through January, when the characteristic radiation inversion predominates. A wide cluster of cases between 500 to 2,500 feet dominates from May through September, when the summer subsidence inversion over the marine layer dominates. There is substantial day-to-day variability in the depth of the marine layer.

In the afternoon data, two differences from the morning data are most striking and significant. First is the frequent disappearance of the surface radiation inversion that dominates the winter nights. In these months, a surface inversion observed in the morning persists through the afternoon less than 20 percent of the time. However, a corresponding afternoon increase may be noted in the cases from 500 to 2,500 feet. Thus, the inversion is frequently raised and perhaps weakened, but not destroyed. Second is the afternoon lowering of the marine inversion that dominates the summer months. In July and August, the afternoon inversions are frequently in the 500- to 1,000-foot interval, compared with the 1,000- to 1,500-foot interval in the morning.

Precipitation

Moderately wet winters and dry summers characterize the San Francisco Bay Area climate. Winter rains (December through March) account for about 75 percent of the average annual rainfall; about 90 percent of the annual total rainfall is received in the November–April period, and between June 15 and September 22, normal rainfall is typically less than 0.10 inch.

Annual precipitation amounts show great differences in short distances. Annual totals exceed 40 inches in the mountains and are less than 15 inches in the sheltered or "shadowed" valleys. The frequency of winter rain is more uniform, however, with 10 days per month (December through March) being typical.

During rainy periods, ventilation and vertical mixing are usually high; consequently, pollution levels are low. However, there are frequent winter dry periods lasting over a week. It is during some of these periods that CO and particulate pollution episodes develop.

2.3.2 - Regional and Local Climate (Diablo and San Ramon Valleys)

In the Bay Area, the California Coast Range splits into a western and eastern range, with the San Francisco Bay between the two ranges. East of the eastern Coast Range lie 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 City of San Ramon is located in the San Ramon Valley. The east side of the valleys is bordered by Mt Diablo and its associated ridgelines.

The Diablo Valley is a broad valley, approximately 5 miles wide and 10 miles long. The Carquinez Strait is at its north end; in the south, it tapers into the San Ramon Valley. Major cities in the Diablo Valley are Concord and Walnut Creek. Martinez at the north end is better characterized by the Carquinez Strait region.

San Ramon Valley continues south from the Diablo Valley, extending from south of Walnut Creek to Dublin. The valley is long and narrow, approximately 12 miles long and 1 mile wide. At its southern end, it opens to the Amador Valley. Its major towns are Danville and San Ramon.

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 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 toward 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 Bay Area. For example, in the middle of the Diablo Valley, the District station in Concord reports annual average wind speeds of 4.7 mph, and Danville in the middle of the San Ramon Valley reports annual average wind speeds of 5.0 mph. However, winds can pick up in the afternoon near the town 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 bay 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. Average minimum temperatures in winter are in the low to mid 40s. Temperatures in the San Ramon Valley would be similar to temperatures in Concord.

These valleys rarely experience fog during the summer. In the winter, however, tule fogs are common at night. This phenomenon is named after the tule grass wetlands (*tulares*) of the Central Valley. Tule fogs form on cold, clear nights when winds are light and there is abundant moisture on the ground, as happens after a rainstorm. Alternatively, the tule fog can be advected from the Central Valley through the Carquinez Strait and Livermore Valley. These fogs usually burn off during the day but occasionally can last for a week or two before being dissipated by the next storm.

Shielded by the Coast Range to the west, rainfall amounts in the Diablo Valley are relatively low. For example, Martinez in the north reports an annual average of 18.5 inches, while Walnut Creek reports 19.0 inches. Rainfall in the San Ramon Valley is expected to be similar because of the similar orientation of the terrain.

Pollution potential is relatively high in these valleys. On winter evenings, light winds combined with surface-based inversions and terrain that restricts air flow can cause pollutant levels to build up. San Ramon Valley can experience high pollution concentrations 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 both the central Basin and the Central Valley.

2.3.3 - Regional Air Quality

Emission Sources

California is a diverse state with many sources of air pollution. To estimate the sources and quantities of pollution, CARB, in cooperation with local air districts and industry, maintains an inventory of California emission sources. Sources are subdivided into four major emission categories: stationary sources, areawide sources, mobile sources, and natural sources. 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. CARB 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. CARB staff estimates mobile source emissions with assistance from districts and other government agencies. Mobile sources include on-road cars, trucks, and buses and other sources such as boats, off-road recreational vehicles, aircraft, and trains. CARB staff and the air districts also estimate natural sources. These sources include geogenic (e.g., petroleum seeps) and biogenic (vegetation) sources, and wildfires.

Table 2 summarizes estimated 2008 emissions of key criteria air pollutants from major categories of air pollutant sources. For each pollutant, estimated emissions are presented for Contra Costa County. No further spatial refinement is available.

Table 2: Contra Costa County 2008 Emissions Inventory (tons/day)

Emission Category	ROG	CO	NO_x	PM_{10}	$PM_{2.5}$
Fuel combustion	1.75	13.36	18.31	2.96	2.92
Waste disposal	1.17	0.15	0.15	0.01	0.01
Cleaning and surface coatings	3.24	0.00	0.00	0.00	0.00
Petroleum production and marketing	10.92	.21	0.60	0.68	0.62
Industrial processes	2.92	1.27	2.33	1.71	1.05
Solvent evaporation	10.19	0.00	0.00	0.00	0.00
Miscellaneous processes	3.40	43.00	2.72	26.85	9.57
On-road motor vehicles	16.87	165.20	30.03	1.51	1.06
Other mobile sources	10.65	66.36	27.03	1.85	1.68
Natural sources	11.35	0.12	0.00	0.01	0.01
TOTAL	**61.11**	**289.55**	**81.17**	**35.57**	**16.91**

Notes:
All emissions are represented in tons per day.
Source: CARB 2009e.

Charts displaying the relative percentage contribution of each emission source category for each pollutant are provided in Exhibit 3 and Exhibit 4. Mobile sources dominate emissions of carbon monoxide and oxides of nitrogen. ROG are more evenly divided among mobile, stationary, and area sources of emissions. Coarse particulate matter (PM_{10}) is mostly from area sources such fugitive dust, but with substantial contributions from mobile and stationary sources. The fine particulate matter ($PM_{2.5}$) is emitted from fuel combustion and secondary formation through chemical reactions in the atmosphere.

Carbon monoxide is a component of motor vehicle exhaust, which contributes about 56 percent of all CO emissions nationwide. Other non-road engines and vehicles (such as construction equipment and boats) contribute about 22 percent of all CO emissions nationwide. Higher levels of CO generally occur in areas with heavy traffic congestion. In cities, 85 to 95 percent of all CO emissions may

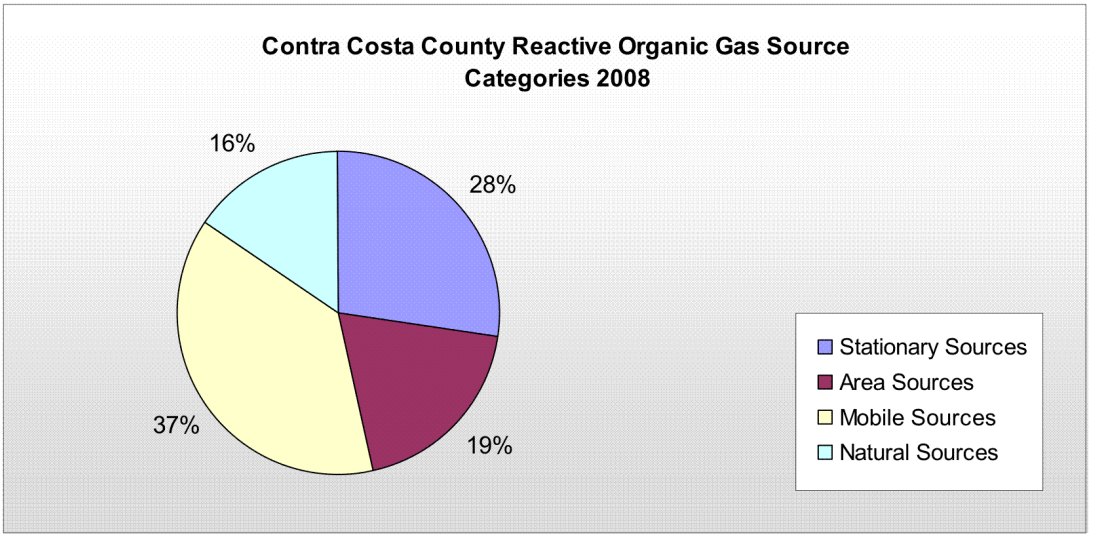
come from motor vehicle exhaust. Other sources of CO emissions include industrial processes (such as metals processing and chemical manufacturing), residential woodburning, and natural sources such as forest fires. Woodstoves, gas stoves, cigarette smoke, and unvented gas and kerosene space heaters are sources of CO indoors.

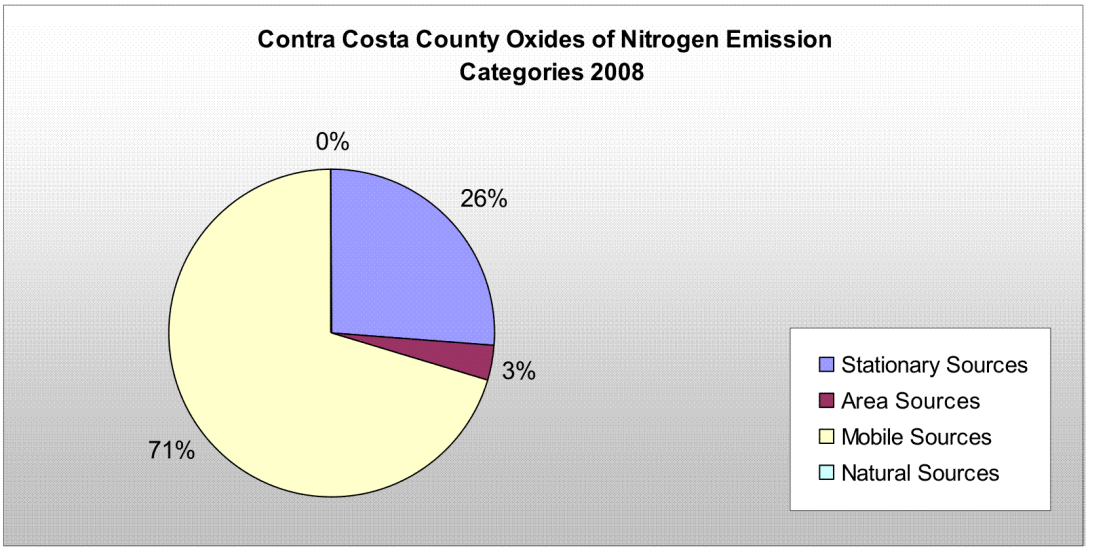
Contra Costa County is similar to many other portions of California and the United States in general in that a large portion of the CO emissions comes from mobile sources (80 percent), with the majority coming from passenger cars and trucks. NO_x is also dominated by mobile sources but to a lesser degree. Mobile sources comprise 71 percent of the NO_x inventory. Thirty-seven percent of the NO_x come from passenger cars and trucks, and 31 percent are from off-road equipment. In Contra Costa County, almost 30 percent of the ROG emissions come from on-road motor vehicles, 15 percent from biogenic sources, and 9 percent from consumer products. PM_{10} primarily comes from an emissions category called miscellaneous processes, which includes a variety of subcategories. In terms of Contra Costa County's emissions, these subcategories are primarily paved road dust, construction and demolition, and residential fuel combustion. Even though the majority of $PM_{2.5}$ also comes from the same subcategories, another significant source is combustion (21 percent), primarily from petroleum refineries.

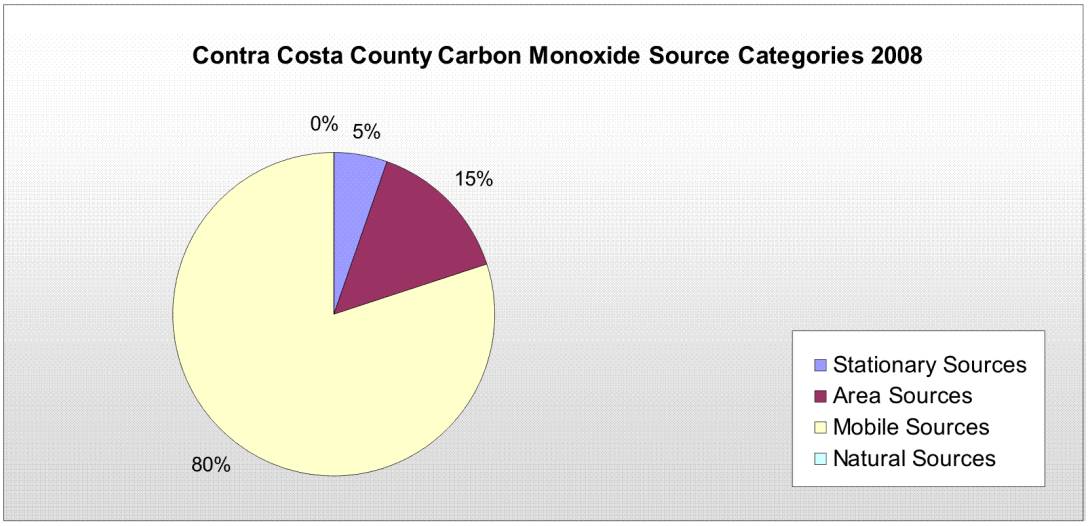
In 2005, BAAQMD released a Staff Report (BAAQMD 2005) that analyzes the sources of PM in the Bay Area. Based on 2000–2003 ambient air monitoring data, BAAQMD and CARB estimated that the $PM_{2.5}$ fraction of total PM accounted for approximately 60 percent of PM_{10} during the winter and approximately 45 percent during the rest of the year. On days when the PM standards are exceeded, $PM_{2.5}$ can account for as much as 90 percent of PM_{10}. On an annual basis, CARB estimated that $PM_{2.5}$ constituted approximately 50 percent of the PM_{10} levels.

Based on the inventory data, BAAQMD has determined that combustion activities such as residential woodburning, construction/demolition activities, road dust, and emissions from on- and off-road engines were identified as significant sources of PM_{10} emissions in the Bay Area. However, while the inventory was helpful in determining potential PM_{10} sources in the region, it did not provide the full picture of the makeup of the region's PM. The nature of particulates is that larger, coarser particles tend to settle out of the air closer to their emission source, while smaller particles, such as the size of $PM_{2.5}$, tend to remain suspended in the air longer and travel further.

BAAQMD's analysis showed that, for annual average $PM_{2.5}$, the largest source categories are on- and off-road motor vehicle exhaust and carbon from cooking and woodburning activities. These categories include both directly emitted PM and secondary PM, such as ammonium nitrate formed by atmospheric reactions of ammonia with nitrogen oxides from motor vehicles and other combustion sources. Geological dust was found to be a minor component of ambient PM.



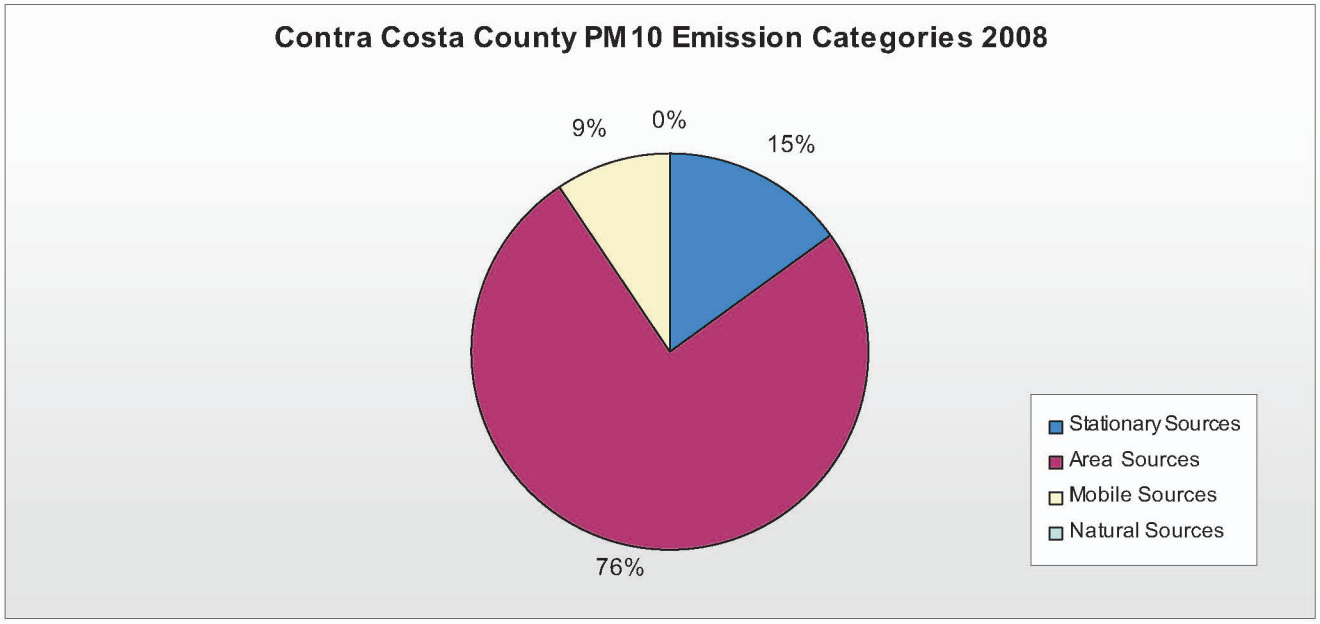


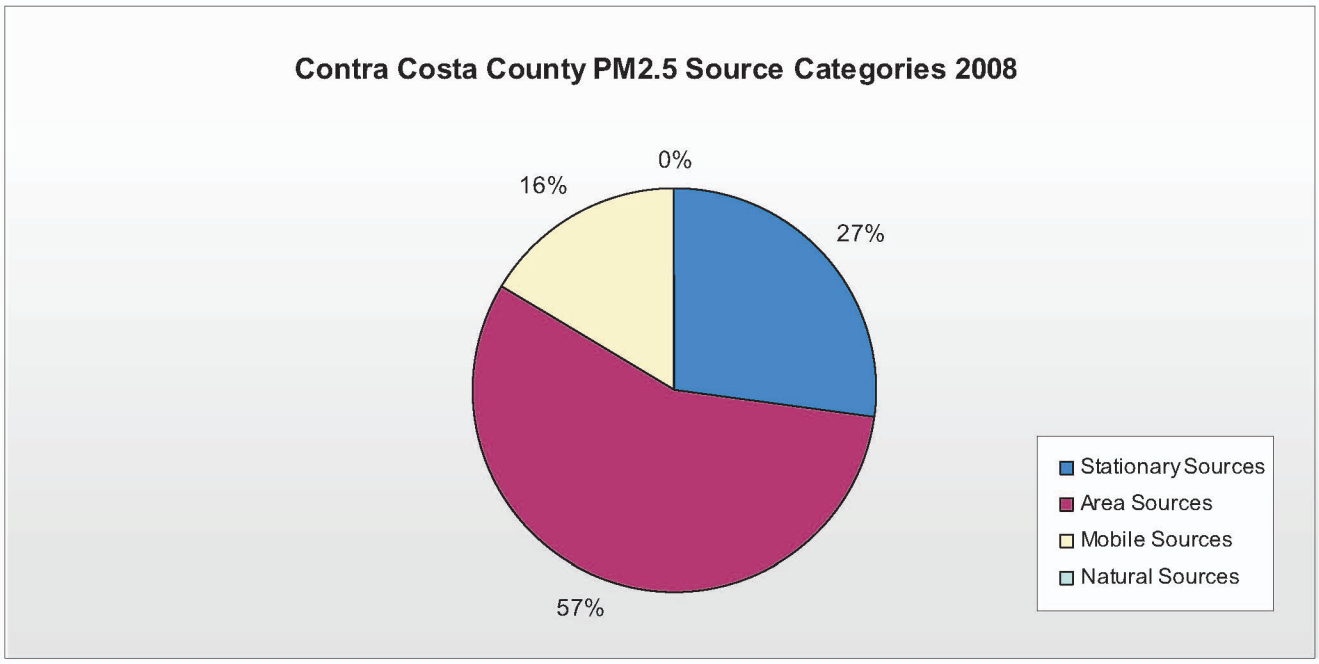


Source: CARB, 2009c.

Michael Brandman Associates

Exhibit 3
Contra Costa County Ozone Precursor and Carbon Monoxide Source Categories





Source: CARB (2009c).

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Exhibit 4
Contra Costa County Particulate Matter Source Categories (PM_{10} and $PM_{2.5}$)

Subsequently, it was determined that during the winter, residential wood smoke and cooking were major contributors to ambient PM. Combustion $PM_{2.5}$, which includes vehicle exhaust, was the second major component of $PM_{2.5}$ and a significant component of PM_{10}. Ammonium nitrate was also a principal component of ambient PM. Road dust and other dust-producing activities also contributed to ambient PM_{10} but not significantly to $PM_{2.5}$, and they had a more local impact.

Emission Trends

Emissions of several non-attainment pollutants have decreased substantially during the last two decades in the BAAQMD and in Contra Costa County. Exhibit 5 displays the emission trends for the ozone precursors ROG and NO_x and CO. PM emissions have remained relatively flat, even though population increased by 60 percent and vehicle miles traveled more than doubled during the last 18 years, as illustrated in Exhibit 6 (CARB 2009g).

2.3.4 - Local Air Quality

Stationary Emission Sources

There are currently no major stationary sources in the City of San Ramon. The facilities with reported emissions in CARB's emission inventory database consist of businesses that use solvents and paints, such as dry cleaners, electronics, auto body and paint shops, and businesses that have emergency generators and other small combustion sources. Table 3 provides the location and pollutants of concern for the stationary sources. Facilities in the City of San Ramon that were subject to the reporting requirements of Assembly Bill 2788 include Country Club Cleaners, Imperial Cleaners, and Vonnies One Hour Cleaners.

Table 3: Stationary Air Pollution Sources in the City of San Ramon

Company	Industrial Classification Code	Address	Pollutants of Concern
Aerotest Operations, Inc.	3844 – X-Ray Apparatus	3455 Fostoria Way	ROG
Albertson's, LLC	5411 – Grocery Stores	21001 San Ramon Valley Road	NO_x, CO
AT&T	4813 – Telephone Communications	9768 Broadmoor Drive	ROG, NO_x, PM_{10}, $PM_{2.5}$, benzene, formaldehyde, nickel
Bishop Ranch Veterinary Center	7261 - Crematories	2000 Bishop Drive	NO_x
Central Contra Costa Sanitary Pumping Station	4911 – Electric Services	9925 Mangos Drive	benzene, formaldehyde
Chevron Texaco Business	6552 – Land Subdividers and Developers	6001 Bollinger Canyon Road	ROG, NO_x, CO, PM_{10}, $PM_{2.5}$, benzene, formaldehyde, hydrochloric acid, nickel

Table 3 (cont.): Stationary Air Pollution Sources in the City of San Ramon

Company	Industrial Classification Code	Address	Pollutants of Concern
Club Sport San Ramon	7941 – Professional Sports Club	350 Bollinger Canyon Lane	ROG, NO_x, CO, benzene, formaldehyde
Cooks Collision	7532 – Repair and Paint Shops	2700 Hooper Drive	ROG, NO_x, isopropyl alcohol, toluene
Country Club Cleaners	7216 – Dry Cleaning Plants	500 Bollinger Way, Suite A4	Perchloroethylene (2,010 pounds/year)
D & S Auto Body	7532 – Repair and Paint Shops	38 Beta Court, Suite A3	ROG, isopropyl alcohol
Giga-Tronics, Inc.	3825 – Electrical Instruments	4650 Norris Canyon Road	Isopropyl alcohol
Hill Physicians Medical Group	8062 – General Medical and Surgical Hospitals	2401 Crow Canyon Road	Benzene, formaldehyde
Imperial Cleaners	7216 – Dry Cleaning Plants	2101 Camino Ramon, Suite 108	Perchloroethylene (310 pounds/year)
Lucky #770	5411 – Grocery Stores	21001 San Ramon Valley Road	Formaldehyde
Mendelson Autobody, Inc.	7532 – Repair and Paint Shops	38 Beta Court, A 5	ROG, MEK, toluene, xylenes
Odyssey Thera, Inc.	2834 – Pharmaceutical Preparations	4550 Norris Canyon Road, Ste 140	Formaldehyde
Pacific Bell	4813 – Telephone Communications	2600 Camino Ramon	ROG, NO_x, CO, benzene, formaldehyde
Pacific Gas and Electric	4931 – Electric & Other Services	3301 Crow Canyon Road	ROG, NO_x, CO, benzene, formaldehyde
San Ramon Body Shop	7532 – Top and Body Repair and Paint Shops	10 Beta Court, A	ROG, ethyl benzene, xylenes
San Ramon Marriot Hotel	7011 – Hotels and Motels	2600 Bishop Drive	NOx, benzene, formaldehyde
San Ramon Regional Medical Center	8062 – General Medical and Surgical Hospitals	6001 Norris Canyon Road	NO_x, benzene, formaldehyde
San Ramon Valley Fire District	9224 – Fire Protection	1500 Bollinger Canyon Road	NO_x, benzene, formaldehyde
San Ramon Valley Fire District	9224 – Fire Protection	1600 Bollinger Canyon Road	NO_x, benzene, formaldehyde
San Ramon Valley Fire District	9224 – Fire Protection	800 San Ramon Valley Boulevard	NO_x, benzene, formaldehyde
Save Mart #771	5411 – Grocery Store	3181 Crow Canyon Place	NO_x, CO
Sungard Recovery Services LP	4953 – Refuse Services	2481 Deerwood Drive	NO_x, benzene, formaldehyde

Table 3 (cont.): Stationary Air Pollution Sources in the City of San Ramon

Company	Industrial Classification Code	Address	Pollutants of Concern
Target Corporation	5311 – Department Stores	2610 Bishop Drive	Formaldehyde
The Home Depot	5311 – Department Stores	2750 Crow Canyon Road	Benzene, formaldehyde
Vonnies One Hour Cleaners	7216 – Dry Cleaning Plants	2217J San Ramon Valley Boulevard	Perchloroethylene (1,210 pounds/year)

Notes:
The emission inventory data provided here may have been developed over several years and is the most recent information available at CARB for 2007. Many facilities are only required to update their toxic emission data if there has been an increase in emissions. Therefore, the toxic emission data presented here should generally be viewed as maximum emission values which may have decreased since this information was reported. If you have questions regarding data updates, please contact the local air district. If facility has diesel-fueled internal combustion engines, then a portion of the PM_{10} is considered to be diesel exhaust PM_{10}.
Sources: CARB 2009g and BAAQMD 2007

Linear Sources

Linear sources are sources of air pollution that emit along a fixed path. Roadways and railways are the two dominant types of linear sources. Interstate Highway 680 (I-680) is the primary linear source affecting the City of San Ramon. I-680 runs generally south to north from San Jose to connect with Interstate Highway 80 (I-80) in Fairfield. The annual average daily trips on the most heavily used segment of I-680 in San Ramon is at Alcosta Boulevard, with 163,000 annual average daily trips in 2008 (Caltrans 2009). The CARB Air Quality Land Use Handbook provides guidance recommending that new sensitive land use types such as residences, schools, daycare centers, playgrounds and medical centers should not be planned within 500 feet of the a freeway or high traffic road with 100,000 vehicles per day for highways and urban roads and 50,000 vehicles per day on rural roads. The combination of the children's health studies and the distance-related findings suggests that it is important to avoid exposing children to elevated air pollution levels immediately downwind of freeways and high traffic roadways. These studies suggest a substantial benefit to a 500-foot separation. These recommendations are advisory. Land use agencies have to balance other considerations, including housing and transportation needs, economic development priorities, and other quality of life issues. Local conditions may affect the level of exposure at a particular site. If projects containing sensitive receptors are proposed within 500 feet of I-680, the City should require a more detailed analysis to assess the potential exposure levels (CARB 2005b).

Monitoring Data

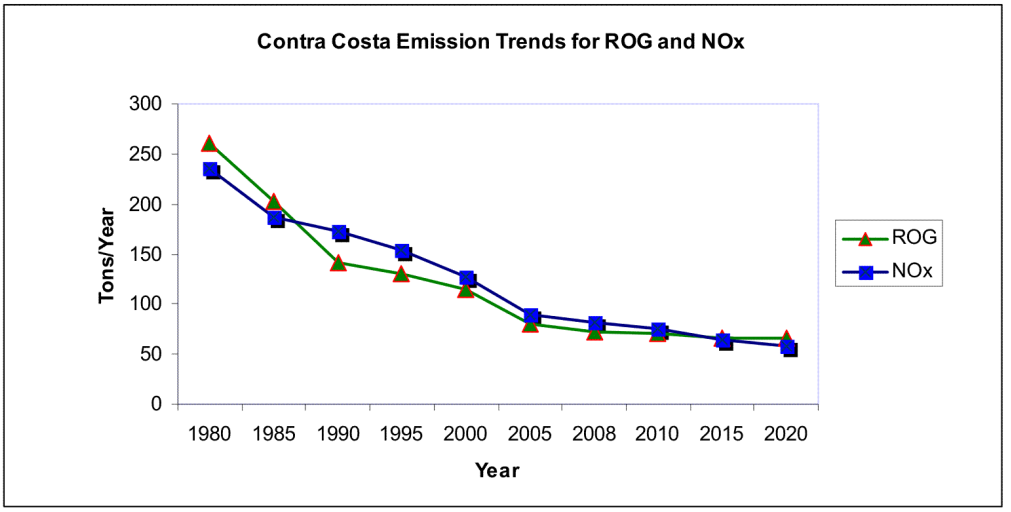
Meteorology acts on the emissions released into the atmosphere to produce pollutant concentrations. These airborne pollutant concentrations are measured throughout California at air quality monitoring sites. CARB operates a statewide network of monitors. Data from this network are supplemented with data collected by local air districts, other public agencies, and private contractors. There are more than 250 criteria pollutant monitoring sites in California. Each year, more than 10 million air

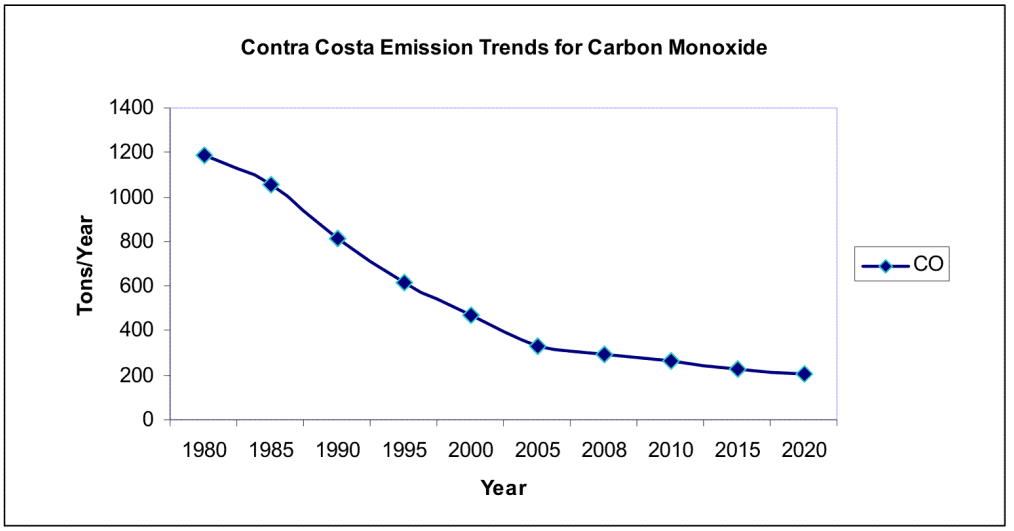
quality measurements from all of these sites are collected and stored in a comprehensive air quality database maintained by CARB.

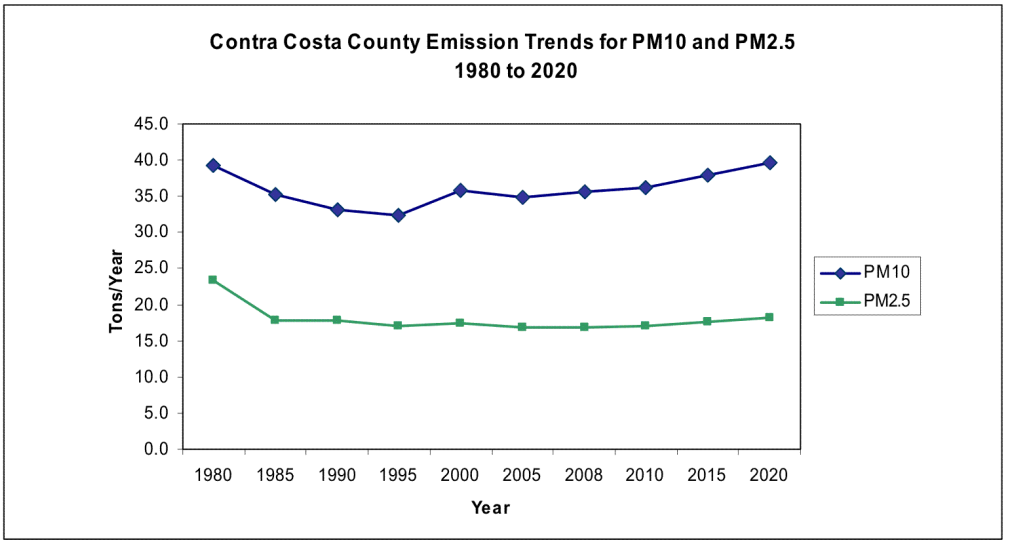
The air quality monitoring station closest to the City is located in Hayward on La Mesa Drive, approximately 8 miles to the south-southwest. The only pollutant measured at this station is ozone. The nearest monitoring station measuring ozone, particulate matter, carbon monoxide, and nitrogen dioxide is located in Livermore on Rincon Avenue, approximately 11 miles east-southeast of the City. Table 4 summarizes 2006 to 2008 published monitoring data. The data shows that federal ozone standards were exceeded on multiple days at the Livermore air monitoring station and two days in 2006 and one day in 2008 at the Hayward station. The state 1-hour standard for ozone was exceeded in year 2006 and 2008 at the Hayward station, and the state standard for PM_{10} was exceeded during a 24-hour period and as an annual average in 2006 and 2007. $PM_{2.5}$ standards were exceeded on 9 days during 2006 and 2007 and on two days during 2008. The data shows that no exceedances of state or federal standards for carbon monoxide or nitrogen dioxide were observed during this three-year period.

Table 4: Ambient Air Monitoring Data (2006–2008)

Air Pollutant, Averaging Time (Units)	2006	2007	2008
Ozone (Livermore)			
Max 1 Hour (ppm)	0.127	0.120	0.141
Days > State Standard (0.09 ppm)	13	2	5
Max 8 Hour (ppm)	0.101	0.091	0.110
Days > State Standard (0.07 ppm)	15	3	8
Days > NAAQS (0.08 ppm)	10	2	6
Ozone (Hayward)			
Max 1 Hour (ppm)	0.101	0.075	0.114
Days > State Standard (0.09 ppm)	2	0	1
Max 8 Hour (ppm)	0.071	0.065	0.087
Days > State Standard (0.07 ppm)	1	0	3
Days > National Standard (0.08 ppm)	0	0	1
Particulate Matter (PM_{10}) (Livermore)			
Mean ($\mu g/m^3$)	21.8	19.8	18.9
24 Hour ($\mu g/m^3$)	69.2	74.8	46.8
Days > State Standard (50 $\mu g/m^3$)	3	2	0
Days > National Standard (150 $\mu g/m^3$)	0	0	0
Particulate Matter ($PM_{2.5}$) (Livermore)			
Mean ($\mu g/m^3$)	11.1	9.0	10.1
24 Hour ($\mu g/m^3$)	50.8	54.9	52.7
Days > National Standard (35 $\mu g/m^3$)	9	9	2







Source: CARB (2009e).

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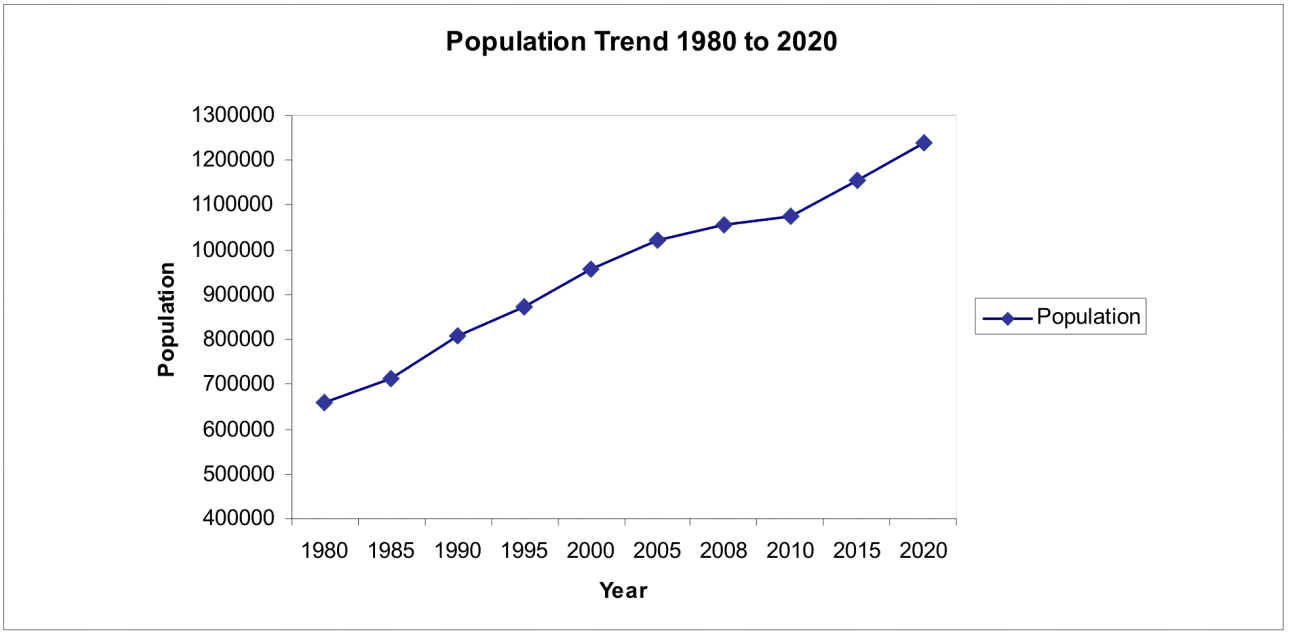
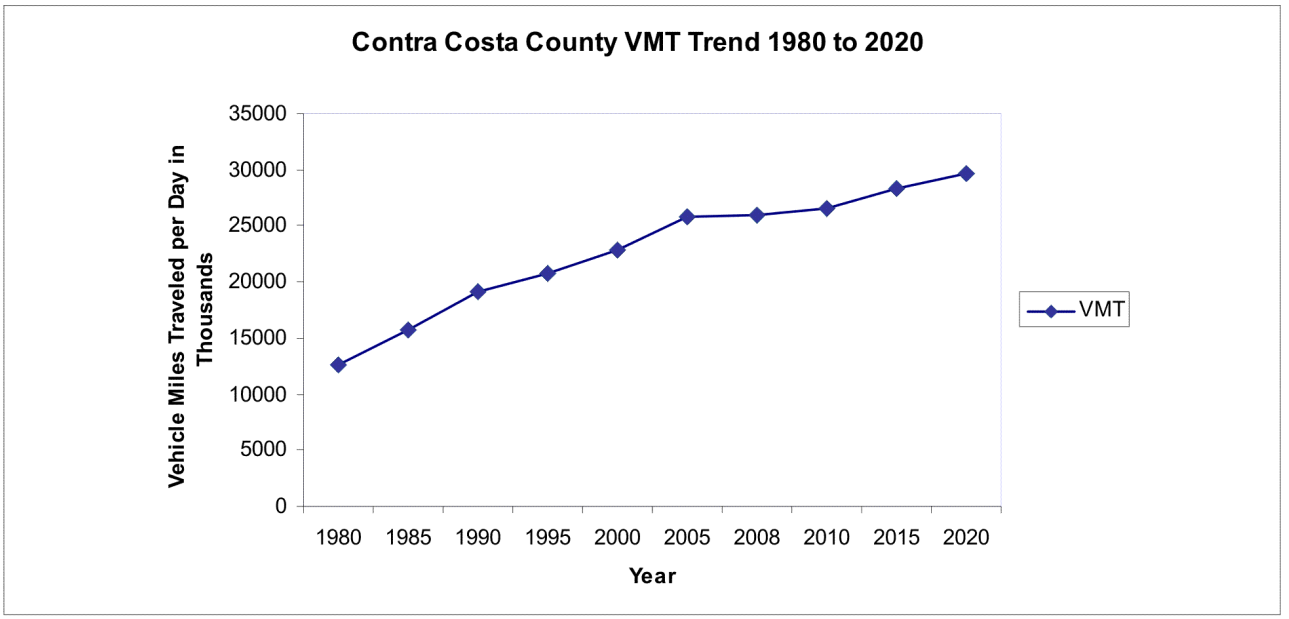
Exhibit 5
Contra Costa County Emission Trends





Source: CARB (2009g).

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Exhibit 6
Contra Costa County Population and VMT Trends 1980 - 2020

Table 4 (cont.): Ambient Air Monitoring Data (2006–2008)

Air Pollutant, Averaging Time (Units)	2006	2007	2008
Carbon Monoxide (Livermore)			
Max 8 Hour (ppm) Days > State Standard (9.0 ppm) Days > National Standard (9 ppm)	1.79 0 0	1.83 0 0	1.43 0 0
Nitrogen Dioxide (Livermore)			
Mean (ppm)	0.014	0.013	0.013
Max 1 Hour (ppm) Days > State Standard (0.25 ppm)	0.064 0	0.052 0	0.058 0

Abbreviations:
> = exceed ppm = parts per million $\mu g/m^3$ = micrograms per cubic meter
max = maximum Mean = Annual Arithmetic Mean
State Standard = California Ambient Air Quality Standard National Standard = National Ambient Air Quality Standard
Source: CARB 2009h.

2.3.5 - Sensitive Receptors

Certain populations, such as children, the elderly, and persons with preexisting respiratory or cardiovascular illness, are particularly sensitive to the health impacts of air pollution. For purposes of the California Environmental Quality Act (CEQA), the BAAQMD identifies sensitive receptors as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples include schools, hospitals and residential areas. Commercial and industrial facilities are not included in the definition because employees do not typically remain onsite for 24 hours. However, when assessing the impact of pollutants with 1-hour or 8-hour standards (such as nitrogen dioxide and carbon monoxide), commercial and/or industrial facilities would be considered sensitive receptors for those purposes.

The location of the source of pollutants relative to sensitive receptors is a major factor in determining whether it will result in localized air quality impacts. The potential for adverse air quality impacts increases as the distance between the source of emissions and members of the public decreases. Impacts on sensitive receptors are of particular concern.

2.3.6 - Attainment Status

Air basins where ambient air quality standards are exceeded are referred to as “nonattainment” areas. If standards are met, the area is designated as an “attainment” area. If there is inadequate or inconclusive data to make a definitive attainment designation, they are considered “unclassified.” National nonattainment areas are considered severe, serious, or moderate as a function of deviation from standards.

As shown in Table 5, the Bay Area is in nonattainment for the national and state 1-hour ozone standard and the state PM_{10} standard. As shown in the table, the Bay Area is in nonattainment for state 1-hour ozone standard, national 8-hour ozone standard, state 24-hour and annual PM_{10} standards, and state annual $PM_{2.5}$ standard. This means that the area experiences poor air quality at times.

Table 5: Bay Area Air Basin Attainment Status

Pollutant	Averaging Time	State Status	National Status
Ozone	1-hour	Nonattainment	Not Applicable[1]
	8-hour	Unclassified	Nonattainment[2]
Carbon monoxide	1-hour and 8-hour	Attainment	Attainment[3]
Nitrogen dioxide	1-hour	Attainment	Unclassified[4]
	Annual	No State standard	Attainment
Sulfur dioxide	24-hour; 1-hour	Attainment	Attainment
PM_{10}	24-hour	Nonattainment	Unclassified
	Annual	Nonattainment	No federal standard[5]
$PM_{2.5}$	24-hour	No State standard	Nonattainment[6]
	Annual	Nonattainment	Attainment

Notes:
1 The national 1-hour ozone standard was revoked by EPA on June 15, 2005.
2 In June 2004, the Bay Area was designated as a marginal nonattainment area of the national 8-hour ozone standard.
3 In April 1998, the Bay Area was redesignated to attainment for the national 8-hour carbon monoxide standard.
4 EPA set a new one-hour standard for nitrogen dioxide (NO_2) at a level of 100 parts per billion (ppb) on January 25, 2010, which will become effective April 12, 2010. EPA expects to identify or designate areas not meeting the new standard, based on the existing community-wide monitoring network, by January 2012
5 EPA revoked the annual PM_{10} standard on September 21, 2006.
6 EPA designated the Bay Area nonattainment of the 24-hour $PM_{2.5}$ standard on December 22, 2008 and the designation will go into effect 90 days after publication in the Federal Register.
Source: BAAQMD 2009b.

SECTION 3: GREENHOUSE GAS BACKGROUND

3.1 - Regulatory Setting for Greenhouse Gases

3.1.1 - International and National

International and national agreements have been enacted to cope with climate change issues. 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" (IPCC 2004).

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 (UNFCCC 2007).

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 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 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 Protocol to be formally ratified, the United States Congress must approve it. Congress did not do this during the Clinton Administration. Former President George W. Bush did not submit the Protocol to Senate to be ratified based on the exemption granted to China. President Barack Obama has not taken action regarding the Protocol because it is about to end.

The EPA currently does not regulate greenhouse gas emissions from vehicles. *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 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 held that petitioners have a standing to challenge the EPA and that the EPA has statutory authority to regulate greenhouse gases emissions from new motor vehicles.

On April 17, 2009, the EPA issued a proposed finding that greenhouse gases pose a threat to public health and welfare. Scientists around the world base EPA's proposed endangerment finding on rigorous, peer-reviewed scientific analysis of six gases that have been the subject of intensive analysis: carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur

hexafluoride. The science clearly shows that concentrations of these gases are at unprecedented levels because of human emissions, and these elevated levels are very likely the cause of the increase in average temperatures and other changes in our climate.

Congress first passed the Corporate Average Fuel Economy (CAFE) law in 1975. The purpose of CAFE is to increase the fuel economy of cars and light trucks thereby reducing energy consumption. The CAFE standards have 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. The new standards would cover model years 2012 through 2016 and would require an average fuel economy standard of 35.5 miles per gallon in 2016. EPA and the National Highway Traffic Safety Administration, on behalf of the Department of Transportation, released a notice of intent to conduct joint rulemaking to establish vehicle greenhouse gas emissions and CAFE standards in May 2009. It should be noted, however, that EPA's involvement in the joint rulemaking is dependant upon finalizing the endangerment finding discussed above, thereby providing regulatory authority over greenhouse gas emissions to the EPA.

3.1.2 - State

There have been significant legislative and regulatory activities that affect climate change and greenhouse in the State of California, as discussed below:

Assembly Bill (AB) 32

The California State Legislature adopted AB 32, the California Global Warming Solutions Act of 2006, which charged the CARB to develop regulations on how the state would address global climate change. AB 32 focuses on reducing greenhouse gas emissions in California. Greenhouse gases, as defined under AB 32, include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). AB 32 requires that greenhouse gases emitted in California be reduced to 1990 levels by the year 2020.

CARB is the state agency charged with monitoring and regulating sources of emissions of greenhouse gases that cause global warming in order to reduce emissions of greenhouse gases. By January 1, 2008, CARB was required to determine what the statewide greenhouse gas emissions level was in 1990, and approve a statewide greenhouse gas emissions limit to apply to the 2020 benchmark. CARB adopted the 1990 greenhouse gas emission inventory/2020 emissions limit of 427 million metric tons of carbon dioxide equivalent ($MMTCO_2e$) on December 6, 2007.

CARB then developed a document referred to as the "Scoping Plan" that assigns reduction targets to sectors responsible for the emissions. The Scoping Plan "proposes a comprehensive set of actions designed to reduce overall greenhouse gas emissions in California, improve our environment, reduce our dependence on oil, diversify our energy sources, save energy, create new jobs, and enhance public health." (CARB 2008). The measures in the Scoping Plan will be developed over the next two years through rule development at the CARB and other agencies, and are expected to be in place by 2012.

Local governments must achieve reductions through land use measures that will be substantially dependent on the General Plan for success. Statewide, CARB expects to target local governments with reducing greenhouse gas emissions by 5 million metric tons of CO_2 equivalent by 2020. Table 6 lists the Scoping Plan recommended reduction measures and the reductions that would be counted toward the 2020 target.

Table 6: CARB Scoping Plan Measures

Recommended Reduction Measures	Reductions Counted Towards 2020 Target ($MMTCO_2e$)	
Estimated Reductions Resulting From the Combination of CAP-and-Trade Program and Complementary Measures		**146.7**
California Light-Duty Vehicle Greenhouse Gas Standards • Implement Pavley standards • Develop Pavley II light-duty vehicle standards	31.7	—
Energy Efficiency • Building/appliance efficiency, new programs, etc. • Increase CHP generation by 30,000 GWh • Solar Water Heating (AB 1470 goal)	26.3	—
Renewables Portfolio Standard (33% by 2020)	21.3	—
Low Carbon Fuel Standard	15.0	—
Regional Transportation-Related Greenhouse Gas Targets	5.0	—
Vehicle Efficiency Measures	4.5	—
Goods Movement • Ship Electrification at Ports • System-Wide Efficiency Improvements	3.7	—
Million Solar Roofs	2.1	—
Medium/Heavy Duty Vehicles • Heavy-Duty Vehicle Greenhouse Gas Emission Reduction • (Aerodynamic Efficiency) • Medium- and Heavy-Duty Vehicle Hybridization	1.4	—
High Speed Rail	1.0	—
Industrial Measures (for sources covered under cap-and-trade program) • Refinery Measures • Energy Efficiency & Co-Benefits Audits	0.3	—
Additional Reductions Necessary to Achieve the Cap	34.4	—
Estimated Reductions from Uncapped Sources/Sectors		**27.3**
High Global Warming Potential Gas Measures	20.2	—
Sustainable Forests	5.0	—

Table 6 (cont.): CARB Scoping Plan Measures

Recommended Reduction Measures	Reductions Counted Towards 2020 Target ($MMTCO_2e$)	
Industrial Measures (for sources not covered under cap and trade program) • Oil and Gas Extraction and Transmission	1.1	—
Recycling and Waste (landfill methane capture)	1.0	—
Total Reductions Counted Towards 2020 Target		**174**
Other Recommended Measures		
State Government Operations	—	1-2
Local Government Operations	—	TBD
Green Buildings	—	26.0
Recycling and Waste • Mandatory Commercial Recycling • Other measures	—	9.0
Water Sector Measures	—	4.8
Methane Capture at Large Dairies	—	1.0
Source: CARB 2008		

As noted in the Scoping Plan, the projected total business-as-usual emissions for year 2020 (estimated as 596 $MMTCO_2e$) must be reduced approximately 30 percent to achieve the CARB's approved 2020 emission target of 427 $MMTCO_2e$. 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 renewable 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 will not be subject to the cap-and-trade emissions caps and requirements, and provide for additional greenhouse gas emission reductions as a margin of safety for achieving the emission target.

Senate Bill (SB) 375

Senate Bill 375 – Steinberg was signed by the Governor on September 30, 2008. The legislation addresses implementation of the 2006 Global Warming Act. The bill assures that the decisions about how to achieve greenhouse gas emissions from cars and light trucks will remain in the hands of locally elected officials. SB 375 aligns what have been three separate planning processes—one for transportation, one for housing, and one for reducing greenhouse gas emissions—into a single process. This will provide more certainty for General Plans and assures better coordination among state agencies.

SB 375 provides relief from CEQA for residential projects that are consistent with the regional plan to achieve greenhouse gas reductions. The bill also amends the housing element law, extending the amount of time that the state must approve most local housing elements from 5 to 8 years. It lays a solid foundation for a comprehensive approach to reducing greenhouse gas emissions from the land use and transportation sector. SB 375 harnesses funding and regulatory incentives, without mandates, to align transportation, housing, and land use planning.

Especially important for local government are the Sustainable Communities Strategy and the Alternative Planning Strategy requirements of the legislation. CARB must certify that the Sustainable Communities Strategy will achieve the region's greenhouse gas emission reduction targets. Projects outside the approved Sustainable Communities Strategy would not qualify for federal transportation funding. If CARB determines that a region's Sustainable Communities Strategy will not achieve the greenhouse gas emission reduction targets, the Metropolitan Planning Organization must prepare an Alternative Planning Strategy separate from the Regional Transportation Plan, identifying further measures needed to achieve the targets. Although these measures directly impact Regional Transportation Plans prepared by MTC, the success of the Sustainable Communities Strategy and Alternative Planning Strategy, if needed, hinges on the land-use decisions by San Ramon and the other jurisdictions in the Bay Area.

Senate Bill 375 enhances the CARB's ability to reach Assembly Bill 32 goals by directing CARB to develop regional greenhouse gas emission reduction targets to be achieved from the automobile and light truck sectors for 2020 and 2035. CARB appointed a Regional Targets Advisory Committee under Senate Bill 375 that is playing a major role in implementing the Scoping Plan by recommending factors and methodologies to CARB to adopt regional greenhouse gas emission allocations. The Regional Targets Advisory Committee made its recommendations to CARB in September 2009. The recommendations include use of travel modeling for greenhouse gas emissions, use a list of best management practices (BMP) for setting targets and developing a reduction strategy, and to provide a user-friendly tool to facilitate public review of the greenhouse gas reduction strategies adopted by all metropolitan planning organizations. CARB will also work with California's 18 Metropolitan Planning Organizations and Regional Transportation Planning Agencies to align their regional transportation, housing, and land-use plans, and to prepare a "sustainable communities strategy" to reduce the amount of vehicle miles traveled in their respective regions and demonstrate the region's ability to attain its greenhouse gas reduction targets. Spending less time on the road is the single most powerful way for California to reduce its carbon footprint.

Assembly Bill (AB) 1493 - Pavley

The Pavley Bill (Chapter 200, Statutes of 2002) was approved by the Legislature and signed by the Governor in July of 2002. The CARB approved regulations to implement the bill in September 2004. The bill directed the CARB to adopt regulations that achieve the maximum feasible and cost-effective reduction in greenhouse gas emissions from motor vehicles. The regulations were scheduled to take effect in 2006 following an opportunity for legislative review, and they would have applied to new passenger vehicles and light duty trucks beginning with the 2009 model year.

CARB in December 2005 requested a waiver of pre-emption from EPA for its greenhouse gas regulations for certain new motor vehicles. EPA denied that request on March 6, 2008. On January 21, 2009, CARB requested that EPA reconsider its previous waiver denial. On January 26, 2009, President Obama signed a Presidential Memorandum directing EPA to assess whether denial of the waiver based on California's application was appropriate in light of the Clean Air Act. On June 30, 2009, the EPA granted California the authority to implement greenhouse gas emission reduction standards for new passenger cars, pickup trucks and sport utility vehicles beginning with the 2009 model year (CARB 2009j).

The standards adopted by the Board are phased 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.

CARB staff estimates that the proposed regulation will reduce climate change emissions from the light-duty passenger vehicle fleet by an estimated 87,700 carbon-dioxide-equivalent (CO_2e) tons per day statewide in 2020 and by 155,200 CO_2e tons per day in 2030. This equates to an 18-percent reduction in climate change emissions from the light-duty fleet in 2020, and a 27-percent reduction in 2030.

Senate Bills 1078 and 107 and Executive Order S-14-08

SB 1078 (Chapter 516, Statutes of 2002) requires retail sellers of electricity, including investor owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. SB 107 (Chapter 464, Statutes of 2006) changed the target date to 2010. In November 2008, Governor Schwarzenegger signed Executive Order S-14-08, which expands the state's Renewable Energy Standard to 33 percent renewable power by 2020. Governor Schwarzenegger plans to propose legislative language that will codify the new higher standard.

Senate Bill 1368 (2006)

SB 1368 is the companion bill of AB 32 and was signed by Governor Schwarzenegger in September 2006. SB 1368 requires the California Public Utilities Commission to establish a greenhouse gas emission performance standard for baseload generation from investor owned utilities by February 1, 2007. The California Energy Commission must establish a similar standard for local publicly owned utilities by June 30, 2007. These standards cannot exceed the greenhouse gas emission rate from a baseload combined-cycle natural gas fired plant. The legislation further requires that all electricity provided to California, including imported electricity, must be generated from plants that meet the standards set by the Public Utilities Commission and the California Energy Commission.

Senate Bill 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, in December 2009, the California Natural Resources Agency released its 2009 California Climate Adaptation Strategy (CNRA 2009). The Strategy 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.

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. It also requires that a Low Carbon Fuel Standard for transportation fuels be established for California.

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.

Title 24 Energy Standards

Title 24, Part 6, of the California Code of Regulations, the Energy Efficiency Standards for Residential and Nonresidential Buildings, were established 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 efficiency technologies and methods. The 2005 Standards went into effect on October 1, 2005, superseding the 2001 Standards. Projects that apply for a building permit on or after this date must comply with the 2005 Standards. The Energy

Commission adopted the 2008 Standards on April 23, 2008, and the Building Standards Commission approved them for publication on September 11, 2008.

The effective date for the 2008 Building Energy Efficiency Standards has been changed from August 1, 2009 to January 1, 2010. The requirement for when the 2008 Standards must be followed is dependent on when the application for the building permit is submitted. If the application is submitted on or after January 1, 2010, the 2008 Standards must be met.

California's building efficiency standards (along with those for energy efficient appliances) have saved more than $56 billion in electricity and natural gas costs since 1978. It is estimated the standards will save an additional $23 billion by 2013 (CEC 2009).

Renewables Portfolio Standard

Established in 2002 under Senate Bill 1078 and accelerated in 2006 under Senate Bill 107, California's Renewables Portfolio Standard is one of the most ambitious renewable energy standards in the country. The Renewables Portfolio Standard program requires electric utility corporations to increase procurement of eligible renewable energy resources by at least 1 percent of their retail sales annually, until they reach 20 percent by 2010. The Governor signed Executive Order S-14-08 on August 17, 2008 that increases the renewables mandate to 33 percent by 2020.

The California Public Utilities Commission (CPUC) and the California Energy Commission jointly implement the Renewables Portfolio Standard program. The CPUC's responsibilities include:

- Determining annual procurement targets and enforcing compliance
- Reviewing and approving each Independently Operated Utility's renewable energy procurement plan. Reviewing Independently Operated Utility contracts for Renewables Portfolio Standard-eligible energy
- Establishing the standard terms and conditions used by Independently Operated Utility in their contracts for eligible renewable energy
- Calculating market price referents for non-renewable energy that serve as benchmarks for the price of renewable energy

3.1.3 - Bay Area Air Quality Management District

The BAAQMD is one of the most progressive air districts in the State concerning greenhouse gas and climate change issues. In 2005, the BAAQMD initiated a Climate Protection Program, and on June 1, 2005, the District Board of Directors adopted a resolution establishing a Climate Protection Program, acknowledging the link between climate protection and programs to reduce air pollution in the Bay Area. A central element of the BAAQMD's climate protection program is the integration of climate protection activities into existing BAAQMD programs. In addition, the BAAQMD's climate protection program emphasizes collaboration with ongoing climate protection efforts at the local and

state levels, public education and outreach, and technical assistance to cities and counties. In November 2006, the BAAQMD prepared a District-wide Source Inventory of Bay Area Greenhouse Gas Emissions.

On May 21, 2008, the BAAQMD's Board of Directors approved a new fee on air pollution sources in the region to help defray the costs of the BAAQMD's climate protection work. Industrial facilities and businesses that are currently required to submit an air quality permit to operate will have the modest fee of 4.4 cents per metric ton of greenhouse gas emissions added to their permit bill. The fee will apply to Climate Protection Program activities related to stationary sources.

The BAAQMD has developed California Environmental Quality Act Air Quality Guidelines (BAAQMD 2009d). The BAAQMD Board will consider adoption of the Guidelines at a hearing in June 2010. The purpose of the Guidelines is to assist lead agencies in evaluating air quality impacts of projects and plans proposed in the Basin. The Guidelines contain guidance on how to determine the significance of a project's emissions of greenhouse gases.

3.2 - Greenhouse Gases and Climate Change

3.2.1 - General Background Information

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. Without the natural heat-trapping effect of greenhouse gas, the earth's surface would be about 34°C cooler (CAT 2006). 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.

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.

Global warming is a global problem, and greenhouse gases are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern. Worldwide, if California were considered a separate country, it would rank as the 16th largest emitter of

greenhouse gases (CEC 2006). In 2004, California produced 492 million gross metric tons of carbon dioxide equivalent (CEC 2006).

Various local and statewide initiatives to reduce the State's contribution to greenhouse gas emissions have raised awareness that, even though the possible outcomes and feedback mechanisms associated with climate change are not yet fully understood, global warming is already upon us, and the potential for environmental, social, and economic disaster over the long term is great. Cooperation on a global scale will be required to reduce greenhouse gas emissions to a level that will slow the warming trend, and the direct air quality impact of increasing greenhouse gas emissions into the global system is incrementally cumulative.

Direct and Indirect Aerosol Effects

Aerosols, including particulate matter, reflect sunlight back to space. As attainment designations for particulate matter are met and fewer particulate matter emissions occur, the cooling effect of anthropogenic aerosols would be reduced, and, instead, the greenhouse effect would be further enhanced. Similarly, aerosols act as cloud condensation nuclei to aid in cloud formation and increase cloud lifetime. Clouds efficiently reflect radiation back to space. The indirect effect of aerosols on clouds and precipitation efficiency would be reduced, amplifying the greenhouse effect again.

Aerosols are short-lived particles, as they remain in the atmosphere for about one week. Black carbon is a component of aerosol. Studies have indicated that black carbon has a high global warming potential; however, the IPCC states that it has a low level of scientific certainty (IPCC 2007).

Ozone

Ozone is a greenhouse gas; however, unlike the other greenhouse gases, ozone in the troposphere is relatively short-lived and can be reduced in the troposphere on a daily basis.

The Cloud Effect

As global temperature rises, the ability of the air to hold moisture increases, and facilitation of cloud formation occurs. If the increase in cloud cover occurs at low or middle altitudes, resulting in clouds with greater liquid water path such as stratus or cumulus clouds, more radiation would be reflected back to space, resulting in a negative feedback, wherein the side effect of global warming acts to balance itself. If cloud formation occurs at higher altitudes in the form of cirrus clouds, these clouds actually allow more light to pass through than they reflect and, ultimately, act as greenhouse gases themselves, resulting in a positive feedback wherein the side effect of global warming acts to enhance the process. This feedback mechanism, known as the Cloud Effect, is poorly understood. Although water vapor is a greenhouse gas, water vapor emitted from evaporated water from human activities is not considered a significant source of global warming, because water vapor concentrations in the upper atmosphere are primarily due to climate feedbacks rather than emissions from project-related activities.

Other Feedback Mechanisms

As global temperature continues to rise, methane gas, which is trapped in permafrost, would be released into the atmosphere. Methane is approximately 20 times as efficient a greenhouse gas as CO_2. This phenomenon would accelerate and enhance the warming trend. As polar and sea ice extent continues to diminish, the Earth's albedo, or reflectivity, would decrease simultaneously. More incoming solar radiation would be absorbed by the Earth rather than being reflected back to space, further enhancing the greenhouse effect and associated global warming. These and other competing feedback mechanisms are still in the process of being coupled and forecast by the scientific community. It is not known at this time how the ultimate balance among all the variables will be equated to a particular temperature increment. Regardless, there is no longer debate within the scientific community that anthropogenic greenhouse gas emissions are linked to a trajectory of unnatural warming of the planet.

Greenhouse Gases and Impacts on Global Climate Change

Parts of the Earth's atmosphere act as an insulating blanket of just the right thickness, trapping sufficient solar energy to keep the global average temperature in a suitable range. The blanket is a collection of atmospheric gases called greenhouse gases, which is based on the idea that the gases also trap heat like the glass walls of a greenhouse. These gases—water vapor, carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), ozone, chlorofluorocarbons (CFCs), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6)—act as effective global insulators, reflecting back to Earth visible light and infrared radiation. Human activities such as producing electricity and driving vehicles have elevated the concentration of these gases in the atmosphere. Many scientists believe that this, in turn, is causing the Earth's temperature to rise, although other scientists disagree. A warmer Earth may lead to changes in rainfall patterns; much smaller polar ice caps; a rise in sea level; and a wide range of impacts on plants, wildlife, and humans.

3.2.2 - Greenhouse Gas Descriptions

Some greenhouse gases occur naturally in the atmosphere, while others result from human activities. Naturally occurring greenhouse gases include water vapor, carbon dioxide, methane, nitrous oxide, and ozone. Certain human activities, however, add to the levels of most of these naturally occurring gases.

The most common greenhouse gases, and those which are identified in AB 32, the Global Warming Solutions Act of 2006 and are discussed in this report, are carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.

The global warming potential (GWP) is the potential of a gas or aerosol to trap heat in the atmosphere. The GWP of a gas is essentially a measurement of the greenhouse gas compared with the reference gas, carbon dioxide; carbon dioxide has a GWP of 1. The greenhouse gases of concern are summarized in Table 7.

Individual greenhouse gas compounds have varying GWP and atmospheric lifetimes. 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 metric. Methane's warming potential of 21 indicates that methane has a warming effect 21 times greater than that of carbon dioxide on a molecule per molecule basis. A carbon dioxide equivalent is the mass emissions of an individual greenhouse gas multiplied by its GWP.

Table 7: Greenhouse Gas Descriptions

Greenhouse Gas	Description and Physical Properties	Sources
Water Vapor	Water vapor is the most abundant, important, and variable greenhouse gas. In the atmosphere, it maintains the climate necessary for life.	Evaporation from the ocean and other water bodies, sublimation of ice and snow, and transpiration from plants.
Ozone (O_3)	Ozone is a short-lived local greenhouse gas and photochemical pollutant. Tropospheric ozone changes contribute to radiative forcing on a global scale. GWPs for short-lived greenhouse gases, such as ozone and aerosols, are not defined by the IPCC.	Ozone is formed from reactions of ozone precursors (nitrogen oxides [NO_x] and volatile organic compounds [VOC]) and sunlight in the atmosphere. VOC and NO_x are emitted from automobiles, solvents, and fuel combustion.
Aerosols	Aerosols are particulate matter that can be suspended in the atmosphere for about a week. Aerosols warm the atmosphere by absorbing heat and cool the atmosphere by reflecting light. There is a low scientific understanding of the radiative forcing of individual aerosols. Black carbon is an aerosol that can cause warming from deposition on snow and from suspensions in air.	Sulfate aerosols are emitted when fuel with sulfur is burned. Black carbon (or soot) is emitted during biomass burning and incomplete combustion of fossil fuels (such as diesel fuel).
Methane (CH_4)	Methane is a flammable gas and is the main component of natural gas. GWP = 21.	A natural source of methane is from the anaerobic decay of organic matter. Methane is extracted from geological deposits (natural gas fields). Other sources are from landfills, fermentation of manure, and cattle.
Nitrous oxide (N_2O)	Nitrous oxide is also known as laughing gas and is a colorless greenhouse gas. GWP = 310.	Microbial processes in soil and water, fuel combustion, and industrial processes.
Carbon dioxide (CO_2)	Carbon dioxide is an odorless, colorless, natural greenhouse gas. GWP = 1.	Carbon dioxide is emitted from natural and anthropogenic sources. Natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing.

Table 7 (cont.): Greenhouse Gas Descriptions

Greenhouse Gas	Description and Physical Properties	Sources
Carbon dioxide (CO_2) (*cont.*)		Anthropogenic sources are from burning coal, oil, natural gas, and wood.
Chloro-fluorocarbons (CFCs)	CFCs are gases formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth's surface). GWPs range from 3,800 to 8,100.	CFCs were first 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.
Hydrofluorocarbons (HFCs)	The HFCs with the largest measured atmospheric concentrations are HFC-23 and HFC-134a (10 ppt), and HFC-152a (1 ppt). GWPs: HFC-23 = 11,700, HFC-134a = 1,300, HFC-152a = 140.	HFCs are synthetic manmade chemicals that are used as a substitute for CFCs in applications such as automobile air conditioners and refrigerants.
Perfluorocarbons (PFCs)	PFCs have stable molecular structures and only break down by ultraviolet rays about 60 kilometers above Earth's surface. Because of this, PFCs have very long lifetimes, between 10,000 and 50,000 years. GWPs range from 6,500 to 9,200.	Two main sources of PFCs are primary aluminum production and semiconductor manufacturing.
Sulfur hexafluoride	Sulfur hexafluoride is an inorganic, odorless, colorless, and nontoxic, nonflammable gas. Concentrations in the 1990s were about 4 ppt. It has the highest GWP of any gas evaluated, 23,900.	It is manmade and used for insulation in electric power transmission equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas.

Notes:
ppm = parts per million; ppt = parts per trillion (measure of concentration in the atmosphere); GWP = global warming potential.
Source: Compiled from a variety of sources, including EPA 2006a and IPCC 2007.

3.3 - Greenhouse Gas Inventories and Source Descriptions

3.3.1 - Greenhouse Gas Inventories

A comparison of major sources of greenhouse gas emissions at the state, county, and city level illustrates the scale of emissions. The most current year available was used for each inventory summary. A summary of California's greenhouse gas inventory for 2006 is provided in Table 8.

Table 8: California Greenhouse Gas Emissions Inventory in 2006 by Sector

Sector	2006 Emissions ($MTCO_2e$/year)	Percentage of Inventory
Transportation	185,770,000	38.4
Electric Power	105,920,000	21.9
Commercial and Residential Fuel Use	44,370,000	9.2
Industrial Fuel Use	96,050,000	19.9
Recycling and Waste	6,310,000	1.3
High GWP	15,150,000	3.1
Agriculture	30,130,000	6.2
Forestry	190,000	0.0
Total Emissions	**483,890,000**	**100.0**

Notes:
$MTCO_2e$/year = metric tons of carbon dioxide equivalents per year. Sequestration of emissions from forestry activities are not included. Emission categories are as defined in the CARB Scoping Plan.
Source: CARB 2009i California Greenhouse Gas Inventory for 2000-2006 by Category as Defined in the Scoping Plan, last updated March 13, 2009.

Emissions at the County level are dominated by industrial sources (Table 9). This reflects the presence of the large oil refineries and other industrial sources along the Carquinez Straits. Power generation and transportation are also important with 17.8 and 17.1 percent of the emissions, respectively.

Table 9: Contra Costa County Greenhouse Gas Emissions Inventory in 2007 by Sector

Sector	2007 Emissions ($MTCO_2e$/year)	Percentage of Inventory
Industrial/Commercial Fuel Combustion	19,178,675	59.9
Residential Fuel Combustion	1,060,743	3.3
Electricity/Co-Generation	5,709,099	17.8
Off-Road Equipment	405,913	1.3
Transportation	5,474,136	17.1
Agriculture/Farming	190,867	0.6
Total Emissions	**32,019,421**	**100.0**

Notes:
$MTCO_2e$/year = metric tons of carbon dioxide equivalents per year.
Source: BAAQMD 2008 (Source Inventory of Bay Area Greenhouse Gas Emissions, December 2008, Table M)

In contrast to Contra Costa County as a whole, the City of San Ramon has limited industrial emissions. As shown in Table 10 and Exhibit 7, greenhouse gas emissions for San Ramon are dominated by transportation sources with 80.4 percent of the total emissions. Emissions from

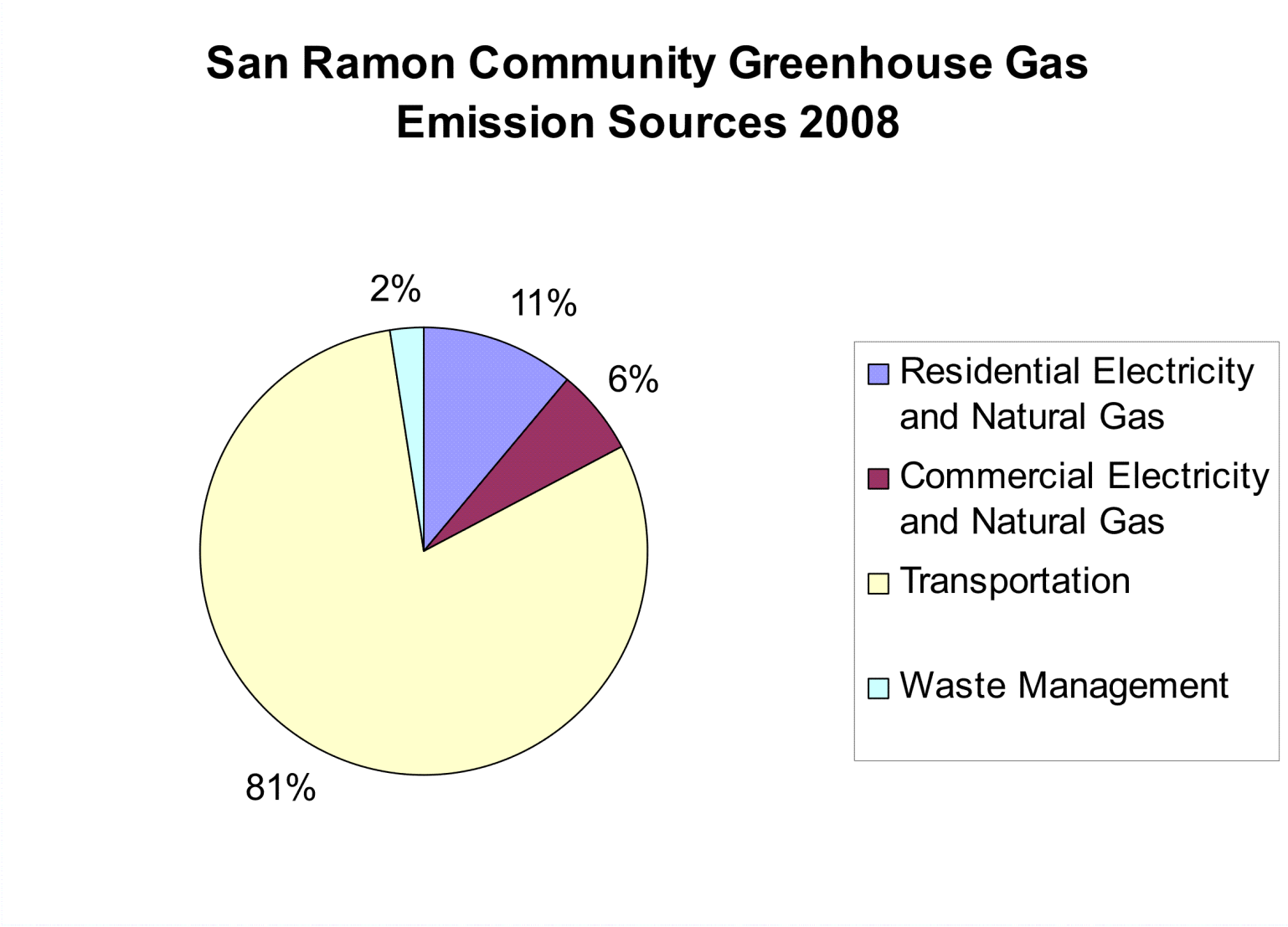
residential and commercial indirect electricity generation and fuel combustion comprise 11.1 percent and 6.1 percent, respectively. More detailed inventories for the City of San Ramon are provided in Appendix A of this report.

Table 10: City of San Ramon Community Greenhouse Gas Emissions in 2008 by Sector

Sector	2008 Emissions ($MTCO_2e$/year)	Percentage of Inventory (%)	Energy (MMBtu)
Residential			
Residential Electricity and Natural Gas	64,197	11.1	1,805,402
Commercial			
Commercial Electricity and Natural Gas	35,394	6.1	1,368,479
Transportation			
Local Roads Gasoline and Diesel (state highways and local roads)	464,992	80.4	6,706,810
Waste			
Alternative Daily Cover	2,010	0.3	—
Total Landfilled Waste without Alternative Daily Cover	11,805	2.0	—
Subtotal Waste	13,815	2.4	—
Total	**578,380**	**100.0**	**9,880,692**

Notes:
$MTCO_2e$/year = metric tons of carbon dioxide equivalents per year. MMBtu = million metric British thermal units.
Generated for San Ramon using STAPPA/ALAPCO and ICLEI's Clean Air and Climate Protection Software developed by Torrie Smith Associates, Inc.
Source: City of San Ramon (2009a)

Table 11 provides the greenhouse gas emission inventory for City of San Ramon government operations. Emissions from government operations are dominated by electricity and natural gas consumption in City buildings, streetlights, and other City operations. Exhibit 8 illustrates the percentages of emissions from each major San Ramon government source category.



Source: City of San Ramon (2009a).

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Exhibit 7
San Ramon Greenhouse Gas Emissions 2008

Table 11: City of San Ramon Government Greenhouse Gas Emissions in 2008

Sector	2008 Emissions ($MTCO_2e$/year)	Percentage of Inventory (%)	Energy (MMBtu)	Cost ($)
Buildings				
Electricity	73	6.0	25,362	1,165,755
Natural Gas	950	78.5	17,758	192,772
Subtotal Buildings, Streetlight &Operations	1,023	84.5	43,20	1,358,527
Vehicle Fleet				
Gasoline	17	1.4	6,708	0
Compressed Natural Gas	1	0.1	1,039	0
Ultra Low Sulfur Diesel	1	0.1	980	0
Subtotal Vehicle Fleet	19	1.5	8,727	0
Waste				
Paper Products	109	9.0	—	0
Food Waste	44	3.6	—	0
Plant Debris	4	0.4	—	0
Wood/Textiles	12	1.0	—	0
Subtotal City Facilities & Public Receptacles	169	13.9	—	0
Total	**1,210**	**100.0**	**51,847**	**1,358,527**

Notes:
$MTCO_2e$/year = metric tons of carbon dioxide equivalents per year. MMBtu = million metric British thermal units.
Generated for San Ramon using STAPPA/ALAPCO and ICLEI's Clean Air and Climate Protection Software developed by Torrie Smith Associates, Inc.
Source: City of San Ramon (2009a)

3.3.2 - Detailed Sources Discussion

Transportation Sources

Transportation is the largest source of greenhouse gas emissions in California and in San Ramon. Combustion of carbon-based fuels such as gasoline and diesel in our cars and trucks comprises about 80 percent of the greenhouse gases in San Ramon's 2008 emissions inventory. CARB at the state level and the EPA at the federal level are responsible for emissions at the vehicle tailpipe, including greenhouse gases. CARB and EPA are in the process of implementing regulations mandating vehicle manufacturers to improve fuel efficiency and thereby emit less CO_2 per mile driven. CARB is also developing regulations on the carbon content of the fuels themselves. Programs and strategies aimed at reducing the amount people drive their vehicles or that encourage the use of alternatives to the motor vehicle are primarily a regional and local responsibility.

Local governments have several ways in which to reduce driving and to increase the use of transportation alternatives. The most effective is through local government control over land use and the local transportation system. The land use pattern and circulation system defines whether a locale is oriented to walking, bicycling, and transit as transportation alternatives. If the design and layout of development of the various land uses and the street pattern are strictly automobile oriented, only a small fraction of residents or employees will choose alternatives. Places that are oriented to alternative modes of transportation have much higher numbers of people choosing alternatives. The second way local government can make a difference is through infrastructure that supports alternative modes. For example, the City can construct transit centers, bicycle paths and lanes, complete sidewalks, and provide safe street designs that make using alternative modes more convenient and improve safety. The third way local governments can help is through programs that provide incentives for people to use alternatives such as guaranteed ride home and transit subsidies.

The most commonly used measure of vehicle use is vehicle miles traveled (VMT). The VMT in Contra Costa County has been growing in step with population. Table 12 below and Exhibit 6 provided earlier in this report illustrate the extent of growth in population since 1980 and projections to 2020. Improvements in transit service and other programs have made some progress in reducing the rate of increase in VMT. Obtaining substantial additional reductions in VMT to achieve greenhouse gas reduction targets will require focused effort and changes in people's behavior.

Table 12: Contra Costa County Vehicle Miles Traveled (VMT) 1980 to 2020

	1980	1985	1990	1995	2000	2005	2010	2015	2020
Population	658,500	710,900	806,315	872,804	956,197	1,021,555	1,075,931	1,156,737	1,237,544
Avg. Daily VMT/ 1000[1]	12,629	15,708	19,083	20,742	22,858	25,768	26,550	28,340	29,621

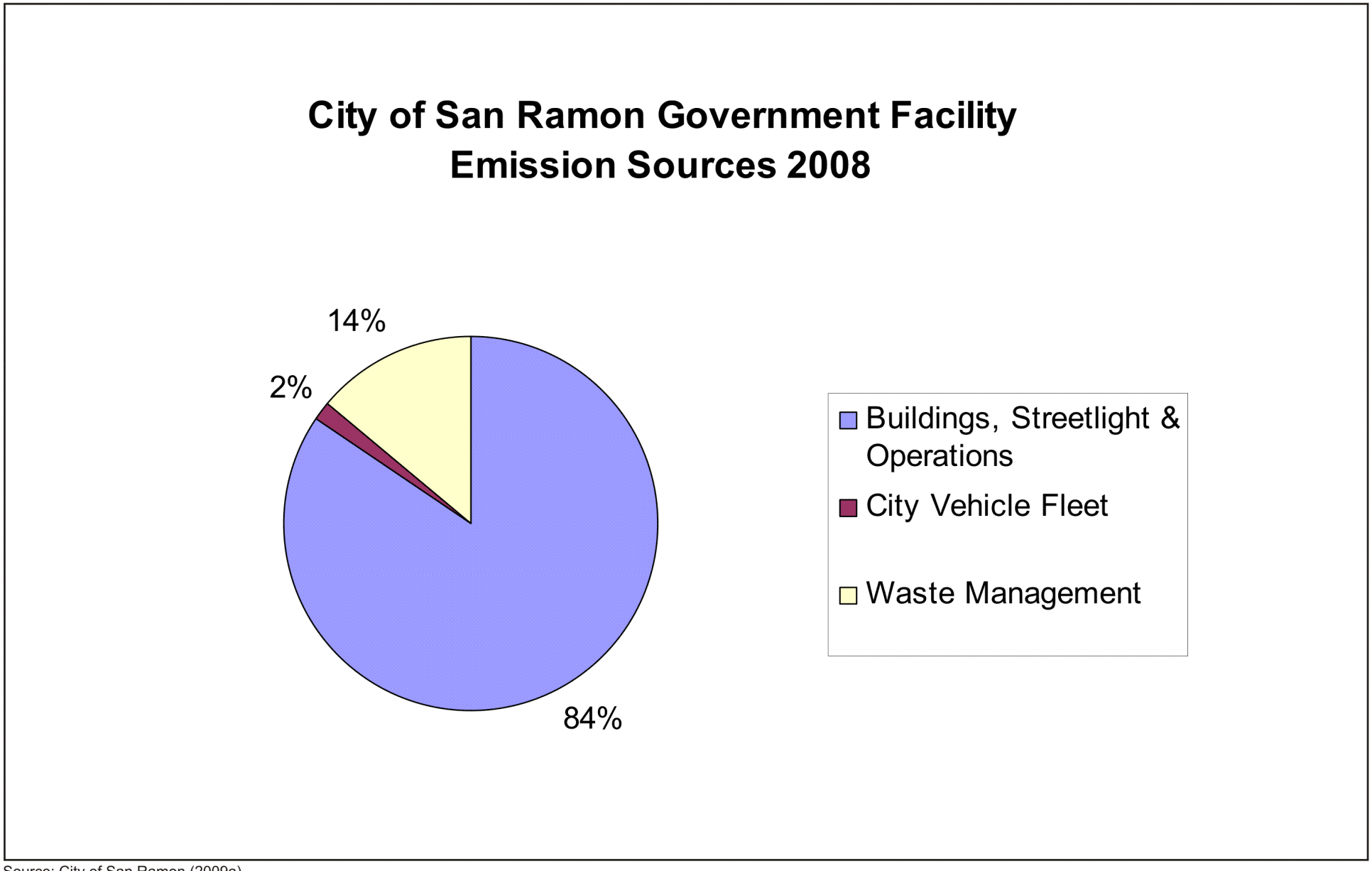
Notes:
[1] Average Daily Vehicle Miles Traveled divided by 1,000.
Source: CARB 2009f

The MTC compiles traffic and travel data and forecasts useful in understanding the amount of current and projected travel. The following information from the MTC superdistrict for San Ramon/Danville (Table 13) provides the average trip length for residents of the area and for all work trips.

Table 13: San Ramon/Danville Average Trip Length

Trip End[1]	Total Work Trips		Average Work Trip Length (Miles)	
	2006 Base Year	2035 Baseline	2006 Base Year	2035 Baseline
Danville/San Ramon Residents	97,216	173,546	14.83	14.13
Danville/San Ramon Work-End	83,926	128,961	14.06	12.36

Notes:
[1] Trip ends refer to the destination of a one way trip - in this case, the trip to work.
Source: MTC 2007



Source: City of San Ramon (2009a).

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Exhibit 8
San Ramon Government Facility Emission Sources 2008

Table 13 shows a large increase in work trips for San Ramon and a small decrease in the trip length for residents between 2006 and 2035. This means that the average commuter from San Ramon is expected to continue to drive similar distances to work in the future. For people driving to worksites in San Ramon, the prospects are somewhat better. The work trip length is projected to decrease from 14.06 miles to 12.36 miles per trip, indicating that on average, workers will live closer to places of employment in San Ramon.

Another commonly used measurement of the extent of use of alternative modes of transportation is mode share. Table 14 and Table 15 present the following information from MTC travel forecasts of the percentages of work trips by mode and all trips by mode for the Bay Area.

Table 14: Bay Area Work Trips by Mode – 2000 and 2030

Mode Share	2000	2030	Change
Drive Alone	71.0%	68.1%	-2.9%
Carpool	13.7%	13.9%	+0.2
Transit	10.9%	13.3%	+2.4%
Walk	3.3%	3.3%	—
Bicycle	1.1%	1.4%	+0.3%
Source: MTC 2005b			

Table 15: Bay Area All Trips by Mode – 2000 and 2030

Mode Share	2000	2030	Change
Auto	83.7%	82.8%	-0.9%
Walk	9.2%	9.2%	—
Transit	5.6%	6.6%	+1.0%
Bicycle	1.5%	1.4%	-0.1%
Source: MTC 2005b.			

Table 16 provides a more detailed look at mode share for Contra Costa County. The total drive alone and transit share is about the same as the Bay Area average. Contra Costa County tied with Alameda County for the highest share of commute trips by Bay Area Rapid Transit (BART) and is the second most likely county to carpool (RIDES Commute Profile 2003).

Table 16: Contra Costa County Primary Commute Mode – 2003

Commute Mode	Percentage
Drive Alone	64
Carpool	20
Bay Area Rapid Transit (BART)	11
Bus	2
Telecommute	2
Walk	1
Vanpool	<1
Bicycle	<1
Motorcycle	<1
Source: RIDES Commute Profile, 2003 (RIDES 2003).	

Table 17 provides the Contra Costa County modes of travel from 1993 to 2003 from regional travel surveys. The data shows that there is some year-to-year variability in the use of the different travel modes, but that the rates have remained relatively consistent.

Table 17: Contra Costa County Commute Modes Over Time

Mode	1993	1994	1996	1999	2000	2001	2002	2003
Drive Alone	64%	69%	67%	66%	66%	70%	66%	64%
Carpool	22%	17%	17%	13%	16%	19%	23%	20%
Transit	12%	12%	15%	16%	16%	9%	8%	13%
Other	3%	2%	2%	5%	3%	2%	4%	4%
Source: RIDES Commute Profile, 2003 (RIDES 2003)								

Existing Residential Development

San Ramon has a diverse housing stock, with 62 percent single-family detached, 11 percent single-family attached, and 26 percent multi-family, for a total of 22,217 units in 2007. The housing stock is also relatively new, with 65 percent constructed since 1980 and 37 percent constructed since 1990. These means that a large percentage of the existing housing stock has been constructed in compliance of Title 24 energy efficiency standards that were established in 1978 and were last made more stringent in 2005 and 2008. Conversely, 35 percent of the housing stock (7,782 units) were constructed prior to 1980. The housing units constructed before 1980 are likely candidates for remodeling and renovation and represent a significant opportunity for energy efficiency retrofits. Table 18 provides the age distribution of San Ramon's housing stock.

Table 18: San Ramon Housing Age Distribution

Year Structure Built	Units
Built 2005 or later	694
Built 2000 to 2004	3,241
Built 1990 to 1999	4,347
Built 1980 to 1989	6,153
Built 1970 to 1979	5,853
Built 1960 to 1969	1,712
Built 1950 to 1959	116
Built 1940 to 1949	0
Built 1939 or earlier	101
Total Units	**22,217**
Source: U.S. Census Bureau.	

Commercial Development

Commercial development is an important source of greenhouse gases, primarily caused by motor vehicles attracted to the development and the energy used by the buildings. Communities with a full assortment of local-serving retail and services allow local residents and workers to travel relatively short distances and provide more opportunities for people to access the businesses via transit, walking, or bicycling.

San Ramon has a relatively large retail sector consisting of a number of shopping centers clustered along I-680. Most shopping centers in San Ramon are grocery store-anchored centers supported by smaller and often local "in-line" retailers and merchants. In addition, there are several larger shopping centers with major national merchandisers. Overall, the retail market in San Ramon consists of local, neighborhood, and community shopping centers that provide for most of the needs of the community.

Greenhouse gas emissions from office developments are related to employee and customer travel and building energy consumption. Large building complexes can provide concentrations of employees that make transportation demand programs and transit service more feasible. The Bishop Ranch Business Park is one of the largest employment centers in the region. Home to more than 300 companies and their 30,000 employees, Bishop Ranch provides 9 million square feet of office space for companies in financial services, healthcare, communications, transportation, and computer technology. Bishop Ranch has an award-winning transportation program for employees that is described in a later section of this document.

Solid Waste Management

Solid waste disposal comprises about 3 percent of San Ramon's greenhouse gas inventory. Diverting waste from landfills for recycling and reuse—instead of using virgin materials to make new products—often reduces energy consumption. It also can reduce energy use in transport of the solid waste and in the disposal operations at the landfill itself. In addition, methane generated from decomposition of organic waste at landfills can be a significant source of greenhouse gases that can be reduced through different practices such as composting or methane capture.

San Ramon disposes of approximately 40,000 to 50,000 tons of solid waste per year. The majority of this waste (the franchised portion) goes to the Vasco Road Landfill in Alameda County. Vasco Road has a methane collection system but does not produce electricity with the captured methane. The methane is combusted with a flare to produce CO_2, but it provides a benefit because methane has a global warming potential that is 21 times greater than CO_2. Alameda County estimates Vasco Road Landfill's methane capture rate at 75 percent. San Ramon also sends about 8,000 tons per year to landfills to be used as "Alternative Daily Cover." While this counts as diversion for the State, it still gets buried in the landfill and produces methane. About 95 percent of San Ramon's Alternative Daily Cover is residential yard trimmings, organic materials that definitely produce methane when buried. Starting in 2010, San Ramon will be sending these yard trimmings to a composting facility, thereby reducing greenhouse gas emissions further. The Alternative Daily Cover is currently used at the Altamont Landfill in Alameda County. Altamont has a methane recovery system that captures 75 percent of the methane and uses it to create electricity, which is sold to the Pacific Gas and Electric (PG&E) grid.

Table 19 provides the solid waste diversion rates from 2000 through 2008 for San Ramon. The percentage diverted from the landfill exceeded California Integrated Waste Management Board (CIWMB) requirements.

Table 19: San Ramon Solid Waste Diversion

Year	Disposal (tons)	Diversion (tons)	% Diversion	Population	Solid Waste Disposal (lbs/person/day)
2000	44,242	44,614	50	45,700	NA
2001	41,693	28,745	41	46,109	NA
2002	40,198	26,589	40	46,750	NA
2003	45,303	53,538	54	46,950	NA
2004	52,286	55,079	51	48,855	NA
2005	52,110	55,848	52	50,958	NA
2006	53,250	56,811	52	56,505	NA

Table 19 (cont.): San Ramon Solid Waste Diversion

Year	Disposal (tons)	Diversion (tons)	% Diversion	Population	Solid Waste Disposal (lbs/person/day)
2007	47,573	NA	NA	57,766	4.5
2008	52,275	NA	NA	59,002	3.6

Notes:
[1] Beginning in 2007, the CIWMB required San Ramon to be below 5.7 lbs. of solid waste disposal per person per day.
[2] NA = Not Available
Source: City of San Ramon Public Services Division, 2008

San Ramon's 2007 and 2008 rates of 4.5 and 3.6 pounds of solid waste per person per day, respectively, meets CIWMB requirements for the target disposal rate of 5.7 pounds per person per day.

The full "life cycle" of municipal solid waste (MSW) is an important consideration when estimating emissions from programs that reduce or divert waste. The typical life cycle involves extraction and processing of raw materials, manufacture of products, transportation of materials and products to markets, use by consumers, and waste management. Each step along this life cycle can impact greenhouse gas emissions:

1. Solid waste management decisions can reduce greenhouse gases by affecting energy consumption (specifically, combustion of fossil fuels) associated with making, transporting, using, and disposing the product or material that becomes a waste.
2. Non-energy-related manufacturing emissions are created through activities and processes such as the CO_2 released when limestone is converted to lime (e.g., steel manufacturing).
3. CH_4 is emitted when waste decomposes in landfills where the waste is disposed.
4. CO_2 and nitrous oxide (N_2O) are emitted when waste is combusted for energy.
5. Carbon sequestration can occur when natural or manmade processes remove carbon from the atmosphere and store it for long periods or permanently.

The first four mechanisms add greenhouse gases to the atmosphere and contribute to global warming. The fifth, carbon sequestration, reduces greenhouse gas concentrations by removing CO_2 from the atmosphere" (EPA 2006b). Waste management life cycle emissions are illustrated in Exhibit 9.

Water Distribution and Storage

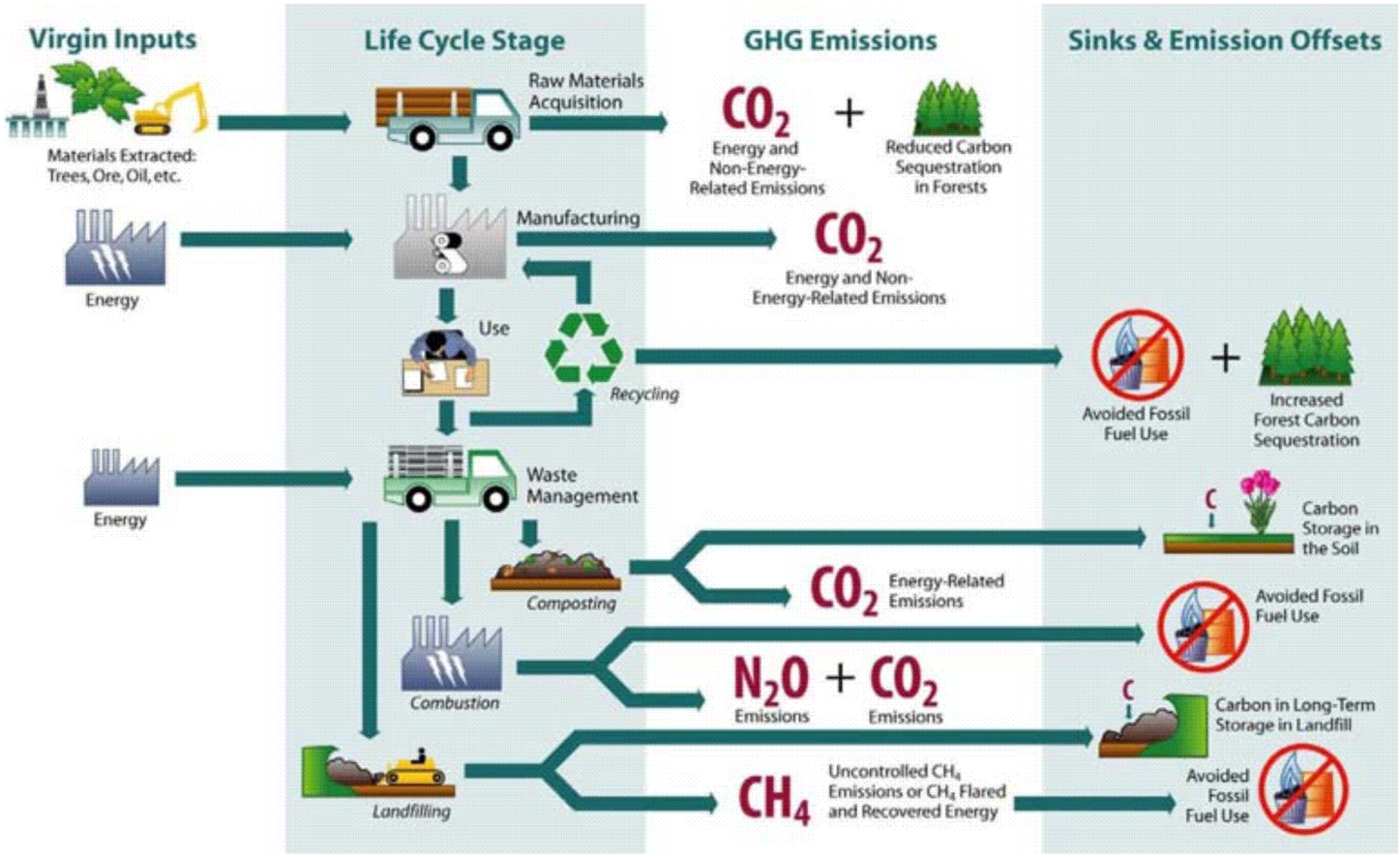
East Bay Municipal Utility District (East Bay MUD) provides potable water supply and distribution to a 325-square-mile service area in Alameda and Contra Costa Counties with a population of 1.3 million. The service area includes 20 cities and 15 unincorporated communities, stretching from San Lorenzo in the south, to Crockett in the north, to Pleasant Hill and San Ramon in the east. East Bay

MUD's distribution and storage system consists of 4,085 miles of pipelines and 833 million gallons of storage capacity. East Bay MUD operates five terminal reservoirs: Briones, Chabot, Lafayette, San Pablo, and Upper San Leandro. East Bay MUD obtains approximately 90 percent of its water supply from the Mokelumne River watershed in Alpine, Amador, and Calaveras counties in the Sierra Nevada Mountains. The remaining 10 percent are provided by local runoff collected in its five terminal reservoirs.

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, East Bay MUD 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 Walnut Creek Water Treatment Plant, upgrading a pumping plant in Alamo, and installing 4 miles of water pipeline in Walnut Creek and Alamo.

The amount of electricity used to move and treat water to serve the City of San Ramon is not known; however, East Bay MUD's annual energy use is 145 GWh per year. East Bay MUD operates 40-megawatt hydroelectric power facilities that produce 180 GWh per year on average, providing power in excess of its operating needs (Wallis 2008). However, water conservation efforts provide an indirect reduction in greenhouse gas emissions proportional to the electricity that would be available for other uses.

East Bay MUD's 2005 greenhouse gas inventory indicated that East Bay MUD produced 53,700 metric tons of greenhouse gas emissions that year. Most of the emissions, 41,459 metric tons, were from indirect sources from electrical use, while its direct emissions totaled 12,242 metric tons. The direct emissions were from mobile combustion sources (63 percent) and natural gas-powered equipment (37 percent) (Wallis 2008).



Source: EPA (2006e).

Michael Brandman Associates

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Exhibit 9
Waste Management Life Cycle Emissions

3.4 - Environmental Impacts of Climate Change

Climate change is a change in the average weather of the earth that may be measured by alterations in wind patterns, storms, precipitation, and temperature. These changes are assessed using historical records of temperature changes occurring 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.

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 degrees Celsius (°C) to 6.4°C. Regardless of analytical methodology, global average temperatures and sea levels are expected to rise under all scenarios (IPCC 2007).

In California, climate change may result in consequences such as the following.

- **A reduction in the quality and supply of water to the State 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 precipitation increases as temperatures rise, wildfires in the grasslands and chaparral ecosystems of southern California are expected 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 will 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.
- **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 heat-trapping emissions continue unabated and temperatures rise into the higher 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 (CCCC 2006; Moser et al. 2009).

- **Damage to marine ecosystems and the natural environment.** Temperature changes in coastal and marine ecosystems have the potential to influence organism metabolism and alter ecological processes such as productivity and species interactions (Pew 2002).
- **An increase in infections, disease, asthma, and other health-related problems.** Throughout the world, the prevalence of some diseases and other threats to human health depend largely on local climate. Extreme temperatures can lead directly to loss of life, while climate-related disturbances in ecological systems, such as changes in the range of infective parasites, can indirectly impact the incidence of serious infectious diseases. In addition, warm temperatures can increase air and water pollution, which in turn harm human health (EPA 2009a).
- **A decrease in the health and productivity of California's forests.** Climate change effects on forests are likely to include changes in forest health and productivity and changes in the geographic range of certain tree species. These effects can in turn alter timber production, outdoor recreational activities, water quality, wildlife, and rates of carbon storage (EPA 2009b).

3.5 - Greenhouse Gas Reduction Strategies and Programs

3.5.1 - State of California Strategies

In 2006, the California State Legislature passed and the Governor signed Assembly Bill 32 (AB 32), the California Global Warming Solutions Act of 2006. AB 32 requires CARB, the state agency charged with regulating statewide air quality, to adopt rules and regulations that by 2020 would achieve a reduction in greenhouse gas emissions equivalent to the statewide inventory levels of 1990. On or before June 30, 2007, CARB was required to publish a list of discrete greenhouse gas emission reduction measures that can be implemented. On April 20, 2007, CARB published its proposed early actions (CARB 2007) that include discrete early action measures, additional greenhouse gas reduction strategies, and criteria and toxic control measures. The basis for these greenhouse gas reduction goals that California has adopted into law is provided in the IPCC climate models that predict the climate stabilizing at an approximately 2-degree Celsius rise in average temperatures over the long term.

As part of the efforts to meet the State's greenhouse gas reduction targets, Governor Arnold Schwarzenegger directed the secretary of the California Environmental Protection Agency (CalEPA) to coordinate actions with the secretary of the Business, Transportation and Housing Agency; the secretary of the Department of Food and Agriculture; the secretary of the Resources Agency; the chairperson of the Air Resources Board; the chairperson of the Energy Commission; and the president of the Public Utilities Commission. The secretary of CalEPA leads a Climate Action Team made up of representatives from the agencies listed above to implement global warming emission reduction

programs and report on the progress made toward meeting the statewide greenhouse gas targets that were established in the executive order (CAT 2009).

The CalEPA Climate Action Team developed a report (2006) that " . . . proposes a path to achieve the Governor's targets that will build on voluntary actions of California businesses, local government and community actions, and State incentive and regulatory programs . . . " needed to reduce activities which contribute to global climate change. There are no adopted thresholds to assess the significance of project impacts. The report indicates that the strategies will reduce California's emissions to the levels proposed in Executive Order S-3-05.

Pursuant to the Executive Order, the first CAT report to the Governor and the Legislature was released in March 2006. It will be issued every two years thereafter. The CAT Report to Governor Schwarzenegger and the Legislature "proposes a path to achieve the Governor's targets that will build on voluntary actions of California businesses, local government and community actions, and State incentive and regulatory programs." (CAT 2006) The report introduces strategies to reduce California's emissions to the levels proposed in Executive Order S-3-05. This is the best information available at this time; it is unknown when and what will be published in the future. Table 20 describes the CAT strategies.

Table 20: California Greenhouse Gas Emission Reduction Strategies

Agency	Greenhouse Gas Emission Reduction Strategy
CARB	**Vehicle Climate Change Standards** AB 1493 required the State to develop and adopt regulations that achieve the maximum feasible and cost-effective reduction of climate change emissions emitted by passenger vehicles and light-duty trucks. Regulations were adopted by the CARB in September 2004.
	Diesel Anti-Idling In July 2004, the CARB adopted a measure to limit diesel-fueled commercial motor vehicle idling.
	Hydrofluorocarbon Reduction (1) Ban retail sale of HFC in small cans; (2) require that only low GWP refrigerants be used in new vehicular systems; (3) adopt specifications for new commercial refrigeration; (4) add refrigerant leak-tightness to the pass criteria for vehicular inspection and maintenance programs; (5) enforce federal ban on releasing HFCs.
	Transportation Refrigeration Units (TRUs), Off-Road Electrification, Port Electrification Strategies to reduce emissions from TRUs, increase off-road electrification, and increase use of shore-side/port electrification.
	Heavy-Duty Vehicle Emission Reduction Measures Increased efficiency in the design of heavy-duty vehicles and an education program for the heavy-duty vehicle sector.

Table 20 (cont.): California Greenhouse Gas Emission Reduction Strategies

Agency	Greenhouse Gas Emission Reduction Strategy
	Achieve 50-Percent Statewide Recycling Goal Achieving the State's 50-percent waste diversion mandate as established by the Integrated Waste Management Act of 1989 (AB 939, Sher, Chapter 1095, Statutes of 1989) will reduce climate change emissions associated with energy-intensive material extraction and production as well as methane emission from landfills. A diversion rate of 48% has been achieved on a statewide basis. Therefore, a 2% additional reduction is needed.
Department of Forestry	**Urban Forestry** A new statewide goal of planting 5 million trees in urban areas by 2020 would be achieved through the expansion of local urban forestry programs.
Department of Water Resources	**Water Use Efficiency** Approximately 19 percent of all electricity, 30 percent of all natural gas, and 88 million gallons of diesel are used to convey, treat, distribute, and use water and wastewater. Increasing the efficiency of water transport and reducing water use would reduce greenhouse gas emissions.
California Energy Commission	**Building Energy Efficiency Standards in Place and in Progress** Public Resources Code 25402 authorizes the CEC to adopt and periodically update its building energy efficiency standards (that apply to newly constructed buildings and additions and alterations to existing buildings).
	Appliance Energy Efficiency Standards in Place and in Progress Public Resources Code 25402 authorizes the Energy Commission to adopt and periodically update its appliance energy efficiency standards (that apply to devices and equipment using energy that are sold or offered for sale in California).
Building, Transportation, and Housing Agency	**Smart Land Use and Intelligent Transportation Systems (ITS)** Smart land use strategies encourage jobs/housing proximity, promote transit-oriented development, and encourage high-density residential/commercial development along transit corridors. ITS is the application of advanced technology systems and management strategies to improve operational efficiency of transportation systems and movement of people, goods and services. Governor Schwarzenegger is finalizing a comprehensive, 10-year strategic growth plan with the intent of developing ways to promote, through State investments, incentives and technical assistance, land use, and technology strategies that provide for a prosperous economy, social equity, and a quality environment. Smart land use, demand management, ITS, and value pricing are critical elements in this plan for improving mobility and transportation efficiency. Specific strategies include promoting jobs/housing proximity and transit-oriented development; encouraging high density residential/commercial development along transit/rail corridor; valuing and congestion pricing; implementing intelligent transportation systems, traveler information/traffic control, and incident management;

Table 20 (cont.): California Greenhouse Gas Emission Reduction Strategies

Agency	Greenhouse Gas Emission Reduction Strategy
	accelerating the development of broadband infrastructure; and comprehensive, integrated, multimodal/intermodal transportation planning.
	Measures to Improve Transportation Energy Efficiency These build on current efforts to provide a framework for expanded and new initiatives including incentives, tools, and information that advance cleaner transportation and reduce climate change emissions.
State Consumer Services Agency	**Green Buildings Initiative** Green Building Executive Order, S-20-04 sets a goal of reducing energy use in public and private buildings by 20 percent by the year 2015, compared with 2003 levels. The Executive Order and related action plan spell out specific actions State agencies are to take with state-owned and -leased buildings. The order and plan also discuss various strategies and incentives to encourage private building owners and operators to achieve the 20-percent target.
Source: CAT 2006.	

Other state strategies are described below.

California Solar Initiative. The following information regarding the California Solar Initiative from is from the California Public Utilities Commission (CPUC) website. The California Solar Initiative is overseen by the CPUC and provides incentives for solar system installations to customers of the State's three investor-owned utilities: Pacific Gas and Electric Company (PG&E), Southern California Edison (SCE), and San Diego Gas and Electric (SDG&E). The California Solar Initiative Program provides upfront incentives for solar systems installed on existing residential homes, as well as existing and new commercial, industrial, government, non-profit, and agricultural properties within the service territories of the investor-owned utilities.

The California Solar Initiative expanded state support for solar technology and is the product of Governor Schwarzenegger's "Million Solar Roofs" vision for the State of California. The California Solar Initiative Program was authorized by the CPUC through a number of regulatory decisions throughout 2006. In addition, the legislature expressly authorized the CPUC to create the California Solar Initiative in 2006 in Senate Bill 1 (Murray). When it launched in January 2007, the California Solar Initiative Program built upon nearly 10 years of state support for solar, including other incentive programs such as the Emerging Renewables Program and the Self-Generation Incentive Program. Both programs still exist to provide incentives for other technologies but have been closed to new solar projects since the end of 2006.

Renewable Energy. On September 12, 2002, Governor Gray Davis signed a bill (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.

California Solar Initiative Program Components: The California Solar Initiative Program has a budget of $2.167 billion over 10 years, and the goal is to reach 1,940 MW of installed solar capacity by the end of 2016. The goal includes 1,750 MW of capacity from the general market program, as well as 190 MW of capacity from the low-income programs. The general market program is the main incentive program component of the California Solar Initiative, and is administered through three Program Administrators: PG&E, SCE, and California Center for Sustainable Energy in SDG&E territory.

In addition to the general market program, the California Solar Initiative Program has four other program components, each with its own program administrator and 10-year budgets:

- A research and development (RD&D) program, providing grants to solar technologies that can advance the overall goals of the California Solar Initiative Program; the RD&D program is administered through the RD&D Program Manager, Itron, and has a budget of $50 million.
- The Single-family Solar Affordable Solar Housing program, providing solar incentives to single-family, low income housing; the Solar Affordable Solar Housing program is administered through the Solar Affordable Solar Housing Program Manager, GRID Alternatives, and has a budget of $108 million.
- The Multifamily Affordable Solar Housing program, providing solar incentives to multi-family, low-income housing; the Multifamily Affordable Solar Housing program is administered through the same program administrators as the general market program—PG&E, SCE, and California Center for Sustainable Energy—and it has a budget of $108 million.
- The Solar Water Heating Pilot Program, providing solar hot water incentives to residences and businesses in San Diego only; the Solar Water Heating Pilot Program is administered through California Center for Sustainable Energy. (CPUC 2009)

Low Carbon Fuel Standard: On April 23, 2009, CARB approved the California Low Carbon Fuel Standard. The Low Carbon Fuel Standard establishes a compliance schedule that requires fuel providers to reduce the carbon intensity of the fuels they provide each year between 2011 and 2020. The goal is to reduce the "carbon intensity" of California's vehicle fuel by at least 10 percent by 2020. Carbon intensity refers to greenhouse gas emissions per unit of motive power, in units such as grams of CO_2e per British thermal unit. The Low Carbon Fuel Standard will be measured on a life-cycle basis (sometimes called "well-to-wheel" in reference to petroleum products) to capture all emissions from fuel consumption and upstream processes. To reduce greenhouse gas emissions, suppliers will need to bring lower-carbon-intensity fuels to the market. Lower-carbon fuels include

biofuels such as ethanol and biodiesel, as well as hydrogen, electricity, compressed natural gas, liquefied petroleum gas, and biogas.

Restrictions on High Global Warming Potential Refrigerants: Would restrict the use of high global warming potential refrigerants for non-professional recharging of leaky automotive air conditioning systems. The focus of this strategy is to eliminate the unnecessary releases of HFC-134a when cans are used to recharge leaky mechanical ventilation and air conditioning systems. However, realizing that HFC-134a cans for mechanical ventilation and air conditioning systems is not the only burden on the environment, the proper repair of leaky mechanical ventilation and air conditioning systems during professional servicing and the mitigation of HFC-134a impacts from other applications and products are also recommended to be pursued as early actions.

Landfill Methane Capture: Would set statewide standards for the installation and performance of active gas collection/control systems at uncontrolled municipal solid waste landfills. In addition, CARB staff is also proposing to expand the scope of this strategy to include efficiency and emissions control resulting in total reductions on the order of 2 to 4 $MMTCO_2e$ by 2020. In developing the control measures, CARB staff will work closely with CIWMB staff. CIWMB is developing a guidance document for landfill operators and regulators that will recommend technologies and best management practices for improving landfill design, construction, operation, and closure for the purpose of reducing greenhouse gas emissions.

3.5.2 - Association of Bay Area Governments Programs

The Association of Bay Area Governments (ABAG) program, Focusing Our Vision or "FOCUS," seeks to build upon existing progress related to smart growth and meld local and regional objectives into a more refined development strategy for the Bay Area. Through FOCUS, ABAG and other regional partners are working with local governments and stakeholders to identify local and regional priority areas for development and conservation. ABAG is identifying incentives for development for these priority areas, including funding for capital expenditures, planning grants, and technical assistance. The FOCUS project is a joint project of ABAG, the Metropolitan Transportation Commission, and the Bay Area Air Quality Management District (ABAG 2009).

3.5.3 - San Ramon Programs with Greenhouse Gas Reductions

The residents of San Ramon have access to many existing programs that will help the community reduce its greenhouse gas emissions. The following section describes these programs by major source categories for the City:

- Energy Conservation
- Solid Waste Management
- Water Conservation
- Transportation

Energy Conservation

PG&E provides electricity and natural gas service to the City of San Ramon. Below is a discussion of PG&E's existing programs and initiatives available in San Ramon.

Electricity and Natural Gas

Electricity and natural gas consumption is responsible for about 31 percent of the greenhouse gas emissions for the City of San Ramon. The utility provider has a large role in implementing the State's climate change strategy for reducing emissions from this source. PG&E works in partnership with state and local government and its customers to promote energy conservation, and on energy projects that reduce greenhouse gas emissions.

PG&E provides electricity to all or part of 47 counties in California, constituting most of the northern and central portions of the State. PG&E obtains 40 percent of electricity from its own generation sources and the remaining 60 percent from outside sources. PG&E-owned generating capacity includes nuclear, fossil fuel-fired, and hydroelectric facilities. Outside suppliers to PG&E include the State Department of Water Resources, irrigation districts, renewable energy suppliers, and other fossil fuel-fired suppliers. PG&E operates approximately 158,700 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 2006, PG&E delivered 84,310 gigawatt hours (GWh) of electricity to its customers. Commercial customers accounted for largest segment of demand, with 40 percent of the total.

PG&E provides natural gas to all or part of 38 counties in California, comprising most of the northern and central portions of the state. PG&E obtains approximately 62 percent of its natural gas supplies from western Canada, 32 percent from the southwestern United States, and the balance from in-state sources. PG&E operates approximately 47,000 miles of transmission and distribution pipelines.

California utilities are mandated to achieve a 20-percent renewable energy portfolio by 2010 and a 33-percent portfolio by 2020. In addition, conservation efforts reduce the need to build new power generation capacity. PG&E has a very active energy conservation program that offers a variety of energy audits, educational materials and energy efficiency rebates to its customers. Some of PG&E's current programs are described below.

The ClimateSmart Program: This program provides a means to help customers balance out their home's greenhouse gas emissions through environmental conservation, restoration, and protection projects. Customers make a voluntary, tax-deductible donation on their PG&E bill—around $5 a month for the typical home—to reduce their carbon footprint.

Solar Programs: PG&E has been successful in encouraging its customers to install photovoltaic systems in homes and businesses. Over 30,000 PG&E customers have installed photovoltaic

systems—more than any other utility in the nation. This has garnered PG&E the title of the most "solar integrated utility" in the U.S.

Net Metering: PG&E's Schedule NEM—Net Energy Metering Service, provides solar customers with the option to offset the cost of their electricity usage with energy that their solar generating system exports to the grid. A "net meter" is installed to measure the difference between electricity supplied to the customer by PG&E and electricity the customer exports to the grid, over a billing month. The corresponding charges and credits are reconciled after 12-monthly billing periods of the system's interconnection. Typically, solar systems export more energy during the summer months, generating credits for the customer to use during the winter months, when the system does not meet their energy needs.

PG&E Rebate Programs:

- A cool roof reflects and emits the sun's heat back to the sky instead of transferring it to the building below. This helps keep roofs cooler and reduces the cooling load and air conditioning needs. PG&E is offering a rebate of up to $0.20 per square foot, so on a 1,000-square-foot roof PG&E will pay residential customers up to $200.
- Energy losses through ceiling and walls of homes is a major expense. Insulating attics and walls makes homes more comfortable and reduces energy bills. PG&E pays up to $150 per 1,000 square feet for home insulation projects.
- PG&E provides cash rebates and incentives for replacing existing equipment with new energy-efficient technologies or purchasing new equipment. In addition to cash incentives, PG&E provides design assistance for a new facility and system processes.

Energy Audits: PG&E account representatives can conduct an onsite audit to help business customers identify potential steps they can take to save energy and money. PG&E provides a customized report tailored to each business that describes energy-saving tips and identifies rebates and incentives from PG&E.

PG&E can identify specific strategies and technologies that can deliver immediate energy savings for a facility. During these targeted energy audits, a PG&E technical consultant works with the business customers to identify projects that have the potential to save the most energy. The consultant also makes recommendations on investments in energy-efficient equipment and provides information on rebate and incentive programs to help offset the initial costs. Targeted energy audits focus on specific end uses of energy, such as the facility's heating and cooling system, and industrial process improvements.

PG&E's Self Generation Incentive Program provides financial incentives for the installation of new, qualifying wind or fuel cell self-generation equipment. Solar rebates are currently administered

under PG&E's California Solar Initiative. While residential customers are not excluded from the program, the minimum 30-kilowatt system size for renewable technologies generally limits most applications to non-residential energy consumers (PG&E 2009).

Solid Waste Management

Construction and Demolition Debris Recycling Ordinance: In accordance with San Ramon Municipal Code, Division B6, Chapters XIII and II, projects must divert at least 50 percent of waste from construction/demolition/remodel activities. This 2007 requirement applies to (1) all complete demolition projects and (2) all other projects over $100,000 in value. Permit applicants may demonstrate the requirement by (1) using an approved, City-permitted hauler or (2) completing a diversion plan, using approved recycling facilities, and providing weight tickets. City-permitted haulers must divert 50 percent of the construction/demolition debris they collect from San Ramon projects, and must submit quarterly tonnage reports to demonstrate such diversion.

Under this program, of the 860 tons of construction and demolition waste produced per year, at least half (430 tons) are diverted, thereby reducing 1,092 tons of CO_2e. This estimate is based on the average emission savings predicted by the WARM model for recycling of glass, carpet, mixed metals, bricks, concrete, and lumber.

Composting of Residential Yard Trimmings: Since 1995, San Ramon has provided all single-family dwellings with weekly curbside collection of source-separated yard trimmings. The yard trimmings are collected in 96-gallon and 64-gallon carts.

Collected yard trimmings have been primarily used as Alternative Daily Cover at the Altamont Landfill in Alameda County. While this practice counts as waste diversion for compliance with AB 939 and subsequent legislation, it generates greenhouse gases (primarily methane) at the landfill. Beginning in 2010, all of San Ramon's yard trimmings will be taken to an aerobic composting facility instead of to the landfill, reducing greenhouse gas emissions from San Ramon yard trimmings.

This program diverts 9,000 tons of waste per year and reduces 3,156 tons of CO_2e per year.

Composting of Residential Food Scraps and Soiled Paper: Since 1995, San Ramon has provided all single-family dwellings with weekly curbside collection of source-separated yard trimmings. Starting in May, 2009 the City has begun implementing a 1,000-home pilot program that will allow residents to place food scraps (vegetative and meat) and food-soiled paper products (pizza boxes, milk cartons, paper take-out containers, plates, cups, napkins, towels, etc.) into their yard trimmings carts for collection and transport to a composting facility. If this pilot program demonstrates sufficient participation and cost effectiveness, San Ramon may implement the program citywide in 2010.

This program has the potential to divert approximately 1,300 tons per year and to reduce CO_2e by 260 tons per year citywide.

Home Composting Program: Since 1990, San Ramon has partnered with the Central Contra Costa Solid Waste Authority to provide free backyard composting workshops to San Ramon residents. Classes in backyard composting and worm composting are taught four times per year at the Crow Canyon Gardens Park and community gardens in San Ramon. Other workshops in Contra Costa County are also available to San Ramon residents. San Ramon subsidizes the purchase of home composting bins and, as funds allow, chipper/grinders and mulching lawn mowers for San Ramon residents. Approximately 15 to 20 home composting bins are purchased by San Ramon residents each year through this program.

The Home Composting Program diverts about 20 tons per year of waste and reduces 4 tons of CO_2e per year.

Curbside Recycling Program: Since 1989, San Ramon has provided all single-family dwellings with weekly curbside collection of source-separated recyclables. Currently, these are collected fully commingled (single-stream) in 64- or 96-gallon carts. Materials collected include cardboard, paper, bottles and cans, all plastic containers #1 through #7, milk cartons/juice boxes, and plastic bags. Each residential customer has all three materials/carts (garbage, recyclables, yard trimmings) collected on the same day each week.

The Curbside Recycling Program diverts approximately 8,000 tons of waste per year, resulting in a reduction of 15,264 tons of CO_2e per year. Emission reduction estimates were based on the average emission savings from the WARM model for recycling the categories of materials recycled.

Multi-Family Dwelling Recycling Program: Since 2006, San Ramon has provided all multi-family dwellings with collection of source-separated recyclables. Recyclables are collected fully commingled (single-stream) in 96-gallon carts and front-loader bins of 1 to 6 cubic yards in volume. Recyclables are collected at the frequency needed by the complex, but at least weekly. The same materials that are accepted in the single-family program as also collected in the multi-family program. The City's franchised hauler employs a half-time employee devoted to promoting recycling to multi-family dwellings and commercial/industrial/institutional customers.

This program diverts approximately 350 tons of waste per year, thereby reducing 672 tons CO_2e.

Commercial Recycling Program: Commercial recycling, including construction and demolition debris, has been provided on a free-market basis in San Ramon since 1992. Eleven city-permitted haulers compete to provide services to San Ramon businesses and institutions. Materials recycled include cardboard, paper, bottles and cans, wood waste, green waste, electronic waste, construction and demolition debris, and industrial plastics. The City's franchised hauler employs a half-time employee devoted to promoting recycling to multi-family dwellings and commercial/industrial/

institutional customers. The City participates in the Contra Costa County Green Business Program, which certifies as Green Businesses those businesses that meet standards for reducing waste, decreasing the uses of toxic chemicals, conserving energy and water, and reducing greenhouse gas emissions.

The Commercial Recycling Program diverts approximately 4,000 tons per year of waste with a reduction of 7,547 tons of CO_2e per year. Emission reduction estimates were based on the average emission savings from the WARM model for recycling the categories of materials recycled.

City Facilities, Events, and Venues Recycling Program: San Ramon first implemented its Facilities, Events and Venues Program in 1990. San Ramon's franchised hauler collects single-stream recyclables (cardboard paper, bottles, and cans) from all City offices and community buildings. The hauler also collects source-separated recyclables (wood, green waste, metal, cardboard) in roll-off boxes from the City's Corporation Yard, and as needed at city parks and events.

City crews collect beverage containers from receptacles at parks, events, and city facilities and take them to a local redemption center. All city parks and sports facilities have convenient public recycling containers paired with garbage containers.

E-scrap from city facilities is collected for recycling by a local non-profit. The City contracts for collection and recycling of other hazardous and universal waste, including fluorescent lights, generated by City facilities. City facilities accept household batteries from the general public, which are combined with batteries generated by city operations and employees and are sent to a private recycler.

Green waste generated by street sweepers and the City's landscaping contractors is dropped off at the Corporation Yard and then collected for recycling by the franchised hauler. Grass recycling is practiced at city parks. In 2009, the City will pilot collection and composting of food scraps and food soiled paper from community centers.

The City operates the Performing Arts Center and the Olympic Pool at the Dougherty Valley High School, as well as the Olympic Pool at California High School. City staff recycle beverage containers from all of these venues and recycles programs (mixed paper) from the Performing Arts Center.

The Facilities, Events, and Venues Program diverts 2,000 tons of waste per year and reduces CO_2e by 4,548 tons per year. Emission reduction estimates were based on the average emission savings from the WARM model for recycling the categories of materials recycled.

Volume-Based Garbage Rates: Since 1991, San Ramon has charged single-family dwellings for garbage service, based upon the volume of garbage that they produce ("variable-can rates.") The City uses a steeply increasing garbage rate structure to provide residents with an economic incentive to reduce the volume of garage they produce: a 64-gallon cart collected once per week costs roughly two

times as much as a 35-gallon cart collected once per week, and 96 gallons costs roughly three times as much as 35 gallons. The City also provides residents with a 20-gallon-per-week "Super-Recycler" garbage cart option at a reduced rate. Because of this rate structure, the majority of San Ramon residents now subscribe to 35 gallons or less of garbage service per week. Prior to this structure, the majority of homes generated 64 gallons or greater of garbage per week.

To provide a further economic incentive to recycle, there is no direct charge for residential yard trimmings and recyclables collection. All single-family dwellings are automatically issued a 64-gallon recycling cart and a 64-gallon or 96-gallon yard trimmings cart. Residents may request a larger (96-gallon) recycling cart and an additional 64-gallon yard trimmings cart at no additional charge.

Garbage rates for commercial, industrial, institutional, and multi-family customers have always been volume-based. The cost per frequency of collection is directly proportional (for example, a bin emptied twice per week costs twice as much as the same bin emptied once per week), and the cost per bin size is slightly less than proportional (for example, a 2-cubic-yard bin collected once per week costs 1.8 times as much as a 1-cubic-yard bin collected once per week.) This rate structure encourages bin customers to minimize their garbage. It also encourages bin customers who need additional capacity to get a larger bin instead of increasing the frequency of collection. This helps to reduce collection vehicle traffic, thereby minimizing greenhouse gas emissions.

As noted above, multi-family dwellings receive regular recyclables collection services at no additional cost, similar to single-family dwellings, which provides them with an economic incentive to recycle. As a result, 26 of the 29 multi-family complexes in San Ramon (90 percent) now have recyclables collection service.

Volume Waste Garbage Rates provide an economic incentive for diverting waste from the landfill. Although no information is available on the individual contribution of this program, it is considered an important part of San Ramon's overall program (San Ramon 2009).

The EPA Waste Reduction Model (WARM) provides emissions estimates for alternative waste management practices that take life-cycle emissions into account. Table 21 displays output from the WARM model, providing the greenhouse gas reductions per ton of material reduced for a wide assortment of waste materials.

Table 21: Estimates of Greenhouse Gas Emissions Reductions from Waste Management by Material Type

Material	Green House Gas Emissions per Ton of Material (Emissions in $MTCO_2e$)				
	Material Source Reduced	Material Recycled	Material Landfilled	Material Combusted	Material Composted
Aluminum Cans	(8.29)	(13.67)	0.04	0.06	NA
Steel Cans	(3.19)	(1.80)	0.04	(1.54)	NA
Copper Wire	(7.41)	(4.97)	0.04	0.06	NA
Glass	(0.58)	(0.28)	0.04	0.05	NA
HDPE	(1.80)	(1.40)	0.04	0.91	NA
LDPE	(2.29)	(1.71)	0.04	0.91	NA
PET	(2.11)	(1.55)	0.04	1.07	NA
Corrugated Cardboard	(5.59)	(3.11)	0.33	(0.66)	NA
Magazines/third-class mail	(8.66)	(3.07)	(0.33)	(0.48)	NA
Newspaper	(4.89)	(2.80)	(0.89)	(0.75)	NA
Office Paper	(8.01)	(2.85)	1.76	(0.63)	NA
Phonebooks	(6.34)	(2.66)	(0.89)	(0.75)	NA
Textbooks	(9.18)	(3.11)	1.76	(0.63)	NA
Dimensional Lumber	(2.02)	(2.46)	(0.52)	(0.79)	NA
Medium Density Fiberboard	(2.22)	(2.47)	(0.52)	(0.79)	NA
Food Scraps	NA	NA	0.68	(0.18)	(0.20)
Yard Trimmings	NA	NA	(0.34)	(0.22)	(0.20)
Grass	NA	NA	0.15	(0.22)	(0.20)
Leaves	NA	NA	(0.58)	(0.22)	(0.20)
Branches	NA	NA	(0.52)	(0.22)	(0.20)
Mixed Paper, Broad	NA	(3.54)	0.27	(0.66)	NA
Mixed Paper, Residential	NA	(3.54)	0.19	(0.66)	NA
Mixed Paper, Office	NA	(3.42)	0.38	(0.60)	NA
Mixed Metals	NA	(5.26)	0.04	(1.07)	NA
Mixed Plastics	NA	(1.52)	0.04	0.97	NA
Mixed Recyclables	NA	(2.88)	0.08	(0.60)	NA
Mixed Organics	NA	NA	0.15	(0.20)	(0.20)
Mixed MSW	NA	NA	0.37	(0.13)	NA

Table 21 (cont.): Estimates of Greenhouse Gas Emissions Reductions from Waste Management by Material Type

Material	Green House Gas Emissions per Ton of Material (Emissions in $MTCO_2e$)				
	Material Source Reduced	Material Recycled	Material Landfilled	Material Combusted	Material Composted
Carpet	(4.03)	(7.23)	0.04	0.37	NA
Personal Computers	(55.97)	(2.27)	0.04	(0.20)	NA
Clay Bricks	(0.29)	NA	0.04	NA	NA
Concrete	NA	(0.01)	0.04	NA	NA
Fly Ash	NA	(0.87)	0.04	NA	NA
Tires	(4.01)	(1.84)	0.04	0.09	NA

Notes:
Numbers in parentheses represent emission reductions.
Source: EPA Waste Reduction Model (WARM).

Water Conservation

Conserving water reduces greenhouse gases through savings in energy used to transport and pump water from its source and from water treatment.

San Ramon has been trying to do its part since 1989, when the City began installing a computerized irrigation management system that can be adjusted to water automatically based on weather conditions and can be centrally monitored by Public Services staff. In addition, at least half of the City's parks are on recycled water for irrigation use. Descriptions of initiatives and programs that reduce water are provided below.

Upcoming water conservation changes by the City in response to the current drought conditions include:

- Reduce watering in landscaping and turf areas by at least 10 percent.
- Defer annual color plantings in parks and medians.
- Reduce washing down of hardscape such as tennis courts and sidewalks.
- Use slow release fertilizers to maintain a steady growth habit.
- Install water savings devices in city facilities such as low-flow showerheads, faucet aerators.
- Reduce frequency of vehicle washing for city vehicles.

Recycled Water: East Bay MUD and the Dublin San Ramon Services District (DSRSD) jointly provide and distribute recycled municipal water in San Ramon through the San Ramon Valley Recycled Water Program. The program is administered by a joint powers authority DSRSD-East Bay MUD Recycled Water Authority (DERWA). The first phase of the program was completed in 2006

and provides 23 sites, including greenbelts, parks, and schools, with a total of 700,000 gallons per day of recycled water. When completed, the program will supply 2.4 million gallons per day (mgd) to parts of San Ramon, Danville, and Blackhawk. Future plans identify a network of recycled water lines serving the Bishop Ranch office park.

Irrigation Upgrade Program: East Bay MUD offers an Irrigation Upgrade Program. Customers who participate in an irrigation audit may qualify for rebates of 50 to 100 percent of the costs of water-efficient irrigation equipment.

Rebates on Older Toilets: East Bay MUD customers can receive rebates for purchasing qualifying WaterSmart High-Efficiency Toilets, which flush at 1.3 gallons per flush (gpf) or less. The rebate amount is $50 (or up to total cost of each toilet, whichever is less) per qualifying high efficiency toilets from the current List of Qualifying Toilets. These toilets have been tested for water savings reliability and flush performance, thus using less water and removing waste effectively. No standard 1.6 gpf toilet models qualify for a rebate (EBMUD 2009).

Transportation

Transit: People who live and work in San Ramon have a wide variety of transit options and programs that encourage the use of transit. First, a description of the transit systems serving this area will provide context to this discussion.

County Connection: County Connection, operated by the Contra Costa County Transit Authority (CCCTA) provides fixed-route and paratransit service throughout the Central Contra Costa communities of Clayton, Concord, Martinez, Pleasant Hill, Walnut Creek, Danville, San Ramon, Lafayette, Orinda, and Moraga, as well as unincorporated communities. All 131 buses in the fixed-route fleet are fully equipped with wheelchair ramps or lifts.

Transit System Statistics

- 77 percent of CCCTA riders are transit-dependent
- 60 percent of CCCTA riders are minorities
- 48 percent of CCCTA ridership are of low income, earning $25,000 or less
- Service area: 200 square miles
- Service area population: 482,400
- Proposed operating budget fiscal year 2010: fixed route–$25,575,341 paratransit–$5,150,751
- Annual ridership: 5 million (fixed-route and paratransit)
- Fleet size: 131 fully accessible buses and 63 passenger vans (paratransit) (CCCTA 2009)

Bay Area Rapid Transit (BART): San Ramon residents can access the BART rail system at either the Walnut Creek or the Dublin/Pleasanton BART station. BART provides rail service to a large portion of the Bay Area. San Ramon residents can avoid traffic congestion and the inconvenience of

locating a parking space by leaving their cars at the San Ramon Transit Center and boarding a County Connection express bus. Their options include:

- County Connection 960 express bus to Walnut Creek BART
- County Connection 970 express bus to Dublin/Pleasanton BART
- County Connection 121 to Dublin/Pleasanton and Walnut Creek BART

Tickets for BART can be purchased at the San Ramon Community Center, City Hall, and Senior Center, Transportation Services at 3180 Crow Canyon Place, Room 140. Carpools can park in a designated Carpool parking space at selected BART Stations, including Dublin/Pleasanton and Walnut Creek BART. Carpools must have a BART Carpool Parking Permit.

Altamont Commuter Express (ACE): Although ACE does not provide direct service to San Ramon, it provides an important option for commuters who live or work along the ACE route. ACE will shortly enter its second decade of service operating between downtown Stockton and Diridon Station in downtown San Jose. Recently, ACE added a fourth midday train in conjunction with Caltrans, and it now provides four daily round trips each weekday. ACE provides a one-month pass on ACE for commuters who ride the County Connection 920 ACE shuttle from the San Ramon Transit Center and the Danville Sycamore Park & Ride lot to the ACE train station in Pleasanton.

ACE has focused on improvements to individual stations. Other improvements include rail, trackage, and signal improvements; upgraded service; and passenger-targeted services such as wireless broadband access, special event trains, and on-board educational programs.

Programs Supporting Transit and Carpooling

San Ramon has extensive transportation programs that support transit and other alternative modes of travel. The City of San Ramon qualified for the "Best Workplace for Commuters" for 2006. This means that the City met the National Standard of Excellence for commuter benefits, thereby cutting traffic and air pollution and improving the overall health and quality of life. Established by the EPA and the U.S. Department of Transportation (DOT), this designation is a mark of excellence for environmentally and employee-friendly organizations. Brief descriptions of these programs are provided below.

Residents and commuters of San Ramon who travel to, through, or from Contra Costa County can take advantage of the commuter incentive programs described below.

Guaranteed Ride Home: This program provides a free taxi ride or rental car in case of an emergency (illness, family crisis, unscheduled overtime). The program applies to employees in Contra Costa County who use any alternative to driving alone to work (public transit, carpooling, vanpooling, biking, or walking) on the day of the emergency. The employer is required to pre-register in the program 511 Contra Costa.

Vanpool Passengers: Vanpool riders receive 50 percent off their vanpool fare for the first 3 months. The program is limited to new vanpool riders who live or work in Contra Costa County (and who have not been in a registered vanpool for 6 months).

Vanpool Drivers: Under this program, people who start a new vanpool or who keep it on the road for 1 year with a minimum of six new passengers receive $1000. Drivers of new vanpools with origin and/or destination in Contra Costa County can participate.

Carpool Incentive Program: This program provides a $60 gift card to those who carpool to work or college in Contra Costa County instead of driving alone.

Transit Incentive Program: Commuters who live, work, or attend college in Contra Costa County and currently drive alone can obtain complimentary transit tickets or passes.

Student Transit Ticket Program: This program encourages students to take public transit to school by providing free public transit tickets as an alternative to driving student(s) to school. Each student receives two 12-Ride County Connection transit tickets (limited to two tickets per school year). Student(s) must be registered in a public or private K-12 school in San Ramon, Danville, Alamo, Lafayette, Moraga, or Orinda. This offer is available with a maximum of three students per household while supplies last.

Spare the Air: Spare the Air was established by the Bay Area Air Quality Management District in 1991 to reduce air pollution and provide advance notice when a "bad air day"—a day when air quality is forecast to exceed federal standards—is likely to occur. Many of the measures that reduce air pollution also reduce greenhouse gas emissions.

Because most air pollution is preventable, Spare the Air is focused on educating the public and promoting changes in behavior that will help prevent poor air quality. The program reaches out to several audiences:

- AirAlert is an email service that informs the public the day before a Spare the Air day is predicted to occur. It encourages Bay Area residents to modify their behavior to prevent, or at least reduce, the anticipated bad air and gives advance notice to people with respiratory sensitivities, such as asthma or emphysema.
- The Employer Program provides more than 2,100 businesses with free tools to help them educate employees about pollution prevention and advises them when an AirAlert is issued.
- Over 100 Bay Area cities and counties have adopted legislation and developed programs to support Spare the Air and encourage their residents to follow suit.

- Community Resource Teams provide an opportunity for all interested people to work together and plan educational activities and programs to reduce air pollution in their communities. (BAAQMD 2009c)

Transportation Management Plans: Privately implemented transportation management plans are an important part of San Ramon's transportation strategy. One award-winning example is the Bishop Ranch development. Bishop Ranch has taken a leadership role in addressing the transit needs of the Bishop Ranch commuters and surrounding area. The Bishop Ranch Transportation Management Plan has enhanced traffic flow, reduced traffic, and eased employee commuting. Notable achievements include:

- A 33-percent reduction in daily vehicle traffic to Bishop Ranch and a 40 percent reduction in peak-hour traffic
- More than $2 million in transit passes distributed annually to Bishop Ranch employees
- More than 230,000 annual passenger trips on the Bishop Ranch Express Buses
- Elimination of approximately 11,000 cars annually from the roads through use of the various transportation services available (express buses, carpools, vanpools, trains/light rail, biking, and walking)

The "drive alone" rate for California is approximately 85 percent. By contrast, the Bishop Ranch tenant "drive alone" rate is just 65 percent. This success has been recognized nationally, regionally, and locally, and has been acclaimed as the best transportation program offered by a business park in the United States.

The Bishop Ranch Transportation Center offers services and detailed analysis for Bishop Ranch customers and prospects, including:

- Express buses connecting Bishop Ranch's San Ramon campus with Bay Area public transit
- Employee commute planning
- Employment base review
- Relocation assistance referrals and more
- Commute shed analysis
- Personalized commute planning assistance
- Free bus passes connecting to the BART rail service worth approximately $1,000 per year for every employee
- Incentive programs
- Access to the Guaranteed Ride Home program ticket sales for Bay Area public transportation
- Commuter alerts

Infrastructure Supporting Alternative Modes

San Ramon has developed infrastructure that enhances the effectiveness of programs designed to encourage alternative modes of travel.

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. These parking spaces are available on a first-come, first-serve basis and are free of charge.

Bike Racks and Lockers: Bike racks and lockers are available at the Transit Center and at the Bollinger Canyon Road and San Ramon Valley Park and Ride lot and the Sycamore Park and Ride lot in Danville. Bike lockers are covered, secured, and can be rented monthly, quarterly, or yearly. Bike racks are available on first come, first serve basis.

Park & Ride Lots: These lots are available for a commuter to meet carpools, vanpools, and buses. The Bollinger Canyon Road and San Ramon Valley lot provides 100 parking spaces and the Sycamore Park & Ride lot in Danville provides over 150 spaces. The Park and Ride lot located at the northeast corner of I-680/Sycamore Valley Road interchange provides approximately 240 parking spaces, a bus transfer station, and a carpool staging area.

Information regarding San Ramon's transportation programs and links to programs available to San Ramon residents and workers can be found at http://www.sanramon.ca.gov/transp/default.htm.

Residential Traffic Calming (RTC) Program: Traffic calming can result in lower air pollutant emissions, when measures smooth traffic flow or reduce queuing and associated engine idling and accelerations. Traffic calming measures that enhance safety for pedestrians and bicyclists can encourage greater use of these modes for more trips and can reduce motor vehicle emissions.

The objectives for the San Ramon RTC Program are:

1. Single point of contact for residents concerned about traffic calming issues
2. Increased awareness on the part of residents and drivers about their obligation to be good neighbors when driving through residential neighborhoods
3. Enhanced pedestrian, bicycle, and vehicle traffic safety on neighborhood streets
4. Increased quality of life for residents, including reduced traffic noise, decreased air pollution, etc.

San Ramon Safe Routes to School Program: Safe travel to and from school sites is a key community traffic safety concern. The mission of the San Ramon Safe Routes to School (SRTS) Program is to raise awareness of pedestrian and traffic safety at school sites. The program educates

school site administrators, parents, and children about bicycle safety, pedestrian awareness, and traffic concerns. The SRTS Program promotes a comprehensive, proactive approach to securing safety along school routes and on school sites. This joint collaboration between the City and schools has produced an effective program that reaches out to all elementary school students and promotes bicycle, pedestrian, and traffic safety, thereby increasing the use of these alternatives to being driven to school.

Street Smarts Program: Street Smarts was created in 2004 following the tragic deaths of three San Ramon Valley children in two separate, traffic-related accidents. The purpose of the program is to address traffic safety problems at their sources: in the minds of drivers, pedestrians, and cyclists. Street Smarts brings education to the equation. The purpose is to supplement, and complement, the ongoing efforts involving engineering and enforcement to enhance safety and increase walking and cycling.

Bicycle Infrastructure: Bicycling and walking are key elements of San Ramon's circulation system. The City has an extensive network of bikeways, sidewalks, and trails that enhance neighborhood accessibility and help to reduce reliance on the private automobile.

Good accessibility to bicycle and pedestrian facilities help to reduce reliance on the private automobile. Exhibit 10 identifies the location of the City's existing and planned bicycle routes. Bike routes are categorized by the type of facility. A "Class I" bikeway, also referred to as a bike path, is a right-of-way that is completely separated from any street. A "Class II" bikeway, or bike lane, is a one-way, striped, and signed lane on a street. A "Class III" bike route shares the road with pedestrians and motor vehicle traffic and is marked only by signs. With the exception of the Iron Horse Trail, Class I bike paths from Bent Creek to Old Ranch Park, and a "Cross-Valley" trail in the PG&E right-of-way, all bikeways in San Ramon are Class II or III, located on city rights-of-way. It is the City's goal to provide and maintain a safe and comprehensive bicycle and pedestrian system that connects all parts of the City.

Other Programs

MTC Transportation/Land Use Platform. The MTC's 2030 Transportation Plan included a major initiative to strike a better balance between transportation and land use with its Transportation/Land Use Platform. The platform includes the following principles:

- Focus Growth Around Transit
- Provide Community Benefits
- Reinvest in Existing Infrastructure
- Create Smarter Suburbs
- Build More Affordable Housing in the Right Places
- Avoid Displacement of Goods-Related Businesses and Facilities
- Develop Stronger Partnerships

The MTC adopted a policy stating that the Commission believes that in order to meet the goals of the Transportation 2030 Plan and improve the quality of life for all Bay Area residents, transportation, and land-use decisions must be more closely coordinated. Thus, it will be the policy of the Metropolitan Transportation Commission to encourage, recognize, and reward land-use practices and policies that maximize walking, bicycling, transit ridership, and other forms of high-occupancy-vehicle (HOV) travel, while diminishing the need to travel long distances and reducing vehicle-related air pollution. (MTC 2005a)

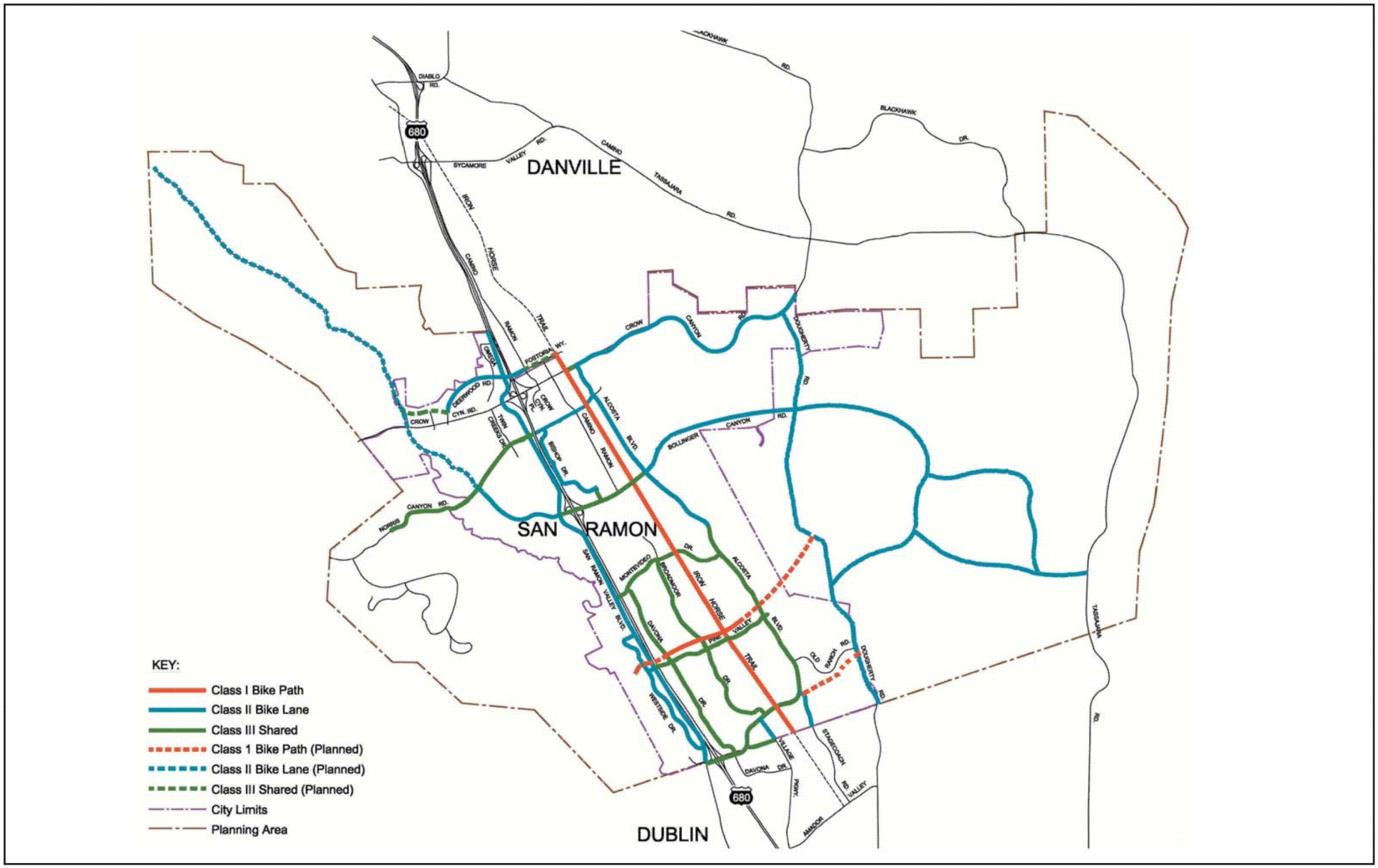
Smart Growth. The City of San Ramon's existing 2020 General Plan approved by the voters in 2002 is supportive of smart-growth principles that help support alternative modes of transportation. It includes an urban growth boundary to encourage smart growth by promoting infill development and discouraging urban sprawl by providing mixed use of commercial, retail, education, recreation, and housing and a plan for the acquisition and preservation of ridgeline areas and agricultural lands contiguous to the City of San Ramon.

Alternative Fuel Vehicles for Municipal Operations: San Ramon has been adding alternative fuel vehicles to its fleet since 1999. The San Ramon Public Services Department utilizes a fleet of 25 compressed natural gas (CNG)-powered pick-up trucks to assist in maintaining public parks, streets, drainage, signals, lights, facilities, and landscaping. These trucks are fueled by CNG stations located at the Public Services Corporation yard. The Public Services Department also utilizes six electric-powered golf carts/gem cars for park maintenance operations. The department is investigating other alternative fuels, such as biodiesel, and it purchased a gas/electric hybrid pickup truck in 2009.

In addition, five of the 10 vehicles that the City's franchised garbage hauler uses to collect residential garbage, recyclables, and yard trimmings in San Ramon are CNG powered. The franchise agreement allows the City to require that the hauler utilize additional alternative fuel collection vehicles as its older diesel vehicles are gradually replaced.

Natural gas vehicle fuel provides lower emissions than gasoline and diesel, including a 25-percent reduction in greenhouse gases. (EPA 2003)

LED Traffic Signals and Street Lighting. In 2009, San Ramon completed replacing all incandescent traffic signal heads with LED lamps in order to conserve energy and reduce greenhouse gas emissions. In 2009, the City tested four LED streetlights. San Ramon intends to convert all streetlights to LED lights as funding allows; the City is using the funds previously budgeted to relamp high pressure sodium (HPS) streetlights to purchase LED replacements. San Ramon will also convert all parking lot lighting at city parks and facilities to LED lamps. San Ramon is working with developers in the Dougherty Valley to ensure that any new streetlights that are installed are fitted with LED lamps.



Source: Fehr & Peers Associates, 2001.

NORTH

Not to scale

Michael Brandman Associates

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Exhibit 10
San Ramon Bicycle Network

PG&E prepared an assessment of the installation of Phase III LED luminaires in the City of Oakland. The luminaries drew approximately 58 watts—20 watts less than the older technology, Phase II luminaries—and 63 watts less than the commonly used HPS luminaires. If the 52-percent energy savings from replacing HPS luminaires with Phase III luminaires could be achieved with one-half of the estimated electrical usage for roadway lighting in PG&E's service territory, the resulting savings would be over 200 GWh (PG&E 2008).

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SECTION 5: ACRONYMS AND ABBREVIATIONS

µg	micrograms
µm	micrometer
ABAG	Association of Bay Area Governments
ACE	Altamont Commuter Express
BAAQMD	Bay Area Air Quality Management District
BART	Bay Area Rapid Transit
Basin	San Francisco Bay Area Basin
CAAQS	California Ambient Air Quality Standards
CAFE	Corporate Average Fuel Economy
CalEPA	California Environmental Protection Agency
CARB	California Air Resources Board
CAT	Climate Action Team
CCCTA	Contra Costa County Transit Authority
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CFC	chlorofluorocarbons
CIWMB	California Integrated Waste Management Board
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
CPUC	California Public Utilities Commission
CTC	California Transportation Commission
DERWA	DSRSD-East Bay MUD Recycled Water Authority
District	Bay Area Air Quality Management District

DOT	U.S. Department of Transportation
DSRSD	Dublin San Ramon Services District
East Bay MUD	East Bay Municipal Utility District
EPA	Environmental Protection Agency
GHG	greenhouse gas
gpf	gallons per flush
GWh	gigawatt hour
GWP	global warming potential
HET	high efficiency toilets
HFCs	hydrofluorocarbons
IOU	Independently Operated Utility
IPCC	Intergovernmental Panel on Climate Change
LED	light emitting diode
$MMTCO_2e$	million metric tons of carbon dioxide equivalent
mph	miles per hour
MPO	Metropolitan Planning Organization
MPR	market price referents
MTC	Metropolitan Transportation Commission
NAAQS	National Ambient Air Quality Standards
NO_x	oxides of nitrogen
O_3	ozone
OPR	Governor's Office of Planning and Research
PFCs	perfluorocarbons
PG&E	Pacific Gas and Electric Company
PM	particulate matter

ppm	parts per million
ROG	reactive organic gases
VMT	vehicle miles traveled
VOC	volatile organic compounds
WARM	EPA's Waste Reduction Model

SECTION 6: GLOSSARY

Air Basin. An area of the state designated by CARB pursuant to Subdivision (a) of Section 39606 of the CH&SC.

Air Pollutants. Substances which are foreign to the atmosphere or are present in the natural atmosphere to the extent that they may result in adverse effects on humans, animals, vegetation, and/or materials.

Air Quality Attainment Plan. A plan prepared by an APCD/AQMD that is designated as a nonattainment area, to comply with the California Clean Air Act for purpose of meeting the requirements of the California Ambient Air Quality Standards.

Alternative Fuels. Fuels such as methanol, ethanol, natural gas, and liquid petroleum gas that are cleaner burning and contribute to the attainment of CARB's emission standards.

Ambient Air. Air occurring at a particular time and place outside of structures. Often used interchangeably with outdoor air.

Anthropogenic. Of, created by, relating to, or influenced by the impact of man on nature.

AQMD (Air Quality Management District). A regional agency with authority to regulate stationary sources of air pollution (such as refineries, manufacturing facilities, and power plants) within a given air basin or geographic area, and governed by a Board of Directors representing the counties within the jurisdiction of the District.

Areawide Sources. Also known as area sources, these include multiple stationary emission sources such as water heaters, gas furnaces, fireplaces, and woodstoves. The CCAA requires districts to include these area sources in the AQMPs.

Atmosphere. The gaseous mass or envelope surrounding the earth.

Attainment Area. An area that is in compliance with the National and/or California Ambient Air Quality Standards.

Attainment. Achieving and maintaining the air quality standards (both state and federal) for a given standard.

BACT (Best Available Control Technology). The most stringent emission limit or control technique that has been achieved in practice (any where in the world). BACT is a requirement of NSR (New Source Review).

Biogenic. Produced by living organisms.

CAA (Federal Clean Air Act). A federal law, first enacted in 1970, that forms the basis for the national air pollution control effort. Last amended in 1990, the CAA establishes ambient air quality (health) standards and prescribes the requirements and dates to meet these standards.

CAAQS (California Ambient Air Quality Standards). Specified concentrations and durations of air pollutants, recommended by the California Department of Health Services and adopted into regulation by the Air Resources Board, which relate the intensity and composition of air pollution to undesirable effects. CAAQS are the standards that must be met pursuant to the requirements of the California Clean Air Act.

CARB (California Air Resources Board). The State's lead air quality agency, consisting of a nine-member, Governor-appointed board that is fully responsible for motor vehicle pollution control, and which has oversight authority over California's air pollution management program.

CCAA (California Clean Air Act). A California law passed in 1988 that provides the basis for air quality planning and regulation independent of federal regulations, and which establishes new authority for attaining and maintaining California's air quality standards by the earliest practicable date. A major element of the CCAA is the requirement that local APCDs/AQMDs in violation of the CAAQS must prepare attainment plans that identify air quality problems, causes, trends, and actions to be taken for attainment.

CEQA (California Environmental Quality Act). A state law intended to protect the environment of California. It is codified in Sections 21000 through 21177 of the Public Resources Code. CEQA establishes mandatory ways by which governmental (public agency) decision makers are informed about the potential significant environmental effects of proposed projects. CEQA also mandates the identification of ways to avoid or significantly reduce damage to the environment. After preliminary review or the completion of an Initial Study, the lead agency may decide to prepare an Environmental Impact Report (EIR) for a project. An EIR is an informational document used to inform public agency decision makers and the public of the significant effects of a project. The EIR also identifies possible ways to eliminate or minimize the significant effects and describes reasonable alternatives to the project. A court decision has determined that both alternatives and mitigation measures must be discussed in the EIR.

CO (carbon monoxide). A colorless, odorless gas resulting from the incomplete combustion of fossil fuels. Over 80 percent of the CO emitted in urban areas is contributed by motor vehicles. CO interferes with the blood's ability to carry oxygen to the body's tissues and results in numerous adverse health effects. CO is a criteria air pollutant.

CO_2 (carbon dioxide). A colorless, odorless, gas that occurs naturally in the earth's atmosphere. Significant quantities also are emitted into the air by fossil fuel combustion. Emissions of CO_2 have been alleged to increasing the greenhouse effect.

Concentration. The amount of an air pollutant present in a unit sample, usually measured in parts per million (ppm) or micrograms per cubic meter ($\mu g/m^3$).

Criteria Air Pollutant. An air pollutant for which acceptable levels of exposure can be determined and for which a National or California Ambient Air Quality Standard has been set. Examples include ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, and PM_{10} (see individual pollutant definitions).

Emission Standard. The maximum amount of a pollutant that is permitted to be discharged from a polluting source such as an automobile or a smokestack.

Emissions Inventory. An estimate of the quantity of pollutants emitted into the atmosphere over a specific period such as a day or a year. Considerations that go into the inventory include type and location of sources, the processes involved, and the level of activity.

EPA (U.S. Environmental Protection Agency). The federal agency charged with setting policy and guidelines, and carrying out legal mandates for the protection of national interests in environmental resources.

Goal. A general, ultimate purpose toward which effort is directed.

Greenhouse Effect. The warming effect of the earth's atmosphere on the earth. Light energy from the sun that passes through the earth's atmosphere is absorbed by the earth's surface and re-radiated into the atmosphere as energy. The heat is then trapped by the air, creating a situation similar to that which occurs in a greenhouse.

Hydrocarbon. Any of a large number of compounds containing various combinations of hydrogen and carbon atoms. They may be emitted into the air as a result of fossil fuel combustion and fuel volatilization, and are a major contributor to smog.

I & M, I/M (Inspection and Maintenance Program). A motor vehicle inspection program implemented by the Bureau of Automotive Repair (BAR). It is designed to identify vehicles in need of maintenance and to assure the effectiveness of their emission control systems on a biennial basis. The program enacted in 1979 and strengthened in 1990 is also known as a "smog check."

Implementation. The enactment of policies, usually through the use of zoning and land division ordinances.

Mobile Sources. Sources of air pollution such as automobiles, motorcycles, trucks, off-road vehicles, boats, and airplanes.

Monitoring. The periodic or continuous sampling and analysis of air pollutants in ambient air or from individual pollutant sources.

NAAQS (National Ambient Air Quality Standards). Standards set by the federal EPA for the maximum levels of air pollutants that can exist in the ambient air without unacceptable effects on human health or the public welfare.

Nonattainment Area. An area identified by the EPA and/or CARB as not meeting either national standards or CAAQS standards for a given pollutant.

NSR (New Source Review). The mechanism to assure that new and modified stationary sources will not interfere with the attainment or maintenance of any ambient air quality standard, or prevent reasonable further progress towards the attainment or maintenance of any ambient air quality standard. A program used in a non-attainment area to permit or site new permit or site new industrial facilities or modifications to existing industrial facilities which emit non-attainment criteria air pollutants. The two major requirements of NSR are Best Available Control Technology and Offsets.

Objective. The object of a course of action, midway in specificity between a goal, or general purpose, and a policy, or specific action statement.

Ozone (O_3). A pungent, pale, blue, reactive toxic gas consisting of three oxygen atoms. It is a product of the photochemical process involving the sun's energy. Ozone exists in the ozone layer as well as at the earth's surface. Ozone at the earth's surface causes numerous adverse health effects and is a criteria air pollutant. It is a major component of smog.

Ozone Layer. A layer of ozone 12 to 15 miles above the earth's surface that helps to filter out harmful ultraviolet rays from the sun. It differs from ground-level ozone, which exists at the earth's surface and is a harmful component of photochemical smog.

Ozone Precursors. Compounds such as hydrocarbons and oxides of nitrogen, occurring either naturally or as a result of human activities, which contribute to the formation of ozone, the principal component of smog.

Pedestrian Oriented Development (POD). Any of a number of design strategies that emphasize pedestrian access over automobile access. They typically provide pedestrian amenities such as sidewalks, street trees, commercial at street frontage, safe street crossings, etc.

PM_{10} (Particulate Matter). A major air pollutant consisting of solid or liquid matter such as soot, dust, aerosols, fumes and mists less than 10 microns in diameter (one micron = 1/1,000,000 meter = 0.00003937 inch). PM_{10} causes visibility reduction and adverse health effects, and is a criteria air pollutant.

Policy. A specific action statement intended to guide future decision-making.

ROG (reactive organic gas). Hydrocarbon compounds that are reactive and may contribute to the formation of smog. Also sometimes referred to as volatile organic compounds (VOCs) and non-methane organic compounds (NMOCs).

Smog. A combination of smoke, ozone, hydrocarbons, nitrogen oxides, and other chemically reactive compounds that, under various conditions of weather and sunlight, may result in a murky brown haze that causes adverse health effects. A primary source of smog is automobiles.

Smoke. The gaseous products of incomplete burning of carbonaceous materials made visible by the presence of small particles of carbon.

State Implementation Plan. A document prepared by each state describing existing air quality conditions and measures that will be taken to attain and maintain National Ambient Air Quality Standards. In California, districts prepare nonattainment area plans to be included in the State's SIP.

Stationary Sources. Non-mobile sources such as refineries, power plants, and manufacturing facilities that emit air pollutants.

Sulfur dioxide (SO_2). A pungent, colorless gas that is formed by the combustion of fossil fuels. Power plants, which may use coal or oil high in sulfur content, have traditionally been major sources of SO_2. SO_2 is a criteria pollutant.

Sulfur oxides. Acrid, corrosive, poisonous gases produced chiefly when fuel that contains sulfur is burned. The principal sources of sulfur oxides are electric generating plants and industrial plants.

Transit Oriented Development (TOD). Mixed-use neighborhoods, up to 160 acres in area, which are developed around a transit stop and core commercial area. The entire TOD must be within an average of 2,000-foot walking distance of a transit stop. Secondary areas of lower density housing, schools, parks, and commercial and employment uses surround TODs for up to 1 mile.

VMT (vehicle miles traveled). A term that reflects the number of miles traveled by all types of vehicles on a particular roadway or in a specific area such as a city, county, or region.

Volatile Organic Compounds (VOCs). Any organic compound containing at least one carbon atom except for specific exempt compounds found to be non-photochemically reactive.

Appendix A:
Detailed Greenhouse Gas Inventories

SAN RAMON GREENHOUSE GAS EMISSION INVENTORY

The following tables provide the City of San Ramon's community-wide and government greenhouse gas inventories for the years 2005 and 2008. The inventories were prepared using the STAPPA/ALAPCO and ICLEI's Clean Air and Climate Protection Software.

Table 1: City of San Ramon Community Greenhouse Gas Emissions in 2005 by Sector

Sector	Equivalent CO_2 (tonnes/year)	Equivalent CO_2 (%)	Energy (MMBtu)
Residential			
Electricity	38,627	6.7	563,382
Natural Gas	54,512	9.4	1,019,222
Subtotal Residential	93,138	16.1	1,582,603
Commercial			
Electricity	45,016	7.8	656,577
Natural Gas	30,322	5.3	566,931
Subtotal Commercial	75,338	13.1	1,223,509
Industrial			
Direct Access Electricity Consumption – District Rate Payers	89	0.0	947
Direct Access Electricity Consumption - Remainder	7,385	1.3	78,301
Subtotal Industrial	7,474	1.3	79,248
Transportation			
Local Roads and State Hwy Gasoline	361,721	62.7	5,156,082
Local Roads and State Hwy Diesel	20,905	3.6	255,220
Subtotal Transportation	382,625	66.3	5,411,302
Waste			
Plant Debris	3,156	0.5	—
Total Alternative Daily Cover	3,156	0.5	—
Paper Products	8,491	1.5	—
Food Waste	3,330	0.6	—
Plant Debris	894	0.2	—
Wood/Textiles	2,493	0.4	—
Total Landfilled Waste without ADC	15,208	2.6	—
Subtotal Waste	18,364	3.2	—

Sector	Equivalent CO_2 (tonnes/year)	Equivalent CO_2 (%)	Energy (MMBtu)
Total	**576,940**	**100.0**	**8,296,662**
Notes: Generated for San Ramon using STAPPA/ALAPCO and ICLEI's Clean Air and Climate Protection Software developed by Torrie Smith Associates, Inc. Source: City of San Ramon (2009a)			

Table 2: City of San Ramon Government Greenhouse Gas Emissions in 2005

Sector	Equivalent CO_2 (tonnes/year)	Equivalent CO_2 (%)	Energy (MMBtu)	Cost ($)
Buildings				
Electricity	1,443	59.2	21,046	945,354
Natural Gas	828	34.0	15,478	174,033
Subtotal Buildings, Streetlight &Operations	2,271	93.2	36,524	1,119,387
Vehicle Fleet				
Gasoline	14	0.6	5,632	0
CNG	2	0.1	1,316	0
Diesel (ULSD)	1	0.0	852	0
Subtotal Vehicle Fleet	17	0.7	7,801	0
Waste				
Paper Products	96	4.0	—	0
Food Waste	39	1.6	—	0
Plant Debris	4	0.2	—	0
Wood/Textiles	10	0.4	—	0
Subtotal City Facilities & Public Receptacles	149	6.1	—	0
Total	**2,437**	**100.0**	**44,324**	**1,119,387**
Notes: Generated for San Ramon using STAPPA/ALAPCO and ICLEI's Clean Air and Climate Protection Software developed by Torrie Smith Associates, Inc. Source: City of San Ramon (2009a)				

Table 3: City of San Ramon Community Greenhouse Gas Emissions in 2008 by Sector

Sector	Equivalent CO_2 (tonnes/year)	Equivalent CO_2 (%)	Energy (MMBtu)
Residential			
Electricity	1,847	0.3	639,967

Sector	Equivalent CO_2 (tonnes/year)	Equivalent CO_2 (%)	Energy (MMBtu)
Natural Gas	62,332	10.8	1,165,436
Subtotal Residential	64,179	11.1	1,805,402
Commercial			
Electricity	2,156	0.4	747,026
Natural Gas	33,238	5.7	621,453
Subtotal Commercial	35,394	6.1	1,368,479
Transportation			
Local Roads and State Hwy Gasoline	439,082	75.9	6,390,489
Local Roads and State Hwy Diesel	25,909	4.5	316,321
Subtotal Transportation	464,992	80.4	6,706,810
Waste			
Plant Debris	2,010	0.3	—
Total Alternative Daily Cover	2,010	0.3	—
Paper Products	6,585	1.1	—
Food Waste	2,591	0.4	—
Plant Debris	694	0.1	—
Wood/Textiles	1,935	0.3	—
Total Landfilled Waste without ADC	11,805	2.0	—
Subtotal Waste	13,815	2.4	—
Total	**578,380**	**100.0**	**9,880,692**

Notes:
Generated for San Ramon using STAPPA/ALAPCO and ICLEI's Clean Air and Climate Protection Software developed by Torrie Smith Associates, Inc.
Source: City of San Ramon (2009a)

Table 4: City of San Ramon Government Greenhouse Gas Emissions in 2008

Sector	Equivalent CO_2 (tonnes/year)	Equivalent CO_2 (%)	Energy (MMBtu)	Cost ($)
Buildings				
Electricity	1,685	59.7	25,362	1,165,755
Natural Gas	950	33.7	17,758	192,772
Subtotal Buildings, Streetlight &Operations	2,635	93.4	43,120	1,358,527
Vehicle Fleet				
Gasoline	17	0.6	6,708	0

Sector	Equivalent CO_2 (tonnes/year)	Equivalent CO_2 (%)	Energy (MMBtu)	Cost ($)
CNG	1	0.0	1,039	0
Diesel (ULSD)	1	0.0	980	0
Subtotal Vehicle Fleet	19	0.7	8,727	0
Waste				
Paper Products	109	3.9	—	0
Food Waste	44	1.5	—	0
Plant Debris	4	0.2	—	0
Wood/Textiles	12	0.4	—	0
Subtotal City Facilities & Public Receptacles	169	6.0	—	0
Total	**2,822**	**100.0**	**51,847**	**1,358,527**

Notes:
Generated for San Ramon using STAPPA/ALAPCO and ICLEI's Clean Air and Climate Protection Software developed by Torrie Smith Associates, Inc.
Source: City of San Ramon (2009a)

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: 28. Bollinger Canyon Road/Alcosta Blvd.
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	140. (M)
BRG=	WORST CASE	VD=	.0 CM/S		
CLAS=	4 (D)	VS=	.0 CM/S		
MIXH=	300. M	AMB=	.0 PPM		
SIGTH=	5. DEGREES	TEMP=	7.2 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NB External	14	0	14	600	AG	1056	1.2	.0	17.0
B. NB Approach	14	600	14	758	AG	691	1.8	.0	17.0
C. NB Depart	14	758	14	916	AG	954	1.8	.0	17.0
D. NB External	14	916	14	1516	AG	954	1.2	.0	17.0
E. NB Left	14	600	7	758	AG	365	1.8	.0	17.0
F. SB Left	0	916	7	758	AG	325	1.8	.0	17.0
G. SB External	0	1516	0	916	AG	1313	1.2	.0	17.0
H. SB Approach	0	916	0	758	AG	988	1.8	.0	17.0
I. SB Depart	0	758	0	600	AG	1371	1.8	.0	17.0
J. SB External	0	600	0	0	AG	1371	1.2	.0	17.0
K. EB External	-750	750	-150	750	AG	3020	1.2	.0	19.0
L. EB Approach	-150	750	7	750	AG	2824	1.8	.0	19.0
M. EB Depart	7	750	164	750	AG	2830	1.8	.0	19.0
N. EB External	164	750	764	750	AG	2830	1.2	.0	19.0
O. WB External	764	766	164	766	AG	1680	1.2	.0	19.0
P. WB Approach	164	766	7	766	AG	1413	1.8	.0	19.0
Q. WB Depart	7	766	-150	766	AG	1914	1.8	.0	19.0
R. WB External	-150	766	-750	766	AG	1914	1.2	.0	19.0
S. EB Left	-150	750	7	758	AG	196	1.8	.0	19.0
T. WB Left	164	766	7	758	AG	267	1.8	.0	19.0

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Receptor	-10	739	1.8
2. Receptor	24	739	1.8
3. Receptor	24	777	1.8
4. Receptor	-10	777	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. Receptor	84.	1.0	.0	.0	.0	.0	.0	.0	.0	.0
2. Receptor	276.	1.0	.0	.0	.0	.0	.0	.0	.0	.0
3. Receptor	264.	.8	.0	.0	.0	.0	.0	.0	.0	.0
4. Receptor	97.	.8	.0	.0	.0	.0	.0	.0	.0	.0

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. Receptor	.1	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0
2. Receptor	.0	.0	.0	.5	.0	.0	.0	.0	.0	.1	.0	.0
3. Receptor	.0	.0	.2	.0	.0	.0	.0	.0	.3	.0	.0	.0
4. Receptor	.0	.0	.0	.0	.0	.1	.0	.3	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: 9. Crow Canyon Road/Crow Canyon Place
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S Z0= 100. CM ALT= 146. (M)
BRG= WORST CASE VD= .0 CM/S
CLAS= 4 (D) VS= .0 CM/S
MIXH= 300. M AMB= .0 PPM
SIGTH= 5. DEGREES TEMP= 7.2 DEGREE (C)

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NB External	11	0	11	600	AG	707	1.2	.0	13.7
B. NB Approach	11	600	11	761	AG	268	1.8	.0	13.7
C. NB Depart	11	761	11	921	AG	1120	1.8	.0	13.7
D. NB External	11	921	11	1521	AG	1120	1.2	.0	13.7
E. NB Left	11	600	5	761	AG	439	1.8	.0	13.7
F. SB Left	0	921	5	761	AG	270	1.8	.0	13.7
G. SB External	0	1521	0	921	AG	1085	1.2	.0	13.7
H. SB Approach	0	921	0	761	AG	815	1.8	.0	13.7
I. SB Depart	0	761	0	600	AG	1189	1.8	.0	13.7
J. SB External	0	600	0	0	AG	1189	1.2	.0	13.7
K. EB External	-750	750	-150	750	AG	3929	1.2	.0	24.4
L. EB Approach	-150	750	5	750	AG	3056	1.8	.0	24.4
M. EB Depart	5	750	161	750	AG	2552	1.8	.0	24.4
N. EB External	161	750	761	750	AG	2552	1.2	.0	24.4
O. WB External	761	771	161	771	AG	2168	1.2	.0	24.4
P. WB Approach	161	771	5	771	AG	2077	1.8	.0	24.4
Q. WB Depart	5	771	-150	771	AG	3028	1.8	.0	24.4
R. WB External	-150	771	-750	771	AG	3028	1.2	.0	24.4
S. EB Left	-150	750	5	761	AG	873	1.8	.0	24.4
T. WB Left	161	771	5	761	AG	91	1.8	.0	24.4

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Receptor	-8	736	1.8
2. Receptor	19	736	1.8
3. Receptor	19	785	1.8
4. Receptor	-8	785	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. Receptor	6.	.9	.0	.0	.0	.0	.0	.0	.0	.2
2. Receptor	276.	1.0	.0	.0	.0	.0	.0	.0	.0	.0
3. Receptor	262.	1.0	.0	.0	.1	.0	.0	.0	.0	.0
4. Receptor	175.	.9	.0	.0	.0	.0	.0	.0	.0	.0

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. Receptor	.0	.0	.0	.3	.0	.0	.0	.0	.1	.0	.0	.0
2. Receptor	.0	.0	.1	.4	.0	.0	.0	.0	.0	.2	.0	.0
3. Receptor	.0	.0	.2	.0	.0	.0	.0	.0	.5	.0	.0	.0
4. Receptor	.3	.0	.0	.1	.0	.0	.0	.0	.3	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: 25. Bollinger Canyon Road/Sunset Drive
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S Z0= 100. CM ALT= 140. (M)
BRG= WORST CASE VD= .0 CM/S
CLAS= 4 (D) VS= .0 CM/S
MIXH= 300. M AMB= .0 PPM
SIGTH= 5. DEGREES TEMP= 7.2 DEGREE (C)

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NB External	11	0	11	600	AG	779	1.2	.0	14.4
B. NB Approach	11	600	11	760	AG	227	1.8	.0	14.4
C. NB Depart	11	760	11	920	AG	1026	1.8	.0	14.4
D. NB External	11	920	11	1520	AG	1026	1.2	.0	14.4
E. NB Left	11	600	6	760	AG	552	1.8	.0	14.4
F. SB Left	0	920	6	760	AG	389	1.8	.0	14.4
G. SB External	0	1520	0	920	AG	1748	1.2	.0	14.4
H. SB Approach	0	920	0	760	AG	1359	1.8	.0	14.4
I. SB Depart	0	760	0	600	AG	93	1.8	.0	14.4
J. SB External	0	600	0	0	AG	93	1.2	.0	14.4
K. EB External	-750	750	-150	750	AG	3016	1.2	.0	23.1
L. EB Approach	-150	750	6	750	AG	2336	1.8	.0	23.1
M. EB Depart	6	750	161	750	AG	2881	1.8	.0	23.1
N. EB External	161	750	761	750	AG	2881	1.2	.0	23.1
O. WB External	761	770	161	770	AG	2216	1.2	.0	23.1
P. WB Approach	161	770	6	770	AG	2184	1.8	.0	23.1
Q. WB Depart	6	770	-150	770	AG	3759	1.8	.0	23.1
R. WB External	-150	770	-750	770	AG	3759	1.2	.0	23.1
S. EB Left	-150	750	6	760	AG	680	1.8	.0	23.1
T. WB Left	161	770	6	760	AG	32	1.8	.0	23.1

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Receptor	-9	737	1.8
2. Receptor	20	737	1.8
3. Receptor	20	783	1.8
4. Receptor	-9	783	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. Receptor	5.	.9	.0	.0	.0	.0	.0	.0	.0	.3
2. Receptor	277.	.8	.0	.0	.0	.0	.0	.0	.0	.0
3. Receptor	264.	1.1	.0	.0	.1	.0	.0	.0	.0	.0
4. Receptor	98.	.9	.0	.0	.0	.0	.0	.0	.0	.1

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. Receptor	.0	.0	.0	.2	.0	.0	.0	.0	.2	.0	.0	.0
2. Receptor	.0	.0	.0	.4	.0	.0	.0	.0	.0	.2	.0	.0
3. Receptor	.0	.0	.2	.0	.0	.0	.0	.0	.6	.1	.0	.0
4. Receptor	.0	.0	.0	.0	.0	.1	.0	.4	.0	.0	.0	.0

San Ramon Vehicle Miles Traveled

Prepared by Michael Brandman Associates
18-Mar-10

Year	VMT/Capita
2000	18.51
2005	18.46
2006	18.22
2020	17.61
2030	17.42
2035	17.04

2005 Interpolation from 2000 and 2006 data	Average Annual	2005
Change in VMT/Capita	0.0483	18.46

2030 Interpolation from 2020 and 2035	Average Annual	2030
Change in VMT/Capita	0.0380	17.42
Rate of Change (2005 and 2035)	5.64%	

Notes:
VMT = vehicle miles traveled

Source for VMT/Capita: Metropolitan Transportation Commission. 2009. BASSTEGG (Bay Area Simplified Simulation of Travel, Energy and Greenhouse Gases) Sketch Planning Charrette/GIS Models for Predicting Household Vehicle Miles of Travel (VMT) and Greenhouse Gases. Place Level Data. ftp://ftp.abag.ca.gov/pub/mtc/planning/forecast/BASSTEGG/

Appendix C:
Noise Supporting Data

C.1 - Noise Methodology and Modeling Data

Noise Supporting Information
for the
San Ramon General Plan Update
Draft Environmental Impact Report
City of San Ramon, Contra Costa County, California

Prepared for:

City of San Ramon
Planning/Community Development Department
2226 Camino Ramon
San Ramon, CA 94583
925.973.2560

Contact: Debbie Chamberlain, Planning Manager

Prepared by:

Michael Brandman Associates
Bishop Ranch 3
2633 Camino Ramon, Suite 460
San Ramon, CA 94583
925.830.2733

Contact: Greg Tonkovich, Senior Noise Analyst

March 29, 2010

Methodology

Michael Brandman Associates evaluated the proposed project's noise impacts through noise measurements and modeling of project noise impacts. The methodology used analysis is described in Appendix C. In addition, the noise modeling data is provided in Appendix C.

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 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 24-hour measurement, 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.

24-Hour Noise Measurements

The 24-hour 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 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 throughout the City and to provide a baseline for any potential noise impacts that may be created in the future. The noise measurement sites were selected to provide a representative sampling of the noise levels experienced by nearby sensitive receptors.

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, and the wind was gusting 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 1. All roadways were based on a single-lane-equivalent noise source combining both directions of travel. The roadway classifications are based on the City of San Ramon General Plan Circulation Element. The roadway speed is based on the posted speed limits. The existing average daily traffic volumes were calculated by multiplying the p.m. peak-hour intersection volumes contained in the Traffic Impact Analysis (Kimley-Horn and

Associates, Inc, 2010) by 12. Soft-site conditions were used to develop noise contours and analyze noise impacts to the project site.

Table 1: FHWA Model Roadway Parameters

Roadway	Segment	General Plan Classification	Vehicle Speed (miles per hour)	Average Daily Traffic	
				Existing	Year 2030
Deerwood Road	West of San Ramon Valley Boulevard	4-Lane Collector	35	18,800	21,500
Fostoria Way	West of Crow Canyon Place	4-Lane Collector	35	16,000	18,800
Fostoria Way	East of Crow Canyon Place	4-Lane Collector	35	21,000	21,200
Fostoria Way	East of Camino Ramon	4-Lane Collector	35	2,600	13,600
Crow Canyon Road	West of Bollinger Canyon Road	4-Lane Arterial	40	22,400	23,700
Crow Canyon Road	West of Twin Creeks Drive	6-Lane Arterial	40	39,000	36,100
Crow Canyon Road	West of San Ramon Valley Boulevard	6-Lane Arterial	40	39,800	41,300
Crow Canyon Road	East of Crow Canyon Place	8-Lane Arterial	40	68,300	56,600
Crow Canyon Road	East of Camino Ramon	8-Lane Arterial	40	60,300	56,000
Crow Canyon Road	East of Alcosta Boulevard	6-Lane Arterial	40	60,900	55,000
Crow Canyon Road	West of Dougherty Road	6-Lane Arterial	40	33,700	37,100
Crow Canyon Road	East of Dougherty Road	6-Lane Arterial	40	53,600	55,500
Norris Canyon Road	West of San Ramon Valley Boulevard	4-Lane Collector	25	8,400	10,900
Norris Canyon Road	East of Bishop Drive	4-Lane Collector	40	16,100	21,700
Norris Canyon Road	East of Camino Ramon	4-Lane Collector	40	14,900	23,400
Executive Parkway	West of Camino Ramon	Minor	30	5,700	8,400
Bishop Drive	West of Camino Ramon	Minor	30	4,500	14,700
Bollinger Canyon Road	West of San Ramon Valley Boulevard	4-Lane Arterial	40	17,100	24,000

Table 1 (cont.): FHWA Model Roadway Parameters

Roadway	Segment	General Plan Classification	Vehicle Speed (miles per hour)	Average Daily Traffic	
				Existing	Year 2030
Bollinger Canyon Road	East of Sunset Drive	6-Lane Arterial	40	49,500	61,200
Bollinger Canyon Road	East of Camino Ramon	8-Lane Arterial	40	47,500	58,400
Bollinger Canyon Road	East of Market Place	8-Lane Arterial	40	34,800	54,300
Bollinger Canyon Road	East of Alcosta Boulevard	6-Lane Arterial	40	35,300	54,100
Bollinger Canyon Road	East of Canyon Lakes Drive	6-Lane Arterial	40	36,600	59,700
Montevideo Drive	East of San Ramon Valley Boulevard	Minor	30	12,900	14,500
Montevideo Drive	West of Alcosta Boulevard	Minor	30	4,300	7,900
Pine Valley Road	East of San Ramon Valley Boulevard	Minor	30	10,300	16,700
Windemere Parkway	East of Bollinger Canyon Road	4-Lane Arterial	40	1,600	1,600
East Branch Road	East of Bollinger Canyon Road	4-Lane Arterial	40	10,200	10,200
Old Ranch Road	East of Alcosta Boulevard	4-Lane Arterial	40	11,200	21,900
Old Ranch Road	West of Dougherty Road	4-Lane Arterial	40	6,600	17,500
Westside Drive	West of San Ramon Valley Boulevard	2-Lane Collector	30	9,300	8,500
Alcosta Boulevard	East of Davona Drive	4-Lane Arterial	40	23,700	28,200
Alcosta Boulevard	East of Kimball Avenue	4-Lane Arterial	40	19,200	22,300
Alcosta Boulevard	East of Village Parkway	4-Lane Arterial	40	16,000	21,700
Bollinger Canyon Road	North of Crow Canyon Road	2-Lane Collector	30	2,100	2,100
Bollinger Canyon Road	South of Crow Canyon Road	2-Lane Arterial	35	7,100	9,000
San Ramon Valley Boulevard	North of Deerwood Road	4-Lane Arterial	40	34,200	35,400

Table 1 (cont.): FHWA Model Roadway Parameters

Roadway	Segment	General Plan Classification	Vehicle Speed (miles per hour)	Average Daily Traffic	
				Existing	Year 2030
San Ramon Valley Boulevard	North of Crow Canyon Road	4-Lane Arterial	40	30,300	28,800
San Ramon Valley Boulevard	North of Norris Canyon Road	4-Lane Arterial	40	24,100	25,000
San Ramon Valley Boulevard	South of Norris Canyon Road	4-Lane Arterial	40	25,000	21,100
San Ramon Valley Boulevard	South of Bollinger Canyon Road	4-Lane Arterial	40	21,400	34,000
San Ramon Valley Boulevard	South of Montevideo Drive	4-Lane Arterial	40	15,900	31,000
San Ramon Valley Boulevard	South of Pine Valley Boulevard	4-Lane Arterial	40	17,200	31,200
San Ramon Valley Boulevard	North of Alcosta Boulevard	4-Lane Arterial	40	29,700	37,400
Crow Canyon Place	South of Fostoria Way	Minor	30	23,500	22,800
Crow Canyon Place	South of Crow Canyon Road	Minor	30	29,300	22,800
Camino Ramon	South of Fostoria Way	4-Lane Collector	35	15,500	13,100
Camino Ramon	South of Crow Canyon Road	4-Lane Collector	35	34,300	21,300
Camino Ramon	South of Norris Canyon Road	4-Lane Collector	35	15,100	19,500
Camino Ramon	South of Executive Parkway	4-Lane Collector	35	14,900	16,800
Camino Ramon	South of Bishop Drive	4-Lane Collector	35	17,400	28,600
Village Parkway	South of Alcosta Boulevard	4-Lane Arterial	40	8,400	12,900
Alcosta Boulevard	South of Crow Canyon Road	4-Lane Arterial	40	34,600	32,300
Alcosta Boulevard	South of Norris Canyon Road	4-Lane Arterial	40	15,200	23,700
Alcosta Boulevard	South of Woodland Drive	4-Lane Arterial	40	15,800	27,100
Alcosta Boulevard	South of Bollinger Canyon Road	4-Lane Arterial	40	18,400	29,100

Table 1 (cont.): FHWA Model Roadway Parameters

Roadway	Segment	General Plan Classification	Vehicle Speed (miles per hour)	Average Daily Traffic	
				Existing	Year 2030
Alcosta Boulevard	South of Vera Cruz Drive	4-Lane Arterial	40	12,800	24,300
Alcosta Boulevard	South of Montevideo Drive	4-Lane Arterial	40	6,800	17,300
Alcosta Boulevard	South of Old Ranch Road	4-Lane Arterial	40	10,400	19,300
Dougherty Road	South of Crow Canyon Road	6-Lane Arterial	40	40,900	33,700
Dougherty Road	North of Old Ranch Road	6-Lane Arterial	40	21,500	45,300
Dougherty Road	South of Old Ranch Road	6-Lane Arterial	40	23,000	47,200
I-680	North of Crow Canyon Road	Freeway	65	160,000	210,200
I-680	North of Bollinger Canyon Road	Freeway	65	150,000	194,400
I-680	North of Alcosta Boulevard	Freeway	65	159,000	187,900
Camino Tassajara	North of Windemere Parkway	4-Lane Arterial	40	2,900	2,900
Camino Tassajara	South of Windemere Parkway	6-Lane Arterial	40	8,100	8,100
Source: City of San Ramon, 2002; Kimley-Horn and Associates, Inc., 2010; Contra Costa County, 2010.					

Table 2 presents the hourly traffic flow distributions (vehicle mixes) used in this analysis. The vehicle mix provides the hourly distribution percentages of automobiles, medium trucks, and heavy trucks for input into the FHWA and SoundPlan Models.

Table 2: 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
Arterial and Collector	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%

Table 2 (cont.): 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
Minor	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%
I-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, 2009; Michael Brandman Associates, 2010.					

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, 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 length as determined by the General Plan Roadway Classifications. 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 several places throughout the City may be impacted by noise from multiple roadways, the SoundPlan Version 7.0 noise modeling software was used to develop the noise contour figures. SoundPlan's road noise 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 ground coverage of loose soil was used throughout the study area, and the default temperature and humidity were used in the analysis.

TABLE 6-1

ROADWAY PARAMETERS

ROADWAY	SEGMENT	ROADWAY CLASSIFICATION[1]	VEHICLE SPEED (MPH)	SITE CONDITIONS
Deerwood Road	West of San Ramon Valley Boulevar	4-Lane Collector	35	Soft
Fostoria Way	West of Crow Canyon Place	4-Lane Collector	35	Soft
Fostoria Way	East of Crow Canyon Place	4-Lane Collector	35	Soft
Fostoria Way	East of Camino Ramon	4-Lane Collector	35	Soft
Crow Canyon Road	West of Bollinger Canyon Road	4-Lane Arterial	40	Soft
Crow Canyon Road	West of Twin Creeks Drive	6-Lane Arterial	40	Soft
Crow Canyon Road	West of San Ramon Valley Boulevar	6-Lane Arterial	40	Soft
Crow Canyon Road	East of Crow Canyon Place	8-Lane Arterial	40	Soft
Crow Canyon Road	East of Camino Ramon	8-Lane Arterial	40	Soft
Crow Canyon Road	East of Alcosta Boulevard	6-Lane Arterial	40	Soft
Crow Canyon Road	West of Dougherty Road	6-Lane Arterial	40	Soft
Crow Canyon Road	East of Dougherty Road	6-Lane Arterial	40	Soft
Norris Canyon Road	West of San Ramon Valley Boulevar	4-Lane Collector	25	Soft
Norris Canyon Road	East of Bishop Drive	4-Lane Collector	40	Soft
Norris Canyon Road	East of Camino Ramon	4-Lane Collector	40	Soft
Executive Parkway	West of Camino Ramon	Minor	30	Soft
Bishop Drive	West of Camino Ramon	Minor	30	Soft
Bollinger Canyon Road	West of San Ramon Valley Boulevar	4-Lane Arterial	40	Soft
Bollinger Canyon Road	East of Sunset Drive	6-Lane Arterial	40	Soft
Bollinger Canyon Road	East of Camino Ramon	8-Lane Arterial	40	Soft
Bollinger Canyon Road	East of Market Place	8-Lane Arterial	40	Soft
Bollinger Canyon Road	East of Alcosta Boulevard	6-Lane Arterial	40	Soft
Bollinger Canyon Road	East of Canyon Lakes Drive	6-Lane Arterial	40	Soft
Montevideo Drive	East of San Ramon Valley Boulevar	Minor	30	Soft
Montevideo Drive	West of Alcosta Boulevard	Minor	30	Soft
Pine Valley Road	East of San Ramon Valley Boulevar	Minor	30	Soft
Windemere Parkway	East of Bollinger Canyon Road	4-Lane Arterial	40	Soft
East Branch Road	East of Bollinger Canyon Road	4-Lane Arterial	40	Soft
Old Ranch Road	East of Alcosta Boulevard	4-Lane Arterial	40	Soft
Old Ranch Road	West of Dougherty Road	4-Lane Arterial	40	Soft
Westside Drive	West of San Ramon Valley Boulevar	2-Lane Collector	30	Soft
Alcosta Boulevard	East of Davona Drive	4-Lane Arterial	40	Soft

TABLE 6-2

AVERAGE DAILY TRAFFIC (1000's)[1]

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ROADWAY	SEGMENT	AVERAGE DAILY TRAFFIC Existing Weekday	Cumulative 2030	2011 + Project Weekday
Deerwood Road	West of San Ramon Valley Bouleva	18,800	21,500	
Fostoria Way	West of Crow Canyon Place	16,000	18,800	
Fostoria Way	East of Crow Canyon Place	21,000	21,200	
Fostoria Way	East of Camino Ramon	2,600	13,600	
Crow Canyon Road	West of Bollinger Canyon Road	22,400	23,700	
Crow Canyon Road	West of Twin Creeks Drive	39,000	47,400	
Crow Canyon Road	West of San Ramon Valley Bouleva	39,800	47,300	
Crow Canyon Road	East of Crow Canyon Place	68,300	52,300	
Crow Canyon Road	East of Camino Ramon	60,300	56,400	
Crow Canyon Road	East of Alcosta Boulevard	60,900	55,000	
Crow Canyon Road	West of Dougherty Road	33,700	37,100	
Crow Canyon Road	East of Dougherty Road	53,600	55,500	
Norris Canyon Road	West of San Ramon Valley Bouleva	8,400	10,900	
Norris Canyon Road	East of Bishop Drive	16,100	21,700	
Norris Canyon Road	East of Camino Ramon	14,900	23,400	
Executive Parkway	West of Camino Ramon	5,700	8,400	
Bishop Drive	West of Camino Ramon	4,500	14,100	
Bollinger Canyon Road	West of San Ramon Valley Bouleva	17,100	19,600	
Bollinger Canyon Road	East of Sunset Drive	49,500	69,400	
Bollinger Canyon Road	East of Camino Ramon	47,500	58,500	
Bollinger Canyon Road	East of Market Place	34,800	62,500	
Bollinger Canyon Road	East of Alcosta Boulevard	35,300	54,300	
Bollinger Canyon Road	East of Canyon Lakes Drive	36,600	47,800	
Montevideo Drive	East of San Ramon Valley Bouleva	12,900	14,500	

TABLE 6-3

HOURLY TRAFFIC FLOW DISTRIBUTION[1]

MOTOR-VEHICLE TYPE	DAYTIME (7 AM TO 7 PM)	EVENING (7 PM TO 10 PM)	NIGHT (10 PM TO 7 AM)	TOTAL % TRAFFIC FLOW
Vehicle Mix 1 (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%
Vehicle Mix 2 (Major Arterial)				
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%
Vehicle Mix 3 (I-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%

Freeway	Percent per hour		
	7a.m.-7p.m.	7p.m.-10p.m.	10p.m-7a.m.
Automobiles	0.546	0.448	0.175
Medium Trucks	0.012	0.009	0.008
Heavy Trucks	0.013	0.007	0.012
	0.571	0.463	0.195

TABLE 7-1

EXISTING CONDITIONS NOISE CONTOURS

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ROAD	SEGMENT	CNEL AT 100 FEET (dBA)	DISTANCE TO CONTOUR (FEET)[1] 70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL	Right-of-way/2	min
Deerwood Road	West of San Ramon Valley Bouleva	61.4	RW	58	125	269	40	50.5
Fostoria Way	West of Crow Canyon Place	60.7	RW	52	112	241	40	max
Fostoria Way	East of Crow Canyon Place	61.9	RW	62	134	289	40	81.0
Fostoria Way	East of Camino Ramon	52.8	RW	RW	RW	72	40	
Crow Canyon Road	West of Bollinger Canyon Road	63.7	38	82	176	378	35	
Crow Canyon Road	West of Twin Creeks Drive	66.4	RW	124	268	577	68	
Crow Canyon Road	West of San Ramon Valley Bouleva	66.5	RW	126	272	585	68	
Crow Canyon Road	East of Crow Canyon Place	69.3	90	193	417	898	80	
Crow Canyon Road	East of Camino Ramon	68.8	83	178	384	826	80	
Crow Canyon Road	East of Alcosta Boulevard	68.4	78	167	361	777	68	
Crow Canyon Road	West of Dougherty Road	65.8	RW	113	243	524	68	
Crow Canyon Road	East of Dougherty Road	67.8	71	154	331	714	68	
Norris Canyon Road	West of San Ramon Valley Bouleva	55.0	10	RW	46	99	40	
Norris Canyon Road	East of Bishop Drive	62.2	RW	65	141	304	40	
Norris Canyon Road	East of Camino Ramon	61.9	RW	62	134	288	40	
Executive Parkway	West of Camino Ramon	53.8	RW	RW	39	83	30	
Bishop Drive	West of Camino Ramon	52.8	RW	RW	33	71	30	
Bollinger Canyon Road	West of San Ramon Valley Bouleva	62.5	RW	68	147	316	35	
Bollinger Canyon Road	East of Sunset Drive	67.5	RW	146	314	677	68	
Bollinger Canyon Road	East of Camino Ramon	67.7	RW	152	327	705	80	
Bollinger Canyon Road	East of Market Place	66.4	RW	123	266	573	80	
Bollinger Canyon Road	East of Alcosta Boulevard	66.0	RW	116	251	540	68	
Bollinger Canyon Road	East of Canyon Lakes Drive	66.1	RW	119	257	553	68	
Montevideo Drive	East of San Ramon Valley Bouleva	57.4	RW	31	67	144	30	
Montevideo Drive	West of Alcosta Boulevard	52.6	RW	RW	32	69	30	
Pine Valley Road	East of San Ramon Valley Bouleva	56.4	RW	RW	57	124	30	
Windemere Parkway	East of Bollinger Canyon Road	52.2	RW	RW	RW	65	35	
East Branch Road	East of Bollinger Canyon Road	60.3	RW	48	104	224	35	
Old Ranch Road	East of Alcosta Boulevard	60.7	RW	51	111	238	35	
Old Ranch Road	West of Dougherty Road	58.4	RW	36	78	168	35	
Westside Drive	West of San Ramon Valley Bouleva	57.0	RW	RW	63	136	40	
Alcosta Boulevard	East of Davona Drive	63.9	39	85	182	393	35	
Alcosta Boulevard	East of Kimball Avenue	63.0	RW	74	158	341	35	
Alcosta Boulevard	East of Village Parkway	62.2	RW	65	140	302	35	
Bollinger Canyon Road	North of Crow Canyon Road	50.5	RW	RW	RW	50	40	
Bollinger Canyon Road	South of Crow Canyon Road	57.1	RW	RW	64	139	33	
San Ramon Valley Boulevard	North of Deerwood Road	65.5	50	108	233	502	35	
San Ramon Valley Boulevard	North of Crow Canyon Road	65.0	46	100	215	463	35	
San Ramon Valley Boulevard	North of Norris Canyon Road	64.0	40	86	184	397	35	
San Ramon Valley Boulevard	South of Norris Canyon Road	64.1	41	88	189	407	35	
San Ramon Valley Boulevard	South of Bollinger Canyon Road	63.5	37	79	170	367	35	
San Ramon Valley Boulevard	South of Montevideo Drive	62.2	RW	65	140	301	35	
San Ramon Valley Boulevard	South of Pine Valley Boulevard	62.5	RW	68	147	317	35	
San Ramon Valley Boulevard	North of Alcosta Boulevard	64.9	46	98	212	457	35	
Crow Canyon Place	South of Fostoria Way	60.0	RW	46	100	215	30	
Crow Canyon Place	South of Crow Canyon Road	60.9	RW	54	115	249	30	
Camino Ramon	South of Fostoria Way	60.6	RW	51	110	236	40	
Camino Ramon	South of Crow Canyon Road	64.0	40	86	186	401	40	
Camino Ramon	South of Norris Canyon Road	60.5	RW	50	108	232	40	
Camino Ramon	South of Executive Parkway	60.4	RW	50	107	230	40	
Camino Ramon	South of Bishop Drive	61.1	RW	55	118	255	40	
Village Parkway	South of Alcosta Boulevard	59.4	RW	42	91	197	35	
Alcosta Boulevard	South of Crow Canyon Road	65.6	51	109	235	506	35	
Alcosta Boulevard	South of Norris Canyon Road	62.0	RW	63	136	292	35	
Alcosta Boulevard	South of Woodland Drive	62.2	RW	65	139	300	35	
Alcosta Boulevard	South of Bollinger Canyon Road	62.8	RW	71	154	332	35	
Alcosta Boulevard	South of Vera Cruz Drive	61.2	RW	56	121	261	35	
Alcosta Boulevard	South of Montevideo Drive	58.5	RW	37	79	171	35	
Alcosta Boulevard	South of Old Ranch Road	60.3	RW	49	105	227	35	
Dougherty Road	South of Crow Canyon Road	66.6	RW	128	277	596	68	
Dougherty Road	North of Old Ranch Road	65.0	RW	101	217	467	68	
Dougherty Road	South of Old Ranch Road	65.3	RW	105	227	488	68	
I-680	North of Crow Canyon Road	81.0	539	1161	2502	5390	70	
I-680	North of Bollinger Canyon Road	80.7	516	1112	2396	5163	70	
I-680	North of Alcosta Boulevard	80.9	537	1156	2491	5367	70	
Camino Tassajara	North of Windemere Parkway	56.0	RW	RW	54	116	35	
Camino Tassajara	South of Windemere Parkway	60.8	RW	RW	113	243	68	
0	0	-	-	-	-	-	0	

TABLE 7-1

Cumulative 2030

ROAD	SEGMENT	CNEL AT 100 FEET (dBA)	DISTANCE TO CONTOUR (FEET)[1] 70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL	Right-of-way/2	:ceeds 60 dBA	mi
Deerwood Road	West of San Ramon Valley Bouleva	62.0	RW	63	136	294	40	FALSE	5
Fostoria Way	West of Crow Canyon Place	61.4	RW	58	125	269	40	FALSE	max
Fostoria Way	East of Crow Canyon Place	62.0	RW	63	135	291	40	FALSE	8
Fostoria Way	East of Camino Ramon	60.0	RW	47	100	216	40	TRUE	
Crow Canyon Road	West of Bollinger Canyon Road	63.9	39	85	182	393	35	FALSE	
Crow Canyon Road	West of Twin Creeks Drive	67.3	RW	142	305	657	68	FALSE	
Crow Canyon Road	West of San Ramon Valley Bouleva	67.3	RW	141	305	656	68	FALSE	
Crow Canyon Road	East of Crow Canyon Place	68.1	RW	162	349	751	80	FALSE	
Crow Canyon Road	East of Camino Ramon	68.5	RW	170	367	790	80	FALSE	
Crow Canyon Road	East of Alcosta Boulevard	67.9	73	156	337	726	68	FALSE	
Crow Canyon Road	West of Dougherty Road	66.2	RW	120	259	558	68	FALSE	
Crow Canyon Road	East of Dougherty Road	68.0	73	157	339	730	68	FALSE	
Norris Canyon Road	West of San Ramon Valley Bouleva	56.1	RW	RW	55	118	40	FALSE	
Norris Canyon Road	East of Bishop Drive	63.5	RW	80	172	370	40	FALSE	
Norris Canyon Road	East of Camino Ramon	63.9	RW	84	181	390	40	FALSE	
Executive Parkway	West of Camino Ramon	55.4	RW	RW	50	107	30	FALSE	
Bishop Drive	West of Camino Ramon	57.7	RW	33	70	151	30	FALSE	
Bollinger Canyon Road	West of San Ramon Valley Bouleva	63.1	RW	75	161	346	35	FALSE	
Bollinger Canyon Road	East of Sunset Drive	68.9	85	183	393	848	68	FALSE	
Bollinger Canyon Road	East of Camino Ramon	68.6	81	174	376	810	80	FALSE	
Bollinger Canyon Road	East of Market Place	68.9	85	182	393	846	80	FALSE	
Bollinger Canyon Road	East of Alcosta Boulevard	67.9	72	155	334	720	68	FALSE	
Bollinger Canyon Road	East of Canyon Lakes Drive	67.3	RW	142	307	661	68	FALSE	
Montevideo Drive	East of San Ramon Valley Bouleva	57.8	RW	33	71	154	30	FALSE	
Montevideo Drive	West of Alcosta Boulevard	55.2	RW	RW	48	103	30	FALSE	
Pine Valley Road	East of San Ramon Valley Bouleva	58.4	RW	36	78	169	30	FALSE	
Windemere Parkway	East of Bollinger Canyon Road	52.2	RW	RW	RW	65	35	FALSE	
East Branch Road	East of Bollinger Canyon Road	60.3	RW	48	104	224	35	FALSE	
Old Ranch Road	East of Alcosta Boulevard	63.6	37	80	173	373	35	FALSE	
Old Ranch Road	West of Dougherty Road	62.6	RW	69	149	321	35	TRUE	
Westside Drive	West of San Ramon Valley Bouleva	56.6	RW	RW	59	128	40	FALSE	
Alcosta Boulevard	East of Davona Drive	64.7	44	95	205	441	35	FALSE	
Alcosta Boulevard	East of Kimball Avenue	63.6	38	81	175	377	35	FALSE	
Alcosta Boulevard	East of Village Parkway	63.5	37	80	172	370	35	FALSE	
Bollinger Canyon Road	North of Crow Canyon Road	50.5	RW	RW	RW	50	40	FALSE	
Bollinger Canyon Road	South of Crow Canyon Road	58.2	RW	35	75	162	33	FALSE	
San Ramon Valley Boulevard	North of Deerwood Road	65.7	51	111	238	513	35	FALSE	
San Ramon Valley Boulevard	North of Crow Canyon Road	65.3	48	104	224	483	35	FALSE	
San Ramon Valley Boulevard	North of Norris Canyon Road	64.1	41	88	189	407	35	FALSE	
San Ramon Valley Boulevard	South of Norris Canyon Road	63.4	36	78	169	364	35	FALSE	
San Ramon Valley Boulevard	South of Bollinger Canyon Road	66.0	54	117	252	543	35	FALSE	
San Ramon Valley Boulevard	South of Montevideo Drive	65.1	47	101	218	470	35	FALSE	
San Ramon Valley Boulevard	South of Pine Valley Boulevard	65.1	47	102	219	472	35	FALSE	
San Ramon Valley Boulevard	North of Alcosta Boulevard	65.9	53	115	247	532	35	FALSE	
Crow Canyon Place	South of Fostoria Way	59.8	RW	45	96	208	30	FALSE	
Crow Canyon Place	South of Crow Canyon Road	60.1	RW	47	101	217	30	FALSE	
Camino Ramon	South of Fostoria Way	59.9	RW	45	98	211	40	FALSE	
Camino Ramon	South of Crow Canyon Road	62.2	RW	65	141	304	40	FALSE	
Camino Ramon	South of Norris Canyon Road	61.6	RW	59	128	275	40	FALSE	
Camino Ramon	South of Executive Parkway	60.9	RW	54	116	249	40	FALSE	
Camino Ramon	South of Bishop Drive	61.2	RW	56	120	258	40	FALSE	
Village Parkway	South of Alcosta Boulevard	61.3	RW	56	122	262	35	TRUE	
Alcosta Boulevard	South of Crow Canyon Road	65.2	48	104	223	481	35	FALSE	
Alcosta Boulevard	South of Norris Canyon Road	63.9	39	85	182	393	35	FALSE	
Alcosta Boulevard	South of Woodland Drive	64.5	43	93	199	430	35	FALSE	
Alcosta Boulevard	South of Bollinger Canyon Road	65.2	48	103	222	478	35	FALSE	
Alcosta Boulevard	South of Vera Cruz Drive	64.0	40	86	185	399	35	FALSE	
Alcosta Boulevard	South of Montevideo Drive	62.5	RW	69	148	318	35	TRUE	
Alcosta Boulevard	South of Old Ranch Road	63.0	RW	74	159	343	35	FALSE	
Dougherty Road	South of Crow Canyon Road	65.8	RW	113	243	524	68	FALSE	

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING WEEKDAY CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

	Vehicle Mix 1 (Local and Collector)				Vehicle Mix 2 (Major Arterial)				Vehicle Mix 3 (I-680)			
Vehicle Type	Day	Evening	Night	Daily	Day	Evening	Night	Daily	Day	Evening	Night	Daily
Automobiles	73.60%	13.60%	10.22%	97.40%	69.50%	12.90%	9.60%	92.00%	65.55%	13.43%	15.72%	94.70%
Medium Trucks	0.90%	0.90%	0.04%	1.84%	1.44%	0.06%	1.50%	3.00%	1.48%	0.27%	0.75%	2.50%
Heavy Trucks	9.00%	0.04%	0.35%	0.74%	2.40%	0.10%	2.50%	5.00%	1.54%	0.20%	1.06%	2.80%

Road Name: Deerwood Road **Segment: West of San Ramon Valley Boulevard**

Average Daily Traffic: 18800 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	1.63	-4.43	-1.20	61.12	58.75	57.45	51.40	59.83	60.46	70 dBA:	**25**	**27**
Medium Trucks	74.83	-13.23	-4.43	-1.20	55.97	36.76	28.98	38.19	44.34	44.38	65 dBA:	**54**	**58**
Heavy Trucks	80.05	-11.01	-4.43	-1.20	63.41	46.42	38.63	47.84	54.00	54.03	60 dBA:	**115**	**125**
				Total:	**65.89**	**59.02**	**57.52**	**53.13**	**60.93**	**61.44**	55 dBA:	**249**	**269**

Road Name: Fostoria Way **Segment: West of Crow Canyon Place**

Average Daily Traffic: 16000 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	0.93	-4.43	-1.20	60.42	58.05	56.75	50.70	59.13	59.76	70 dBA:	**22**	**24**
Medium Trucks	74.83	-13.93	-4.43	-1.20	55.27	36.06	28.28	37.49	43.64	43.68	65 dBA:	**48**	**52**
Heavy Trucks	80.05	-11.72	-4.43	-1.20	62.71	45.72	37.93	47.14	53.30	53.33	60 dBA:	**104**	**112**
				Total:	**65.19**	**58.32**	**56.81**	**52.43**	**60.23**	**60.74**	55 dBA:	**223**	**241**

Road Name: Fostoria Way **Segment: East of Crow Canyon Place**

Average Daily Traffic: 21000 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	2.11	-4.43	-1.20	61.60	59.23	57.93	51.88	60.31	60.94	70 dBA:	**27**	**29**
Medium Trucks	74.83	-12.75	-4.43	-1.20	56.45	37.24	29.46	38.67	44.82	44.86	65 dBA:	**58**	**62**
Heavy Trucks	80.05	-10.53	-4.43	-1.20	63.89	46.90	39.12	48.32	54.48	54.51	60 dBA:	**124**	**134**
				Total:	**66.37**	**59.50**	**58.00**	**53.61**	**61.41**	**61.92**	55 dBA:	**268**	**289**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING WEEKDAY CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: Fostoria Way **Segment: East of Camino Ramon**

Average Daily Traffic: 2600 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-6.96	-4.43	-1.20	52.53	50.15	48.86	42.81	51.24	51.87	70 dBA:	**7**	**7**
Medium Trucks	74.83	-21.83	-4.43	-1.20	47.38	28.17	20.39	29.60	35.75	35.78	65 dBA:	**14**	**15**
Heavy Trucks	80.05	-19.61	-4.43	-1.20	54.81	37.82	30.04	39.25	45.41	45.44	60 dBA:	**31**	**33**
				Total:	**57.30**	**50.43**	**48.92**	**44.53**	**52.34**	**52.85**	55 dBA:	**66**	**72**

Road Name: Crow Canyon Road **Segment: West of Bollinger Canyon Road**

Average Daily Traffic: 22400 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	1.81	-4.43	-1.20	63.55	61.18	59.88	53.83	62.26	62.89	70 dBA:	**35**	**38**
Medium Trucks	76.31	-13.05	-4.43	-1.20	57.63	38.43	30.65	39.85	46.01	46.04	65 dBA:	**75**	**82**
Heavy Trucks	81.16	-10.83	-4.43	-1.20	64.70	47.71	39.93	49.14	55.29	55.33	60 dBA:	**162**	**176**
				Total:	**67.63**	**61.39**	**59.93**	**55.23**	**63.14**	**63.67**	55 dBA:	**349**	**378**

Road Name: Crow Canyon Road **Segment: West of Twin Creeks Drive**

Average Daily Traffic: 39000 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 6-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 92.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	4.22	-4.08	-1.20	66.30	63.93	62.64	56.58	65.01	65.64	70 dBA:	**53**	**58**
Medium Trucks	76.31	-10.64	-4.08	-1.20	60.39	41.18	33.40	42.61	48.76	48.79	65 dBA:	**115**	**124**
Heavy Trucks	81.16	-8.43	-4.08	-1.20	67.45	50.46	42.68	51.89	58.04	58.08	60 dBA:	**247**	**268**
				Total:	**70.38**	**64.14**	**62.68**	**57.98**	**65.89**	**66.42**	55 dBA:	**532**	**577**

Road Name: Crow Canyon Road **Segment: West of San Ramon Valley Boulevard**

Average Daily Traffic: 39800 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 6-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 92.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	4.31	-4.08	-1.20	66.39	64.02	62.72	56.67	65.10	65.73	70 dBA:	**54**	**59**
Medium Trucks	76.31	-10.56	-4.08	-1.20	60.48	41.27	33.49	42.69	48.85	48.88	65 dBA:	**116**	**126**
Heavy Trucks	81.16	-8.34	-4.08	-1.20	67.54	50.55	42.77	51.98	58.13	58.17	60 dBA:	**250**	**272**
				Total:	**70.47**	**64.23**	**62.77**	**58.07**	**65.98**	**66.51**	55 dBA:	**540**	**585**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING WEEKDAY CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: Crow Canyon Road **Segment: East of Crow Canyon Place**

Average Daily Traffic: 68300 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 8-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 86.02 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	6.66	-3.64	-1.20	69.18	66.81	65.51	59.46	67.89	68.52	70 dBA:	**83**	**90**
Medium Trucks	76.31	-8.21	-3.64	-1.20	63.26	44.06	36.27	45.48	51.64	51.67	65 dBA:	**178**	**193**
Heavy Trucks	81.16	-5.99	-3.64	-1.20	70.33	53.34	45.56	54.77	60.92	60.96	60 dBA:	**384**	**417**
				Total:	**73.26**	**67.02**	**65.56**	**60.86**	**68.77**	**69.30**	55 dBA:	**828**	**898**

Road Name: Crow Canyon Road **Segment: East of Camino Ramon**

Average Daily Traffic: 60300 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 8-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 86.02 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	6.12	-3.64	-1.20	68.64	66.27	64.97	58.92	67.35	67.98	70 dBA:	**76**	**83**
Medium Trucks	76.31	-8.75	-3.64	-1.20	62.72	43.52	35.73	44.94	51.10	51.13	65 dBA:	**164**	**178**
Heavy Trucks	81.16	-6.53	-3.64	-1.20	69.79	52.80	45.02	54.23	60.38	60.41	60 dBA:	**354**	**384**
				Total:	**72.72**	**66.48**	**65.02**	**60.31**	**68.23**	**68.76**	55 dBA:	**762**	**826**

Road Name: Crow Canyon Road **Segment: East of Alcosta Boulevard**

Average Daily Traffic: 60900 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 6-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 92.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	6.16	-4.08	-1.20	68.24	65.86	64.57	58.52	66.95	67.58	70 dBA:	**72**	**78**
Medium Trucks	76.31	-8.71	-4.08	-1.20	62.32	43.11	35.33	44.54	50.70	50.73	65 dBA:	**154**	**167**
Heavy Trucks	81.16	-6.49	-4.08	-1.20	69.39	52.40	44.62	53.82	59.98	60.01	60 dBA:	**333**	**361**
				Total:	**72.32**	**66.08**	**64.62**	**59.91**	**67.83**	**68.36**	55 dBA:	**717**	**777**

Road Name: Crow Canyon Road **Segment: West of Dougherty Road**

Average Daily Traffic: 33700 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 6-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 92.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	3.59	-4.08	-1.20	65.67	63.29	62.00	55.95	64.38	65.01	70 dBA:	**48**	**52**
Medium Trucks	76.31	-11.28	-4.08	-1.20	59.75	40.54	32.76	41.97	48.13	48.16	65 dBA:	**104**	**113**
Heavy Trucks	81.16	-9.06	-4.08	-1.20	66.82	49.83	42.05	51.26	57.41	57.44	60 dBA:	**224**	**243**
				Total:	**69.75**	**63.51**	**62.05**	**57.34**	**65.26**	**65.79**	55 dBA:	**483**	**524**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING WEEKDAY CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: Crow Canyon Road **Segment: East of Dougherty Road**

Average Daily Traffic: 53600 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 6-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 92.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	5.60	-4.08	-1.20	67.68	65.31	64.02	57.96	66.39	67.02	70 dBA:	**66**	**71**
Medium Trucks	76.31	-9.26	-4.08	-1.20	61.77	42.56	34.78	43.99	50.14	50.17	65 dBA:	**142**	**154**
Heavy Trucks	81.16	-7.04	-4.08	-1.20	68.83	51.84	44.06	53.27	59.42	59.46	60 dBA:	**305**	**331**
				Total:	**71.76**	**65.52**	**64.07**	**59.36**	**67.27**	**67.80**	55 dBA:	**658**	**714**

Road Name: Norris Canyon Road **Segment: West of San Ramon Valley Boulevard**

Average Daily Traffic: 8400 Vehicles Vehicle Speed: 25 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	59.44	-0.40	-4.43	-1.20	53.41	51.04	49.75	43.69	52.12	52.75	70 dBA:	**9**	**10**
Medium Trucks	71.09	-15.27	-4.43	-1.20	50.19	30.98	23.20	32.41	38.56	38.60	65 dBA:	**20**	**21**
Heavy Trucks	78.74	-13.05	-4.43	-1.20	60.06	43.07	35.29	44.50	50.65	50.69	60 dBA:	**43**	**46**
				Total:	**61.27**	**51.72**	**49.91**	**47.27**	**54.57**	**54.95**	55 dBA:	**94**	**99**

Road Name: Norris Canyon Road **Segment: East of Bishop Drive**

Average Daily Traffic: 16100 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	0.38	-4.43	-1.20	62.11	59.74	58.45	52.39	60.83	61.46	70 dBA:	**28**	**30**
Medium Trucks	76.31	-14.49	-4.43	-1.20	56.20	36.99	29.21	38.42	44.57	44.61	65 dBA:	**60**	**65**
Heavy Trucks	81.16	-12.27	-4.43	-1.20	63.27	46.28	38.49	47.70	53.86	53.89	60 dBA:	**130**	**141**
				Total:	**66.20**	**59.96**	**58.50**	**53.79**	**61.71**	**62.23**	55 dBA:	**280**	**304**

Road Name: Norris Canyon Road **Segment: East of Camino Ramon**

Average Daily Traffic: 14900 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	0.04	-4.43	-1.20	61.78	59.41	58.11	52.06	60.49	61.12	70 dBA:	**27**	**29**
Medium Trucks	76.31	-14.82	-4.43	-1.20	55.86	36.66	28.87	38.08	44.24	44.27	65 dBA:	**57**	**62**
Heavy Trucks	81.16	-12.60	-4.43	-1.20	62.93	45.94	38.16	47.37	53.52	53.55	60 dBA:	**123**	**134**
				Total:	**65.86**	**59.62**	**58.16**	**53.46**	**61.37**	**61.90**	55 dBA:	**266**	**288**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING WEEKDAY CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: Executive Parkway **Segment: West of Camino Ramon**

Average Daily Traffic: 5700 Vehicles | Vehicle Speed: 30 MPH | Vehicle Mix: 1 | Roadway Classification: Minor

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.5 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-2.63	-4.59	-1.20	54.09	51.97	50.66	44.65	53.07	53.69	70 dBA:	**8**	**8**
Medium Trucks	73.11	-19.87	-4.59	-1.20	47.46	26.21	32.23	13.94	27.08	29.83	65 dBA:	**16**	**18**
Heavy Trucks	80.26	-23.83	-4.59	-1.20	50.65	39.40	21.90	26.55	37.83	37.86	60 dBA:	**35**	**39**
				Total:	**56.32**	**52.22**	**50.73**	**44.72**	**53.20**	**53.82**	55 dBA:	**76**	**83**

Road Name: Bishop Drive **Segment: West of Camino Ramon**

Average Daily Traffic: 4500 Vehicles | Vehicle Speed: 30 MPH | Vehicle Mix: 1 | Roadway Classification: Minor

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.5 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-3.66	-4.59	-1.20	53.07	50.94	49.63	43.62	52.04	52.67	70 dBA:	**6**	**7**
Medium Trucks	73.11	-20.90	-4.59	-1.20	46.43	25.18	31.20	12.91	26.05	28.81	65 dBA:	**14**	**15**
Heavy Trucks	80.26	-24.85	-4.59	-1.20	49.62	38.37	20.87	25.52	36.80	36.83	60 dBA:	**30**	**33**
				Total:	**55.29**	**51.19**	**49.70**	**43.69**	**52.18**	**52.80**	55 dBA:	**65**	**71**

Road Name: Bollinger Canyon Road **Segment: West of San Ramon Valley Boulevard**

Average Daily Traffic: 17100 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	0.64	-4.43	-1.20	62.38	60.00	58.71	52.66	61.09	61.72	70 dBA:	**29**	**32**
Medium Trucks	76.31	-14.22	-4.43	-1.20	56.46	37.25	29.47	38.68	44.84	44.87	65 dBA:	**63**	**68**
Heavy Trucks	81.16	-12.01	-4.43	-1.20	63.53	46.54	38.76	47.96	54.12	54.15	60 dBA:	**135**	**147**
				Total:	**66.46**	**60.22**	**58.76**	**54.05**	**61.97**	**62.50**	55 dBA:	**291**	**316**

Road Name: Bollinger Canyon Road **Segment: East of Sunset Drive**

Average Daily Traffic: 49500 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 6-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 92.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	5.26	-4.08	-1.20	67.34	64.96	63.67	57.62	66.05	66.68	70 dBA:	**62**	**68**
Medium Trucks	76.31	-9.61	-4.08	-1.20	61.42	42.21	34.43	43.64	49.80	49.83	65 dBA:	**134**	**146**
Heavy Trucks	81.16	-7.39	-4.08	-1.20	68.49	51.50	43.72	52.92	59.08	59.11	60 dBA:	**290**	**314**
				Total:	**71.42**	**65.18**	**63.72**	**59.01**	**66.93**	**67.46**	55 dBA:	**624**	**677**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING WEEKDAY CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: Bollinger Canyon Road **Segment: East of Camino Ramon**

Average Daily Traffic: 47500 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 8-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 86.02 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	5.08	-3.64	-1.20	67.60	65.23	63.94	57.88	66.31	66.94	70 dBA:	**65**	**70**
Medium Trucks	76.31	-9.79	-3.64	-1.20	61.69	42.48	34.70	43.91	50.06	50.09	65 dBA:	**140**	**152**
Heavy Trucks	81.16	-7.57	-3.64	-1.20	68.75	51.76	43.98	53.19	59.34	59.38	60 dBA:	**302**	**327**
				Total:	**71.68**	**65.44**	**63.98**	**59.28**	**67.19**	**67.72**	55 dBA:	**650**	**705**

Road Name: Bollinger Canyon Road **Segment: East of Market Place**

Average Daily Traffic: 34800 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 8-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 86.02 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	3.73	-3.64	-1.20	66.25	63.88	62.58	56.53	64.96	65.59	70 dBA:	**53**	**57**
Medium Trucks	76.31	-11.14	-3.64	-1.20	60.34	41.13	33.35	42.55	48.71	48.74	65 dBA:	**114**	**123**
Heavy Trucks	81.16	-8.92	-3.64	-1.20	67.40	50.41	42.63	51.84	57.99	58.03	60 dBA:	**245**	**266**
				Total:	**70.33**	**64.09**	**62.63**	**57.93**	**65.84**	**66.37**	55 dBA:	**528**	**573**

Road Name: Bollinger Canyon Road **Segment: East of Alcosta Boulevard**

Average Daily Traffic: 35300 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 6-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 92.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	3.79	-4.08	-1.20	65.87	63.50	62.20	56.15	64.58	65.21	70 dBA:	**50**	**54**
Medium Trucks	76.31	-11.08	-4.08	-1.20	59.95	40.75	32.96	42.17	48.33	48.36	65 dBA:	**107**	**116**
Heavy Trucks	81.16	-8.86	-4.08	-1.20	67.02	50.03	42.25	51.46	57.61	57.64	60 dBA:	**231**	**251**
				Total:	**69.95**	**63.71**	**62.25**	**57.55**	**65.46**	**65.99**	55 dBA:	**498**	**540**

Road Name: Bollinger Canyon Road **Segment: East of Canyon Lakes Drive**

Average Daily Traffic: 36600 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 6-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 92.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	3.95	-4.08	-1.20	66.03	63.65	62.36	56.31	64.74	65.37	70 dBA:	**51**	**55**
Medium Trucks	76.31	-10.92	-4.08	-1.20	60.11	40.90	33.12	42.33	48.48	48.52	65 dBA:	**110**	**119**
Heavy Trucks	81.16	-8.70	-4.08	-1.20	67.18	50.19	42.41	51.61	57.77	57.80	60 dBA:	**237**	**257**
				Total:	**70.11**	**63.87**	**62.41**	**57.70**	**65.62**	**66.14**	55 dBA:	**510**	**553**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING WEEKDAY CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: Montevideo Drive **Segment: East of San Ramon Valley Boulevard**

Average Daily Traffic: 12900 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 1 Roadway Classification: Minor

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.5 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	0.91	-4.59	-1.20	57.64	55.52	54.21	48.19	56.61	57.24	70 dBA:	**13**	**14**
Medium Trucks	73.11	-16.32	-4.59	-1.20	51.01	29.76	35.78	17.48	30.63	33.38	65 dBA:	**28**	**31**
Heavy Trucks	80.26	-20.28	-4.59	-1.20	54.20	42.95	25.45	30.09	41.38	41.41	60 dBA:	**61**	**67**
				Total:	**59.87**	**55.76**	**54.27**	**48.26**	**56.75**	**57.37**	55 dBA:	**131**	**144**

Road Name: Montevideo Drive **Segment: West of Alcosta Boulevard**

Average Daily Traffic: 4300 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 1 Roadway Classification: Minor

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.5 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-3.86	-4.59	-1.20	52.87	50.75	49.43	43.42	51.84	52.47	70 dBA:	**6**	**7**
Medium Trucks	73.11	-21.09	-4.59	-1.20	46.23	24.99	31.01	12.71	25.86	28.61	65 dBA:	**14**	**15**
Heavy Trucks	80.26	-25.05	-4.59	-1.20	49.43	38.18	20.67	25.32	36.61	36.64	60 dBA:	**29**	**32**
				Total:	**55.10**	**50.99**	**49.50**	**43.49**	**51.98**	**52.60**	55 dBA:	**63**	**69**

Road Name: Pine Valley Road **Segment: East of San Ramon Valley Boulevard**

Average Daily Traffic: 10300 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 1 Roadway Classification: Minor

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.5 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-0.06	-4.59	-1.20	56.66	54.54	53.23	47.22	55.64	56.26	70 dBA:	**11**	**12**
Medium Trucks	73.11	-17.30	-4.59	-1.20	50.03	28.78	34.80	16.51	29.65	32.40	65 dBA:	**24**	**27**
Heavy Trucks	80.26	-21.26	-4.59	-1.20	53.22	41.97	24.47	29.12	40.40	40.43	60 dBA:	**52**	**57**
				Total:	**58.89**	**54.79**	**53.30**	**47.29**	**55.77**	**56.39**	55 dBA:	**113**	**124**

Road Name: Windemere Parkway **Segment: East of Bollinger Canyon Road**

Average Daily Traffic: 1600 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-9.65	-4.43	-1.20	52.09	49.72	48.42	42.37	50.80	51.43	70 dBA:	**6**	**7**
Medium Trucks	76.31	-24.51	-4.43	-1.20	46.17	26.97	19.18	28.39	34.55	34.58	65 dBA:	**13**	**14**
Heavy Trucks	81.16	-22.30	-4.43	-1.20	53.24	36.25	28.47	37.68	43.83	43.86	60 dBA:	**28**	**30**
				Total:	**56.17**	**49.93**	**48.47**	**43.76**	**51.68**	**52.21**	55 dBA:	**60**	**65**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING WEEKDAY CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: East Branch Road **Segment: East of Bollinger Canyon Road**

Average Daily Traffic: 10200 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-1.60	-4.43	-1.20	60.13	57.76	56.47	50.41	58.84	59.47	70 dBA:	**21**	**22**
Medium Trucks	76.31	-16.47	-4.43	-1.20	54.22	35.01	27.23	36.44	42.59	42.63	65 dBA:	**44**	**48**
Heavy Trucks	81.16	-14.25	-4.43	-1.20	61.28	44.29	36.51	45.72	51.87	51.91	60 dBA:	**96**	**104**
				Total:	**64.21**	**57.97**	**56.52**	**51.81**	**59.72**	**60.25**	55 dBA:	**207**	**224**

Road Name: Old Ranch Road **Segment: East of Alcosta Boulevard**

Average Daily Traffic: 11200 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-1.20	-4.43	-1.20	60.54	58.17	56.87	50.82	59.25	59.88	70 dBA:	**22**	**24**
Medium Trucks	76.31	-16.06	-4.43	-1.20	54.62	35.42	27.63	36.84	43.00	43.03	65 dBA:	**47**	**51**
Heavy Trucks	81.16	-13.84	-4.43	-1.20	61.69	44.70	36.92	46.13	52.28	52.32	60 dBA:	**102**	**111**
				Total:	**64.62**	**58.38**	**56.92**	**52.22**	**60.13**	**60.66**	55 dBA:	**220**	**238**

Road Name: Old Ranch Road **Segment: West of Dougherty Road**

Average Daily Traffic: 6600 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-3.49	-4.43	-1.20	58.24	55.87	54.58	48.52	56.95	57.58	70 dBA:	**15**	**17**
Medium Trucks	76.31	-18.36	-4.43	-1.20	52.33	33.12	25.34	34.55	40.70	40.73	65 dBA:	**33**	**36**
Heavy Trucks	81.16	-16.14	-4.43	-1.20	59.39	42.40	34.62	43.83	49.98	50.02	60 dBA:	**72**	**78**
				Total:	**62.32**	**56.08**	**54.63**	**49.92**	**57.83**	**58.36**	55 dBA:	**154**	**168**

Road Name: Westside Drive **Segment: West of San Ramon Valley Boulevard**

Average Daily Traffic: 9300 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 2 Roadway Classification: 2-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 99.15 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-0.75	-4.56	-1.20	56.00	53.62	52.33	46.28	54.71	55.34	70 dBA:	**13**	**14**
Medium Trucks	73.11	-15.62	-4.56	-1.20	51.73	32.52	24.74	33.95	40.10	40.14	65 dBA:	**27**	**29**
Heavy Trucks	80.26	-13.40	-4.56	-1.20	61.10	44.11	36.32	45.53	51.69	51.72	60 dBA:	**59**	**63**
				Total:	**62.63**	**54.11**	**52.44**	**49.07**	**56.56**	**57.00**	55 dBA:	**127**	**136**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING WEEKDAY CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: Alcosta Boulevard **Segment: East of Davona Drive**

Average Daily Traffic: 23700 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	2.06	-4.43	-1.20	63.79	61.42	60.13	54.07	62.51	63.14	70 dBA:	**36**	**39**
Medium Trucks	76.31	-12.81	-4.43	-1.20	57.88	38.67	30.89	40.10	46.25	46.29	65 dBA:	**78**	**85**
Heavy Trucks	81.16	-10.59	-4.43	-1.20	64.95	47.96	40.17	49.38	55.54	55.57	60 dBA:	**168**	**182**
				Total:	**67.88**	**61.63**	**60.18**	**55.47**	**63.39**	**63.91**	55 dBA:	**362**	**393**

Road Name: Alcosta Boulevard **Segment: East of Kimball Avenue**

Average Daily Traffic: 19200 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	1.14	-4.43	-1.20	62.88	60.51	59.21	53.16	61.59	62.22	70 dBA:	**31**	**34**
Medium Trucks	76.31	-13.72	-4.43	-1.20	56.97	37.76	29.98	39.18	45.34	45.37	65 dBA:	**68**	**74**
Heavy Trucks	81.16	-11.50	-4.43	-1.20	64.03	47.04	39.26	48.47	54.62	54.66	60 dBA:	**146**	**158**
				Total:	**66.96**	**60.72**	**59.26**	**54.56**	**62.47**	**63.00**	55 dBA:	**315**	**341**

Road Name: Alcosta Boulevard **Segment: East of Village Parkway**

Average Daily Traffic: 16000 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	0.35	-4.43	-1.20	62.09	59.72	58.42	52.37	60.80	61.43	70 dBA:	**28**	**30**
Medium Trucks	76.31	-14.51	-4.43	-1.20	56.17	36.97	29.18	38.39	44.55	44.58	65 dBA:	**60**	**65**
Heavy Trucks	81.16	-12.30	-4.43	-1.20	63.24	46.25	38.47	47.68	53.83	53.86	60 dBA:	**129**	**140**
				Total:	**66.17**	**59.93**	**58.47**	**53.76**	**61.68**	**62.21**	55 dBA:	**279**	**302**

Road Name: Bollinger Canyon Road **Segment: North of Crow Canyon Road**

Average Daily Traffic: 2100 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 2 Roadway Classification: 2-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.15 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-7.22	-4.56	-1.20	49.53	47.16	45.87	39.81	48.24	48.88	70 dBA:	**5**	**5**
Medium Trucks	73.11	-22.08	-4.56	-1.20	45.27	26.06	18.28	27.49	33.64	33.67	65 dBA:	**10**	**11**
Heavy Trucks	80.26	-19.86	-4.56	-1.20	54.63	37.64	29.86	39.07	45.22	45.26	60 dBA:	**22**	**23**
				Total:	**56.17**	**47.65**	**45.98**	**42.60**	**50.10**	**50.53**	55 dBA:	**47**	**50**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING WEEKDAY CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: Bollinger Canyon Road **Segment: South of Crow Canyon Road**

Average Daily Traffic: 7100 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: 2-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 98.37 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-2.60	-4.51	-1.20	56.80	54.43	53.14	47.08	55.51	56.15	70 dBA:	**13**	**14**
Medium Trucks	74.83	-17.46	-4.51	-1.20	51.65	32.45	24.66	33.87	40.03	40.06	65 dBA:	**28**	**30**
Heavy Trucks	80.05	-15.24	-4.51	-1.20	59.09	42.10	34.32	43.53	49.68	49.72	60 dBA:	**60**	**64**
				Total:	**61.57**	**54.70**	**53.20**	**48.81**	**56.62**	**57.12**	55 dBA:	**128**	**139**

Road Name: San Ramon Valley Boulevard **Segment: North of Deerwood Road**

Average Daily Traffic: 34200 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	3.65	-4.43	-1.20	65.39	63.01	61.72	55.67	64.10	64.73	70 dBA:	**46**	**50**
Medium Trucks	76.31	-11.21	-4.43	-1.20	59.47	40.26	32.48	41.69	47.85	47.88	65 dBA:	**100**	**108**
Heavy Trucks	81.16	-9.00	-4.43	-1.20	66.54	49.55	41.77	50.97	57.13	57.16	60 dBA:	**215**	**233**
				Total:	**69.47**	**63.23**	**61.77**	**57.06**	**64.98**	**65.51**	55 dBA:	**463**	**502**

Road Name: San Ramon Valley Boulevard **Segment: North of Crow Canyon Road**

Average Daily Traffic: 30300 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	3.13	-4.43	-1.20	64.86	62.49	61.20	55.14	63.57	64.20	70 dBA:	**43**	**46**
Medium Trucks	76.31	-11.74	-4.43	-1.20	58.95	39.74	31.96	41.17	47.32	47.35	65 dBA:	**92**	**100**
Heavy Trucks	81.16	-9.52	-4.43	-1.20	66.01	49.02	41.24	50.45	56.60	56.64	60 dBA:	**198**	**215**
				Total:	**68.94**	**62.70**	**61.24**	**56.54**	**64.45**	**64.98**	55 dBA:	**427**	**463**

Road Name: San Ramon Valley Boulevard **Segment: North of Norris Canyon Road**

Average Daily Traffic: 24100 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	2.13	-4.43	-1.20	63.87	61.49	60.20	54.15	62.58	63.21	70 dBA:	**37**	**40**
Medium Trucks	76.31	-12.73	-4.43	-1.20	57.95	38.74	30.96	40.17	46.33	46.36	65 dBA:	**79**	**86**
Heavy Trucks	81.16	-10.52	-4.43	-1.20	65.02	48.03	40.25	49.45	55.61	55.64	60 dBA:	**170**	**184**
				Total:	**67.95**	**61.71**	**60.25**	**55.54**	**63.46**	**63.99**	55 dBA:	**366**	**397**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING WEEKDAY CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: San Ramon Valley Boulevard **Segment: South of Norris Canyon Road**

Average Daily Traffic: 25000 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	2.29	-4.43	-1.20	64.03	61.65	60.36	54.31	62.74	63.37	70 dBA:	**38**	**41**
Medium Trucks	76.31	-12.58	-4.43	-1.20	58.11	38.90	31.12	40.33	46.48	46.52	65 dBA:	**81**	**88**
Heavy Trucks	81.16	-10.36	-4.43	-1.20	65.18	48.19	40.41	49.61	55.77	55.80	60 dBA:	**174**	**189**
				Total:	**68.11**	**61.87**	**60.41**	**55.70**	**63.62**	**64.14**	55 dBA:	**375**	**407**

Road Name: San Ramon Valley Boulevard **Segment: South of Bollinger Canyon Road**

Average Daily Traffic: 21400 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	1.62	-4.43	-1.20	63.35	60.98	59.69	53.63	62.06	62.69	70 dBA:	**34**	**37**
Medium Trucks	76.31	-13.25	-4.43	-1.20	57.44	38.23	30.45	39.65	45.81	45.84	65 dBA:	**73**	**79**
Heavy Trucks	81.16	-11.03	-4.43	-1.20	64.50	47.51	39.73	48.94	55.09	55.13	60 dBA:	**157**	**170**
				Total:	**67.43**	**61.19**	**59.73**	**55.03**	**62.94**	**63.47**	55 dBA:	**338**	**367**

Road Name: San Ramon Valley Boulevard **Segment: South of Montevideo Drive**

Average Daily Traffic: 15900 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	0.33	-4.43	-1.20	62.06	59.69	58.39	52.34	60.77	61.40	70 dBA:	**28**	**30**
Medium Trucks	76.31	-14.54	-4.43	-1.20	56.15	36.94	29.16	38.36	44.52	44.55	65 dBA:	**60**	**65**
Heavy Trucks	81.16	-12.32	-4.43	-1.20	63.21	46.22	38.44	47.65	53.80	53.84	60 dBA:	**129**	**140**
				Total:	**66.14**	**59.90**	**58.44**	**53.74**	**61.65**	**62.18**	55 dBA:	**278**	**301**

Road Name: San Ramon Valley Boulevard **Segment: South of Pine Valley Boulevard**

Average Daily Traffic: 17200 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	0.67	-4.43	-1.20	62.40	60.03	58.74	52.68	61.11	61.74	70 dBA:	**29**	**32**
Medium Trucks	76.31	-14.20	-4.43	-1.20	56.49	37.28	29.50	38.71	44.86	44.89	65 dBA:	**63**	**68**
Heavy Trucks	81.16	-11.98	-4.43	-1.20	63.55	46.56	38.78	47.99	54.14	54.18	60 dBA:	**136**	**147**
				Total:	**66.48**	**60.24**	**58.78**	**54.08**	**61.99**	**62.52**	55 dBA:	**293**	**317**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING WEEKDAY CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: San Ramon Valley Boulevard **Segment: North of Alcosta Boulevard**

Average Daily Traffic: 29700 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	3.04	-4.43	-1.20	64.77	62.40	61.11	55.05	63.49	64.12	70 dBA:	**42**	**46**
Medium Trucks	76.31	-11.83	-4.43	-1.20	58.86	39.65	31.87	41.08	47.23	47.27	65 dBA:	**91**	**98**
Heavy Trucks	81.16	-9.61	-4.43	-1.20	65.93	48.94	41.15	50.36	56.52	56.55	60 dBA:	**195**	**212**
				Total:	**68.86**	**62.62**	**61.16**	**56.45**	**64.37**	**64.89**	55 dBA:	**421**	**457**

Road Name: Crow Canyon Place **Segment: South of Fostoria Way**

Average Daily Traffic: 23500 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 1 Roadway Classification: Minor

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.5 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	3.52	-4.59	-1.20	60.25	58.12	56.81	50.80	59.22	59.84	70 dBA:	**20**	**21**
Medium Trucks	73.11	-13.72	-4.59	-1.20	53.61	32.36	38.38	20.09	33.23	35.98	65 dBA:	**42**	**46**
Heavy Trucks	80.26	-17.67	-4.59	-1.20	56.80	45.55	28.05	32.70	43.98	44.01	60 dBA:	**91**	**100**
				Total:	**62.47**	**58.37**	**56.88**	**50.87**	**59.36**	**59.97**	55 dBA:	**195**	**215**

Road Name: Crow Canyon Place **Segment: South of Crow Canyon Road**

Average Daily Traffic: 29300 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 1 Roadway Classification: Minor

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.5 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	4.48	-4.59	-1.20	61.20	59.08	57.77	51.76	60.18	60.80	70 dBA:	**23**	**25**
Medium Trucks	73.11	-12.76	-4.59	-1.20	54.57	33.32	39.34	21.05	34.19	36.94	65 dBA:	**49**	**54**
Heavy Trucks	80.26	-16.72	-4.59	-1.20	57.76	46.51	29.01	33.66	44.94	44.97	60 dBA:	**105**	**115**
				Total:	**63.43**	**59.33**	**57.84**	**51.83**	**60.31**	**60.93**	55 dBA:	**226**	**249**

Road Name: Camino Ramon **Segment: South of Fostoria Way**

Average Daily Traffic: 15500 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	0.80	-4.43	-1.20	60.28	57.91	56.61	50.56	58.99	59.62	70 dBA:	**22**	**24**
Medium Trucks	74.83	-14.07	-4.43	-1.20	55.13	35.92	28.14	37.35	43.50	43.54	65 dBA:	**47**	**51**
Heavy Trucks	80.05	-11.85	-4.43	-1.20	62.57	45.58	37.80	47.00	53.16	53.19	60 dBA:	**101**	**110**
				Total:	**65.05**	**58.18**	**56.68**	**52.29**	**60.09**	**60.60**	55 dBA:	**219**	**236**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING WEEKDAY CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: Camino Ramon **Segment: South of Crow Canyon Road**

Average Daily Traffic: 34300 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	4.24	-4.43	-1.20	63.73	61.36	60.06	54.01	62.44	63.07	70 dBA:	**37**	**40**
Medium Trucks	74.83	-10.62	-4.43	-1.20	58.58	39.37	31.59	40.80	46.95	46.99	65 dBA:	**80**	**86**
Heavy Trucks	80.05	-8.40	-4.43	-1.20	66.02	49.03	41.25	50.45	56.61	56.64	60 dBA:	**172**	**186**
				Total:	**68.50**	**61.63**	**60.13**	**55.74**	**63.54**	**64.05**	55 dBA:	**371**	**401**

Road Name: Camino Ramon **Segment: South of Norris Canyon Road**

Average Daily Traffic: 15100 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	0.68	-4.43	-1.20	60.17	57.79	56.50	50.45	58.88	59.51	70 dBA:	**21**	**23**
Medium Trucks	74.83	-14.19	-4.43	-1.20	55.02	35.81	28.03	37.24	43.39	43.42	65 dBA:	**46**	**50**
Heavy Trucks	80.05	-11.97	-4.43	-1.20	62.45	45.46	37.68	46.89	53.05	53.08	60 dBA:	**100**	**108**
				Total:	**64.94**	**58.07**	**56.56**	**52.17**	**59.98**	**60.49**	55 dBA:	**215**	**232**

Road Name: Camino Ramon **Segment: South of Executive Parkway**

Average Daily Traffic: 14900 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	0.62	-4.43	-1.20	60.11	57.74	56.44	50.39	58.82	59.45	70 dBA:	**21**	**23**
Medium Trucks	74.83	-14.24	-4.43	-1.20	54.96	35.75	27.97	37.18	43.33	43.37	65 dBA:	**46**	**50**
Heavy Trucks	80.05	-12.02	-4.43	-1.20	62.40	45.41	37.62	46.83	52.99	53.02	60 dBA:	**99**	**107**
				Total:	**64.88**	**58.01**	**56.51**	**52.12**	**59.92**	**60.43**	55 dBA:	**213**	**230**

Road Name: Camino Ramon **Segment: South of Bishop Drive**

Average Daily Traffic: 17400 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	1.30	-4.43	-1.20	60.78	58.41	57.12	51.06	59.49	60.12	70 dBA:	**24**	**26**
Medium Trucks	74.83	-13.57	-4.43	-1.20	55.63	36.42	28.64	37.85	44.01	44.04	65 dBA:	**51**	**55**
Heavy Trucks	80.05	-11.35	-4.43	-1.20	63.07	46.08	38.30	47.51	53.66	53.69	60 dBA:	**110**	**118**
				Total:	**65.55**	**58.68**	**57.18**	**52.79**	**60.60**	**61.10**	55 dBA:	**236**	**255**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING WEEKDAY CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: Village Parkway **Segment: South of Alcosta Boulevard**

Average Daily Traffic: 8400 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-2.45	-4.43	-1.20	59.29	56.92	55.62	49.57	58.00	58.63	70 dBA:	**18**	**20**
Medium Trucks	76.31	-17.31	-4.43	-1.20	53.38	34.17	26.39	35.59	41.75	41.78	65 dBA:	**39**	**42**
Heavy Trucks	81.16	-15.09	-4.43	-1.20	60.44	43.45	35.67	44.88	51.03	51.07	60 dBA:	**84**	**91**
				Total:	**63.37**	**57.13**	**55.67**	**50.97**	**58.88**	**59.41**	55 dBA:	**181**	**197**

Road Name: Alcosta Boulevard **Segment: South of Crow Canyon Road**

Average Daily Traffic: 34600 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	3.70	-4.43	-1.20	65.44	63.07	61.77	55.72	64.15	64.78	70 dBA:	**47**	**51**
Medium Trucks	76.31	-11.16	-4.43	-1.20	59.52	40.31	32.53	41.74	47.90	47.93	65 dBA:	**100**	**109**
Heavy Trucks	81.16	-8.95	-4.43	-1.20	66.59	49.60	41.82	51.03	57.18	57.21	60 dBA:	**216**	**235**
				Total:	**69.52**	**63.28**	**61.82**	**57.11**	**65.03**	**65.56**	55 dBA:	**466**	**506**

Road Name: Alcosta Boulevard **Segment: South of Norris Canyon Road**

Average Daily Traffic: 15200 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	0.13	-4.43	-1.20	61.86	59.49	58.20	52.14	60.58	61.21	70 dBA:	**27**	**29**
Medium Trucks	76.31	-14.74	-4.43	-1.20	55.95	36.74	28.96	38.17	44.32	44.36	65 dBA:	**58**	**63**
Heavy Trucks	81.16	-12.52	-4.43	-1.20	63.02	46.03	38.24	47.45	53.61	53.64	60 dBA:	**125**	**136**
				Total:	**65.95**	**59.71**	**58.25**	**53.54**	**61.46**	**61.98**	55 dBA:	**269**	**292**

Road Name: Alcosta Boulevard **Segment: South of Woodland Drive**

Average Daily Traffic: 15800 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	0.30	-4.43	-1.20	62.03	59.66	58.37	52.31	60.74	61.38	70 dBA:	**28**	**30**
Medium Trucks	76.31	-14.57	-4.43	-1.20	56.12	36.91	29.13	38.34	44.49	44.53	65 dBA:	**60**	**65**
Heavy Trucks	81.16	-12.35	-4.43	-1.20	63.18	46.19	38.41	47.62	53.78	53.81	60 dBA:	**128**	**139**
				Total:	**66.11**	**59.87**	**58.42**	**53.71**	**61.62**	**62.15**	55 dBA:	**276**	**300**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING WEEKDAY CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: Alcosta Boulevard **Segment: South of Bollinger Canyon Road**

Average Daily Traffic: 18400 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	0.96	-4.43	-1.20	62.69	60.32	59.03	52.97	61.41	62.04	70 dBA:	**31**	**33**
Medium Trucks	76.31	-13.91	-4.43	-1.20	56.78	37.57	29.79	39.00	45.15	45.19	65 dBA:	**66**	**71**
Heavy Trucks	81.16	-11.69	-4.43	-1.20	63.85	46.86	39.07	48.28	54.44	54.47	60 dBA:	**142**	**154**
				Total:	**66.78**	**60.54**	**59.08**	**54.37**	**62.29**	**62.81**	55 dBA:	**306**	**332**

Road Name: Alcosta Boulevard **Segment: South of Vera Cruz Drive**

Average Daily Traffic: 12800 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-0.62	-4.43	-1.20	61.12	58.75	57.45	51.40	59.83	60.46	70 dBA:	**24**	**26**
Medium Trucks	76.31	-15.48	-4.43	-1.20	55.20	36.00	28.21	37.42	43.58	43.61	65 dBA:	**52**	**56**
Heavy Trucks	81.16	-13.26	-4.43	-1.20	62.27	45.28	37.50	46.71	52.86	52.89	60 dBA:	**112**	**121**
				Total:	**65.20**	**58.96**	**57.50**	**52.80**	**60.71**	**61.24**	55 dBA:	**240**	**261**

Road Name: Alcosta Boulevard **Segment: South of Montevideo Drive**

Average Daily Traffic: 6800 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-3.36	-4.43	-1.20	58.37	56.00	54.71	48.65	57.08	57.71	70 dBA:	**16**	**17**
Medium Trucks	76.31	-18.23	-4.43	-1.20	52.46	33.25	25.47	34.68	40.83	40.86	65 dBA:	**34**	**37**
Heavy Trucks	81.16	-16.01	-4.43	-1.20	59.52	42.53	34.75	43.96	50.11	50.15	60 dBA:	**73**	**79**
				Total:	**62.45**	**56.21**	**54.75**	**50.05**	**57.96**	**58.49**	55 dBA:	**158**	**171**

Road Name: Alcosta Boulevard **Segment: South of Old Ranch Road**

Average Daily Traffic: 10400 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification:

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-1.52	-4.43	-1.20	60.22	57.84	56.55	50.50	58.93	59.56	70 dBA:	**21**	**23**
Medium Trucks	76.31	-16.38	-4.43	-1.20	54.30	35.09	27.31	36.52	42.68	42.71	65 dBA:	**45**	**49**
Heavy Trucks	81.16	-14.17	-4.43	-1.20	61.37	44.38	36.60	45.80	51.96	51.99	60 dBA:	**97**	**105**
				Total:	**64.30**	**58.06**	**56.60**	**51.89**	**59.81**	**60.34**	55 dBA:	**209**	**227**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING WEEKDAY CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: Dougherty Road **Segment: East of Crow Canyon Place**

Average Daily Traffic: 40900 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification:

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 92.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	4.43	-4.08	-1.20	66.51	64.14	62.84	56.79	65.22	65.85	70 dBA:	**55**	**60**
Medium Trucks	76.31	-10.44	-4.08	-1.20	60.59	41.39	33.60	42.81	48.97	49.00	65 dBA:	**118**	**128**
Heavy Trucks	81.16	-8.22	-4.08	-1.20	67.66	50.67	42.89	52.10	58.25	58.28	60 dBA:	**255**	**277**
				Total:	**70.59**	**64.35**	**62.89**	**58.19**	**66.10**	**66.63**	55 dBA:	**550**	**596**

Road Name: Dougherty Road **Segment: North of Old Ranch Road**

Average Daily Traffic: 21500 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification:

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 92.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	1.64	-4.08	0.00	64.91	62.54	61.25	55.20	63.63	64.26	70 dBA:	**43**	**47**
Medium Trucks	76.31	-13.23	-4.08	0.00	59.00	39.79	32.01	41.22	47.37	47.41	65 dBA:	**93**	**101**
Heavy Trucks	81.16	-11.01	-4.08	0.00	66.07	49.08	41.30	50.50	56.66	56.69	60 dBA:	**200**	**217**
				Total:	**69.00**	**62.76**	**61.30**	**56.59**	**64.51**	**65.03**	55 dBA:	**430**	**467**

Road Name: Dougherty Road **Segment: South of Old Ranch Road**

Average Daily Traffic: 23000 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification:

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 92.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	1.93	-4.08	0.00	65.21	62.84	61.54	55.49	63.92	64.55	70 dBA:	**45**	**49**
Medium Trucks	76.31	-12.94	-4.08	0.00	59.29	40.09	32.30	41.51	47.67	47.70	65 dBA:	**97**	**105**
Heavy Trucks	81.16	-10.72	-4.08	0.00	66.36	49.37	41.59	50.80	56.95	56.98	60 dBA:	**209**	**227**
				Total:	**69.29**	**63.05**	**61.59**	**56.89**	**64.80**	**65.33**	55 dBA:	**450**	**488**

Road Name: I-680 **Segment: North of Crow Canyon Road**

Average Daily Traffic: 160000 Vehicles Vehicle Speed: 65 MPH Vehicle Mix: 3 Roadway Classification:

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 83.52 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	75.54	8.37	-3.45	0.00	80.47	77.84	76.98	72.89	80.40	80.90	70 dBA:	**499**	**539**
Medium Trucks	81.71	-7.42	-3.45	0.00	70.85	51.76	50.36	50.05	56.70	56.97	65 dBA:	**1076**	**1161**
Heavy Trucks	85.21	-6.92	-3.45	0.00	74.84	55.93	53.00	55.57	61.97	62.12	60 dBA:	**2318**	**2502**
				Total:	**81.87**	**77.88**	**77.00**	**72.99**	**80.48**	**80.97**	55 dBA:	**4993**	**5390**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING WEEKDAY CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: I-680 **Segment: North of Bollinger Canyon Road**

Average Daily Traffic: 150000 Vehicles Vehicle Speed: 65 MPH Vehicle Mix: 3 Roadway Classification:

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 83.52 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	75.54	8.09	-3.45	0.00	80.19	77.56	76.70	72.61	80.12	80.62	70 dBA:	**478**	**516**
Medium Trucks	81.71	-7.70	-3.45	0.00	70.57	51.48	50.08	49.77	56.42	56.69	65 dBA:	**1030**	**1112**
Heavy Trucks	85.21	-7.20	-3.45	0.00	74.56	55.65	52.72	55.29	61.69	61.84	60 dBA:	**2220**	**2396**
				Total:	**81.59**	**77.60**	**76.72**	**72.71**	**80.20**	**80.69**	55 dBA:	**4783**	**5163**

Road Name: I-680 **Segment: North of Alcosta Boulevard**

Average Daily Traffic: 159000 Vehicles Vehicle Speed: 65 MPH Vehicle Mix: 3 Roadway Classification:

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 83.52 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	75.54	8.34	-3.45	0.00	80.44	77.81	76.95	72.86	80.37	80.87	70 dBA:	**497**	**537**
Medium Trucks	81.71	-7.44	-3.45	0.00	70.82	51.73	50.33	50.02	56.68	56.94	65 dBA:	**1071**	**1156**
Heavy Trucks	85.21	-6.95	-3.45	0.00	74.82	55.90	52.97	55.55	61.94	62.09	60 dBA:	**2308**	**2491**
				Total:	**81.85**	**77.85**	**76.98**	**72.96**	**80.45**	**80.95**	55 dBA:	**4972**	**5367**

Road Name: Camino Tassajara **Segment: North of Windemere Parkway**

Average Daily Traffic: 2900 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification:

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-7.06	-4.43	0.00	55.87	53.50	52.20	46.15	54.58	55.21	70 dBA:	**11**	**12**
Medium Trucks	76.31	-21.93	-4.43	0.00	49.96	30.75	22.97	32.17	38.33	38.36	65 dBA:	**23**	**25**
Heavy Trucks	81.16	-19.71	-4.43	0.00	57.02	40.03	32.25	41.46	47.61	47.65	60 dBA:	**50**	**54**
				Total:	**59.95**	**53.71**	**52.25**	**47.55**	**55.46**	**55.99**	55 dBA:	**107**	**116**

Road Name: Camino Tassajara **Segment: South of Windemere Parkway**

Average Daily Traffic: 8100 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification:

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 92.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-2.60	-4.08	0.00	60.68	58.30	57.01	50.96	59.39	60.02	70 dBA:	**22**	**24**
Medium Trucks	76.31	-17.47	-4.08	0.00	54.76	35.55	27.77	36.98	43.13	43.17	65 dBA:	**48**	**52**
Heavy Trucks	81.16	-15.25	-4.08	0.00	61.83	44.84	37.06	46.26	52.42	52.45	60 dBA:	**104**	**113**
				Total:	**64.76**	**58.52**	**57.06**	**52.35**	**60.27**	**60.79**	55 dBA:	**224**	**243**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2011 WEEKDAY WITHOUT PROJECT

Project Name: Redlands Walmart
Site Conditions: Soft

	Vehicle Mix 1 (Local and Collector)				Vehicle Mix 2 (Major Arterial)				Vehicle Mix 3 (I-680)			
Vehicle Type	Day	Evening	Night	Daily	Day	Evening	Night	Daily	Day	Evening	Night	Daily
Automobiles	73.60%	13.60%	10.22%	97.40%	69.50%	12.90%	9.60%	92.00%	65.55%	13.43%	15.72%	94.70%
Medium Trucks	0.90%	0.90%	0.04%	1.84%	1.44%	0.06%	1.50%	3.00%	1.48%	0.27%	0.75%	2.50%
Heavy Trucks	0.35%	0.04%	0.35%	0.74%	2.40%	0.10%	2.50%	5.00%	1.54%	0.20%	1.06%	2.80%

Road Name: Deerwood Road **Segment: West of San Ramon Valley Boulevard**

Average Daily Traffic: 21500 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	2.22	-4.43	-1.20	61.70	59.33	58.04	51.98	60.41	61.04	70 dBA:	**27**	**29**
Medium Trucks	74.83	-12.65	-4.43	-1.20	56.55	37.34	29.56	38.77	44.92	44.96	65 dBA:	**59**	**63**
Heavy Trucks	80.05	-10.43	-4.43	-1.20	63.99	47.00	39.22	48.43	54.58	54.61	60 dBA:	**126**	**136**
				Total:	**66.47**	**59.60**	**58.10**	**53.71**	**61.52**	**62.02**	55 dBA:	**272**	**294**

Road Name: Fostoria Way **Segment: West of Crow Canyon Place**

Average Daily Traffic: 18800 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	1.63	-4.43	-1.20	61.12	58.75	57.45	51.40	59.83	60.46	70 dBA:	**25**	**27**
Medium Trucks	74.83	-13.23	-4.43	-1.20	55.97	36.76	28.98	38.19	44.34	44.38	65 dBA:	**54**	**58**
Heavy Trucks	80.05	-11.01	-4.43	-1.20	63.41	46.42	38.63	47.84	54.00	54.03	60 dBA:	**115**	**125**
				Total:	**65.89**	**59.02**	**57.52**	**53.13**	**60.93**	**61.44**	55 dBA:	**249**	**269**

Road Name: Fostoria Way **Segment: East of Crow Canyon Place**

Average Daily Traffic: 21200 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	2.16	-4.43	-1.20	61.64	59.27	57.97	51.92	60.35	60.98	70 dBA:	**27**	**29**
Medium Trucks	74.83	-12.71	-4.43	-1.20	56.49	37.28	29.50	38.71	44.86	44.90	65 dBA:	**58**	**63**
Heavy Trucks	80.05	-10.49	-4.43	-1.20	63.93	46.94	39.16	48.36	54.52	54.55	60 dBA:	**125**	**135**
				Total:	**66.41**	**59.54**	**58.04**	**53.65**	**61.45**	**61.96**	55 dBA:	**269**	**291**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2011 WEEKDAY WITHOUT PROJECT

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: Fostoria Way **Segment: East of Camino Ramon**

Average Daily Traffic: 13600 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	0.23	-4.43	-1.20	59.71	57.34	56.05	49.99	58.42	59.05	70 dBA:	**20**	**22**
Medium Trucks	74.83	-14.64	-4.43	-1.20	54.56	35.35	27.57	36.78	42.94	42.97	65 dBA:	**43**	**47**
Heavy Trucks	80.05	-12.42	-4.43	-1.20	62.00	45.01	37.23	46.44	52.59	52.62	60 dBA:	**93**	**100**
				Total:	**64.48**	**57.61**	**56.11**	**51.72**	**59.53**	**60.03**	55 dBA:	**200**	**216**

Road Name: Crow Canyon Road **Segment: West of Bollinger Canyon Road**

Average Daily Traffic: 23700 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	2.06	-4.43	-1.20	63.79	61.42	60.13	54.07	62.51	63.14	70 dBA:	**36**	**39**
Medium Trucks	76.31	-12.81	-4.43	-1.20	57.88	38.67	30.89	40.10	46.25	46.29	65 dBA:	**78**	**85**
Heavy Trucks	81.16	-10.59	-4.43	-1.20	64.95	47.96	40.17	49.38	55.54	55.57	60 dBA:	**168**	**182**
				Total:	**67.88**	**61.63**	**60.18**	**55.47**	**63.39**	**63.91**	55 dBA:	**362**	**393**

Road Name: Crow Canyon Road **Segment: West of Twin Creeks Drive**

Average Daily Traffic: 47400 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 6-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 92.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	5.07	-4.08	-1.20	67.15	64.78	63.48	57.43	65.86	66.49	70 dBA:	**61**	**66**
Medium Trucks	76.31	-9.80	-4.08	-1.20	61.23	42.03	34.24	43.45	49.61	49.64	65 dBA:	**131**	**142**
Heavy Trucks	81.16	-7.58	-4.08	-1.20	68.30	51.31	43.53	52.74	58.89	58.92	60 dBA:	**281**	**305**
				Total:	**71.23**	**64.99**	**63.53**	**58.83**	**66.74**	**67.27**	55 dBA:	**606**	**657**

Road Name: Crow Canyon Road **Segment: West of San Ramon Valley Boulevard**

Average Daily Traffic: 47300 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 6-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 92.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	5.06	-4.08	-1.20	67.14	64.77	63.47	57.42	65.85	66.48	70 dBA:	**61**	**66**
Medium Trucks	76.31	-9.81	-4.08	-1.20	61.23	42.02	34.24	43.44	49.60	49.63	65 dBA:	**130**	**141**
Heavy Trucks	81.16	-7.59	-4.08	-1.20	68.29	51.30	43.52	52.73	58.88	58.92	60 dBA:	**281**	**305**
				Total:	**71.22**	**64.98**	**63.52**	**58.82**	**66.73**	**67.26**	55 dBA:	**605**	**656**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2011 WEEKDAY WITHOUT PROJECT

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: Crow Canyon Road **Segment: East of Crow Canyon Place**

Average Daily Traffic: 52300 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 8-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 86.02 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	5.50	-3.64	-1.20	68.02	65.65	64.35	58.30	66.73	67.36	70 dBA:	**69**	**75**
Medium Trucks	76.31	-9.37	-3.64	-1.20	62.11	42.90	35.12	44.32	50.48	50.51	65 dBA:	**149**	**162**
Heavy Trucks	81.16	-7.15	-3.64	-1.20	69.17	52.18	44.40	53.61	59.76	59.80	60 dBA:	**322**	**349**
				Total:	**72.10**	**65.86**	**64.40**	**59.70**	**67.61**	**68.14**	55 dBA:	**693**	**751**

Road Name: Crow Canyon Road **Segment: East of Camino Ramon**

Average Daily Traffic: 56400 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 8-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 86.02 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	5.82	-3.64	-1.20	68.35	65.98	64.68	58.63	67.06	67.69	70 dBA:	**73**	**79**
Medium Trucks	76.31	-9.04	-3.64	-1.20	62.43	43.22	35.44	44.65	50.81	50.84	65 dBA:	**157**	**170**
Heavy Trucks	81.16	-6.82	-3.64	-1.20	69.50	52.51	44.73	53.94	60.09	60.12	60 dBA:	**338**	**367**
				Total:	**72.43**	**66.19**	**64.73**	**60.02**	**67.94**	**68.47**	55 dBA:	**729**	**790**

Road Name: Crow Canyon Road **Segment: East of Alcosta Boulevard**

Average Daily Traffic: 55000 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 6-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 92.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	5.72	-4.08	-1.20	67.79	65.42	64.13	58.07	66.51	67.14	70 dBA:	**67**	**73**
Medium Trucks	76.31	-9.15	-4.08	-1.20	61.88	42.67	34.89	44.10	50.25	50.29	65 dBA:	**144**	**156**
Heavy Trucks	81.16	-6.93	-4.08	-1.20	68.95	51.96	44.17	53.38	59.54	59.57	60 dBA:	**311**	**337**
				Total:	**71.88**	**65.64**	**64.18**	**59.47**	**67.39**	**67.91**	55 dBA:	**669**	**726**

Road Name: Crow Canyon Road **Segment: West of Dougherty Road**

Average Daily Traffic: 37100 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 6-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 92.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	4.01	-4.08	-1.20	66.08	63.71	62.42	56.36	64.80	65.43	70 dBA:	**51**	**56**
Medium Trucks	76.31	-10.86	-4.08	-1.20	60.17	40.96	33.18	42.39	48.54	48.58	65 dBA:	**111**	**120**
Heavy Trucks	81.16	-8.64	-4.08	-1.20	67.24	50.25	42.46	51.67	57.83	57.86	60 dBA:	**239**	**259**
				Total:	**70.17**	**63.93**	**62.47**	**57.76**	**65.68**	**66.20**	55 dBA:	**515**	**558**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2011 WEEKDAY WITHOUT PROJECT

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: Crow Canyon Road **Segment: East of Dougherty Road**

Average Daily Traffic: 55500 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 6-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 92.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	5.75	-4.08	-1.20	67.83	65.46	64.17	58.11	66.55	67.18	70 dBA:	**67**	**73**
Medium Trucks	76.31	-9.11	-4.08	-1.20	61.92	42.71	34.93	44.14	50.29	50.33	65 dBA:	**145**	**157**
Heavy Trucks	81.16	-6.89	-4.08	-1.20	68.98	52.00	44.21	53.42	59.58	59.61	60 dBA:	**313**	**339**
				Total:	**71.92**	**65.67**	**64.22**	**59.51**	**67.43**	**67.95**	55 dBA:	**674**	**730**

Road Name: Norris Canyon Road **Segment: West of San Ramon Valley Boulevard**

Average Daily Traffic: 10900 Vehicles Vehicle Speed: 25 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	59.44	0.73	-4.43	-1.20	54.54	52.17	50.88	44.82	53.25	53.88	70 dBA:	**11**	**12**
Medium Trucks	71.09	-14.14	-4.43	-1.20	51.32	32.11	24.33	33.54	39.70	39.73	65 dBA:	**24**	**25**
Heavy Trucks	78.74	-11.92	-4.43	-1.20	61.19	44.20	36.42	45.63	51.79	51.82	60 dBA:	**52**	**55**
				Total:	**62.40**	**52.85**	**51.04**	**48.40**	**55.70**	**56.09**	55 dBA:	**111**	**118**

Road Name: Norris Canyon Road **Segment: East of Bishop Drive**

Average Daily Traffic: 21700 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	1.68	-4.43	-1.20	63.41	61.04	59.75	53.69	62.12	62.75	70 dBA:	**34**	**37**
Medium Trucks	76.31	-13.19	-4.43	-1.20	57.50	38.29	30.51	39.72	45.87	45.90	65 dBA:	**74**	**80**
Heavy Trucks	81.16	-10.97	-4.43	-1.20	64.56	47.57	39.79	49.00	55.15	55.19	60 dBA:	**159**	**172**
				Total:	**67.49**	**61.25**	**59.79**	**55.09**	**63.00**	**63.53**	55 dBA:	**342**	**370**

Road Name: Norris Canyon Road **Segment: East of Camino Ramon**

Average Daily Traffic: 23400 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	2.00	-4.43	-1.20	63.74	61.37	60.07	54.02	62.45	63.08	70 dBA:	**36**	**39**
Medium Trucks	76.31	-12.86	-4.43	-1.20	57.82	38.62	30.83	40.04	46.20	46.23	65 dBA:	**77**	**84**
Heavy Trucks	81.16	-10.64	-4.43	-1.20	64.89	47.90	40.12	49.33	55.48	55.52	60 dBA:	**167**	**181**
				Total:	**67.82**	**61.58**	**60.12**	**55.42**	**63.33**	**63.86**	55 dBA:	**359**	**390**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2011 WEEKDAY WITHOUT PROJECT

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: Executive Parkway **Segment: West of Camino Ramon**

Average Daily Traffic: 8400 Vehicles | Vehicle Speed: 30 MPH | Vehicle Mix: 1 | Roadway Classification: Minor

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.5 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-0.95	-4.59	-1.20	55.78	53.65	52.34	46.33	54.75	55.38	70 dBA:	**10**	**11**
Medium Trucks	73.11	-18.19	-4.59	-1.20	49.14	27.89	33.91	15.62	28.76	31.52	65 dBA:	**21**	**23**
Heavy Trucks	80.26	-22.14	-4.59	-1.20	52.33	26.98	23.58	28.23	34.43	34.53	60 dBA:	**45**	**50**
				Total:	**58.00**	**53.68**	**52.41**	**46.40**	**54.80**	**55.43**	55 dBA:	**97**	**107**

Road Name: Bishop Drive **Segment: West of Camino Ramon**

Average Daily Traffic: 14100 Vehicles | Vehicle Speed: 30 MPH | Vehicle Mix: 1 | Roadway Classification: Minor

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.5 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	1.30	-4.59	-1.20	58.03	55.90	54.59	48.58	57.00	57.63	70 dBA:	**14**	**15**
Medium Trucks	73.11	-15.94	-4.59	-1.20	51.39	30.14	36.16	17.87	31.01	33.77	65 dBA:	**30**	**33**
Heavy Trucks	80.26	-19.89	-4.59	-1.20	54.58	29.23	25.83	30.48	36.68	36.78	60 dBA:	**64**	**70**
				Total:	**60.25**	**55.93**	**54.66**	**48.65**	**57.05**	**57.68**	55 dBA:	**137**	**151**

Road Name: Bollinger Canyon Road **Segment: West of San Ramon Valley Boulevard**

Average Daily Traffic: 19600 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	1.23	-4.43	-1.20	62.97	60.60	59.30	53.25	61.68	62.31	70 dBA:	**32**	**35**
Medium Trucks	76.31	-13.63	-4.43	-1.20	57.05	37.85	30.07	39.27	45.43	45.46	65 dBA:	**69**	**75**
Heavy Trucks	81.16	-11.41	-4.43	-1.20	64.12	47.13	39.35	48.56	54.71	54.75	60 dBA:	**148**	**161**
				Total:	**67.05**	**60.81**	**59.35**	**54.65**	**62.56**	**63.09**	55 dBA:	**319**	**346**

Road Name: Bollinger Canyon Road **Segment: East of Sunset Drive**

Average Daily Traffic: 69400 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 6-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 92.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	6.73	-4.08	-1.20	68.80	66.43	65.14	59.08	67.52	68.15	70 dBA:	**78**	**85**
Medium Trucks	76.31	-8.14	-4.08	-1.20	62.89	43.68	35.90	45.11	51.26	51.30	65 dBA:	**168**	**183**
Heavy Trucks	81.16	-5.92	-4.08	-1.20	69.96	52.97	45.18	54.39	60.55	60.58	60 dBA:	**363**	**393**
				Total:	**72.89**	**66.65**	**65.19**	**60.48**	**68.40**	**68.92**	55 dBA:	**782**	**848**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2011 WEEKDAY WITHOUT PROJECT

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: Bollinger Canyon Road **Segment: East of Camino Ramon**

Average Daily Traffic: 58500 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 8-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 86.02 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	5.98	-3.64	-1.20	68.51	66.13	64.84	58.79	67.22	67.85	70 dBA:	**75**	**81**
Medium Trucks	76.31	-8.88	-3.64	-1.20	62.59	43.38	35.60	44.81	50.96	51.00	65 dBA:	**161**	**174**
Heavy Trucks	81.16	-6.66	-3.64	-1.20	69.66	52.67	44.89	54.09	60.25	60.28	60 dBA:	**347**	**376**
				Total:	**72.59**	**66.35**	**64.89**	**60.18**	**68.10**	**68.63**	55 dBA:	**747**	**810**

Road Name: Bollinger Canyon Road **Segment: East of Market Place**

Average Daily Traffic: 62500 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 8-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 86.02 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	6.27	-3.64	-1.20	68.79	66.42	65.13	59.07	67.50	68.14	70 dBA:	**78**	**85**
Medium Trucks	76.31	-8.60	-3.64	-1.20	62.88	43.67	35.89	45.10	51.25	51.29	65 dBA:	**168**	**182**
Heavy Trucks	81.16	-6.38	-3.64	-1.20	69.94	52.95	45.17	54.38	60.54	60.57	60 dBA:	**362**	**393**
				Total:	**72.88**	**66.63**	**65.18**	**60.47**	**68.38**	**68.91**	55 dBA:	**780**	**846**

Road Name: Bollinger Canyon Road **Segment: East of Alcosta Boulevard**

Average Daily Traffic: 54300 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 6-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 92.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	5.66	-4.08	-1.20	67.74	65.37	64.07	58.02	66.45	67.08	70 dBA:	**66**	**72**
Medium Trucks	76.31	-9.21	-4.08	-1.20	61.82	42.62	34.83	44.04	50.20	50.23	65 dBA:	**143**	**155**
Heavy Trucks	81.16	-6.99	-4.08	-1.20	68.89	51.90	44.12	53.33	59.48	59.52	60 dBA:	**308**	**334**
				Total:	**71.82**	**65.58**	**64.12**	**59.42**	**67.33**	**67.86**	55 dBA:	**664**	**720**

Road Name: Bollinger Canyon Road **Segment: East of Canyon Lakes Drive**

Average Daily Traffic: 47800 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 6-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 92.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	5.11	-4.08	-1.20	67.18	64.81	63.52	57.46	65.90	66.53	70 dBA:	**61**	**66**
Medium Trucks	76.31	-9.76	-4.08	-1.20	61.27	42.06	34.28	43.49	49.64	49.68	65 dBA:	**131**	**142**
Heavy Trucks	81.16	-7.54	-4.08	-1.20	68.34	51.35	43.56	52.77	58.93	58.96	60 dBA:	**283**	**307**
				Total:	**71.27**	**65.03**	**63.57**	**58.86**	**66.78**	**67.30**	55 dBA:	**610**	**661**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2011 WEEKDAY WITHOUT PROJECT

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: Montevideo Drive **Segment: East of San Ramon Valley Boulevard**

Average Daily Traffic: 14500 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 1 Roadway Classification: Minor

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.5 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	1.42	-4.59	-1.20	58.15	56.03	54.71	48.70	57.12	57.75	70 dBA:	**14**	**15**
Medium Trucks	73.11	-15.81	-4.59	-1.20	51.51	30.26	36.28	17.99	31.14	33.89	65 dBA:	**30**	**33**
Heavy Trucks	80.26	-19.77	-4.59	-1.20	54.70	29.35	25.95	30.60	36.80	36.90	60 dBA:	**65**	**71**
				Total:	**60.37**	**56.05**	**54.78**	**48.77**	**57.17**	**57.80**	55 dBA:	**140**	**154**

Road Name: Montevideo Drive **Segment: West of Alcosta Boulevard**

Average Daily Traffic: 7900 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 1 Roadway Classification: Minor

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.5 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-1.21	-4.59	-1.20	55.51	53.39	52.08	46.06	54.48	55.11	70 dBA:	**9**	**10**
Medium Trucks	73.11	-18.45	-4.59	-1.20	48.88	27.63	33.65	15.35	28.50	31.25	65 dBA:	**20**	**22**
Heavy Trucks	80.26	-22.41	-4.59	-1.20	52.07	26.72	23.32	27.96	34.16	34.26	60 dBA:	**43**	**48**
				Total:	**57.74**	**53.41**	**52.14**	**46.13**	**54.53**	**55.16**	55 dBA:	**93**	**103**

Road Name: Pine Valley Road **Segment: East of San Ramon Valley Boulevard**

Average Daily Traffic: 16700 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 1 Roadway Classification: Minor

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.5 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	2.04	-4.59	-1.20	58.76	56.64	55.33	49.31	57.73	58.36	70 dBA:	**15**	**17**
Medium Trucks	73.11	-15.20	-4.59	-1.20	52.13	30.88	36.90	18.61	31.75	34.50	65 dBA:	**33**	**36**
Heavy Trucks	80.26	-19.16	-4.59	-1.20	55.32	29.97	26.57	31.22	37.41	37.51	60 dBA:	**71**	**78**
				Total:	**60.99**	**56.66**	**55.39**	**49.38**	**57.79**	**58.41**	55 dBA:	**153**	**169**

Road Name: Windemere Parkway **Segment: East of Bollinger Canyon Road**

Average Daily Traffic: 1600 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-9.65	-4.43	-1.20	52.09	49.72	48.42	42.37	50.80	51.43	70 dBA:	**6**	**7**
Medium Trucks	76.31	-24.51	-4.43	-1.20	46.17	26.97	19.18	28.39	34.55	34.58	65 dBA:	**13**	**14**
Heavy Trucks	81.16	-22.30	-4.43	-1.20	53.24	36.25	28.47	37.68	43.83	43.86	60 dBA:	**28**	**30**
				Total:	**56.17**	**49.93**	**48.47**	**43.76**	**51.68**	**52.21**	55 dBA:	**60**	**65**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2011 WEEKDAY WITHOUT PROJECT

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: East Branch Road **Segment: East of Bollinger Canyon Road**

Average Daily Traffic: 10200 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-1.60	-4.43	-1.20	60.13	57.76	56.47	50.41	58.84	59.47	70 dBA:	**21**	**22**
Medium Trucks	76.31	-16.47	-4.43	-1.20	54.22	35.01	27.23	36.44	42.59	42.63	65 dBA:	**44**	**48**
Heavy Trucks	81.16	-14.25	-4.43	-1.20	61.28	44.29	36.51	45.72	51.87	51.91	60 dBA:	**96**	**104**
				Total:	**64.21**	**57.97**	**56.52**	**51.81**	**59.72**	**60.25**	55 dBA:	**207**	**224**

Road Name: Old Ranch Road **Segment: East of Alcosta Boulevard**

Average Daily Traffic: 21900 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	1.72	-4.43	-1.20	63.45	61.08	59.79	53.73	62.16	62.79	70 dBA:	**34**	**37**
Medium Trucks	76.31	-13.15	-4.43	-1.20	57.54	38.33	30.55	39.76	45.91	45.94	65 dBA:	**74**	**80**
Heavy Trucks	81.16	-10.93	-4.43	-1.20	64.60	47.61	39.83	49.04	55.19	55.23	60 dBA:	**160**	**173**
				Total:	**67.53**	**61.29**	**59.83**	**55.13**	**63.04**	**63.57**	55 dBA:	**344**	**373**

Road Name: Old Ranch Road **Segment: West of Dougherty Road**

Average Daily Traffic: 17500 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	0.74	-4.43	-1.20	62.48	60.10	58.81	52.76	61.19	61.82	70 dBA:	**30**	**32**
Medium Trucks	76.31	-14.12	-4.43	-1.20	56.56	37.35	29.57	38.78	44.94	44.97	65 dBA:	**64**	**69**
Heavy Trucks	81.16	-11.91	-4.43	-1.20	63.63	46.64	38.86	48.07	54.22	54.25	60 dBA:	**137**	**149**
				Total:	**66.56**	**60.32**	**58.86**	**54.15**	**62.07**	**62.60**	55 dBA:	**296**	**321**

Road Name: Westside Drive **Segment: West of San Ramon Valley Boulevard**

Average Daily Traffic: 8500 Vehicles | Vehicle Speed: 30 MPH | Vehicle Mix: 2 | Roadway Classification: 2-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.15 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-1.14	-4.56	-1.20	55.60	53.23	51.94	45.88	54.32	54.95	70 dBA:	**12**	**13**
Medium Trucks	73.11	-16.01	-4.56	-1.20	51.34	32.13	24.35	33.56	39.71	39.75	65 dBA:	**26**	**28**
Heavy Trucks	80.26	-13.79	-4.56	-1.20	60.70	43.71	35.93	45.14	51.30	51.33	60 dBA:	**56**	**59**
				Total:	**62.24**	**53.72**	**52.05**	**48.68**	**56.17**	**56.61**	55 dBA:	**120**	**128**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2011 WEEKDAY WITHOUT PROJECT

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: Alcosta Boulevard **Segment: East of Davona Drive**

Average Daily Traffic: 28200 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	2.81	-4.43	-1.20	64.55	62.18	60.88	54.83	63.26	63.89	70 dBA:	**41**	**44**
Medium Trucks	76.31	-12.05	-4.43	-1.20	58.63	39.43	31.65	40.85	47.01	47.04	65 dBA:	**88**	**95**
Heavy Trucks	81.16	-9.83	-4.43	-1.20	65.70	48.71	40.93	50.14	56.29	56.33	60 dBA:	**189**	**205**
				Total:	**68.63**	**62.39**	**60.93**	**56.23**	**64.14**	**64.67**	55 dBA:	**407**	**441**

Road Name: Alcosta Boulevard **Segment: East of Kimball Avenue**

Average Daily Traffic: 22300 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	1.79	-4.43	-1.20	63.53	61.16	59.86	53.81	62.24	62.87	70 dBA:	**35**	**38**
Medium Trucks	76.31	-13.07	-4.43	-1.20	57.62	38.41	30.63	39.83	45.99	46.02	65 dBA:	**75**	**81**
Heavy Trucks	81.16	-10.85	-4.43	-1.20	64.68	47.69	39.91	49.12	55.27	55.31	60 dBA:	**161**	**175**
				Total:	**67.61**	**61.37**	**59.91**	**55.21**	**63.12**	**63.65**	55 dBA:	**348**	**377**

Road Name: Alcosta Boulevard **Segment: East of Village Parkway**

Average Daily Traffic: 21700 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	1.68	-4.43	-1.20	63.41	61.04	59.75	53.69	62.12	62.75	70 dBA:	**34**	**37**
Medium Trucks	76.31	-13.19	-4.43	-1.20	57.50	38.29	30.51	39.72	45.87	45.90	65 dBA:	**74**	**80**
Heavy Trucks	81.16	-10.97	-4.43	-1.20	64.56	47.57	39.79	49.00	55.15	55.19	60 dBA:	**159**	**172**
				Total:	**67.49**	**61.25**	**59.79**	**55.09**	**63.00**	**63.53**	55 dBA:	**342**	**370**

Road Name: Bollinger Canyon Road **Segment: North of Crow Canyon Road**

Average Daily Traffic: 2100 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 2 Roadway Classification: 2-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.15 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-7.22	-4.56	-1.20	49.53	47.16	45.87	39.81	48.24	48.88	70 dBA:	**5**	**5**
Medium Trucks	73.11	-22.08	-4.56	-1.20	45.27	26.06	18.28	27.49	33.64	33.67	65 dBA:	**10**	**11**
Heavy Trucks	80.26	-19.86	-4.56	-1.20	54.63	37.64	29.86	39.07	45.22	45.26	60 dBA:	**22**	**23**
				Total:	**56.17**	**47.65**	**45.98**	**42.60**	**50.10**	**50.53**	55 dBA:	**47**	**50**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2011 WEEKDAY WITHOUT PROJECT

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: Bollinger Canyon Road **Segment: South of Crow Canyon Road**

Average Daily Traffic: 9000 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: 2-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 98.37 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.57	-4.51	-1.20	57.83	55.46	54.17	48.11	56.54	57.18	70 dBA:	**15**	**16**
Medium Trucks	74.83	-16.43	-4.51	-1.20	52.68	33.48	25.69	34.90	41.06	41.09	65 dBA:	**32**	**35**
Heavy Trucks	80.05	-14.21	-4.51	-1.20	60.12	43.13	35.35	44.56	50.71	50.75	60 dBA:	**70**	**75**
				Total:	**62.60**	**55.73**	**54.23**	**49.84**	**57.65**	**58.15**	55 dBA:	**150**	**162**

Road Name: San Ramon Valley Boulevard **Segment: North of Deerwood Road**

Average Daily Traffic: 35400 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	3.80	-4.43	-1.20	65.54	63.16	61.87	55.82	64.25	64.88	70 dBA:	**47**	**51**
Medium Trucks	76.31	-11.06	-4.43	-1.20	59.62	40.41	32.63	41.84	48.00	48.03	65 dBA:	**102**	**111**
Heavy Trucks	81.16	-8.85	-4.43	-1.20	66.69	49.70	41.92	51.12	57.28	57.31	60 dBA:	**220**	**238**
				Total:	**69.62**	**63.38**	**61.92**	**57.21**	**65.13**	**65.66**	55 dBA:	**473**	**513**

Road Name: San Ramon Valley Boulevard **Segment: North of Crow Canyon Road**

Average Daily Traffic: 32300 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	3.40	-4.43	-1.20	65.14	62.77	61.47	55.42	63.85	64.48	70 dBA:	**45**	**48**
Medium Trucks	76.31	-11.46	-4.43	-1.20	59.22	40.02	32.23	41.44	47.60	47.63	65 dBA:	**96**	**104**
Heavy Trucks	81.16	-9.24	-4.43	-1.20	66.29	49.30	41.52	50.73	56.88	56.91	60 dBA:	**207**	**224**
				Total:	**69.22**	**62.98**	**61.52**	**56.82**	**64.73**	**65.26**	55 dBA:	**445**	**483**

Road Name: San Ramon Valley Boulevard **Segment: North of Norris Canyon Road**

Average Daily Traffic: 25000 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	2.29	-4.43	-1.20	64.03	61.65	60.36	54.31	62.74	63.37	70 dBA:	**38**	**41**
Medium Trucks	76.31	-12.58	-4.43	-1.20	58.11	38.90	31.12	40.33	46.48	46.52	65 dBA:	**81**	**88**
Heavy Trucks	81.16	-10.36	-4.43	-1.20	65.18	48.19	40.41	49.61	55.77	55.80	60 dBA:	**174**	**189**
				Total:	**68.11**	**61.87**	**60.41**	**55.70**	**63.62**	**64.14**	55 dBA:	**375**	**407**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2011 WEEKDAY WITHOUT PROJECT

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: San Ramon Valley Boulevard **Segment: South of Norris Canyon Road**

Average Daily Traffic: 21100 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	1.55	-4.43	-1.20	63.29	60.92	59.62	53.57	62.00	62.63	70 dBA:	**34**	**36**
Medium Trucks	76.31	-13.31	-4.43	-1.20	57.38	38.17	30.39	39.59	45.75	45.78	65 dBA:	**72**	**78**
Heavy Trucks	81.16	-11.09	-4.43	-1.20	64.44	47.45	39.67	48.88	55.03	55.07	60 dBA:	**156**	**169**
				Total:	**67.37**	**61.13**	**59.67**	**54.97**	**62.88**	**63.41**	55 dBA:	**335**	**364**

Road Name: San Ramon Valley Boulevard **Segment: South of Bollinger Canyon Road**

Average Daily Traffic: 38500 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	4.17	-4.43	-1.20	65.90	63.53	62.24	56.18	64.61	65.24	70 dBA:	**50**	**54**
Medium Trucks	76.31	-10.70	-4.43	-1.20	59.99	40.78	33.00	42.21	48.36	48.39	65 dBA:	**108**	**117**
Heavy Trucks	81.16	-8.48	-4.43	-1.20	67.05	50.06	42.28	51.49	57.64	57.68	60 dBA:	**232**	**252**
				Total:	**69.98**	**63.74**	**62.28**	**57.58**	**65.49**	**66.02**	55 dBA:	**501**	**543**

Road Name: San Ramon Valley Boulevard **Segment: South of Montevideo Drive**

Average Daily Traffic: 31000 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	3.23	-4.43	-1.20	64.96	62.59	61.29	55.24	63.67	64.30	70 dBA:	**43**	**47**
Medium Trucks	76.31	-11.64	-4.43	-1.20	59.05	39.84	32.06	41.26	47.42	47.45	65 dBA:	**93**	**101**
Heavy Trucks	81.16	-9.42	-4.43	-1.20	66.11	49.12	41.34	50.55	56.70	56.74	60 dBA:	**201**	**218**
				Total:	**69.04**	**62.80**	**61.34**	**56.64**	**64.55**	**65.08**	55 dBA:	**433**	**470**

Road Name: San Ramon Valley Boulevard **Segment: South of Pine Valley Boulevard**

Average Daily Traffic: 31200 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	3.25	-4.43	-1.20	64.99	62.62	61.32	55.27	63.70	64.33	70 dBA:	**44**	**47**
Medium Trucks	76.31	-11.61	-4.43	-1.20	59.07	39.87	32.08	41.29	47.45	47.48	65 dBA:	**94**	**102**
Heavy Trucks	81.16	-9.39	-4.43	-1.20	66.14	49.15	41.37	50.58	56.73	56.76	60 dBA:	**202**	**219**
				Total:	**69.07**	**62.83**	**61.37**	**56.67**	**64.58**	**65.11**	55 dBA:	**435**	**472**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2011 WEEKDAY WITHOUT PROJECT

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: San Ramon Valley Boulevard **Segment: North of Alcosta Boulevard**

Average Daily Traffic: 37400 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	4.04	-4.43	-1.20	65.77	63.40	62.11	56.06	64.49	65.12	70 dBA:	**49**	**53**
Medium Trucks	76.31	-10.83	-4.43	-1.20	59.86	40.65	32.87	42.08	48.23	48.27	65 dBA:	**106**	**115**
Heavy Trucks	81.16	-8.61	-4.43	-1.20	66.93	49.94	42.16	51.36	57.52	57.55	60 dBA:	**228**	**247**
				Total:	**69.86**	**63.62**	**62.16**	**57.45**	**65.37**	**65.89**	55 dBA:	**491**	**532**

Road Name: Crow Canyon Place **Segment: South of Fostoria Way**

Average Daily Traffic: 22800 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 1 Roadway Classification: Minor

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.5 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	3.39	-4.59	-1.20	60.11	57.99	56.68	50.67	59.09	59.71	70 dBA:	**19**	**21**
Medium Trucks	73.11	-13.85	-4.59	-1.20	53.48	32.23	38.25	19.96	33.10	35.85	65 dBA:	**41**	**45**
Heavy Trucks	80.26	-17.80	-4.59	-1.20	56.67	31.32	27.92	32.57	38.77	38.86	60 dBA:	**88**	**96**
				Total:	**62.34**	**58.01**	**56.75**	**50.74**	**59.14**	**59.77**	55 dBA:	**189**	**208**

Road Name: Crow Canyon Place **Segment: South of Crow Canyon Road**

Average Daily Traffic: 24400 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 1 Roadway Classification: Minor

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.5 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	3.68	-4.59	-1.20	60.41	58.29	56.97	50.96	59.38	60.01	70 dBA:	**20**	**22**
Medium Trucks	73.11	-13.55	-4.59	-1.20	53.77	32.52	38.54	20.25	33.40	36.15	65 dBA:	**43**	**47**
Heavy Trucks	80.26	-17.51	-4.59	-1.20	56.96	31.61	28.21	32.86	39.06	39.16	60 dBA:	**92**	**101**
				Total:	**62.63**	**58.31**	**57.04**	**51.03**	**59.43**	**60.06**	55 dBA:	**197**	**217**

Road Name: Camino Ramon **Segment: South of Fostoria Way**

Average Daily Traffic: 13100 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	0.06	-4.43	-1.20	59.55	57.18	55.88	49.83	58.26	58.89	70 dBA:	**20**	**21**
Medium Trucks	74.83	-14.80	-4.43	-1.20	54.40	35.19	27.41	36.62	42.77	42.81	65 dBA:	**42**	**45**
Heavy Trucks	80.05	-12.58	-4.43	-1.20	61.84	44.85	37.07	46.27	52.43	52.46	60 dBA:	**91**	**98**
				Total:	**64.32**	**57.45**	**55.95**	**51.56**	**59.36**	**59.87**	55 dBA:	**195**	**211**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2011 WEEKDAY WITHOUT PROJECT

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: Camino Ramon **Segment: South of Crow Canyon Road**

Average Daily Traffic: 22600 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	2.43	-4.43	-1.20	61.92	59.55	58.25	52.20	60.63	61.26	70 dBA:	**28**	**30**
Medium Trucks	74.83	-12.43	-4.43	-1.20	56.77	37.56	29.78	38.99	45.14	45.18	65 dBA:	**61**	**65**
Heavy Trucks	80.05	-10.22	-4.43	-1.20	64.21	47.22	39.43	48.64	54.80	54.83	60 dBA:	**130**	**141**
				Total:	**66.69**	**59.82**	**58.31**	**53.93**	**61.73**	**62.24**	55 dBA:	**281**	**304**

Road Name: Camino Ramon **Segment: South of Norris Canyon Road**

Average Daily Traffic: 19500 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	1.79	-4.43	-1.20	61.28	58.90	57.61	51.56	59.99	60.62	70 dBA:	**25**	**28**
Medium Trucks	74.83	-13.07	-4.43	-1.20	56.13	36.92	29.14	38.35	44.50	44.53	65 dBA:	**55**	**59**
Heavy Trucks	80.05	-10.86	-4.43	-1.20	63.56	46.57	38.79	48.00	54.16	54.19	60 dBA:	**118**	**128**
				Total:	**66.05**	**59.18**	**57.67**	**53.29**	**61.09**	**61.60**	55 dBA:	**255**	**275**

Road Name: Camino Ramon **Segment: South of Executive Parkway**

Average Daily Traffic: 16800 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	1.14	-4.43	-1.20	60.63	58.26	56.96	50.91	59.34	59.97	70 dBA:	**23**	**25**
Medium Trucks	74.83	-13.72	-4.43	-1.20	55.48	36.27	28.49	37.70	43.85	43.89	65 dBA:	**50**	**54**
Heavy Trucks	80.05	-11.50	-4.43	-1.20	62.92	45.93	38.15	47.35	53.51	53.54	60 dBA:	**107**	**116**
				Total:	**65.40**	**58.53**	**57.03**	**52.64**	**60.44**	**60.95**	55 dBA:	**231**	**249**

Road Name: Camino Ramon **Segment: South of Bishop Drive**

Average Daily Traffic: 17700 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	1.37	-4.43	-1.20	60.86	58.48	57.19	51.14	59.57	60.20	70 dBA:	**24**	**26**
Medium Trucks	74.83	-13.50	-4.43	-1.20	55.71	36.50	28.72	37.93	44.08	44.11	65 dBA:	**51**	**56**
Heavy Trucks	80.05	-11.28	-4.43	-1.20	63.14	46.15	38.37	47.58	53.74	53.77	60 dBA:	**111**	**120**
				Total:	**65.63**	**58.76**	**57.25**	**52.86**	**60.67**	**61.18**	55 dBA:	**239**	**258**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2011 WEEKDAY WITHOUT PROJECT

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: Village Parkway **Segment: South of Alcosta Boulevard**

Average Daily Traffic: 12900 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-0.58	-4.43	-1.20	61.15	58.78	57.49	51.43	59.86	60.49	70 dBA:	**24**	**26**
Medium Trucks	76.31	-15.45	-4.43	-1.20	55.24	36.03	28.25	37.46	43.61	43.64	65 dBA:	**52**	**56**
Heavy Trucks	81.16	-13.23	-4.43	-1.20	62.30	45.31	37.53	46.74	52.89	52.93	60 dBA:	**112**	**122**
				Total:	**65.23**	**58.99**	**57.54**	**52.83**	**60.74**	**61.27**	55 dBA:	**242**	**262**

Road Name: Alcosta Boulevard **Segment: South of Crow Canyon Road**

Average Daily Traffic: 32100 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	3.38	-4.43	-1.20	65.11	62.74	61.45	55.39	63.82	64.45	70 dBA:	**44**	**48**
Medium Trucks	76.31	-11.49	-4.43	-1.20	59.20	39.99	32.21	41.42	47.57	47.60	65 dBA:	**96**	**104**
Heavy Trucks	81.16	-9.27	-4.43	-1.20	66.26	49.27	41.49	50.70	56.85	56.89	60 dBA:	**206**	**223**
				Total:	**69.19**	**62.95**	**61.49**	**56.79**	**64.70**	**65.23**	55 dBA:	**443**	**481**

Road Name: Alcosta Boulevard **Segment: South of Norris Canyon Road**

Average Daily Traffic: 23700 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	2.06	-4.43	-1.20	63.79	61.42	60.13	54.07	62.51	63.14	70 dBA:	**36**	**39**
Medium Trucks	76.31	-12.81	-4.43	-1.20	57.88	38.67	30.89	40.10	46.25	46.29	65 dBA:	**78**	**85**
Heavy Trucks	81.16	-10.59	-4.43	-1.20	64.95	47.96	40.17	49.38	55.54	55.57	60 dBA:	**168**	**182**
				Total:	**67.88**	**61.63**	**60.18**	**55.47**	**63.39**	**63.91**	55 dBA:	**362**	**393**

Road Name: Alcosta Boulevard **Segment: South of Woodland Drive**

Average Daily Traffic: 27100 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	2.64	-4.43	-1.20	64.38	62.00	60.71	54.66	63.09	63.72	70 dBA:	**40**	**43**
Medium Trucks	76.31	-12.23	-4.43	-1.20	58.46	39.25	31.47	40.68	46.83	46.87	65 dBA:	**85**	**93**
Heavy Trucks	81.16	-10.01	-4.43	-1.20	65.53	48.54	40.76	49.96	56.12	56.15	60 dBA:	**184**	**199**
				Total:	**68.46**	**62.22**	**60.76**	**56.05**	**63.97**	**64.50**	55 dBA:	**396**	**430**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2011 WEEKDAY WITHOUT PROJECT

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: Alcosta Boulevard **Segment: South of Bollinger Canyon Road**

Average Daily Traffic: 31800 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	3.34	-4.43	-1.20	65.07	62.70	61.41	55.35	63.78	64.41	70 dBA:	**44**	**48**
Medium Trucks	76.31	-11.53	-4.43	-1.20	59.16	39.95	32.17	41.38	47.53	47.56	65 dBA:	**95**	**103**
Heavy Trucks	81.16	-9.31	-4.43	-1.20	66.22	49.23	41.45	50.66	56.81	56.85	60 dBA:	**205**	**222**
				Total:	**69.15**	**62.91**	**61.45**	**56.75**	**64.66**	**65.19**	55 dBA:	**441**	**478**

Road Name: Alcosta Boulevard **Segment: South of Vera Cruz Drive**

Average Daily Traffic: 24300 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	2.17	-4.43	-1.20	63.90	61.53	60.24	54.18	62.61	63.25	70 dBA:	**37**	**40**
Medium Trucks	76.31	-12.70	-4.43	-1.20	57.99	38.78	31.00	40.21	46.36	46.40	65 dBA:	**79**	**86**
Heavy Trucks	81.16	-10.48	-4.43	-1.20	65.05	48.06	40.28	49.49	55.64	55.68	60 dBA:	**171**	**185**
				Total:	**67.98**	**61.74**	**60.29**	**55.58**	**63.49**	**64.02**	55 dBA:	**368**	**399**

Road Name: Alcosta Boulevard **Segment: South of Montevideo Drive**

Average Daily Traffic: 17300 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	0.69	-4.43	-1.20	62.43	60.05	58.76	52.71	61.14	61.77	70 dBA:	**29**	**32**
Medium Trucks	76.31	-14.17	-4.43	-1.20	56.51	37.30	29.52	38.73	44.89	44.92	65 dBA:	**63**	**69**
Heavy Trucks	81.16	-11.96	-4.43	-1.20	63.58	46.59	38.81	48.02	54.17	54.20	60 dBA:	**136**	**148**
				Total:	**66.51**	**60.27**	**58.81**	**54.10**	**62.02**	**62.55**	55 dBA:	**294**	**318**

Road Name: Alcosta Boulevard **Segment: South of Old Ranch Road**

Average Daily Traffic: 19300 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification:

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	1.17	-4.43	-1.20	62.90	60.53	59.24	53.18	61.61	62.24	70 dBA:	**32**	**34**
Medium Trucks	76.31	-13.70	-4.43	-1.20	56.99	37.78	30.00	39.21	45.36	45.39	65 dBA:	**68**	**74**
Heavy Trucks	81.16	-11.48	-4.43	-1.20	64.05	47.06	39.28	48.49	54.64	54.68	60 dBA:	**147**	**159**
				Total:	**66.98**	**60.74**	**59.29**	**54.58**	**62.49**	**63.02**	55 dBA:	**316**	**343**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2011 WEEKDAY WITHOUT PROJECT

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: Dougherty Road **Segment: South of Crow Canyon Road**

Average Daily Traffic: 33700 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification:

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 92.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	3.59	-4.08	-1.20	65.67	63.29	62.00	55.95	64.38	65.01	70 dBA:	**48**	**52**
Medium Trucks	76.31	-11.28	-4.08	-1.20	59.75	40.54	32.76	41.97	48.13	48.16	65 dBA:	**104**	**113**
Heavy Trucks	81.16	-9.06	-4.08	-1.20	66.82	49.83	42.05	51.26	57.41	57.44	60 dBA:	**224**	**243**
				Total:	**69.75**	**63.51**	**62.05**	**57.34**	**65.26**	**65.79**	55 dBA:	**483**	**524**

Road Name: Dougherty Road **Segment: North of Old Ranch Road**

Average Daily Traffic: 45300 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification:

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 92.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	4.87	-4.08	0.00	68.15	65.78	64.49	58.43	66.86	67.49	70 dBA:	**71**	**77**
Medium Trucks	76.31	-9.99	-4.08	0.00	62.24	43.03	35.25	44.46	50.61	50.64	65 dBA:	**152**	**165**
Heavy Trucks	81.16	-7.78	-4.08	0.00	69.30	52.31	44.53	53.74	59.89	59.93	60 dBA:	**328**	**356**
				Total:	**72.23**	**65.99**	**64.53**	**59.83**	**67.74**	**68.27**	55 dBA:	**707**	**767**

Road Name: Dougherty Road **Segment: South of Old Ranch Road**

Average Daily Traffic: 47200 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification:

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 92.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	5.05	-4.08	0.00	68.33	65.96	64.66	58.61	67.04	67.67	70 dBA:	**73**	**79**
Medium Trucks	76.31	-9.82	-4.08	0.00	62.42	43.21	35.43	44.63	50.79	50.82	65 dBA:	**157**	**170**
Heavy Trucks	81.16	-7.60	-4.08	0.00	69.48	52.49	44.71	53.92	60.07	60.11	60 dBA:	**337**	**366**
				Total:	**72.41**	**66.17**	**64.71**	**60.01**	**67.92**	**68.45**	55 dBA:	**727**	**788**

Road Name: I-680 **Segment: North of Crow Canyon Road**

Average Daily Traffic: 210200 Vehicles Vehicle Speed: 65 MPH Vehicle Mix: 3 Roadway Classification:

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 83.52 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	75.54	9.56	-3.45	0.00	81.65	79.02	78.16	74.07	81.58	82.08	70 dBA:	**599**	**647**
Medium Trucks	81.71	-6.23	-3.45	0.00	72.03	52.94	51.55	51.24	57.89	58.15	65 dBA:	**1290**	**1393**
Heavy Trucks	85.21	-5.73	-3.45	0.00	76.03	57.12	54.18	56.76	63.16	63.30	60 dBA:	**2780**	**3001**
				Total:	**83.06**	**79.06**	**78.19**	**74.17**	**81.66**	**82.16**	55 dBA:	**5989**	**6465**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2011 WEEKDAY WITH PROJECT CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

	Vehicle Mix 1 (Local and Collector)				Vehicle Mix 2 (Major Arterial)				Vehicle Mix 3 (I-680)			
Vehicle Type	Day	Evening	Night	Daily	Day	Evening	Night	Daily	Day	Evening	Night	Daily
Automobiles	73.60%	13.60%	10.22%	97.40%	69.50%	12.90%	9.60%	92.00%	65.55%	13.43%	15.72%	94.70%
Medium Trucks	0.90%	0.90%	0.04%	1.84%	1.44%	0.06%	1.50%	3.00%	1.48%	0.27%	0.75%	2.50%
Heavy Trucks	0.35%	0.04%	0.35%	0.74%	2.40%	0.10%	2.50%	5.00%	1.54%	0.20%	1.06%	2.80%

Road Name: Deerwood Road **Segment: West of San Ramon Valley Boulevard**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-41.11	-4.43	-1.20	18.38	16.00	14.71	8.66	17.09	17.72	70 dBA:	**0**	**0**
Medium Trucks	74.83	-55.97	-4.43	-1.20	13.23	-5.98	-13.76	-4.55	1.60	1.63	65 dBA:	**0**	**0**
Heavy Trucks	80.05	-53.76	-4.43	-1.20	20.66	3.67	-4.11	5.10	11.26	11.29	60 dBA:	**0**	**0**
				Total:	**23.15**	**16.28**	**14.77**	**10.38**	**18.19**	**18.70**	55 dBA:	**0**	**0**

Road Name: Fostoria Way **Segment: West of Crow Canyon Place**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-41.11	-4.43	-1.20	18.38	16.00	14.71	8.66	17.09	17.72	70 dBA:	**0**	**0**
Medium Trucks	74.83	-55.97	-4.43	-1.20	13.23	-5.98	-13.76	-4.55	1.60	1.63	65 dBA:	**0**	**0**
Heavy Trucks	80.05	-53.76	-4.43	-1.20	20.66	3.67	-4.11	5.10	11.26	11.29	60 dBA:	**0**	**0**
				Total:	**23.15**	**16.28**	**14.77**	**10.38**	**18.19**	**18.70**	55 dBA:	**0**	**0**

Road Name: Fostoria Way **Segment: East of Crow Canyon Place**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-41.11	-4.43	-1.20	18.38	16.00	14.71	8.66	17.09	17.72	70 dBA:	**0**	**0**
Medium Trucks	74.83	-55.97	-4.43	-1.20	13.23	-5.98	-13.76	-4.55	1.60	1.63	65 dBA:	**0**	**0**
Heavy Trucks	80.05	-53.76	-4.43	-1.20	20.66	3.67	-4.11	5.10	11.26	11.29	60 dBA:	**0**	**0**
				Total:	**23.15**	**16.28**	**14.77**	**10.38**	**18.19**	**18.70**	55 dBA:	**0**	**0**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2011 WEEKDAY WITH PROJECT CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: Fostoria Way **Segment: East of Camino Ramon**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-41.11	-4.43	-1.20	18.38	16.00	14.71	8.66	17.09	17.72	70 dBA:	**0**	**0**
Medium Trucks	74.83	-55.97	-4.43	-1.20	13.23	-5.98	-13.76	-4.55	1.60	1.63	65 dBA:	**0**	**0**
Heavy Trucks	80.05	-53.76	-4.43	-1.20	20.66	3.67	-4.11	5.10	11.26	11.29	60 dBA:	**0**	**0**
				Total:	**23.15**	**16.28**	**14.77**	**10.38**	**18.19**	**18.70**	55 dBA:	**0**	**0**

Road Name: Crow Canyon Road **Segment: West of Bollinger Canyon Road**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

Road Name: Crow Canyon Road **Segment: West of Twin Creeks Drive**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 6-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 92.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.08	-1.20	20.39	18.02	16.73	10.67	19.10	19.73	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.08	-1.20	14.48	-4.73	-12.51	-3.30	2.85	2.88	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.08	-1.20	21.54	4.55	-3.23	5.98	12.13	12.17	60 dBA:	**0**	**0**
				Total:	**24.47**	**18.23**	**16.77**	**12.07**	**19.98**	**20.51**	55 dBA:	**0**	**1**

Road Name: Crow Canyon Road **Segment: West of San Ramon Valley Boulevard**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 6-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 92.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.08	-1.20	20.39	18.02	16.73	10.67	19.10	19.73	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.08	-1.20	14.48	-4.73	-12.51	-3.30	2.85	2.88	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.08	-1.20	21.54	4.55	-3.23	5.98	12.13	12.17	60 dBA:	**0**	**0**
				Total:	**24.47**	**18.23**	**16.77**	**12.07**	**19.98**	**20.51**	55 dBA:	**0**	**1**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2011 WEEKDAY WITH PROJECT CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: Crow Canyon Road **Segment: East of Crow Canyon Place**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 8-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE						(Equiv. Lane Dist: 86.02 ft)				**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-3.64	-1.20	20.83	18.46	17.17	11.11	19.55	20.18	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-3.64	-1.20	14.92	-4.29	-12.07	-2.86	3.29	3.33	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-3.64	-1.20	21.99	5.00	-2.79	6.42	12.58	12.61	60 dBA:	**0**	**0**
				Total:	**24.92**	**18.68**	**17.22**	**12.51**	**20.43**	**20.95**	55 dBA:	**0**	**1**

Road Name: Crow Canyon Road **Segment: East of Camino Ramon**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 8-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE						(Equiv. Lane Dist: 86.02 ft)				**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-3.64	-1.20	20.83	18.46	17.17	11.11	19.55	20.18	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-3.64	-1.20	14.92	-4.29	-12.07	-2.86	3.29	3.33	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-3.64	-1.20	21.99	5.00	-2.79	6.42	12.58	12.61	60 dBA:	**0**	**0**
				Total:	**24.92**	**18.68**	**17.22**	**12.51**	**20.43**	**20.95**	55 dBA:	**0**	**1**

Road Name: Crow Canyon Road **Segment: East of Alcosta Boulevard**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 6-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE						(Equiv. Lane Dist: 92.08 ft)				**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.08	-1.20	20.39	18.02	16.73	10.67	19.10	19.73	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.08	-1.20	14.48	-4.73	-12.51	-3.30	2.85	2.88	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.08	-1.20	21.54	4.55	-3.23	5.98	12.13	12.17	60 dBA:	**0**	**0**
				Total:	**24.47**	**18.23**	**16.77**	**12.07**	**19.98**	**20.51**	55 dBA:	**0**	**1**

Road Name: Crow Canyon Road **Segment: West of Dougherty Road**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 6-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE						(Equiv. Lane Dist: 92.08 ft)				**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.08	-1.20	20.39	18.02	16.73	10.67	19.10	19.73	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.08	-1.20	14.48	-4.73	-12.51	-3.30	2.85	2.88	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.08	-1.20	21.54	4.55	-3.23	5.98	12.13	12.17	60 dBA:	**0**	**0**
				Total:	**24.47**	**18.23**	**16.77**	**12.07**	**19.98**	**20.51**	55 dBA:	**0**	**1**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2011 WEEKDAY WITH PROJECT CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: Crow Canyon Road **Segment: East of Dougherty Road**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 6-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 92.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.08	-1.20	20.39	18.02	16.73	10.67	19.10	19.73	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.08	-1.20	14.48	-4.73	-12.51	-3.30	2.85	2.88	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.08	-1.20	21.54	4.55	-3.23	5.98	12.13	12.17	60 dBA:	**0**	**0**
				Total:	**24.47**	**18.23**	**16.77**	**12.07**	**19.98**	**20.51**	55 dBA:	**0**	**1**

Road Name: Norris Canyon Road **Segment: West of San Ramon Valley Boulevard**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 25 MPH | Vehicle Mix: 2 | Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	59.44	-39.65	-4.43	-1.20	14.17	11.80	10.50	4.45	12.88	13.51	70 dBA:	**0**	**0**
Medium Trucks	71.09	-54.51	-4.43	-1.20	10.95	-8.26	-16.04	-6.83	-0.68	-0.65	65 dBA:	**0**	**0**
Heavy Trucks	78.74	-52.30	-4.43	-1.20	20.82	3.83	-3.95	5.26	11.41	11.44	60 dBA:	**0**	**0**
				Total:	**22.02**	**12.48**	**10.66**	**8.03**	**15.33**	**15.71**	55 dBA:	**0**	**0**

Road Name: Norris Canyon Road **Segment: East of Bishop Drive**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

Road Name: Norris Canyon Road **Segment: East of Camino Ramon**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2011 WEEKDAY WITH PROJECT CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: Executive Parkway **Segment: West of Camino Ramon**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 30 MPH | Vehicle Mix: 1 | Roadway Classification: Minor

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.5 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-40.19	-4.59	-1.20	16.54	14.41	13.10	7.09	15.51	16.13	70 dBA:	**0**	**0**
Medium Trucks	73.11	-57.43	-4.59	-1.20	9.90	-11.35	-5.33	-23.62	-10.48	-7.73	65 dBA:	**0**	**0**
Heavy Trucks	80.26	-61.38	-4.59	-1.20	13.09	-12.26	-15.66	-11.01	-4.81	-4.72	60 dBA:	**0**	**0**
				Total:	**18.76**	**14.43**	**13.17**	**7.16**	**15.56**	**16.19**	55 dBA:	**0**	**0**

Road Name: Bishop Drive **Segment: West of Camino Ramon**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 30 MPH | Vehicle Mix: 1 | Roadway Classification: Minor

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.5 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-40.19	-4.59	-1.20	16.54	14.41	13.10	7.09	15.51	16.13	70 dBA:	**0**	**0**
Medium Trucks	73.11	-57.43	-4.59	-1.20	9.90	-11.35	-5.33	-23.62	-10.48	-7.73	65 dBA:	**0**	**0**
Heavy Trucks	80.26	-61.38	-4.59	-1.20	13.09	-12.26	-15.66	-11.01	-4.81	-4.72	60 dBA:	**0**	**0**
				Total:	**18.76**	**14.43**	**13.17**	**7.16**	**15.56**	**16.19**	55 dBA:	**0**	**0**

Road Name: Bollinger Canyon Road **Segment: West of San Ramon Valley Boulevard**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

Road Name: Bollinger Canyon Road **Segment: East of Sunset Drive**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 6-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 92.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.08	-1.20	20.39	18.02	16.73	10.67	19.10	19.73	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.08	-1.20	14.48	-4.73	-12.51	-3.30	2.85	2.88	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.08	-1.20	21.54	4.55	-3.23	5.98	12.13	12.17	60 dBA:	**0**	**0**
				Total:	**24.47**	**18.23**	**16.77**	**12.07**	**19.98**	**20.51**	55 dBA:	**0**	**1**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2011 WEEKDAY WITH PROJECT CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: Bollinger Canyon Road **Segment: East of Camino Ramon**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 8-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE						(Equiv. Lane Dist: 86.02 ft)				**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-3.64	-1.20	20.83	18.46	17.17	11.11	19.55	20.18	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-3.64	-1.20	14.92	-4.29	-12.07	-2.86	3.29	3.33	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-3.64	-1.20	21.99	5.00	-2.79	6.42	12.58	12.61	60 dBA:	**0**	**0**
				Total:	**24.92**	**18.68**	**17.22**	**12.51**	**20.43**	**20.95**	55 dBA:	**0**	**1**

Road Name: Bollinger Canyon Road **Segment: East of Market Place**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 8-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE						(Equiv. Lane Dist: 86.02 ft)				**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-3.64	-1.20	20.83	18.46	17.17	11.11	19.55	20.18	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-3.64	-1.20	14.92	-4.29	-12.07	-2.86	3.29	3.33	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-3.64	-1.20	21.99	5.00	-2.79	6.42	12.58	12.61	60 dBA:	**0**	**0**
				Total:	**24.92**	**18.68**	**17.22**	**12.51**	**20.43**	**20.95**	55 dBA:	**0**	**1**

Road Name: Bollinger Canyon Road **Segment: East of Alcosta Boulevard**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 6-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE						(Equiv. Lane Dist: 92.08 ft)				**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.08	-1.20	20.39	18.02	16.73	10.67	19.10	19.73	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.08	-1.20	14.48	-4.73	-12.51	-3.30	2.85	2.88	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.08	-1.20	21.54	4.55	-3.23	5.98	12.13	12.17	60 dBA:	**0**	**0**
				Total:	**24.47**	**18.23**	**16.77**	**12.07**	**19.98**	**20.51**	55 dBA:	**0**	**1**

Road Name: Bollinger Canyon Road **Segment: East of Canyon Lakes Drive**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 6-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE						(Equiv. Lane Dist: 92.08 ft)				**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.08	-1.20	20.39	18.02	16.73	10.67	19.10	19.73	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.08	-1.20	14.48	-4.73	-12.51	-3.30	2.85	2.88	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.08	-1.20	21.54	4.55	-3.23	5.98	12.13	12.17	60 dBA:	**0**	**0**
				Total:	**24.47**	**18.23**	**16.77**	**12.07**	**19.98**	**20.51**	55 dBA:	**0**	**1**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2011 WEEKDAY WITH PROJECT CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: Montevideo Drive **Segment: East of San Ramon Valley Boulevard**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 30 MPH | Vehicle Mix: 1 | Roadway Classification: Minor

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.5 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-40.19	-4.59	-1.20	16.54	14.41	13.10	7.09	15.51	16.13	70 dBA:	**0**	**0**
Medium Trucks	73.11	-57.43	-4.59	-1.20	9.90	-11.35	-5.33	-23.62	-10.48	-7.73	65 dBA:	**0**	**0**
Heavy Trucks	80.26	-61.38	-4.59	-1.20	13.09	-12.26	-15.66	-11.01	-4.81	-4.72	60 dBA:	**0**	**0**
				Total:	**18.76**	**14.43**	**13.17**	**7.16**	**15.56**	**16.19**	55 dBA:	**0**	**0**

Road Name: Montevideo Drive **Segment: West of Alcosta Boulevard**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 30 MPH | Vehicle Mix: 1 | Roadway Classification: Minor

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.5 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-40.19	-4.59	-1.20	16.54	14.41	13.10	7.09	15.51	16.13	70 dBA:	**0**	**0**
Medium Trucks	73.11	-57.43	-4.59	-1.20	9.90	-11.35	-5.33	-23.62	-10.48	-7.73	65 dBA:	**0**	**0**
Heavy Trucks	80.26	-61.38	-4.59	-1.20	13.09	-12.26	-15.66	-11.01	-4.81	-4.72	60 dBA:	**0**	**0**
				Total:	**18.76**	**14.43**	**13.17**	**7.16**	**15.56**	**16.19**	55 dBA:	**0**	**0**

Road Name: Pine Valley Road **Segment: East of San Ramon Valley Boulevard**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 30 MPH | Vehicle Mix: 1 | Roadway Classification: Minor

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.5 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-40.19	-4.59	-1.20	16.54	14.41	13.10	7.09	15.51	16.13	70 dBA:	**0**	**0**
Medium Trucks	73.11	-57.43	-4.59	-1.20	9.90	-11.35	-5.33	-23.62	-10.48	-7.73	65 dBA:	**0**	**0**
Heavy Trucks	80.26	-61.38	-4.59	-1.20	13.09	-12.26	-15.66	-11.01	-4.81	-4.72	60 dBA:	**0**	**0**
				Total:	**18.76**	**14.43**	**13.17**	**7.16**	**15.56**	**16.19**	55 dBA:	**0**	**0**

Road Name: Windemere Parkway **Segment: East of Bollinger Canyon Road**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2011 WEEKDAY WITH PROJECT CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: East Branch Road **Segment: East of Bollinger Canyon Road**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

Road Name: Old Ranch Road **Segment: East of Alcosta Boulevard**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

Road Name: Old Ranch Road **Segment: West of Dougherty Road**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

Road Name: Westside Drive **Segment: West of San Ramon Valley Boulevard**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 30 MPH | Vehicle Mix: 2 | Roadway Classification: 2-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 99.15 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-40.44	-4.56	-1.20	16.31	13.94	12.64	6.59	15.02	15.65	70 dBA:	**0**	**0**
Medium Trucks	73.11	-55.31	-4.56	-1.20	12.05	-7.16	-14.94	-5.74	0.42	0.45	65 dBA:	**0**	**0**
Heavy Trucks	80.26	-53.09	-4.56	-1.20	21.41	4.42	-3.36	5.85	12.00	12.04	60 dBA:	**0**	**0**
				Total:	**22.95**	**14.43**	**12.76**	**9.38**	**16.88**	**17.31**	55 dBA:	**0**	**0**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2011 WEEKDAY WITH PROJECT CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: Alcosta Boulevard **Segment: East of Davona Drive**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

Road Name: Alcosta Boulevard **Segment: East of Kimball Avenue**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

Road Name: Alcosta Boulevard **Segment: East of Village Parkway**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

Road Name: Bollinger Canyon Road **Segment: North of Crow Canyon Road**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 30 MPH | Vehicle Mix: 2 | Roadway Classification: 2-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 99.15 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-40.44	-4.56	-1.20	16.31	13.94	12.64	6.59	15.02	15.65	70 dBA:	**0**	**0**
Medium Trucks	73.11	-55.31	-4.56	-1.20	12.05	-7.16	-14.94	-5.74	0.42	0.45	65 dBA:	**0**	**0**
Heavy Trucks	80.26	-53.09	-4.56	-1.20	21.41	4.42	-3.36	5.85	12.00	12.04	60 dBA:	**0**	**0**
				Total:	**22.95**	**14.43**	**12.76**	**9.38**	**16.88**	**17.31**	55 dBA:	**0**	**0**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2011 WEEKDAY WITH PROJECT CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: Bollinger Canyon Road **Segment: South of Crow Canyon Road**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 35 MPH | Vehicle Mix: 2 | Roadway Classification: 2-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 98.37 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-41.11	-4.51	-1.20	18.29	15.92	14.62	8.57	17.00	17.63	70 dBA:	**0**	**0**
Medium Trucks	74.83	-55.97	-4.51	-1.20	13.14	-6.07	-13.85	-4.64	1.51	1.55	65 dBA:	**0**	**0**
Heavy Trucks	80.05	-53.76	-4.51	-1.20	20.58	3.59	-4.19	5.02	11.17	11.20	60 dBA:	**0**	**0**
				Total:	**23.06**	**16.19**	**14.69**	**10.30**	**18.11**	**18.61**	55 dBA:	**0**	**0**

Road Name: San Ramon Valley Boulevard **Segment: North of Deerwood Road**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

Road Name: San Ramon Valley Boulevard **Segment: North of Crow Canyon Road**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

Road Name: San Ramon Valley Boulevard **Segment: North of Norris Canyon Road**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2011 WEEKDAY WITH PROJECT CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: San Ramon Valley Boulevard **Segment: South of Norris Canyon Road**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

Road Name: San Ramon Valley Boulevard **Segment: South of Bollinger Canyon Road**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

Road Name: San Ramon Valley Boulevard **Segment: South of Montevideo Drive**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

Road Name: San Ramon Valley Boulevard **Segment: South of Pine Valley Boulevard**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2011 WEEKDAY WITH PROJECT CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: San Ramon Valley Boulevard **Segment: North of Alcosta Boulevard**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

Road Name: Crow Canyon Place **Segment: South of Fostoria Way**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 30 MPH | Vehicle Mix: 1 | Roadway Classification: Minor

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.5 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-40.19	-4.59	-1.20	16.54	14.41	13.10	7.09	15.51	16.13	70 dBA:	**0**	**0**
Medium Trucks	73.11	-57.43	-4.59	-1.20	9.90	-11.35	-5.33	-23.62	-10.48	-7.73	65 dBA:	**0**	**0**
Heavy Trucks	80.26	-61.38	-4.59	-1.20	13.09	-12.26	-15.66	-11.01	-4.81	-4.72	60 dBA:	**0**	**0**
				Total:	**18.76**	**14.43**	**13.17**	**7.16**	**15.56**	**16.19**	55 dBA:	**0**	**0**

Road Name: Crow Canyon Place **Segment: South of Crow Canyon Road**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 30 MPH | Vehicle Mix: 1 | Roadway Classification: Minor

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.5 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-40.19	-4.59	-1.20	16.54	14.41	13.10	7.09	15.51	16.13	70 dBA:	**0**	**0**
Medium Trucks	73.11	-57.43	-4.59	-1.20	9.90	-11.35	-5.33	-23.62	-10.48	-7.73	65 dBA:	**0**	**0**
Heavy Trucks	80.26	-61.38	-4.59	-1.20	13.09	-12.26	-15.66	-11.01	-4.81	-4.72	60 dBA:	**0**	**0**
				Total:	**18.76**	**14.43**	**13.17**	**7.16**	**15.56**	**16.19**	55 dBA:	**0**	**0**

Road Name: Camino Ramon **Segment: South of Fostoria Way**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 35 MPH | Vehicle Mix: 2 | Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-41.11	-4.43	-1.20	18.38	16.00	14.71	8.66	17.09	17.72	70 dBA:	**0**	**0**
Medium Trucks	74.83	-55.97	-4.43	-1.20	13.23	-5.98	-13.76	-4.55	1.60	1.63	65 dBA:	**0**	**0**
Heavy Trucks	80.05	-53.76	-4.43	-1.20	20.66	3.67	-4.11	5.10	11.26	11.29	60 dBA:	**0**	**0**
				Total:	**23.15**	**16.28**	**14.77**	**10.38**	**18.19**	**18.70**	55 dBA:	**0**	**0**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2011 WEEKDAY WITH PROJECT CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: Camino Ramon **Segment: South of Crow Canyon Road**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 35 MPH | Vehicle Mix: 2 | Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-41.11	-4.43	-1.20	18.38	16.00	14.71	8.66	17.09	17.72	70 dBA:	**0**	**0**
Medium Trucks	74.83	-55.97	-4.43	-1.20	13.23	-5.98	-13.76	-4.55	1.60	1.63	65 dBA:	**0**	**0**
Heavy Trucks	80.05	-53.76	-4.43	-1.20	20.66	3.67	-4.11	5.10	11.26	11.29	60 dBA:	**0**	**0**
				Total:	**23.15**	**16.28**	**14.77**	**10.38**	**18.19**	**18.70**	55 dBA:	**0**	**0**

Road Name: Camino Ramon **Segment: South of Norris Canyon Road**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 35 MPH | Vehicle Mix: 2 | Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-41.11	-4.43	-1.20	18.38	16.00	14.71	8.66	17.09	17.72	70 dBA:	**0**	**0**
Medium Trucks	74.83	-55.97	-4.43	-1.20	13.23	-5.98	-13.76	-4.55	1.60	1.63	65 dBA:	**0**	**0**
Heavy Trucks	80.05	-53.76	-4.43	-1.20	20.66	3.67	-4.11	5.10	11.26	11.29	60 dBA:	**0**	**0**
				Total:	**23.15**	**16.28**	**14.77**	**10.38**	**18.19**	**18.70**	55 dBA:	**0**	**0**

Road Name: Camino Ramon **Segment: South of Executive Parkway**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 35 MPH | Vehicle Mix: 2 | Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-41.11	-4.43	-1.20	18.38	16.00	14.71	8.66	17.09	17.72	70 dBA:	**0**	**0**
Medium Trucks	74.83	-55.97	-4.43	-1.20	13.23	-5.98	-13.76	-4.55	1.60	1.63	65 dBA:	**0**	**0**
Heavy Trucks	80.05	-53.76	-4.43	-1.20	20.66	3.67	-4.11	5.10	11.26	11.29	60 dBA:	**0**	**0**
				Total:	**23.15**	**16.28**	**14.77**	**10.38**	**18.19**	**18.70**	55 dBA:	**0**	**0**

Road Name: Camino Ramon **Segment: South of Bishop Drive**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 35 MPH | Vehicle Mix: 2 | Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-41.11	-4.43	-1.20	18.38	16.00	14.71	8.66	17.09	17.72	70 dBA:	**0**	**0**
Medium Trucks	74.83	-55.97	-4.43	-1.20	13.23	-5.98	-13.76	-4.55	1.60	1.63	65 dBA:	**0**	**0**
Heavy Trucks	80.05	-53.76	-4.43	-1.20	20.66	3.67	-4.11	5.10	11.26	11.29	60 dBA:	**0**	**0**
				Total:	**23.15**	**16.28**	**14.77**	**10.38**	**18.19**	**18.70**	55 dBA:	**0**	**0**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2011 WEEKDAY WITH PROJECT CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: Village Parkway **Segment: South of Alcosta Boulevard**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

Road Name: Alcosta Boulevard **Segment: South of Crow Canyon Road**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2030 WEEKDAY BASELINE CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

	Vehicle Mix 1 (Local and Collector)				Vehicle Mix 2 (Major Arterial)				Vehicle Mix 3 (I-680)			
Vehicle Type	Day	Evening	Night	Daily	Day	Evening	Night	Daily	Day	Evening	Night	Daily
Automobiles	73.60%	13.60%	10.22%	97.40%	69.50%	12.90%	9.60%	92.00%	65.55%	13.43%	15.72%	94.70%
Medium Trucks	0.90%	0.90%	0.04%	1.84%	1.44%	0.06%	1.50%	3.00%	1.48%	0.27%	0.75%	2.50%
Heavy Trucks	0.35%	0.04%	0.35%	0.74%	2.40%	0.10%	2.50%	5.00%	1.54%	0.20%	1.06%	2.80%

Road Name: Deerwood Road **Segment: West of San Ramon Valley Boulevard**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-41.11	-4.43	-1.20	18.38	16.00	14.71	8.66	17.09	17.72	70 dBA:	**0**	**0**
Medium Trucks	74.83	-55.97	-4.43	-1.20	13.23	-5.98	-13.76	-4.55	1.60	1.63	65 dBA:	**0**	**0**
Heavy Trucks	80.05	-53.76	-4.43	-1.20	20.66	3.67	-4.11	5.10	11.26	11.29	60 dBA:	**0**	**0**
				Total:	**23.15**	**16.28**	**14.77**	**10.38**	**18.19**	**18.70**	55 dBA:	**0**	**0**

Road Name: Fostoria Way **Segment: West of Crow Canyon Place**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-41.11	-4.43	-1.20	18.38	16.00	14.71	8.66	17.09	17.72	70 dBA:	**0**	**0**
Medium Trucks	74.83	-55.97	-4.43	-1.20	13.23	-5.98	-13.76	-4.55	1.60	1.63	65 dBA:	**0**	**0**
Heavy Trucks	80.05	-53.76	-4.43	-1.20	20.66	3.67	-4.11	5.10	11.26	11.29	60 dBA:	**0**	**0**
				Total:	**23.15**	**16.28**	**14.77**	**10.38**	**18.19**	**18.70**	55 dBA:	**0**	**0**

Road Name: Fostoria Way **Segment: East of Crow Canyon Place**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-41.11	-4.43	-1.20	18.38	16.00	14.71	8.66	17.09	17.72	70 dBA:	**0**	**0**
Medium Trucks	74.83	-55.97	-4.43	-1.20	13.23	-5.98	-13.76	-4.55	1.60	1.63	65 dBA:	**0**	**0**
Heavy Trucks	80.05	-53.76	-4.43	-1.20	20.66	3.67	-4.11	5.10	11.26	11.29	60 dBA:	**0**	**0**
				Total:	**23.15**	**16.28**	**14.77**	**10.38**	**18.19**	**18.70**	55 dBA:	**0**	**0**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2030 WEEKDAY BASELINE CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: Fostoria Way **Segment: East of Camino Ramon**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-41.11	-4.43	-1.20	18.38	16.00	14.71	8.66	17.09	17.72	70 dBA:	**0**	**0**
Medium Trucks	74.83	-55.97	-4.43	-1.20	13.23	-5.98	-13.76	-4.55	1.60	1.63	65 dBA:	**0**	**0**
Heavy Trucks	80.05	-53.76	-4.43	-1.20	20.66	3.67	-4.11	5.10	11.26	11.29	60 dBA:	**0**	**0**
				Total:	**23.15**	**16.28**	**14.77**	**10.38**	**18.19**	**18.70**	55 dBA:	**0**	**0**

Road Name: Crow Canyon Road **Segment: West of Bollinger Canyon Road**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

Road Name: Crow Canyon Road **Segment: West of Twin Creeks Drive**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 6-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 92.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.08	-1.20	20.39	18.02	16.73	10.67	19.10	19.73	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.08	-1.20	14.48	-4.73	-12.51	-3.30	2.85	2.88	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.08	-1.20	21.54	4.55	-3.23	5.98	12.13	12.17	60 dBA:	**0**	**0**
				Total:	**24.47**	**18.23**	**16.77**	**12.07**	**19.98**	**20.51**	55 dBA:	**0**	**1**

Road Name: Crow Canyon Road **Segment: West of San Ramon Valley Boulevard**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 6-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 92.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.08	-1.20	20.39	18.02	16.73	10.67	19.10	19.73	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.08	-1.20	14.48	-4.73	-12.51	-3.30	2.85	2.88	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.08	-1.20	21.54	4.55	-3.23	5.98	12.13	12.17	60 dBA:	**0**	**0**
				Total:	**24.47**	**18.23**	**16.77**	**12.07**	**19.98**	**20.51**	55 dBA:	**0**	**1**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2030 WEEKDAY BASELINE CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: Crow Canyon Road **Segment: East of Crow Canyon Place**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 8-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 86.02 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-3.64	-1.20	20.83	18.46	17.17	11.11	19.55	20.18	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-3.64	-1.20	14.92	-4.29	-12.07	-2.86	3.29	3.33	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-3.64	-1.20	21.99	5.00	-2.79	6.42	12.58	12.61	60 dBA:	**0**	**0**
				Total:	**24.92**	**18.68**	**17.22**	**12.51**	**20.43**	**20.95**	55 dBA:	**0**	**1**

Road Name: Crow Canyon Road **Segment: East of Camino Ramon**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 8-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 86.02 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-3.64	-1.20	20.83	18.46	17.17	11.11	19.55	20.18	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-3.64	-1.20	14.92	-4.29	-12.07	-2.86	3.29	3.33	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-3.64	-1.20	21.99	5.00	-2.79	6.42	12.58	12.61	60 dBA:	**0**	**0**
				Total:	**24.92**	**18.68**	**17.22**	**12.51**	**20.43**	**20.95**	55 dBA:	**0**	**1**

Road Name: Crow Canyon Road **Segment: East of Alcosta Boulevard**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 6-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 92.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.08	-1.20	20.39	18.02	16.73	10.67	19.10	19.73	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.08	-1.20	14.48	-4.73	-12.51	-3.30	2.85	2.88	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.08	-1.20	21.54	4.55	-3.23	5.98	12.13	12.17	60 dBA:	**0**	**0**
				Total:	**24.47**	**18.23**	**16.77**	**12.07**	**19.98**	**20.51**	55 dBA:	**0**	**1**

Road Name: Crow Canyon Road **Segment: West of Dougherty Road**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 6-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 92.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.08	-1.20	20.39	18.02	16.73	10.67	19.10	19.73	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.08	-1.20	14.48	-4.73	-12.51	-3.30	2.85	2.88	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.08	-1.20	21.54	4.55	-3.23	5.98	12.13	12.17	60 dBA:	**0**	**0**
				Total:	**24.47**	**18.23**	**16.77**	**12.07**	**19.98**	**20.51**	55 dBA:	**0**	**1**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2030 WEEKDAY BASELINE CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: Crow Canyon Road **Segment: East of Dougherty Road**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 6-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 92.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.08	-1.20	20.39	18.02	16.73	10.67	19.10	19.73	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.08	-1.20	14.48	-4.73	-12.51	-3.30	2.85	2.88	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.08	-1.20	21.54	4.55	-3.23	5.98	12.13	12.17	60 dBA:	**0**	**0**
				Total:	**24.47**	**18.23**	**16.77**	**12.07**	**19.98**	**20.51**	55 dBA:	**0**	**1**

Road Name: Norris Canyon Road **Segment: West of San Ramon Valley Boulevard**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 25 MPH | Vehicle Mix: 2 | Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	59.44	-39.65	-4.43	-1.20	14.17	11.80	10.50	4.45	12.88	13.51	70 dBA:	**0**	**0**
Medium Trucks	71.09	-54.51	-4.43	-1.20	10.95	-8.26	-16.04	-6.83	-0.68	-0.65	65 dBA:	**0**	**0**
Heavy Trucks	78.74	-52.30	-4.43	-1.20	20.82	3.83	-3.95	5.26	11.41	11.44	60 dBA:	**0**	**0**
				Total:	**22.02**	**12.48**	**10.66**	**8.03**	**15.33**	**15.71**	55 dBA:	**0**	**0**

Road Name: Norris Canyon Road **Segment: East of Bishop Drive**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

Road Name: Norris Canyon Road **Segment: East of Camino Ramon**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2030 WEEKDAY BASELINE CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: Executive Parkway **Segment: West of Camino Ramon**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 30 MPH | Vehicle Mix: 1 | Roadway Classification: Minor

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.5 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-40.19	-4.59	-1.20	16.54	14.41	13.10	7.09	15.51	16.13	70 dBA:	**0**	**0**
Medium Trucks	73.11	-57.43	-4.59	-1.20	9.90	-11.35	-5.33	-23.62	-10.48	-7.73	65 dBA:	**0**	**0**
Heavy Trucks	80.26	-61.38	-4.59	-1.20	13.09	-12.26	-15.66	-11.01	-4.81	-4.72	60 dBA:	**0**	**0**
				Total:	**18.76**	**14.43**	**13.17**	**7.16**	**15.56**	**16.19**	55 dBA:	**0**	**0**

Road Name: Bishop Drive **Segment: West of Camino Ramon**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 30 MPH | Vehicle Mix: 1 | Roadway Classification: Minor

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.5 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-40.19	-4.59	-1.20	16.54	14.41	13.10	7.09	15.51	16.13	70 dBA:	**0**	**0**
Medium Trucks	73.11	-57.43	-4.59	-1.20	9.90	-11.35	-5.33	-23.62	-10.48	-7.73	65 dBA:	**0**	**0**
Heavy Trucks	80.26	-61.38	-4.59	-1.20	13.09	-12.26	-15.66	-11.01	-4.81	-4.72	60 dBA:	**0**	**0**
				Total:	**18.76**	**14.43**	**13.17**	**7.16**	**15.56**	**16.19**	55 dBA:	**0**	**0**

Road Name: Bollinger Canyon Road **Segment: West of San Ramon Valley Boulevard**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

Road Name: Bollinger Canyon Road **Segment: East of Sunset Drive**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 6-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 92.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.08	-1.20	20.39	18.02	16.73	10.67	19.10	19.73	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.08	-1.20	14.48	-4.73	-12.51	-3.30	2.85	2.88	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.08	-1.20	21.54	4.55	-3.23	5.98	12.13	12.17	60 dBA:	**0**	**0**
				Total:	**24.47**	**18.23**	**16.77**	**12.07**	**19.98**	**20.51**	55 dBA:	**0**	**1**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2030 WEEKDAY BASELINE CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: Bollinger Canyon Road **Segment: East of Camino Ramon**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 8-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 86.02 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-3.64	-1.20	20.83	18.46	17.17	11.11	19.55	20.18	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-3.64	-1.20	14.92	-4.29	-12.07	-2.86	3.29	3.33	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-3.64	-1.20	21.99	5.00	-2.79	6.42	12.58	12.61	60 dBA:	**0**	**0**
				Total:	**24.92**	**18.68**	**17.22**	**12.51**	**20.43**	**20.95**	55 dBA:	**0**	**1**

Road Name: Bollinger Canyon Road **Segment: East of Market Place**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 8-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 86.02 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-3.64	-1.20	20.83	18.46	17.17	11.11	19.55	20.18	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-3.64	-1.20	14.92	-4.29	-12.07	-2.86	3.29	3.33	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-3.64	-1.20	21.99	5.00	-2.79	6.42	12.58	12.61	60 dBA:	**0**	**0**
				Total:	**24.92**	**18.68**	**17.22**	**12.51**	**20.43**	**20.95**	55 dBA:	**0**	**1**

Road Name: Bollinger Canyon Road **Segment: East of Alcosta Boulevard**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 6-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 92.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.08	-1.20	20.39	18.02	16.73	10.67	19.10	19.73	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.08	-1.20	14.48	-4.73	-12.51	-3.30	2.85	2.88	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.08	-1.20	21.54	4.55	-3.23	5.98	12.13	12.17	60 dBA:	**0**	**0**
				Total:	**24.47**	**18.23**	**16.77**	**12.07**	**19.98**	**20.51**	55 dBA:	**0**	**1**

Road Name: Bollinger Canyon Road **Segment: East of Canyon Lakes Drive**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 6-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 92.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.08	-1.20	20.39	18.02	16.73	10.67	19.10	19.73	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.08	-1.20	14.48	-4.73	-12.51	-3.30	2.85	2.88	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.08	-1.20	21.54	4.55	-3.23	5.98	12.13	12.17	60 dBA:	**0**	**0**
				Total:	**24.47**	**18.23**	**16.77**	**12.07**	**19.98**	**20.51**	55 dBA:	**0**	**1**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2030 WEEKDAY BASELINE CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: Montevideo Drive **Segment: East of San Ramon Valley Boulevard**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 30 MPH | Vehicle Mix: 1 | Roadway Classification: Minor

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.5 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-40.19	-4.59	-1.20	16.54	14.41	13.10	7.09	15.51	16.13	70 dBA:	**0**	**0**
Medium Trucks	73.11	-57.43	-4.59	-1.20	9.90	-11.35	-5.33	-23.62	-10.48	-7.73	65 dBA:	**0**	**0**
Heavy Trucks	80.26	-61.38	-4.59	-1.20	13.09	-12.26	-15.66	-11.01	-4.81	-4.72	60 dBA:	**0**	**0**
				Total:	**18.76**	**14.43**	**13.17**	**7.16**	**15.56**	**16.19**	55 dBA:	**0**	**0**

Road Name: Montevideo Drive **Segment: West of Alcosta Boulevard**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 30 MPH | Vehicle Mix: 1 | Roadway Classification: Minor

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.5 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-40.19	-4.59	-1.20	16.54	14.41	13.10	7.09	15.51	16.13	70 dBA:	**0**	**0**
Medium Trucks	73.11	-57.43	-4.59	-1.20	9.90	-11.35	-5.33	-23.62	-10.48	-7.73	65 dBA:	**0**	**0**
Heavy Trucks	80.26	-61.38	-4.59	-1.20	13.09	-12.26	-15.66	-11.01	-4.81	-4.72	60 dBA:	**0**	**0**
				Total:	**18.76**	**14.43**	**13.17**	**7.16**	**15.56**	**16.19**	55 dBA:	**0**	**0**

Road Name: Pine Valley Road **Segment: East of San Ramon Valley Boulevard**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 30 MPH | Vehicle Mix: 1 | Roadway Classification: Minor

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.5 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-40.19	-4.59	-1.20	16.54	14.41	13.10	7.09	15.51	16.13	70 dBA:	**0**	**0**
Medium Trucks	73.11	-57.43	-4.59	-1.20	9.90	-11.35	-5.33	-23.62	-10.48	-7.73	65 dBA:	**0**	**0**
Heavy Trucks	80.26	-61.38	-4.59	-1.20	13.09	-12.26	-15.66	-11.01	-4.81	-4.72	60 dBA:	**0**	**0**
				Total:	**18.76**	**14.43**	**13.17**	**7.16**	**15.56**	**16.19**	55 dBA:	**0**	**0**

Road Name: Windemere Parkway **Segment: East of Bollinger Canyon Road**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2030 WEEKDAY BASELINE CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: East Branch Road **Segment: East of Bollinger Canyon Road**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

Road Name: Old Ranch Road **Segment: East of Alcosta Boulevard**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

Road Name: Old Ranch Road **Segment: West of Dougherty Road**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

Road Name: Westside Drive **Segment: West of San Ramon Valley Boulevard**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 30 MPH | Vehicle Mix: 2 | Roadway Classification: 2-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.15 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-40.44	-4.56	-1.20	16.31	13.94	12.64	6.59	15.02	15.65	70 dBA:	**0**	**0**
Medium Trucks	73.11	-55.31	-4.56	-1.20	12.05	-7.16	-14.94	-5.74	0.42	0.45	65 dBA:	**0**	**0**
Heavy Trucks	80.26	-53.09	-4.56	-1.20	21.41	4.42	-3.36	5.85	12.00	12.04	60 dBA:	**0**	**0**
				Total:	**22.95**	**14.43**	**12.76**	**9.38**	**16.88**	**17.31**	55 dBA:	**0**	**0**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2030 WEEKDAY BASELINE CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: Alcosta Boulevard **Segment: East of Davona Drive**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

Road Name: Alcosta Boulevard **Segment: East of Kimball Avenue**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

Road Name: Alcosta Boulevard **Segment: East of Village Parkway**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

Road Name: Bollinger Canyon Road **Segment: North of Crow Canyon Road**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 30 MPH | Vehicle Mix: 2 | Roadway Classification: 2-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.15 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-40.44	-4.56	-1.20	16.31	13.94	12.64	6.59	15.02	15.65	70 dBA:	**0**	**0**
Medium Trucks	73.11	-55.31	-4.56	-1.20	12.05	-7.16	-14.94	-5.74	0.42	0.45	65 dBA:	**0**	**0**
Heavy Trucks	80.26	-53.09	-4.56	-1.20	21.41	4.42	-3.36	5.85	12.00	12.04	60 dBA:	**0**	**0**
				Total:	**22.95**	**14.43**	**12.76**	**9.38**	**16.88**	**17.31**	55 dBA:	**0**	**0**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2030 WEEKDAY BASELINE CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: Bollinger Canyon Road **Segment: South of Crow Canyon Road**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 35 MPH | Vehicle Mix: 2 | Roadway Classification: 2-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 98.37 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-41.11	-4.51	-1.20	18.29	15.92	14.62	8.57	17.00	17.63	70 dBA:	**0**	**0**
Medium Trucks	74.83	-55.97	-4.51	-1.20	13.14	-6.07	-13.85	-4.64	1.51	1.55	65 dBA:	**0**	**0**
Heavy Trucks	80.05	-53.76	-4.51	-1.20	20.58	3.59	-4.19	5.02	11.17	11.20	60 dBA:	**0**	**0**
				Total:	**23.06**	**16.19**	**14.69**	**10.30**	**18.11**	**18.61**	55 dBA:	**0**	**0**

Road Name: San Ramon Valley Boulevard **Segment: North of Crow Canyon Road**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

Road Name: San Ramon Valley Boulevard **Segment: North of Norris Canyon Road**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

Road Name: San Ramon Valley Boulevard **Segment: South of Norris Canyon Road**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2030 WEEKDAY BASELINE CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: San Ramon Valley Boulevard **Segment: South of Bollinger Canyon Road**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

Road Name: San Ramon Valley Boulevard **Segment: South of Montevideo Drive**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

Road Name: San Ramon Valley Boulevard **Segment: South of Pine Valley Boulevard**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

Road Name: San Ramon Valley Boulevard **Segment: North of Alcosta Boulevard**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2030 WEEKDAY BASELINE CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: San Ramon Valley Boulevard **Segment: South of Fostoria Way**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

Road Name: Crow Canyon Place **Segment: South of Crow Canyon Road**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 30 MPH | Vehicle Mix: 1 | Roadway Classification: Minor

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.5 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-40.19	-4.59	-1.20	16.54	14.41	13.10	7.09	15.51	16.13	70 dBA:	**0**	**0**
Medium Trucks	73.11	-57.43	-4.59	-1.20	9.90	-11.35	-5.33	-23.62	-10.48	-7.73	65 dBA:	**0**	**0**
Heavy Trucks	80.26	-61.38	-4.59	-1.20	13.09	-12.26	-15.66	-11.01	-4.81	-4.72	60 dBA:	**0**	**0**
				Total:	**18.76**	**14.43**	**13.17**	**7.16**	**15.56**	**16.19**	55 dBA:	**0**	**0**

Road Name: Crow Canyon Place **Segment: South of Fostoria Way**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 30 MPH | Vehicle Mix: 1 | Roadway Classification: Minor

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.5 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-40.19	-4.59	-1.20	16.54	14.41	13.10	7.09	15.51	16.13	70 dBA:	**0**	**0**
Medium Trucks	73.11	-57.43	-4.59	-1.20	9.90	-11.35	-5.33	-23.62	-10.48	-7.73	65 dBA:	**0**	**0**
Heavy Trucks	80.26	-61.38	-4.59	-1.20	13.09	-12.26	-15.66	-11.01	-4.81	-4.72	60 dBA:	**0**	**0**
				Total:	**18.76**	**14.43**	**13.17**	**7.16**	**15.56**	**16.19**	55 dBA:	**0**	**0**

Road Name: Camino Ramon **Segment: South of Crow Canyon Road**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 35 MPH | Vehicle Mix: 2 | Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-41.11	-4.43	-1.20	18.38	16.00	14.71	8.66	17.09	17.72	70 dBA:	**0**	**0**
Medium Trucks	74.83	-55.97	-4.43	-1.20	13.23	-5.98	-13.76	-4.55	1.60	1.63	65 dBA:	**0**	**0**
Heavy Trucks	80.05	-53.76	-4.43	-1.20	20.66	3.67	-4.11	5.10	11.26	11.29	60 dBA:	**0**	**0**
				Total:	**23.15**	**16.28**	**14.77**	**10.38**	**18.19**	**18.70**	55 dBA:	**0**	**0**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2030 WEEKDAY BASELINE CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: Camino Ramon **Segment: South of Norris Canyon Road**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-41.11	-4.43	-1.20	18.38	16.00	14.71	8.66	17.09	17.72	70 dBA:	**0**	**0**
Medium Trucks	74.83	-55.97	-4.43	-1.20	13.23	-5.98	-13.76	-4.55	1.60	1.63	65 dBA:	**0**	**0**
Heavy Trucks	80.05	-53.76	-4.43	-1.20	20.66	3.67	-4.11	5.10	11.26	11.29	60 dBA:	**0**	**0**
				Total:	**23.15**	**16.28**	**14.77**	**10.38**	**18.19**	**18.70**	55 dBA:	**0**	**0**

Road Name: Camino Ramon **Segment: South of Executive Parkway**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-41.11	-4.43	-1.20	18.38	16.00	14.71	8.66	17.09	17.72	70 dBA:	**0**	**0**
Medium Trucks	74.83	-55.97	-4.43	-1.20	13.23	-5.98	-13.76	-4.55	1.60	1.63	65 dBA:	**0**	**0**
Heavy Trucks	80.05	-53.76	-4.43	-1.20	20.66	3.67	-4.11	5.10	11.26	11.29	60 dBA:	**0**	**0**
				Total:	**23.15**	**16.28**	**14.77**	**10.38**	**18.19**	**18.70**	55 dBA:	**0**	**0**

Road Name: Camino Ramon **Segment: South of Alcosta Boulevard**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-41.11	-4.43	-1.20	18.38	16.00	14.71	8.66	17.09	17.72	70 dBA:	**0**	**0**
Medium Trucks	74.83	-55.97	-4.43	-1.20	13.23	-5.98	-13.76	-4.55	1.60	1.63	65 dBA:	**0**	**0**
Heavy Trucks	80.05	-53.76	-4.43	-1.20	20.66	3.67	-4.11	5.10	11.26	11.29	60 dBA:	**0**	**0**
				Total:	**23.15**	**16.28**	**14.77**	**10.38**	**18.19**	**18.70**	55 dBA:	**0**	**0**

Road Name: Camino Ramon **Segment: South of Crow Canyon Road**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-41.11	-4.43	-1.20	18.38	16.00	14.71	8.66	17.09	17.72	70 dBA:	**0**	**0**
Medium Trucks	74.83	-55.97	-4.43	-1.20	13.23	-5.98	-13.76	-4.55	1.60	1.63	65 dBA:	**0**	**0**
Heavy Trucks	80.05	-53.76	-4.43	-1.20	20.66	3.67	-4.11	5.10	11.26	11.29	60 dBA:	**0**	**0**
				Total:	**23.15**	**16.28**	**14.77**	**10.38**	**18.19**	**18.70**	55 dBA:	**0**	**0**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2030 WEEKDAY BASELINE CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: Village Parkway **Segment: South of Norris Canyon Road**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

Road Name: Alcosta Boulevard **Segment: South of Woodland Drive**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2030 WEEKDAY WITH PROJECT CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

	Vehicle Mix 1 (Local and Collector)				Vehicle Mix 2 (Major Arterial)				Vehicle Mix 3 (I-680)			
Vehicle Type	Day	Evening	Night	Daily	Day	Evening	Night	Daily	Day	Evening	Night	Daily
Automobiles	73.60%	13.60%	10.22%	97.40%	69.50%	12.90%	9.60%	92.00%	65.55%	13.43%	15.72%	94.70%
Medium Trucks	0.90%	0.90%	0.04%	1.84%	1.44%	0.06%	1.50%	3.00%	1.48%	0.27%	0.75%	2.50%
Heavy Trucks	0.35%	0.04%	0.35%	0.74%	2.40%	0.10%	2.50%	5.00%	1.54%	0.20%	1.06%	2.80%

Road Name: Deerwood Road **Segment: West of San Ramon Valley Boulevard**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-41.11	-4.43	-1.20	18.38	16.00	14.71	8.66	17.09	17.72	70 dBA:	**0**	**0**
Medium Trucks	74.83	-55.97	-4.43	-1.20	13.23	-5.98	-13.76	-4.55	1.60	1.63	65 dBA:	**0**	**0**
Heavy Trucks	80.05	-53.76	-4.43	-1.20	20.66	3.67	-4.11	5.10	11.26	11.29	60 dBA:	**0**	**0**
				Total:	**23.15**	**16.28**	**14.77**	**10.38**	**18.19**	**18.70**	55 dBA:	**0**	**0**

Road Name: Fostoria Way **Segment: West of Crow Canyon Place**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-41.11	-4.43	-1.20	18.38	16.00	14.71	8.66	17.09	17.72	70 dBA:	**0**	**0**
Medium Trucks	74.83	-55.97	-4.43	-1.20	13.23	-5.98	-13.76	-4.55	1.60	1.63	65 dBA:	**0**	**0**
Heavy Trucks	80.05	-53.76	-4.43	-1.20	20.66	3.67	-4.11	5.10	11.26	11.29	60 dBA:	**0**	**0**
				Total:	**23.15**	**16.28**	**14.77**	**10.38**	**18.19**	**18.70**	55 dBA:	**0**	**0**

Road Name: Fostoria Way **Segment: East of Crow Canyon Place**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-41.11	-4.43	-1.20	18.38	16.00	14.71	8.66	17.09	17.72	70 dBA:	**0**	**0**
Medium Trucks	74.83	-55.97	-4.43	-1.20	13.23	-5.98	-13.76	-4.55	1.60	1.63	65 dBA:	**0**	**0**
Heavy Trucks	80.05	-53.76	-4.43	-1.20	20.66	3.67	-4.11	5.10	11.26	11.29	60 dBA:	**0**	**0**
				Total:	**23.15**	**16.28**	**14.77**	**10.38**	**18.19**	**18.70**	55 dBA:	**0**	**0**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2030 WEEKDAY WITH PROJECT CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: Fostoria Way **Segment: East of Camino Ramon**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-41.11	-4.43	-1.20	18.38	16.00	14.71	8.66	17.09	17.72	70 dBA:	**0**	**0**
Medium Trucks	74.83	-55.97	-4.43	-1.20	13.23	-5.98	-13.76	-4.55	1.60	1.63	65 dBA:	**0**	**0**
Heavy Trucks	80.05	-53.76	-4.43	-1.20	20.66	3.67	-4.11	5.10	11.26	11.29	60 dBA:	**0**	**0**
				Total:	**23.15**	**16.28**	**14.77**	**10.38**	**18.19**	**18.70**	55 dBA:	**0**	**0**

Road Name: Crow Canyon Road **Segment: West of Bollinger Canyon Road**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

Road Name: Crow Canyon Road **Segment: West of Twin Creeks Drive**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 6-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 92.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.08	-1.20	20.39	18.02	16.73	10.67	19.10	19.73	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.08	-1.20	14.48	-4.73	-12.51	-3.30	2.85	2.88	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.08	-1.20	21.54	4.55	-3.23	5.98	12.13	12.17	60 dBA:	**0**	**0**
				Total:	**24.47**	**18.23**	**16.77**	**12.07**	**19.98**	**20.51**	55 dBA:	**0**	**1**

Road Name: Crow Canyon Road **Segment: West of San Ramon Valley Boulevard**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 6-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 92.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.08	-1.20	20.39	18.02	16.73	10.67	19.10	19.73	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.08	-1.20	14.48	-4.73	-12.51	-3.30	2.85	2.88	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.08	-1.20	21.54	4.55	-3.23	5.98	12.13	12.17	60 dBA:	**0**	**0**
				Total:	**24.47**	**18.23**	**16.77**	**12.07**	**19.98**	**20.51**	55 dBA:	**0**	**1**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2030 WEEKDAY WITH PROJECT CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: Crow Canyon Road **Segment: East of Crow Canyon Place**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 8-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 86.02 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-3.64	-1.20	20.83	18.46	17.17	11.11	19.55	20.18	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-3.64	-1.20	14.92	-4.29	-12.07	-2.86	3.29	3.33	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-3.64	-1.20	21.99	5.00	-2.79	6.42	12.58	12.61	60 dBA:	**0**	**0**
				Total:	**24.92**	**18.68**	**17.22**	**12.51**	**20.43**	**20.95**	55 dBA:	**0**	**1**

Road Name: Crow Canyon Road **Segment: East of Camino Ramon**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 8-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 86.02 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-3.64	-1.20	20.83	18.46	17.17	11.11	19.55	20.18	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-3.64	-1.20	14.92	-4.29	-12.07	-2.86	3.29	3.33	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-3.64	-1.20	21.99	5.00	-2.79	6.42	12.58	12.61	60 dBA:	**0**	**0**
				Total:	**24.92**	**18.68**	**17.22**	**12.51**	**20.43**	**20.95**	55 dBA:	**0**	**1**

Road Name: Crow Canyon Road **Segment: East of Alcosta Boulevard**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 6-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 92.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.08	-1.20	20.39	18.02	16.73	10.67	19.10	19.73	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.08	-1.20	14.48	-4.73	-12.51	-3.30	2.85	2.88	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.08	-1.20	21.54	4.55	-3.23	5.98	12.13	12.17	60 dBA:	**0**	**0**
				Total:	**24.47**	**18.23**	**16.77**	**12.07**	**19.98**	**20.51**	55 dBA:	**0**	**1**

Road Name: Crow Canyon Road **Segment: West of Dougherty Road**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 6-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 92.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.08	-1.20	20.39	18.02	16.73	10.67	19.10	19.73	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.08	-1.20	14.48	-4.73	-12.51	-3.30	2.85	2.88	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.08	-1.20	21.54	4.55	-3.23	5.98	12.13	12.17	60 dBA:	**0**	**0**
				Total:	**24.47**	**18.23**	**16.77**	**12.07**	**19.98**	**20.51**	55 dBA:	**0**	**1**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2030 WEEKDAY WITH PROJECT CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: Crow Canyon Road **Segment: East of Dougherty Road**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 6-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 92.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.08	-1.20	20.39	18.02	16.73	10.67	19.10	19.73	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.08	-1.20	14.48	-4.73	-12.51	-3.30	2.85	2.88	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.08	-1.20	21.54	4.55	-3.23	5.98	12.13	12.17	60 dBA:	**0**	**0**
				Total:	**24.47**	**18.23**	**16.77**	**12.07**	**19.98**	**20.51**	55 dBA:	**0**	**1**

Road Name: Norris Canyon Road **Segment: West of San Ramon Valley Boulevard**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 25 MPH | Vehicle Mix: 2 | Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	59.44	-39.65	-4.43	-1.20	14.17	11.80	10.50	4.45	12.88	13.51	70 dBA:	**0**	**0**
Medium Trucks	71.09	-54.51	-4.43	-1.20	10.95	-8.26	-16.04	-6.83	-0.68	-0.65	65 dBA:	**0**	**0**
Heavy Trucks	78.74	-52.30	-4.43	-1.20	20.82	3.83	-3.95	5.26	11.41	11.44	60 dBA:	**0**	**0**
				Total:	**22.02**	**12.48**	**10.66**	**8.03**	**15.33**	**15.71**	55 dBA:	**0**	**0**

Road Name: Norris Canyon Road **Segment: East of Bishop Drive**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

Road Name: Norris Canyon Road **Segment: East of Camino Ramon**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2030 WEEKDAY WITH PROJECT CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: Executive Parkway **Segment: West of Camino Ramon**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 1 Roadway Classification: Minor

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.5 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-40.19	-4.59	-1.20	16.54	14.41	13.10	7.09	15.51	16.13	70 dBA:	**0**	**0**
Medium Trucks	73.11	-57.43	-4.59	-1.20	9.90	-11.35	-5.33	-23.62	-10.48	-7.73	65 dBA:	**0**	**0**
Heavy Trucks	80.26	-61.38	-4.59	-1.20	13.09	-12.26	-15.66	-11.01	-4.81	-4.72	60 dBA:	**0**	**0**
				Total:	**18.76**	**14.43**	**13.17**	**7.16**	**15.56**	**16.19**	55 dBA:	**0**	**0**

Road Name: Bishop Drive **Segment: West of Camino Ramon**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 1 Roadway Classification: Minor

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.5 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-40.19	-4.59	-1.20	16.54	14.41	13.10	7.09	15.51	16.13	70 dBA:	**0**	**0**
Medium Trucks	73.11	-57.43	-4.59	-1.20	9.90	-11.35	-5.33	-23.62	-10.48	-7.73	65 dBA:	**0**	**0**
Heavy Trucks	80.26	-61.38	-4.59	-1.20	13.09	-12.26	-15.66	-11.01	-4.81	-4.72	60 dBA:	**0**	**0**
				Total:	**18.76**	**14.43**	**13.17**	**7.16**	**15.56**	**16.19**	55 dBA:	**0**	**0**

Road Name: Bollinger Canyon Road **Segment: West of San Ramon Valley Boulevard**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

Road Name: Bollinger Canyon Road **Segment: East of Sunset Drive**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 6-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 92.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.08	-1.20	20.39	18.02	16.73	10.67	19.10	19.73	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.08	-1.20	14.48	-4.73	-12.51	-3.30	2.85	2.88	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.08	-1.20	21.54	4.55	-3.23	5.98	12.13	12.17	60 dBA:	**0**	**0**
				Total:	**24.47**	**18.23**	**16.77**	**12.07**	**19.98**	**20.51**	55 dBA:	**0**	**1**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2030 WEEKDAY WITH PROJECT CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: Bollinger Canyon Road **Segment: East of Camino Ramon**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 8-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 86.02 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-3.64	-1.20	20.83	18.46	17.17	11.11	19.55	20.18	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-3.64	-1.20	14.92	-4.29	-12.07	-2.86	3.29	3.33	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-3.64	-1.20	21.99	5.00	-2.79	6.42	12.58	12.61	60 dBA:	**0**	**0**
				Total:	**24.92**	**18.68**	**17.22**	**12.51**	**20.43**	**20.95**	55 dBA:	**0**	**1**

Road Name: Bollinger Canyon Road **Segment: East of Market Place**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 8-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 86.02 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-3.64	-1.20	20.83	18.46	17.17	11.11	19.55	20.18	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-3.64	-1.20	14.92	-4.29	-12.07	-2.86	3.29	3.33	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-3.64	-1.20	21.99	5.00	-2.79	6.42	12.58	12.61	60 dBA:	**0**	**0**
				Total:	**24.92**	**18.68**	**17.22**	**12.51**	**20.43**	**20.95**	55 dBA:	**0**	**1**

Road Name: Bollinger Canyon Road **Segment: East of Alcosta Boulevard**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 6-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 92.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.08	-1.20	20.39	18.02	16.73	10.67	19.10	19.73	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.08	-1.20	14.48	-4.73	-12.51	-3.30	2.85	2.88	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.08	-1.20	21.54	4.55	-3.23	5.98	12.13	12.17	60 dBA:	**0**	**0**
				Total:	**24.47**	**18.23**	**16.77**	**12.07**	**19.98**	**20.51**	55 dBA:	**0**	**1**

Road Name: Bollinger Canyon Road **Segment: East of Canyon Lakes Drive**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 6-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 92.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.08	-1.20	20.39	18.02	16.73	10.67	19.10	19.73	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.08	-1.20	14.48	-4.73	-12.51	-3.30	2.85	2.88	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.08	-1.20	21.54	4.55	-3.23	5.98	12.13	12.17	60 dBA:	**0**	**0**
				Total:	**24.47**	**18.23**	**16.77**	**12.07**	**19.98**	**20.51**	55 dBA:	**0**	**1**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2030 WEEKDAY WITH PROJECT CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: Montevideo Drive **Segment: East of San Ramon Valley Boulevard**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 30 MPH | Vehicle Mix: 1 | Roadway Classification: Minor

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.5 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-40.19	-4.59	-1.20	16.54	14.41	13.10	7.09	15.51	16.13	70 dBA:	**0**	**0**
Medium Trucks	73.11	-57.43	-4.59	-1.20	9.90	-11.35	-5.33	-23.62	-10.48	-7.73	65 dBA:	**0**	**0**
Heavy Trucks	80.26	-61.38	-4.59	-1.20	13.09	-12.26	-15.66	-11.01	-4.81	-4.72	60 dBA:	**0**	**0**
				Total:	**18.76**	**14.43**	**13.17**	**7.16**	**15.56**	**16.19**	55 dBA:	**0**	**0**

Road Name: Montevideo Drive **Segment: West of Alcosta Boulevard**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 30 MPH | Vehicle Mix: 1 | Roadway Classification: Minor

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.5 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-40.19	-4.59	-1.20	16.54	14.41	13.10	7.09	15.51	16.13	70 dBA:	**0**	**0**
Medium Trucks	73.11	-57.43	-4.59	-1.20	9.90	-11.35	-5.33	-23.62	-10.48	-7.73	65 dBA:	**0**	**0**
Heavy Trucks	80.26	-61.38	-4.59	-1.20	13.09	-12.26	-15.66	-11.01	-4.81	-4.72	60 dBA:	**0**	**0**
				Total:	**18.76**	**14.43**	**13.17**	**7.16**	**15.56**	**16.19**	55 dBA:	**0**	**0**

Road Name: Pine Valley Road **Segment: East of San Ramon Valley Boulevard**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 30 MPH | Vehicle Mix: 1 | Roadway Classification: Minor

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.5 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-40.19	-4.59	-1.20	16.54	14.41	13.10	7.09	15.51	16.13	70 dBA:	**0**	**0**
Medium Trucks	73.11	-57.43	-4.59	-1.20	9.90	-11.35	-5.33	-23.62	-10.48	-7.73	65 dBA:	**0**	**0**
Heavy Trucks	80.26	-61.38	-4.59	-1.20	13.09	-12.26	-15.66	-11.01	-4.81	-4.72	60 dBA:	**0**	**0**
				Total:	**18.76**	**14.43**	**13.17**	**7.16**	**15.56**	**16.19**	55 dBA:	**0**	**0**

Road Name: Windemere Parkway **Segment: East of Bollinger Canyon Road**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2030 WEEKDAY WITH PROJECT CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: East Branch Road **Segment: East of Bollinger Canyon Road**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

Road Name: Old Ranch Road **Segment: East of Alcosta Boulevard**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

Road Name: Old Ranch Road **Segment: West of Dougherty Road**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

Road Name: Westside Drive **Segment: West of San Ramon Valley Boulevard**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 2 Roadway Classification: 2-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.15 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-40.44	-4.56	-1.20	16.31	13.94	12.64	6.59	15.02	15.65	70 dBA:	**0**	**0**
Medium Trucks	73.11	-55.31	-4.56	-1.20	12.05	-7.16	-14.94	-5.74	0.42	0.45	65 dBA:	**0**	**0**
Heavy Trucks	80.26	-53.09	-4.56	-1.20	21.41	4.42	-3.36	5.85	12.00	12.04	60 dBA:	**0**	**0**
				Total:	**22.95**	**14.43**	**12.76**	**9.38**	**16.88**	**17.31**	55 dBA:	**0**	**0**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2030 WEEKDAY WITH PROJECT CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: Alcosta Boulevard **Segment: East of Davona Drive**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

Road Name: Alcosta Boulevard **Segment: East of Kimball Avenue**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

Road Name: Alcosta Boulevard **Segment: East of Village Parkway**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

Road Name: Bollinger Canyon Road **Segment: North of Crow Canyon Road**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 30 MPH | Vehicle Mix: 2 | Roadway Classification: 2-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 99.15 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-40.44	-4.56	-1.20	16.31	13.94	12.64	6.59	15.02	15.65	70 dBA:	**0**	**0**
Medium Trucks	73.11	-55.31	-4.56	-1.20	12.05	-7.16	-14.94	-5.74	0.42	0.45	65 dBA:	**0**	**0**
Heavy Trucks	80.26	-53.09	-4.56	-1.20	21.41	4.42	-3.36	5.85	12.00	12.04	60 dBA:	**0**	**0**
				Total:	**22.95**	**14.43**	**12.76**	**9.38**	**16.88**	**17.31**	55 dBA:	**0**	**0**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2030 WEEKDAY WITH PROJECT CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: Bollinger Canyon Road **Segment: South of Crow Canyon Road**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 35 MPH | Vehicle Mix: 2 | Roadway Classification: 2-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE						(Equiv. Lane Dist: 98.37 ft)				**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-41.11	-4.51	-1.20	18.29	15.92	14.62	8.57	17.00	17.63	70 dBA:	**0**	**0**
Medium Trucks	74.83	-55.97	-4.51	-1.20	13.14	-6.07	-13.85	-4.64	1.51	1.55	65 dBA:	**0**	**0**
Heavy Trucks	80.05	-53.76	-4.51	-1.20	20.58	3.59	-4.19	5.02	11.17	11.20	60 dBA:	**0**	**0**
				Total:	**23.06**	**16.19**	**14.69**	**10.30**	**18.11**	**18.61**	55 dBA:	**0**	**0**

Road Name: San Ramon Valley Boulevard **Segment: North of Deerwood Road**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE						(Equiv. Lane Dist: 97.08 ft)				**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

Road Name: San Ramon Valley Boulevard **Segment: North of Crow Canyon Road**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE						(Equiv. Lane Dist: 97.08 ft)				**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

Road Name: San Ramon Valley Boulevard **Segment: North of Norris Canyon Road**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE						(Equiv. Lane Dist: 97.08 ft)				**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2030 WEEKDAY WITH PROJECT CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: San Ramon Valley Boulevard **Segment: South of Norris Canyon Road**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

Road Name: San Ramon Valley Boulevard **Segment: South of Bollinger Canyon Road**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

Road Name: San Ramon Valley Boulevard **Segment: South of Montevideo Drive**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

Road Name: San Ramon Valley Boulevard **Segment: South of Pine Valley Boulevard**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2030 WEEKDAY WITH PROJECT CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: San Ramon Valley Boulevard **Segment: North of Alcosta Boulevard**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

Road Name: Crow Canyon Place **Segment: South of Fostoria Way**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 30 MPH | Vehicle Mix: 1 | Roadway Classification: Minor

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 99.5 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-40.19	-4.59	-1.20	16.54	14.41	13.10	7.09	15.51	16.13	70 dBA:	**0**	**0**
Medium Trucks	73.11	-57.43	-4.59	-1.20	9.90	-11.35	-5.33	-23.62	-10.48	-7.73	65 dBA:	**0**	**0**
Heavy Trucks	80.26	-61.38	-4.59	-1.20	13.09	-12.26	-15.66	-11.01	-4.81	-4.72	60 dBA:	**0**	**0**
				Total:	**18.76**	**14.43**	**13.17**	**7.16**	**15.56**	**16.19**	55 dBA:	**0**	**0**

Road Name: Crow Canyon Place **Segment: South of Crow Canyon Road**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 30 MPH | Vehicle Mix: 1 | Roadway Classification: Minor

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 99.5 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-40.19	-4.59	-1.20	16.54	14.41	13.10	7.09	15.51	16.13	70 dBA:	**0**	**0**
Medium Trucks	73.11	-57.43	-4.59	-1.20	9.90	-11.35	-5.33	-23.62	-10.48	-7.73	65 dBA:	**0**	**0**
Heavy Trucks	80.26	-61.38	-4.59	-1.20	13.09	-12.26	-15.66	-11.01	-4.81	-4.72	60 dBA:	**0**	**0**
				Total:	**18.76**	**14.43**	**13.17**	**7.16**	**15.56**	**16.19**	55 dBA:	**0**	**0**

Road Name: Camino Ramon **Segment: South of Fostoria Way**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 35 MPH | Vehicle Mix: 2 | Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-41.11	-4.43	-1.20	18.38	16.00	14.71	8.66	17.09	17.72	70 dBA:	**0**	**0**
Medium Trucks	74.83	-55.97	-4.43	-1.20	13.23	-5.98	-13.76	-4.55	1.60	1.63	65 dBA:	**0**	**0**
Heavy Trucks	80.05	-53.76	-4.43	-1.20	20.66	3.67	-4.11	5.10	11.26	11.29	60 dBA:	**0**	**0**
				Total:	**23.15**	**16.28**	**14.77**	**10.38**	**18.19**	**18.70**	55 dBA:	**0**	**0**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2030 WEEKDAY WITH PROJECT CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: Camino Ramon **Segment: South of Crow Canyon Road**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-41.11	-4.43	-1.20	18.38	16.00	14.71	8.66	17.09	17.72	70 dBA:	**0**	**0**
Medium Trucks	74.83	-55.97	-4.43	-1.20	13.23	-5.98	-13.76	-4.55	1.60	1.63	65 dBA:	**0**	**0**
Heavy Trucks	80.05	-53.76	-4.43	-1.20	20.66	3.67	-4.11	5.10	11.26	11.29	60 dBA:	**0**	**0**
				Total:	**23.15**	**16.28**	**14.77**	**10.38**	**18.19**	**18.70**	55 dBA:	**0**	**0**

Road Name: Camino Ramon **Segment: South of Norris Canyon Road**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-41.11	-4.43	-1.20	18.38	16.00	14.71	8.66	17.09	17.72	70 dBA:	**0**	**0**
Medium Trucks	74.83	-55.97	-4.43	-1.20	13.23	-5.98	-13.76	-4.55	1.60	1.63	65 dBA:	**0**	**0**
Heavy Trucks	80.05	-53.76	-4.43	-1.20	20.66	3.67	-4.11	5.10	11.26	11.29	60 dBA:	**0**	**0**
				Total:	**23.15**	**16.28**	**14.77**	**10.38**	**18.19**	**18.70**	55 dBA:	**0**	**0**

Road Name: Camino Ramon **Segment: South of Executive Parkway**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-41.11	-4.43	-1.20	18.38	16.00	14.71	8.66	17.09	17.72	70 dBA:	**0**	**0**
Medium Trucks	74.83	-55.97	-4.43	-1.20	13.23	-5.98	-13.76	-4.55	1.60	1.63	65 dBA:	**0**	**0**
Heavy Trucks	80.05	-53.76	-4.43	-1.20	20.66	3.67	-4.11	5.10	11.26	11.29	60 dBA:	**0**	**0**
				Total:	**23.15**	**16.28**	**14.77**	**10.38**	**18.19**	**18.70**	55 dBA:	**0**	**0**

Road Name: Camino Ramon **Segment: South of Bishop Drive**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE							(Equiv. Lane Dist: 97.08 ft)			**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-41.11	-4.43	-1.20	18.38	16.00	14.71	8.66	17.09	17.72	70 dBA:	**0**	**0**
Medium Trucks	74.83	-55.97	-4.43	-1.20	13.23	-5.98	-13.76	-4.55	1.60	1.63	65 dBA:	**0**	**0**
Heavy Trucks	80.05	-53.76	-4.43	-1.20	20.66	3.67	-4.11	5.10	11.26	11.29	60 dBA:	**0**	**0**
				Total:	**23.15**	**16.28**	**14.77**	**10.38**	**18.19**	**18.70**	55 dBA:	**0**	**0**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2030 WEEKDAY WITH PROJECT CONDITIONS

Project Name: Redlands Walmart
Site Conditions: Soft

Road Name: Village Parkway **Segment: South of Alcosta Boulevard**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

Road Name: Alcosta Boulevard **Segment: South of Crow Canyon Road**

Average Daily Traffic: 1 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: 4-Lane Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

FINITE ROADWAY ADJUSTMENT

Right view must be greater than Left view

ROAD	SEGMENT	SITE CONDITIONS	RIGHT VIEW	LEFT VIEW	HARD SITE ADJUSTMENT	SOFT SITE REF. NO.	SOFT SITE ADJUSTMENT	FINITE ADJUSTMENT
Deerwood Road	West of San Ramon Valley Boule	Soft	90	-90	0	-8910	-1.20	-1.2
Fostoria Way	West of Crow Canyon Place	Soft	90	-90	0	-8910	-1.20	-1.2
Fostoria Way	East of Crow Canyon Place	Soft	90	-90	0	-8910	-1.20	-1.2
Fostoria Way	East of Camino Ramon	Soft	90	-90	0	-8910	-1.20	-1.2
Crow Canyon Road	West of Bollinger Canyon Road	Soft	90	-90	0	-8910	-1.20	-1.2
Crow Canyon Road	West of Twin Creeks Drive	Soft	90	-90	0	-8910	-1.20	-1.2
Crow Canyon Road	West of San Ramon Valley Boule	Soft	90	-90	0	-8910	-1.20	-1.2
Crow Canyon Road	East of Crow Canyon Place	Soft	90	-90	0	-8910	-1.20	-1.2
Crow Canyon Road	East of Camino Ramon	Soft	90	-90	0	-8910	-1.20	-1.2
Crow Canyon Road	East of Alcosta Boulevard	Soft	90	-90	0	-8910	-1.20	-1.2
Crow Canyon Road	West of Dougherty Road	Soft	90	-90	0	-8910	-1.20	-1.2
Crow Canyon Road	East of Dougherty Road	Soft	90	-90	0	-8910	-1.20	-1.2
Norris Canyon Road	West of San Ramon Valley Boule	Soft	90	-90	0	-8910	-1.20	-1.2
Norris Canyon Road	East of Bishop Drive	Soft	90	-90	0	-8910	-1.20	-1.2
Norris Canyon Road	East of Camino Ramon	Soft	90	-90	0	-8910	-1.20	-1.2
Executive Parkway	West of Camino Ramon	Soft	90	-90	0	-8910	-1.20	-1.2
Bishop Drive	West of Camino Ramon	Soft	90	-90	0	-8910	-1.20	-1.2
Bollinger Canyon Road	West of San Ramon Valley Boule	Soft	90	-90	0	-8910	-1.20	-1.2
Bollinger Canyon Road	East of Sunset Drive	Soft	90	-90	0	-8910	-1.20	-1.2
Bollinger Canyon Road	East of Camino Ramon	Soft	90	-90	0	-8910	-1.20	-1.2
Bollinger Canyon Road	East of Market Place	Soft	90	-90	0	-8910	-1.20	-1.2
Bollinger Canyon Road	East of Alcosta Boulevard	Soft	90	-90	0	-8910	-1.20	-1.2
Bollinger Canyon Road	East of Canyon Lakes Drive	Soft	90	-90	0	-8910	-1.20	-1.2
Montevideo Drive	East of San Ramon Valley Boule	Soft	90	-90	0	-8910	-1.20	-1.2
Montevideo Drive	West of Alcosta Boulevard	Soft	90	-90	0	-8910	-1.20	-1.2
Pine Valley Road	East of San Ramon Valley Boule	Soft	90	-90	0	-8910	-1.20	-1.2
Windemere Parkway	East of Bollinger Canyon Road	Soft	90	-90	0	-8910	-1.20	-1.2
East Branch Road	East of Bollinger Canyon Road	Soft	90	-90	0	-8910	-1.20	-1.2
Old Ranch Road	East of Alcosta Boulevard	Soft	90	-90	0	-8910	-1.20	-1.2
Old Ranch Road	West of Dougherty Road	Soft	90	-90	0	-8910	-1.20	-1.2
Westside Drive	West of San Ramon Valley Boule	Soft	90	-90	0	-8910	-1.20	-1.2
Alcosta Boulevard	East of Davona Drive	Soft	90	-90	0	-8910	-1.20	-1.2
Alcosta Boulevard	East of Kimball Avenue	Soft	90	-90	0	-8910	-1.20	-1.2
Alcosta Boulevard	East of Village Parkway	Soft	90	-90	0	-8910	-1.20	-1.2
Bollinger Canyon Road	North of Crow Canyon Road	Soft	90	-90	0	-8910	-1.20	-1.2
Bollinger Canyon Road	South of Crow Canyon Road	Soft	90	-90	0	-8910	-1.20	-1.2
San Ramon Valley Boulevard	North of Deerwood Road	Soft	90	-90	0	-8910	-1.20	-1.2
San Ramon Valley Boulevard	North of Crow Canyon Road	Soft	90	-90	0	-8910	-1.20	-1.2
San Ramon Valley Boulevard	North of Norris Canyon Road	Soft	90	-90	0	-8910	-1.20	-1.2
San Ramon Valley Boulevard	South of Norris Canyon Road	Soft	90	-90	0	-8910	-1.20	-1.2
San Ramon Valley Boulevard	South of Bollinger Canyon Road	Soft	90	-90	0	-8910	-1.20	-1.2
San Ramon Valley Boulevard	South of Montevideo Drive	Soft	90	-90	0	-8910	-1.20	-1.2
San Ramon Valley Boulevard	South of Pine Valley Boulevard	Soft	90	-90	0	-8910	-1.20	-1.2
San Ramon Valley Boulevard	North of Alcosta Boulevard	Soft	90	-90	0	-8910	-1.20	-1.2
Crow Canyon Place	South of Fostoria Way	Soft	90	-90	0	-8910	-1.20	-1.2
Crow Canyon Place	South of Crow Canyon Road	Soft	90	-90	0	-8910	-1.20	-1.2
Camino Ramon	South of Fostoria Way	Soft	90	-90	0	-8910	-1.20	-1.2
Camino Ramon	South of Crow Canyon Road	Soft	90	-90	0	-8910	-1.20	-1.2
Camino Ramon	South of Norris Canyon Road	Soft	90	-90	0	-8910	-1.20	-1.2
Camino Ramon	South of Executive Parkway	Soft	90	-90	0	-8910	-1.20	-1.2
Camino Ramon	South of Bishop Drive	Soft	90	-90	0	-8910	-1.20	-1.2
Village Parkway	South of Alcosta Boulevard	Soft	90	-90	0	-8910	-1.20	-1.2
Alcosta Boulevard	South of Crow Canyon Road	Soft	90	-90	0	-8910	-1.20	-1.2
Alcosta Boulevard	South of Norris Canyon Road	Soft	90	-90	0	-8910	-1.20	-1.2
Alcosta Boulevard	South of Woodland Drive	Soft	90	-90	0	-8910	-1.20	-1.2
Alcosta Boulevard	South of Bollinger Canyon Road	Soft	90	-90	0	-8910	-1.20	-1.2
Alcosta Boulevard	South of Vera Cruz Drive	Soft	90	-90	0	-8910	-1.20	-1.2
Alcosta Boulevard	South of Montevideo Drive	Soft	90	-90	0	-8910	-1.20	-1.2
Alcosta Boulevard	South of Old Ranch Road	Soft	90	-90	0	-8910	-1.20	-1.2
Dougherty Road	South of Crow Canyon Road	Soft	90	-90	0	-8910	-1.20	-1.2

Ref. No.	RightView	LeftView	SoftSiteAdj
-9085	-85	-90	-22.6
-9080	-80	-90	-18.1
-9075	-75	-90	-15.5
-9070	-70	-90	-13.6
-9065	-65	-90	-12.2
-9060	-60	-90	-11
-9055	-55	-90	-10
-9050	-50	-90	-9.2
-9045	-45	-90	-8.4
-9040	-40	-90	-7.7
-9035	-35	-90	-7.1
-9030	-30	-90	-6.6
-9025	-25	-90	-6.1
-9020	-20	-90	-5.7
-9015	-15	-90	-5.3
-9010	-10	-90	-4.9
-9005	-5	-90	-4.5
-9000	0	-90	-4.2
-8995	5	-90	-3.9
-8990	10	-90	-3.6
-8985	15	-90	-3.3
-8980	20	-90	-3.1
-8975	25	-90	-2.9
-8970	30	-90	-2.6
-8965	35	-90	-2.4
-8960	40	-90	-2.3
-8955	45	-90	-2.1
-8950	50	-90	-1.9
-8945	55	-90	-1.8
-8940	60	-90	-1.7
-8935	65	-90	-1.5
-8930	70	-90	-1.4
-8925	75	-90	-1.3
-8920	80	-90	-1.3
-8915	85	-90	-1.2
-8910	90	-90	-1.2
-8580	-80	-85	-20
-8575	-75	-85	-16.4
-8570	-70	-85	-14.2
-8565	-65	-85	-12.6
-8560	-60	-85	-11.3
-8555	-55	-85	-10.2
-8550	-50	-85	-9.3
-8545	-45	-85	-8.6
-8540	-40	-85	-7.9
-8535	-35	-85	-7.3
-8530	-30	-85	-6.7
-8525	-25	-85	-6.2
-8520	-20	-85	-5.8
-8515	-15	-85	-5.3
-8510	-10	-85	-4.9
-8505	-5	-85	-4.6
-8500	0	-85	-4.2
-8495	5	-85	-3.9
-8490	10	-85	-3.7
-8485	15	-85	-3.4
-8480	20	-85	-3.1

-8475	25	-85	-2.9
-8470	30	-85	-2.7
-8465	35	-85	-2.5
-8460	40	-85	-2.3
-8455	45	-85	-2.1
-8450	50	-85	-2
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-8410	90	-85	-1.2
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-7920	80	-80	-1.4
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-7910	90	-80	-1.3
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-7550	-50	-75	-10.3
-7545	-45	-75	-9.4
-7540	-40	-75	-8.5
-7535	-35	-75	-7.8
-7530	-30	-75	-7.2
-7525	-25	-75	-6.6

-7520	-20	-75	-6.1
-7515	-15	-75	-5.7
-7510	-10	-75	-5.3
-7505	-5	-75	-4.9
-7500	0	-75	-4.5
-7495	5	-75	-4.2
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-7485	15	-75	-3.6
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-7440	60	-75	-1.8
-7435	65	-75	-1.7
-7430	70	-75	-1.6
-7425	75	-75	-1.5
-7420	80	-75	-1.4
-7415	85	-75	-1.4
-7410	90	-75	-1.3
-7065	-65	-70	-17.7
-7060	-60	-70	-14.4
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-7035	-35	-70	-8.3
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-7025	-25	-70	-7
-7020	-20	-70	-6.4
-7015	-15	-70	-5.9
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-6930	70	-70	-1.7
-6925	75	-70	-1.6
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-6915	85	-70	-1.5
-6910	90	-70	-1.4
-6560	-60	-65	-17.2
-6555	-55	-65	-14.1
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-6420	80	-65	-1.6
-6415	85	-65	-1.6
-6410	90	-65	-1.5
-6055	-55	-60	-16.9
-6050	-50	-60	-13.8
-6045	-45	-60	-11.9
-6040	-40	-60	-10.5
-6035	-35	-60	-9.5
-6030	-30	-60	-8.6
-6025	-25	-60	-7.8
-6020	-20	-60	-7.2
-6015	-15	-60	-6.6
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-6005	-5	-60	-5.6
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-5990	10	-60	-4.5
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-5980	20	-60	-3.9
-5975	25	-60	-3.6
-5970	30	-60	-3.3
-5965	35	-60	-3.1
-5960	40	-60	-2.9
-5955	45	-60	-2.7
-5950	50	-60	-2.5
-5945	55	-60	-2.3
-5940	60	-60	-2.2
-5935	65	-60	-2.1
-5930	70	-60	-1.9
-5925	75	-60	-1.8
-5920	80	-60	-1.8
-5915	85	-60	-1.7
-5910	90	-60	-1.7

-5550	-50	-55	-16.6
-5545	-45	-55	-13.5
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-5535	-35	-55	-10.3
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-5420	80	-55	-1.9
-5415	85	-55	-1.8
-5410	90	-55	-1.8
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-5025	-25	-50	-9.1
-5020	-20	-50	-8.2
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-4995	5	-50	-5.4
-4990	10	-50	-5
-4985	15	-50	-4.7
-4980	20	-50	-4.3
-4975	25	-50	-4
-4970	30	-50	-3.7
-4965	35	-50	-3.5
-4960	40	-50	-3.3
-4955	45	-50	-3
-4950	50	-50	-2.8
-4945	55	-50	-2.7
-4940	60	-50	-2.5
-4935	65	-50	-2.4
-4930	70	-50	-2.2
-4925	75	-50	-2.1
-4920	80	-50	-2
-4915	85	-50	-2
-4910	90	-50	-1.9
-4540	-40	-45	-16.2

-4535	-35	-45	-13.1
-4530	-30	-45	-11.3
-4525	-25	-45	-10
-4520	-20	-45	-9
-4515	-15	-45	-8.1
-4510	-10	-45	-7.4
-4505	-5	-45	-6.8
-4500	0	-45	-6.3
-4495	5	-45	-5.8
-4490	10	-45	-5.3
-4485	15	-45	-5
-4480	20	-45	-4.6
-4475	25	-45	-4.3
-4470	30	-45	-4
-4465	35	-45	-3.7
-4460	40	-45	-3.5
-4455	45	-45	-3.2
-4450	50	-45	-3
-4445	55	-45	-2.9
-4440	60	-45	-2.7
-4435	65	-45	-2.5
-4430	70	-45	-2.4
-4425	75	-45	-2.3
-4420	80	-45	-2.2
-4415	85	-45	-2.1
-4410	90	-45	-2.1
-4035	-35	-40	-16.1
-4030	-30	-40	-13
-4025	-25	-40	-11.2
-4020	-20	-40	-9.9
-4015	-15	-40	-8.9
-4010	-10	-40	-8
-4005	-5	-40	-7.3
-4000	0	-40	-6.7
-3995	5	-40	-6.2
-3990	10	-40	-5.7
-3985	15	-40	-5.3
-3980	20	-40	-4.9
-3975	25	-40	-4.6
-3970	30	-40	-4.2
-3965	35	-40	-4
-3960	40	-40	-3.7
-3955	45	-40	-3.5
-3950	50	-40	-3.3
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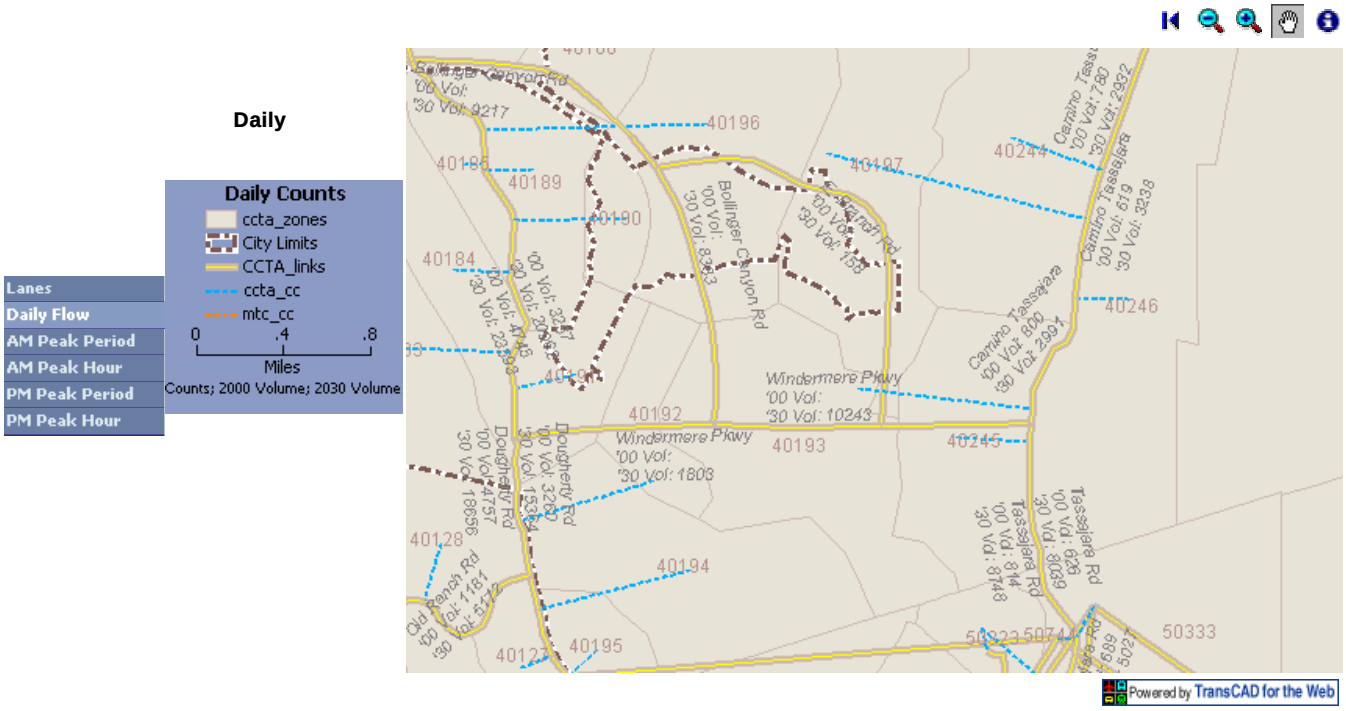
CCTA Transportation Model Update Project Mapping Web Site



C.2 - Environmental Noise Management Plan, West Coast Garrison (Provisional), Camp Parks Training Site

ENVIRONMENTAL NOISE MANAGEMENT PLAN

West Coast Garrison (Provisional), Camp Parks Training Site, California

May 2005

Prepared By:
Environmental Noise Program
Directorate of Environmental Health Engineering
U.S. Army Center for Health promotion
And Preventive Medicine
5158 Blackhawk Road
Aberdeen Proving Ground
Maryland 21010-5403

And

West Coast Garrison (Provisional) Environmental Division

24 May 2005

Environmental Division

SUBJECT: West Coast Garrison (Provisional), Camp Parks Training Site Environmental Noise Management Plan

1. **Summary**: The Army's Environmental Noise Management Program was established to provide a strategy for noise management at Camp Parks Training Site (CPTS).

2. **Applicability**: This management plan applies to all members of the CPTS installation, supported activities, and tenant organizations.

3. **Supplementation and Changes**: Supplementation of this management plan is prohibited without prior approval from the Commander. Interim changes to this management plan are not official unless authenticated by the CPTS Environmental Department.

4. **Suggested Improvements**: Users are invited to send comments and suggested improvements directly to the Commander, West Coast Garrison (Provisional), Camp Parks Training Site, Building 790, 5th Street, Dublin, CA 94568-5201.

5. **Restrictions**: Approved for public release, distribution unlimited. Local reproduction is authorized.

James H. Doty
Colonel, U.S. Army
Commanding Officer

EXECUTIVE SUMMARY

OVERVIEW.

The Environmental Noise Management Plan (ENMP) provides a strategy for noise management at Camp Parks Training Site (CPTS). It includes a description of CPTS's noise environment, including noise levels from small arms, aircraft activity, and training exercises. Noise levels are determined by using operational data as input for computerized noise models. Elements of the ENMP include education, complaint management, noise abatement procedures, and the Installation Compatible Use Zone (ICUZ) program.

The ICUZ program provides a methodology for analyzing exposure to noise and safety hazards associated with military operations and provides land use guidelines for achieving compatibility between the Army and the surrounding communities. The Army has an obligation to U.S. citizens to recommend uses of land around its installations which will: (a) protect citizens from noise and other hazards; and (b) protect the public's investment in the installation.

Noise levels are calculated by computer simulations using operational data from the activities at CPTS. The noise impact on the community is translated into noise zones which depict average and peak noise levels resulting from training operations. The program defines three noise zones. Zone I is compatible for most noise-sensitive land uses. Zone II is normally incompatible for noise-sensitive land uses. Zone III is incompatible for noise-sensitive land uses.

CONCLUSIONS.

CPTS will continue with its ENMP program to reduce the potential of incompatible land uses around its facilities severely impacting on its mission. CPTS will continue to model and assess the noise environment as site development plans are revised. As a minimum, county and municipal governments are encouraged to support public disclosure of noise zones and areas where training operations at CPTS could produce noise levels that annoy local residents.

The incompatible noise zone (Zone III) and the normally incompatible noise zone (Zone II) generated, based on averaged training levels, are entirely contained within the installation's boundary. But, because of peak noise levels from individual operations/noise events, there is still the potential for noise complaints, especially with increased residential development around CPTS.

RECOMMENDATIONS.

The Army and CPTS can only make recommendations for compatible land uses adjacent to the installation. This report's findings indicate actions that are appropriate to guide future development of the adjacent properties. Recommendations for CPTS and the local jurisdictions include:

- Adhere to helicopter flight patterns and minimum flight altitudes
- Disclosure of noise levels for real estate development and transfers in the suggested noise disclosure area
- Establishment of Noise Complaint SOP
- Use media to inform neighbors of CPTS's mission and operations

A more detailed discussion of general and specific recommendations can be found in Section Six.

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SECTION ONE

INTRODUCTION

1.1 GENERAL.

One of the goals of the Department of the Army (DA) is to plan, initiate, and carry out actions and programs designed to minimize adverse impacts upon the quality of the human environment without impairing the Army's mission. In keeping with this goal, the Army established an Environmental Noise Management Program as the framework for the control of noise produced by Army activities since noise has been determined by the United States Congress, as recorded in the Noise Control Act of 1972, to "presents danger to the health and welfare of this Nation's population" (PL 92-574 1972). The primary strategy for noise management is the Environmental Noise Management Plan (ENMP) of which the Installation Compatible Use Zone (ICUZ) program is a portion.

1.1.1 HISTORY OF THE NOISE CONTROVERSY.

The advent of jet aircraft in the 1950's resulted in significantly greater noise levels around commercial airports which led to an intense outcry from the public. This public outcry caused Congress to revise the Federal Aid to Airports Act to make Federal aid contingent upon implementation of programs to resolve noise problems with surrounding neighborhoods. Subsequently, Congress passed the Noise Control Act of 1972 and the Quiet Communities Act of 1978. Under these laws, airports carried out noise control measures such as: outright purchase of adjoining land; work with local communities to ensure zoning which would permit only compatible uses; development of procedures for including noise information in the consumer disclosure documents provided when real estate is sold; altering run-up procedures and locations; and, changing approach and takeoff patterns. At the present time the Federal Aviation Administration (FAA) has specific requirements for community involvement in all airport planning.

The Federal Aid to Airports Act exempted military aircraft, as did portions of the Noise Control Act of 1972. However, the Noise Control Act and the Quiet Communities Act did contain language outlining the responsibilities of Federal agencies in protecting the public from unreasonable noise impacts. Specifically these laws state that:

> *"Federal agencies shall, to the fullest extent consistent with their authority under federal laws administered by them, carry out the programs within their control in such a manner as to .... promote an environment for all Americans free from noise that jeopardizes their health and welfare."*

To comply with the intent of Congress, the Department of Defense (DOD) provided guidance to the military departments regarding the compatible use of public and private lands in the vicinity of military airfields. The DOD guidance (DODI 1977):

- Defined restrictions on the uses and heights of natural and man made objects in the vicinity of air installations.

- Defined restrictions on land use in the vicinity of air installations to assure compatibility with the characteristics, including noise of military operations.

- Provided policy as to the extent of the U.S. Government's interest in retaining or acquiring real property to protect the operational capability of active military airfields.

As a matter of general policy, the military departments were instructed to work toward achieving compatibility between air installations and the neighboring civilian communities through a compatible land use planning and control process conducted by the local civilian community.

Furthermore, as part of National Environmental Policy Act (NEPA) requirements, the DA is required to identify and consider any significant environmental effects, including noise, in decision processes for proposed programs (AR 200-2).

Based upon the DOD guidance, DA developed its Environmental Noise Management Program which considers noise from all sources of military activities, not just military airfields. The Army's program is designed to (U.S. Army 1997):

- Control environmental noise to protect the health and welfare of military personnel and their dependents, Army civilian employees, and members of the public on lands adjacent to Army and Army Reserve Forces installations.

- Reduce community annoyance from environmental noise, to the extent feasible, consistent with Army and Army Reserve Forces training and materiel testing activities.

1.1.2 THE THREAT TO MILITARY INSTALLATIONS.

It is an established fact that military installations tend to attract activity from the civilian sector. For example, sizeable new communities may grow up near an installation or existing communities may expand toward or around an installation's boundaries. This growth process can place severe limitations upon the ability of a military installation to support training and for assigned units to maintain an adequate level of readiness. Herein lies the threat: as noise impacts from military activities increase upon the civilian communities, both litigation and/or political pressures which could result in degradation of the installation's mission also increase. Not only does the number of complaints to installation commanders increase dramatically, but also so does the number of complaints to members of Congress. CPTS is currently experiencing this type of growth, and has the potential for more growth, adjacent to its boundary.

As the consequence of adverse public reaction to military operations, some military installations have closed and others have had limitations placed upon the conduct of operations. Since 1993, Army Environmental Policy Institute (AEPI) studies have documented the potential threat that noise poses to readiness training. An AEPI survey reported that 43% of the installations surveyed experienced noise problems that required either rescheduling or moving training ranges to resolve. A reflection of this survey's results can be found in the ranking of Environmental Noise in the Army Environmental Compliance Pillars. In 1999, Training and Testing Range Noise Control was ranked second, falling only behind Particulate Matter/Dust Control.

One of the best examples of the degradation of mission performance due to encroachment occurred at the Naval Air Station (NAS), Los Alamitos, CA. When originally established during World War II, this NAS was in a rural area. With the postwar expansion of southern California, Los Alamitos NAS was eventually surrounded with homes and the Navy could no longer routinely fly jet aircraft into this property. Today, the airfield serves the needs of the California Army National Guard (ARNG) and the U.S. Army Reserve, which, compared to the Navy, operates relatively few noisy flights.

In the Army's case, as an example, the size of the explosives that were used in Combat Engineer field training at Fort Belvoir, VA, was restricted severely. This made it necessary to move a portion of the training to a less urbanized area at Fort A.P. Hill, VA and Fort Leonard Wood, MO. In another case, limitations were placed upon the types of weapons which could be fired at Fort Dix, NJ, as well as the times the weapons could be fired (U.S. Army undated). In both of these cases, the limitations upon operational activities degraded the installations' capability to support essential training and resulted in the training missions of these installations being moved to other installations.

1.1.3 CONTENDING WITH THE THREAT.

The consequences of ignoring the conflicts between noise generated on military installations and the desires of the civilian community regarding use of the land surrounding these installations can be grave. If the military fails to respond to the concerns of the civilian community, the ill will produced by such an approach is quite likely to result in an unwillingness within the civilian community to work with the military to regulate land use. The community ill will can also result in political pressure or lawsuits which force unilateral concessions on the part of the military without any reciprocal concessions from the community.

In order to prevent the conflicts between military operations and civilian land use from reaching significant proportions, it is necessary for the military to work with the local communities to prevent incompatible land use from occurring and to take reasonable steps on the installation to protect the community from noise. Since the regulation of land use on adjoining land is the authority of local communities, the military cannot solve these problems unilaterally. Rather, the military must work with local communities to establish the controls that will prevent noise problems from growing even larger.

1.1.4 ARMY'S ENVIRONMENTAL NOISE MANAGEMENT PLAN.

The primary strategies for protecting the mission of military installations from the problems of noise incompatibility are long-range land use planning and being a responsible neighbor to its surrounding communities. The Environmental Noise Management Plan (ENMP) addresses these issues in a proactive manner.

The Installation Compatible Use Zone (ICUZ) program is an element of the ENMP. This element assesses the compatibility of the noise environment with the land uses. Other elements of the ENMP include education of both the military and civilian community, management of noise complaints, mitigation of the noise and vibration, the "Fly Neighborly" program, and noise abatement procedures. The ENMP is a tool which can be used to maximize the training opportunities afforded to soldiers at CPTS, while at the same time, trying to minimize any adverse noise impacts on the residents of Alameda and Contra Costa Counties.

1.1.5 STAGES OF THE ENVIRONMENTAL NOISE MANAGEMENT PLAN PROCESS

Stage 1: Quantify the installation's noise environment

The primary means of assessing environmental noise is through computer simulations. Computer generated noise contours can be shown on installation land use maps and be incorporated into the installation master plan and National Environmental Policy Act (Public Law 91-190 1970) documentation. Noise levels for individual events, such as a machine gun firing or periodic helicopter flyovers, can also be predicted using computer models. These single event predictions can be used to identify areas where training operations are not numerous enough to generate a noise contour, but could still produce sporadic noise events that could result in citizen annoyance or complaints. A more detailed discussion of noise modeling is provided at Appendix A.

Stage 2: Identify noise-impacted areas

During this stage, noise contours are overlaid on maps to determine areas that are currently, or will be potentially, impacted by installation noise-producing activities. Also, areas are identified that are occasionally subject to high noise levels from aircraft or small arms training.

Stage 3: Identify existing and potential incompatible land uses

Using the information from Stage 2, current and future land uses are examined to identify those land areas that are or will be incompatible.

Stage 4: Identify alternative actions to mitigate/minimize noise impacts

The purpose of this stage is to generate a wide range of alternative actions that could be taken by either the installation or the community to minimize noise impacts.

Stage 5: Evaluate alternative actions

During this stage the impact of the various alternatives identified must be evaluated.

Stage 6: Develop agreements with local communities and agencies

At this stage good-faith efforts will be made to negotiate agreements with local communities and agencies that affect, or will be affected by, the commitments made as a result of the ENMP.

Stage 7: Submit agreements for review by decision-makers.

All agreements must be ratified by the installation commander and the elected bodies or decision-makers within the affected civilian communities.

Stage 8: Publish final ENMP and implement agreements

The final ENMP must be made available to the public and contain all elements of the process, including agreements reached. It is at this stage that agreements should begin to be implemented. Expectations regarding timing and sequencing of implementing actions should be defined, so that disagreements do not arise.

Stage 9: Review Agreements

Procedures should be established to monitor the agreements and to determine the effectiveness of actions taken. Agreements, like physical facilities, need occasional maintenance. Established procedures for monitoring the agreement are essential to ensure that problems are identified and solved in a cooperative manner. This stage is essential to examine the impact of changes in Army training doctrine and modern weapons technology.

Stage 10: Update Noise Contours

AR 200-1 requires that the impact of noise that may be produced by ongoing and proposed Army actions/activities must continually be evaluated, and impacts and annoyance should be minimized to the greatest extent possible. Noise contours must be updated as part of the NEPA process for any proposed changes in mission. The updated contours will be used to assess any changes to CPTS's noise environment that would occur due to mission changes.

1.2 PURPOSE.

The purpose of the CPTS ENMP is to assess the current noise environment and provide a plan to manage this environment through land use planning and being a responsible neighbor. Also, the ENMP is meant to be an on-going process. As changes in operations are proposed, noise impacts upon CPTS and surrounding communities must be evaluated. By modeling proposed changes to the noise environment *before* operational changes occur, informed decision making can determine how to best utilize training areas at CPTS.

1.3 OBJECTIVES.

The objectives of the ENMP are:

- Education of the military and civilian community and improved communications between the two.
- Management of noise complaints to reduce the potential for conflict between CPTS and the surrounding communities.
- Assessment of the compatibility of the noise environment with existing and proposed land uses.
- Mitigation of the noise and vibration environments, where feasible, to increase land use compatibility.
- Use of noise abatement procedures.

1.4 CONTENT.

The body of the report consists of a discussion and analysis of CPTS and the surrounding communities and the relationships between them. The report presents the Environmental Noise Management Plan concept, policies and methodologies. The report analyzes the effect of noise produced by CPTS, describes the responsibilities of the Army and the community, and provides recommendations for both the Army and the community.

SECTION TWO

CPTS

2.1 GENERAL.

This section examines the relationships between Camp Parks Training Site (CPTS) and the surrounding civilian communities in terms of the histories, populations, activities and needs. It is important to understand the nature of the mutual interests and concerns that form the basis for both present and future civilian and military cooperative efforts.

West Coast Garrison (Provisional) (WCG (P)) is a sub-installation of Fort McCoy, Wisconsin. CPTS, along with Ft. Hunter Liggett in Jolon, California, is a training site that is part of the WCG (P). CPTS is located in Dublin, California along the boundary between Alameda and Contra Costa Counties. It is situated northeast of the interchange of Interstates 580 and 680 (Figure 2-1). The installation is bordered on the south by the City of Pleasanton, on the east and west by the City of Dublin, and by San Ramon on the northwest. There has been residential development occurring along the western and northern boundaries, and the potential exists for further residential development along the eastern boundary.

Since its establishment as a U.S. Navy base in 1943, the communities around the original installation have grown. Changes in the installation and in the surrounding community emphasize the need for a CPTS Environmental Noise Management Plan (ENMP) if the military training operations are to be protected as well as protecting the public health and welfare in the surrounding communities. An understanding of past events leading up to the current land use relationships will demonstrate the desirability of such a plan.

2.2 PHYSICAL DESCRIPTION.

CPTS covers approximately 2,500 acres. Of this area, 483 acres (the cantonment area) are used for administration, support and logistics. The remaining area, predominantly open space, is used for small-unit field training and small arms weapons training.

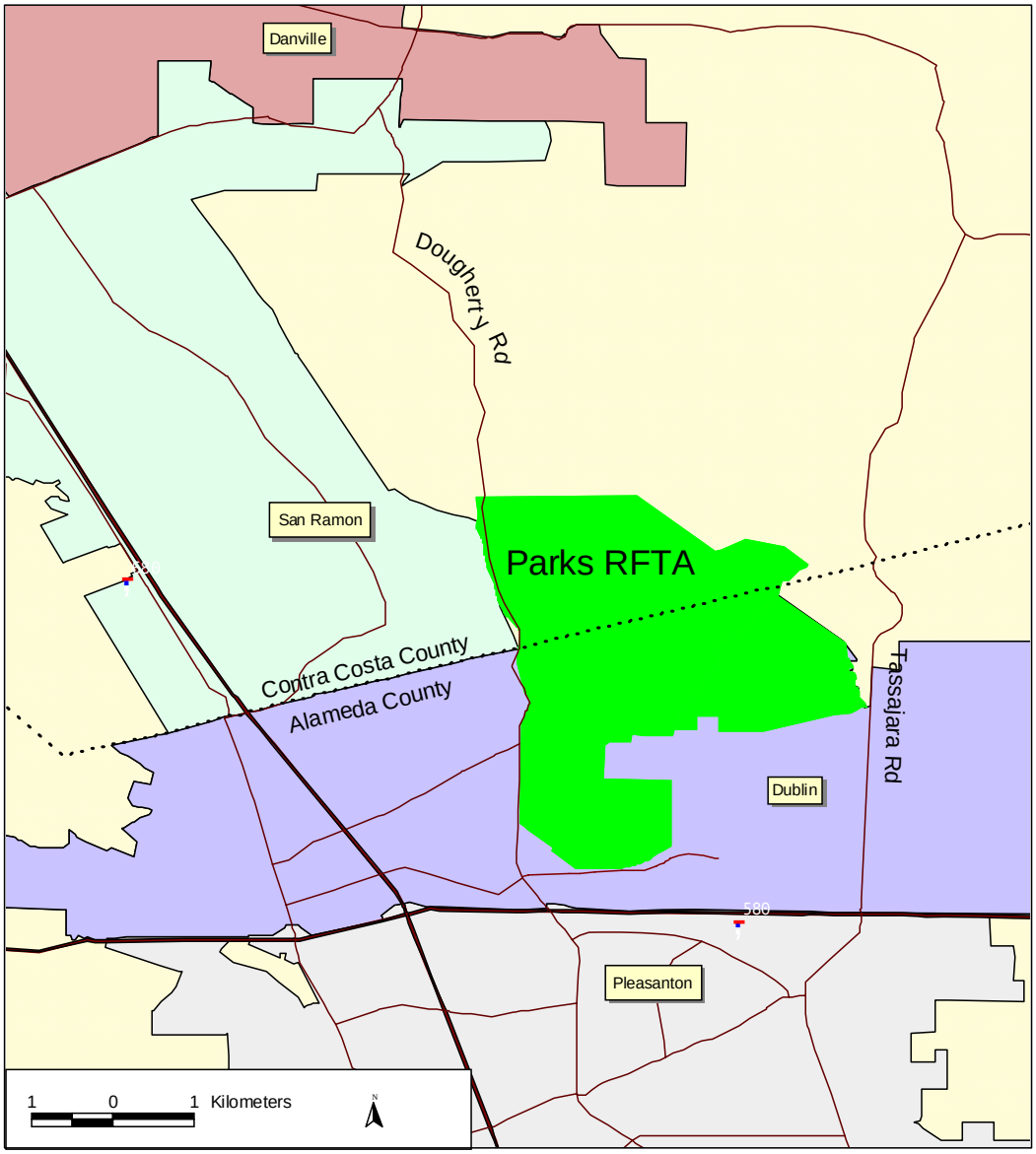


Figure 2-1. Location of CPTS and Vicinity.

2.3 CPTS HISTORY.

Camp Parks was born as a Navy Base during World War II when it was commissioned on January 19, 1943. After the War, on January 1, 1946, Camp Parks was disestablished. In 1951 the United States Navy made the installation available to the United States Air Force, who reactivated the camp for use as a basic training center and renamed it Parks Air Force Base. In July of 1959, Parks Air Force Base was transferred to the United States Army and became known as Camp Parks It was operated in a standby status under the jurisdiction of the Sixth U.S. Army. In 1964 the Sixth Army declared the entire installation excess but was directed by the Department of the Army to retain 1600 acres for National Guard and Navy use. Between 1964 and 1973 much of the excess property was transferred to Alameda County or used as Job Corps.

By 1973 it was determined that Camp Parks was needed as a mobilization and training center for Reserve Components in the event of war or other natural disaster. Parks Reserve Forces Training Area (RFTA) was officially designated as a semi-active installation by Department of the Army, General Order 16, in December 1980, and was designated as a sub-installation of the Presidio of San Francisco (PSF).

On October 1, 1992, CPTS became a sub-installation of HQ, I CORPS and Fort Lewis, WA. On October 1, 1993, command and control of CPTS passed from U.S. Army Forces Command to the U.S. Army Reserve Command. On October 1, 1994, Parks RFTA became a direct support installation of Fort McCoy, WI. On October 1, 2003 Parks RFTA was renamed Camp Parks Training Site and combined with Ft. Hunter Liggett of Jolon, CA and properties at Moffett Field in Sunnyvale, CA and B.T. Collins in Sacramento, CA to form the West Coast Garrison (Provisional).

2.4 CPTS MISSION.

CPTS provides training space and facilities for Army Reserve and National Guard units located throughout California, as well as for active and reserve components of the Army, Air Force, Navy and Marine Corps. CPTS's mission is to provide an environment that supports individual, collective, and institutional training, and provide training facilities and selected installation services for the total force. WCG(P) is under command and control of the U.S. Army Reserve Command as a direct-reporting installation of Fort McCoy.

Some of the facilities include small arms ranges, a helipad, space for troop maneuvering, maintenance facilities, warehouses, and a confidence course.

Major organizations supported at CPTS include:

- 63rd Reserve Readiness Command
- 1st Bde, 91st Division
- 4th and 5th Bde, 104th Training Division
- California Army National Guard (CAARNG)
- CPTS Training Ranges

- Regional Training Site – Medical

CPTS provides training for approximately 250 units and support for approximately 10,000 reservists. Reserve units permanently stationed at CPTS conduct weekend training throughout the year, and reserve units use CPTS for their two-week annual training each year.

2.5 CPTS TRAINING FACILITIES.

In addition to the maneuver area available, CPTS has the following training facilities:

- Pistol Range
- Rifle Qualification Range
- NBC Confidence Chamber
- Litter Obstacle Course
- Common Task Training Testing Area
- Billets, a number of which are undergoing renovation
- Leadership Reaction Course
- Expert Field Medical Badge Testing Area

TRAINING AREAS.

CPTS training area is approximately 2,000 acres and is characterized by activities such as small arms training, maneuver areas, and outdoor encampment areas that are used for training.

- **Small Arms Ranges (Figure 2-2)**

CPTS has five small arms ranges:

- Range 2. M-60 Machine gun (10 meter)
- Range 3. .45 cal.; .38 cal.; and 9mm Pistol Range
- Range 4. M-16 Zero
- Range 5. M-16 Field Fire/Qualification
- Range 6. M203/Shotgun

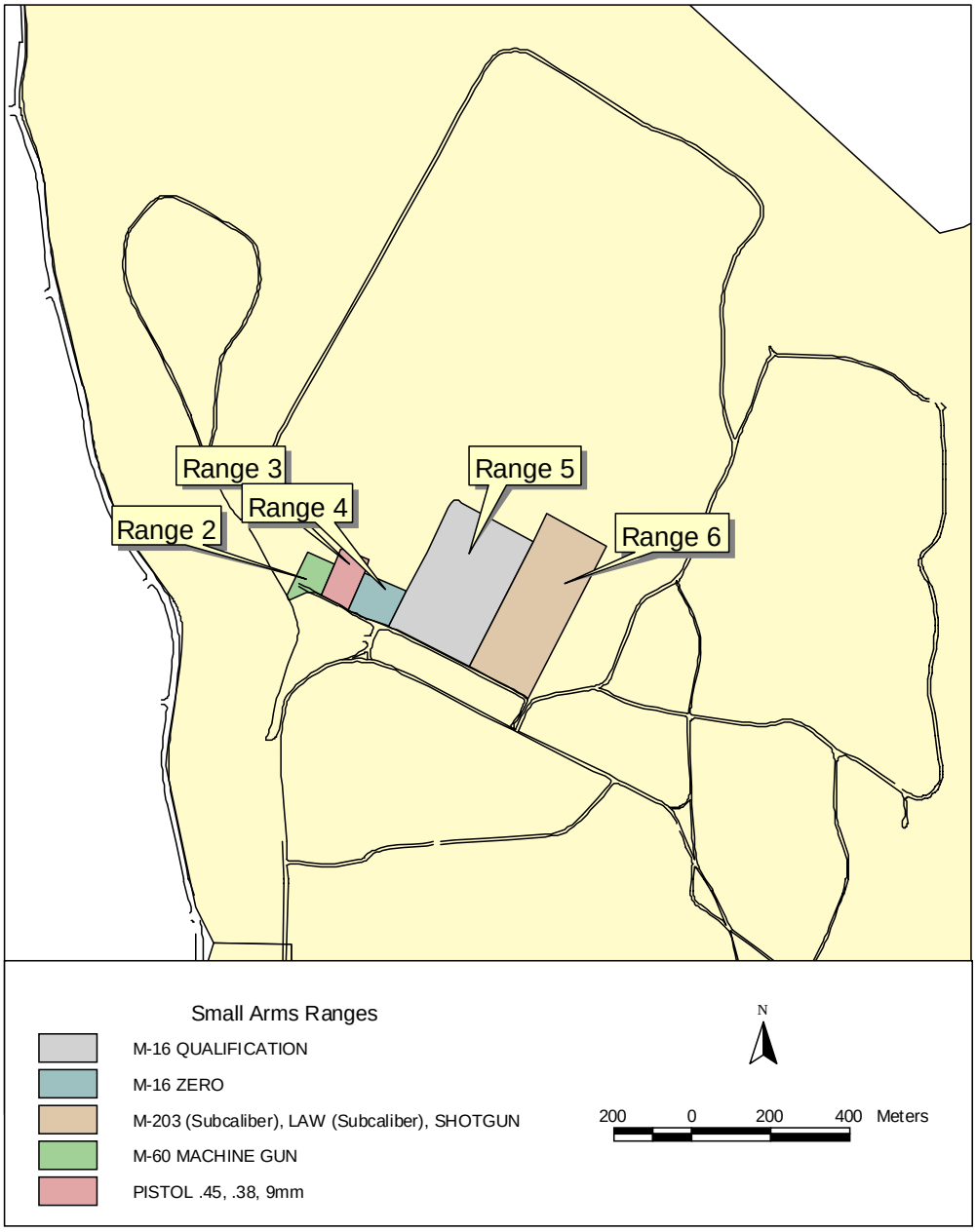


Figure 2-2. CPTS Small Arms Ranges

- **Field-training Area**

The field-training area includes bivouac sites, three field kitchen sites, a field fortification mine site (practice mines only), maneuver areas, helicopter landing sites and drop zones, an expert field medic badge obstacle course, and expert infantry badge site, a lineman's course site, a confidence/obstacle course, a counter-terrorist site, a common skills testing site, a tracked-vehicle course, and a mask confidence facility.

2.6 CPTS TRAINING ACTIVITIES

During Fiscal Year 1998, 41,438 personnel accounted for more than 127,000 mandays of training. This includes active- and reserve-component personnel of the Army, Navy, Air Force and Marine Corps, as well as other state, federal, county, and city agencies. Some of the training activities at CPTS are listed below.

- **Small Arms Activities**

Small arms training is conducted year-round within Ranges located near the western boundary, east of Dougherty Road. Small arms fired include the M16 and 308 rifle, M60 machine gun, Pistols 9mm/.45 cal/.40 cal, and 12-gauge shot gun.

- **Non-live Fire**

Blanks and artillery simulators are fired throughout the training area.

- **Grenade Activities**

Grenade simulators are used throughout the training areas and have a potential for noise impacts. CPTS also has a practice grenade range. These grenades make no noise so there is no noise impact from this range.

- **Field Training and Command Post Exercises**

Regional Training Site-MED at CPTS has developed a number of Field Training Exercises (FTX) and Command Post Exercises (CPX) scenarios for medical units. The exercises are multi-echelon and provide opportunities for medical and non-medical units to work together as they would if deployed. One of these exercises, Golden Medic, is an annual exercise typically held in the summer. The training exercise is conducted round the clock. The U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM) conducted noise monitoring to evaluate the noise environment during this type of exercise. Monitoring results are presented in Section 4.5.

- **Aircraft Training**

CPTS has one permanent helipad, but is planning on constructing another permanent helipad in Training Area A. CPTS is utilized by all branches of the military, and because

of this, many types of rotorcraft are utilized for training at CPTS. During training exercises such as Golden Medic, helicopters utilize all of the training land, not just the heliport and drop zone areas for flying and landings.

2.7 TENANT ORGANIZATIONS AND ACTIVITIES.

In addition to the preceding organizations that train and operate at CPTS, there are also other organizations and activities that are stationed on the post as tenants which include:

- Western Army Reserve Intelligence Support Center (WARISC)
- Headquarters, 1st Brigade (BGST)
- 3rd Brigade (FE)
- Parks Air Force Communication Annex
- Federal Correctional Institution

2.8 SUMMARY

Modern weapons systems have changed the tempo, lethality, and depth of the battlefield. To meet the challenges of compressed time and expanded space in future conflicts, the Army must develop disciplined, trained soldiers, leaders, and organizations that can deploy rapidly, apply maximum combat power against the enemy, and through swift synchronized action, destroy the enemy's critical elements and will to resist. Success on the battlefield, however, is not achieved simply because of a desire to win. Rather, success is achieved through hard realistic training that produces soldiers skilled in the art of war with confidence in themselves, their weapons and equipment, and each other.

At CPTS, training occurs year round. During the peak summer months, the number of personnel can range into the thousands. This training generates noise that may impact upon the citizens who live in the surrounding communities. These citizens rightfully wish to enjoy their homes and work places with a minimum of outside disturbances. There are many who are new to the area around CPTS. Most of these people are not dependent upon CPTS for economic reasons, and therefore will have less tolerance for the noise generated by training operations at CPTS. The goal in the establishment of the Environmental Noise Management Plan is to achieve a harmonious relationship between CPTS and those who live and work in the surrounding communities.

SECTION THREE
THE CIVILIAN COMMUNITY.

3.1 INTRODUCTION

CPTS is located near the San Francisco Bay Area on the border between Alameda and Contra Costa Counties. The populations in the vicinity that should be most concerned with a CPTS Environmental Noise Management Plan include the citizens of San Ramon, Dublin, and Pleasanton as well as the citizens living in unincorporated areas of Alameda and Contra Costa County.

3.2 POPULATION.

As indicated at Table 3-1, Alameda and Contra Costa counties have shown large population increases between 1980 and 2000. The population increase for the United States between 1980 and 2000 was 24%, but the rate of population growth for California and the counties surrounding CPTS was much higher.

TABLE 3-1. POPULATION BY COUNTY, STATE AND US, 1980-2000.

	1980	1990	1997	2000	Increase
Contra Costa	656,331	803,732	892,300	948,816	44%
Alameda	1,105,379	1,276,702	1,336,878	1,443,741	30%
Califonia	23,667,764	29,760,021	32,197,302	33,871,648	43%
United States	226,542,199	248,709,873	258,833,000	281,421,906	24%

FUTURE POPULATION GROWTH

The Association of Bay Area Government (ABAG) published population projection findings in 1998. They predict that between 1995 and 2020, the San Francisco Bay Area population will increase by 1.4 million. Of this increase, Contra Costa, Santa Clara and Alameda counties will lead the region in numerical population, household and job growth. The three counties will account for over 61 percent of the region's population growth.

The ABAG also forecasts that the largest percentage increase in jobs will occur in medium to small cities (population less than 75,000). The Tri-Valley sub regional study areas of Dublin, Livermore, and Pleasanton will add 85,670 jobs between 1995 and 2020 (a 107 percent increase over 1995).

3.3 ECONOMICS.

EMPLOYMENT.

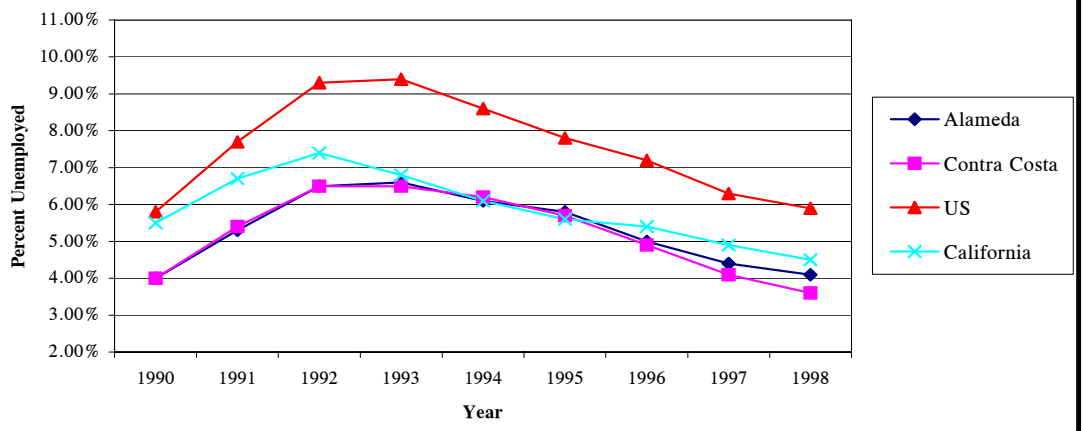
Employment is a primary factor in analyzing the economic health of a community since comparison of trends reveals strengths and weaknesses and offers direction for actions designed to promote the strengths and to overcome the weaknesses. Table 3-2 lists the total labor force in the two counties between 1990 and 2004.

TABLE 3-2. CIVILIAN LABOR FORCE, 1990-2004

	1990	1998	2004	Change
Alameda	683,200	710,100	754,800	10%
Contra Costa	439,100	480,700	524,500	19%

Unemployment rates have been decreasing since 1993. Figure 3-1 shows that the unemployment rates for the area around CPTS have consistently been below those of California and the U.S.

Figure 3-1 Unemployment Rates



The income within a community, whether it is measured on a per capita or per family basis, provides another indicator of the community's economic health. Table 3-3 shows the growth in per capita income for Alameda and Contra Costa Counties in relation to the

per capita income growth for California and the United States. The increase in the surrounding counties has outpaced both the state and nation.

TABLE 3-3. PER CAPITA INCOME. (Source: U.S. Dept. of Commerce)

Place	1987	1992	1996	Change
Alameda	18,884	27,864	27,864	48%
Contra Costa	22,587	28,026	32,881	46%
California	18,223	22,246	25,368	39%
United States	17,090	16,985	18,552	9%

ECONOMIC IMPACT.

The presence of CPTS generates economic activities that benefit the surrounding communities. Table 3-4 lists existing population data for CPTS. The population figures describe staff that work at or are stationed at CPTS. Peak population levels can be significantly higher than daily population levels due to Reservist training activities.

TABLE 3-4. POPULATION DATA FOR CPTS

Daily Population*		
Military		
	Officers	83
	Warrant Officers	4
	Enlisted	136
	Total	223
Civilian		
	Government Employees	119
	Contractors	153
	Active Duty Dependants	37
	Total	309
Total Daily Population		532
*does not include Federal Correctional Institute		

- **INDUCED DIRECT AND INDIRECT EMPLOYMENT.** A second measure of the relative impact of CPTS upon the economies of the surrounding communities is the number of jobs that are induced in the private sectors as a direct result of military troop levels and off-post expenditures.

The military personnel and civilian employees at CPTS have an impact on private employment in the surrounding communities. They spend a high proportion of their take-home pay, i.e. disposable personal income, in the local communities. Consequently, workers at CPTS induce a higher number of jobs in the private sector. It is estimated that the employment multiplier for civilian employees ranges between 2.5 and 3.0. This means that 250 and 300 jobs are created for each 100 civilian employees at CPTS.

3.4 LAND USE BORDERING CPTS

The land use surrounding the facility falls under the jurisdictions of Alameda and Contra Costa Counties, as well as the cities of Dublin, San Ramon, and Pleasanton. Existing and future land uses are listed below (Figure 2-1).

North- North of CPTS lays unincorporated areas of Contra Costa County. Construction is currently underway for the development within Dougherty Valley of up to 11,000 new homes. The Dougherty Valley development directly borders the northern boundary of CPTS. Construction is anticipated to continue for the next 20 years. This development could be of concern for compatibility with CPTS training noise due to the proximity of the small arms ranges and helicopter activity at CPTS.

South- Dublin Boulevard borders CPTS to the south. This area is within the City of Dublin. Land use includes both commercial and industrial types. These existing land uses are compatible with the noise environment from CPTS training activities.

East- East of the installation is predominantly open space with a small amount of rural residential development along Tassajara Road. Some of the land is currently under construction for single-family homes, and some other developments are in the planning stages. This area is covered under Dublin's Eastern Extended Planning Area. The General Plan Amendment for Dublin states:

"The eastern planning area represents the largest remaining areas available for future development in Dublin. The 6,900-acre area east of Parks RFTA will permit the eventual expansion of urban development in order to accommodate the healthy growth of the community. Separated as it is from the main portion of Dublin by Parks RFTA (CPTS), the Eastern Extended Planning Area represents a unique opportunity and challenge to plan a distinctive, well-balanced community that complements the existing city. The extension of Dublin Boulevard will be the physical link that connects the eastern planning area with the rest of Dublin, but the variety of development projected for eastern Dublin is seen as an opportunity to enhance the residential, employment, retail, recreation, and cultural character of the entire city." (City of Dublin General Plan, 1998)

It is projected that the extended planning area will be built out in the next 30-40 years adding approximately 32,500 people. Of the 6,900 acres in the extended planning area, 2,510 are expected to be used for residential land use. If the residential areas are adjacent to CPTS, there is potential for complaints from the residents during training exercises.

West- Dougherty Road borders CPTS to the west with Dublin directly west and southwest, and San Ramon to the northwest. There is not much future development potential in western Dublin because of lack of open space. Dublin contains residential and commercial land uses. The land adjacent to CPTS in San Ramon contains low to medium density residential, and there is more development occurring in the vicinity. Activity from the small arms ranges can be heard in areas of San Ramon and might cause the residents to be annoyed.

3.5 SUMMARY

CPTS was established as a military installation in 1943. Since its establishment, annual expenditures directly by the Federal Government, indirectly by the military personnel training at CPTS, and civilians employed on CPTS have contributed to the local economy and provided employment in the surrounding communities. Similarly, CPTS benefits from the surrounding communities particularly in the areas of employee housing, schools, entertainment and recreation, retail sales and services. Thus, each community, military and civilian, is mutually dependent upon the other. From this mutual dependence there must be cooperation and coordination on both sides if future conflicts of interest are to be minimized or eliminated. The CPTS Environmental Noise Management Plan has been developed for the specific purpose of aiding military and civilian officials and planners in the creation of land use plans and policies that promote compatibility between the needs of the civilian sector and CPTS's mission requirements. The concept, program and methodology behind the Army's program that provides for reports of this nature are discussed in the sections that follow.

SECTION FOUR

THE ENVIRONMENTAL NOISE MANAGEMENT PLAN

4.1 INTRODUCTION.

In the past, the emphasis of the Army's Environmental Noise Program has been the Installation Compatible Use Zone (ICUZ) program. The goal of the ICUZ program is to maintain land use compatibility with the installation's noise environment. At many installations, the land uses around the facility already are not compatible with the noise environment.

To reduce the potential for conflict between the installation and surrounding communities, the Army has developed the Environmental Noise Management Plan. In addition to the ICUZ, the plan includes education of both installation personnel and surrounding residents, management of noise complaints, and noise abatement procedures. At installations with noise monitoring capabilities, monitoring system and data management are also included in the plan.

4.2 EDUCATION/AWARENESS.

An important element of the Environmental Noise Management Plan is education. This includes the education of both the noisemakers and the noise receivers. The noisemakers must be aware of all CPTS policies and regulations dealing with environmental noise. These include the locations of no-fly areas, noise-sensitive areas, and safety fans. The education will include the potential for adverse consequences to CPTS's ability to perform and maintain its mission due to violations of the policies and regulations.

The noise receivers will be made aware of CPTS's mission and its by-products, including noise, through newspaper articles, community displays, public presentations, and other information released to the community. These are designed to address the concerns of the community.

Local government officials, including the zoning and planning boards, must be informed so that they will be able to accurately assess both sides of issues before them.

4.3 NOISE COMPLAINT MANAGEMENT.

The purpose of the Noise Complaint Management Program is to educate first time complainers so that they are aware that CPTS cares about their concerns. In most cases, the courteous and honest treatment of the complainant will reduce the potential for future calls; letters to local, state and federal government officials; and formation of community action groups.

There are two key words to a successful complaint management program. They are ***integrity*** and ***sensitivity***.

The program will have integrity so that when installation officials tell the community something, the community will believe and trust them. Once you tell the community, they consider the information as your policy. For example, if you tell them that you will not fire small arms before 9:00 a.m., then you must not fire small arms before 9:00 a.m. If it is necessary to change this procedure, then you should explain to the community why you are changing the procedure before the change takes place.

The program will be sensitive to the community's concerns. The installation will listen to them and find out what is annoying them. There may be a simple solution to the problem once the cause of the concern is discovered. The installation will also be responsive to the community by telling them, for example, why they must perform the operation. The public's ***perception*** of the installation is ***their reality***.

A successful noise complaint management procedure will assist the installation in avoiding community action against its activities. Like the other elements of the Environmental Noise Management Plan, this procedure will be proactive. Its purposes are to reduce the potential of noise complaints by keeping the public informed about what is going to happen and to satisfy the complainants so that noise complaints do not escalate into political actions.

The potential of noise complaints will be reduced by providing the news media with press releases when unusual operations are scheduled or when normal operations are scheduled to resume after a period of inactivity. The press release will include a telephone number that the community can use to receive additional information or complain about the noise. The news media will be monitored to make sure the information is being released to the community in a timely manner.

The installation will respond to all complaints in a timely and polite fashion to reduce the potential of the complainants organizing into citizen action groups. These groups can address the complaint to higher levels of command and government. When the situation becomes political, the installation's mission can be impaired by unnecessary operational restrictions and resources spent reacting to political pressures, both local and Congressional.

A noise complaint procedure is required by Army Regulation (AR) 200-1 (U.S. Army 1997) to log and investigate all complaints. In compliance with AR 200-1, CPTS will develop a standard operating procedure to respond to noise complaints. Presently, noise complaints are the responsibility of the Public Affairs Officer (PAO). The PAO investigates the cause and responds to the complainant. The PAO has kept a log of all noise complaints received at CPTS. To fully comply with AR 200-1, and to ensure the proper handling of noise complaints, the steps the PAO takes in response to complaints should be formalized in a standard operating procedure (SOP). The SOP should contain

CPTS's noise complaint form that addresses items such as the type or source of the noise, location, time, date, and what the complainant was doing at the time of the incident. CPTS's noise complaint form is shown in Figure 4-1.

Figure 4-1. CPTS Noise Complaint Form

BACKROUND

Caller Last Name _____ Caller First Name _____

Street Address _____ City _____ State _____

Zip Code _____ Phone Number of Caller _____

What is your general direction from Camp? _____

What date did this occur? ___/___/___ What time did this occur (Military) __:__

Was it an (A)Aircraft, (B)Small Arms, or (O)Other? (Record as A, B, or O): ____

AIRCRAFT

Type of Aircraft? _____

Can you briefly describe the aircraft? _____

What type of disturbing activity was the aircraft displaying? _____

How many times did the aircraft disturb you? ____

Were you indoors or outdoors when this occurred? _____

A. SMALL ARMS

How many events did you notice? _____

Can you briefly describe the events? _____

Were you indoors or outdoors when this occurred? _____

B. Other

What is the nature of the disturbance? _____

Can you briefly describe this disturbance? _____

C. CLOSING

Can you briefly describe the weather when this occurred? _____

Complaint Received By: _____

Today's Date: ___/___/___

Time Report Taken: ___:___

Additional Comments: _____

4.4 INSTALLATION COMPATIBLE USE ZONE PROGRAM.

The Army ICUZ program provides a method for evaluating the effect of noise and the hazards associated with training operations that stem from activities at military installations. The purpose of the program is to identify land areas that are exposed to generally unacceptable noise levels and aircraft accident potential and to then recommend uses for the land lying within these areas that are compatible with the needs of the civilian community and the Army.

Army installation commanders establish and maintain active programs to achieve the maximum feasible compatibility between the noise environment and noise-sensitive land uses, both off and on the installation. The program requires that all appropriate governmental bodies and citizens be fully informed whenever ICUZ or other planning matters affecting the installation are under consideration. This includes a positive and continuous effort designed to:

- Provide information, criteria and guidelines to Federal, state, regional and local planning bodies, civic associations and similar groups.
- Inform such groups of the requirements of the operational activity, noise exposure, aircraft accident potential and ICUZ plans.
- Describe the noise reduction measures which are being or could be used.
- Ensure that all reasonable, economical and practical measures are taken to reduce or control the impact of noise-producing or hazardous activities so as to minimize the exposure of populated areas. This must be done without jeopardizing the safety or effectiveness of military operations.

The ICUZ program considers the land areas, with noise-sensitive land uses, that are exposed to generally unacceptable noise levels and aircraft accident potential. These areas include, Noise Zones III (NZ III), II (NZ II) and I (NZ I), which are projected using computer models (For detailed modeling information see Appendix A). Noise- sensitive land uses include, but are not limited to, residences, schools, medical facilities, and churches.

4.4.1. NOISE ZONE DESCRIPTIONS

- **NOISE ZONE III.** NZ III consists of the area around the source of the noise in which the day-night sound level (DNL) is greater than 75 decibels, A-Weighted (dBA) for aircraft, vehicle, and small arms range noise. The noise level within NZ III is considered so severe that noise-sensitive land uses should not be considered therein.

- **NOISE ZONE II.** NZ II consists of an area where the day-night sound level is between 65 and 75 dBA. Exposure to noise within this area is considered significant and use of land within NZ II should normally be limited to activities such as industrial, manufacturing, transportation and resource production. However, if the community determines that land in NZ II areas must be used for residential purposes, then noise level reduction (NLR) features should be incorporated into the design and construction of the buildings. A discussion of NLR features is included in Appendix C.

- **NOISE ZONE I.** NZ I includes all areas around a noise source in which the day-night sound level is less than 65 dBA. This area is usually suitable for all types of land use activities.

It should be noted that the preceding noise zones are based on average noise levels. This must be kept in mind when evaluating the impacts of noise on CPTS's neighbors. A parcel may be located in Zone I due to the relatively low number of noise events, but residents may still be annoyed by an occasional incident which in turn could lead to a complaint.

4.4.2 AVIATION SAFETY.

In addition to noise concerns planning is also concerned with another land use determinants; hazards to air navigation, for example, erection of structures that protrude into the airspace or release of substances into the air which can impair visibility.

OBSTRUCTIONS TO AIR NAVIGATION. Construction of towers within the CPTS training area directly affects aircraft procedures and indirectly impacts upon the local community. Towers present an air navigation hazard that must be avoided by aircraft for safety reasons. Improper location of tower sites may result in change of flight procedures such as rerouting air corridors and routes, alteration of departure/landing directions and traffic patterns, or closure of remote landing sites. These alterations could result in an increased noise impact upon the local community.

OTHER HAZARDS.

In addition to physical obstructions that can be erected within the airspace, unless land use is controlled, there are other uses which can also create conditions hazardous to aircraft operations. Such uses include:

- Activities that release substances into the air, such as steam, dust or smoke, which can impair the visibility of aircrew members. Examples of such activities are industrial plants, refineries, quarries and sand or gravel pits.

- Objects that produce light emissions, either direct or indirect (reflective), which could interfere with the vision of aircrew members. Examples are high

intensity strobe lights, extensive areas of glass such as those found in many modern office buildings, and highly reflective artificial surfaces.

- Activities which produce emissions capable of interfering with aircraft communications or navigational systems.

- Activities which tend to attract birds or waterfowl, particularly in large numbers. Such activities include the operation of sanitary landfills, the maintenance of feeding stations, and growing certain types of vegetation; e.g., grain and corn fields.

4.5 CPTS CURRENT NOISE ENVIRONMENT.

4.5.1 INTRODUCTION

The following discussion of noise conditions that currently exist at CPTS deals with compatible and incompatible land uses. The Federal guidelines pertaining to compatible and incompatible land use around military installations have been addressed briefly in other parts of this study. By determining the locations of Noise Zones and applying the Federal guidelines to these zones, present and future land uses can be evaluated as to acceptability for various types of activities. The delineation of CPTS's noise zones can also be used as a benchmark to compare noise levels from proposed changes in future operations. Also, peak noise levels from individual noise events will be discussed. The examination of existing conditions will focus on (a) Aircraft; (b) Small Arms Ranges and (c) Training Exercises.

4.5.2 AIRCRAFT NOISE

CPTS has one permanent helipad and plans to construct another permanent helipad at the Tactical Landing Zone in Training Area A. Helicopter activity is not limited to these areas at CPTS. During training, helicopters may fly over the entire training area and land in areas other than the helipads. Helicopter training currently occurs approximately 50 days per year. However, during times of conflict the use of helicopters has the potential to dramatically increase.

- **NOISE LEVELS.** The low number of operations at CPTS is not enough to generate a Zone II noise contour, but this doesn't mean that the noise from the helicopters can not be heard. Although no noise contours are generated, the Scandinavian Studies (Rylander 1974 and Rylander 1988) have found that a good predictor of annoyance at airfields with 50 to 200 operations per day is the maximum level of the three noisiest events.

  While there is no evidence that the Scandinavian Studies (Rylander 1974 and Rylander 1988) would be applicable to the operations at CPTS, because it has fewer than 50 operations per day, it is a tool in providing some indication of the percent of people who might be annoyed.

The maximum noise levels (U.S. Air Force 1977, U.S. Air Force 1978 and U.S. Air Force 1990) for military aircraft are listed in Table 4-1. These maximum levels can be compared with the levels listed in Table 4-2 to determine the percent of the population highly annoyed.

TABLE 4-1. MAXIMUM NOISE LEVELS OF AIRCRAFT.

Slant Distance	Maximum Level, dBA							
(Feet)	AH-1	AH-64	CH-47D	OH-58D	UH-1	UH-60	CH-46	CH-53E
200	93.3	91.8	97.5	89.0	91.0	91.0	91.5	96.5
500	85.0	83.4	89.3	80.5	82.8	82.5	83.3	88.3
1,000	78.5	76.8	83.0	73.8	76.4	75.9	77.0	82.0
2,000	71.6	69.8	76.5	66.7	69.8	68.7	70.5	75.5
5,000	61.2	59.1	67.1	56.1	60.2	57.8	61.1	66.1
10,000	52.1	49.6	59.1	47.1	52.1	48.0	53.1	58.1

TABLE 4-2. PERCENTAGE OF POPULATION HIGHLY ANNOYED FROM AIRCRAFT NOISE

Maximum Level, dBA	Percentage Highly Annoyed
70	5
75	13
80	20
85	28
90	35

Based on these maximum noise levels in Table 4-1 and the corresponding annoyance levels in Table 4-2, it is reasonable to assume that the noise from helicopter activity could impact neighbors within 1,000 feet of CPTS's boundary and those who live under the flight paths used to approach and depart the installation. Figure 4-2 shows the areas surrounding CPTS that lie within the 1,000-foot buffer of the installation, and the locations of the installation approach and departure routes. Once the aircraft leave the installation, they must adhere to the minimum safe altitudes set forth in Federal Aviation Regulation (FAR) Part 91.

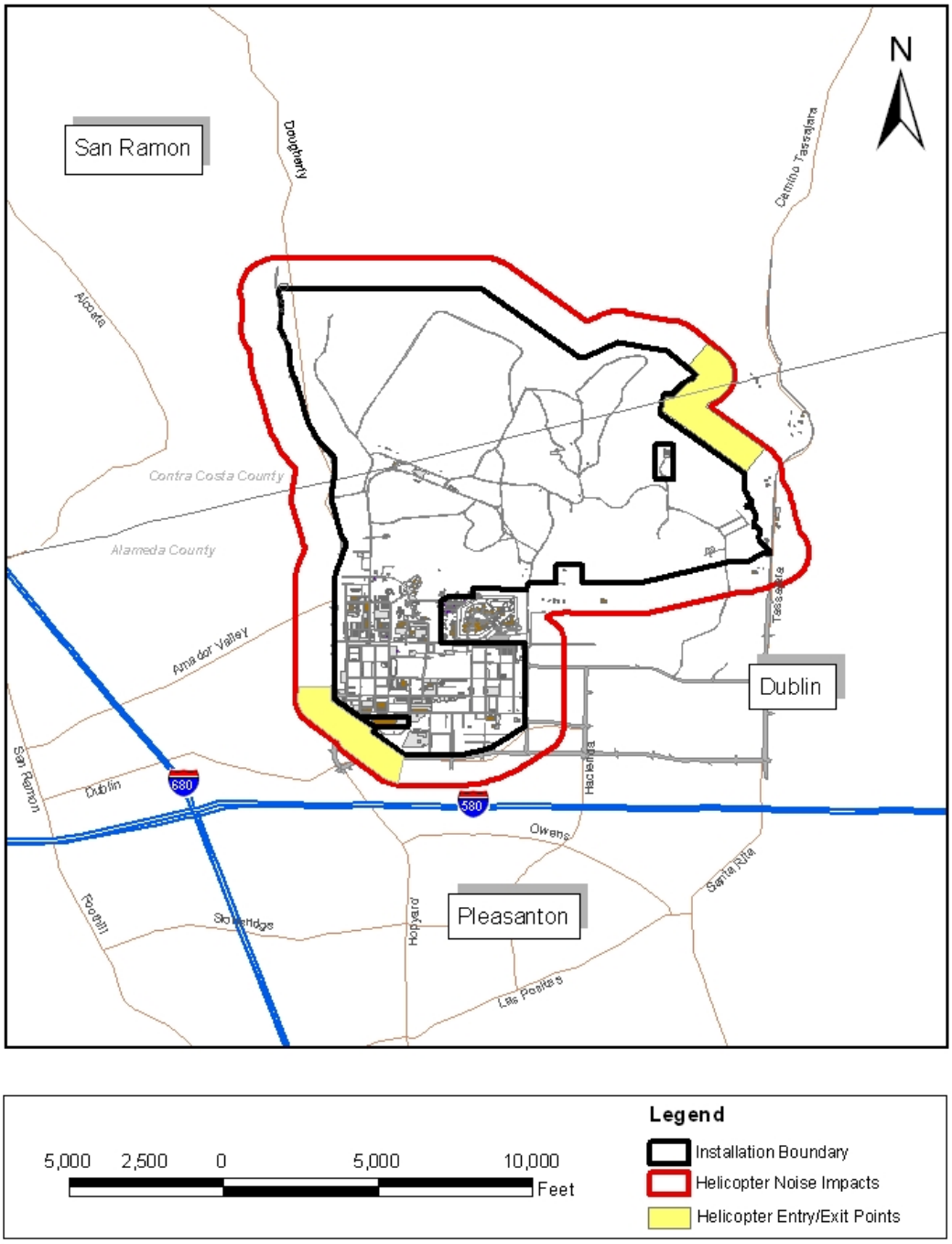


Figure 4-2. Locations Surrounding CPTS Subject to Helicopter Noise.

4.5.3 SMALL ARMS RANGES NOISE

Day-Night Average Sound Level from Small Arms Ranges (Figure 4-3).

Different metrics can be used to quantify noise from small arms ranges. One metric is the Day-Night Average Sound Level (DNL). Since 1974, the EPA has endorsed the use of DNL for quantifying environmental noise. The DNL is an average noise level in which the acoustic energy of all events during a 24-hour day is summed and then averaged over the day. In the calculation, the added annoyance of nighttime noise is taken into account by adding a 10 dB penalty to noise levels between 10 pm and 7 am. The U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM) used the operational data for the small arms ranges at CPTS and generated noise contours using the Small Arms Range Noise Assessment Model (SARNAM). The calculated DNLs are summarized below, and shown graphically in Figure 4-3.

- **NOISE.** The DNL noise zones from the small arms ranges remain entirely within the Installation range and maneuver areas.

- **CURRENT LAND USE.** The land within NZs III and II is used for range and training operations.

- **RECOMMENDED LAND USE UNDER FEDERAL GUIDELINES.** Land use within NZs II and III meet the Federal Guidelines.

- **COMPATIBILITIES AND INCOMPATIBILITIES IN LAND USE.** There are no incompatible land uses within the small arms range DNL noise contours.

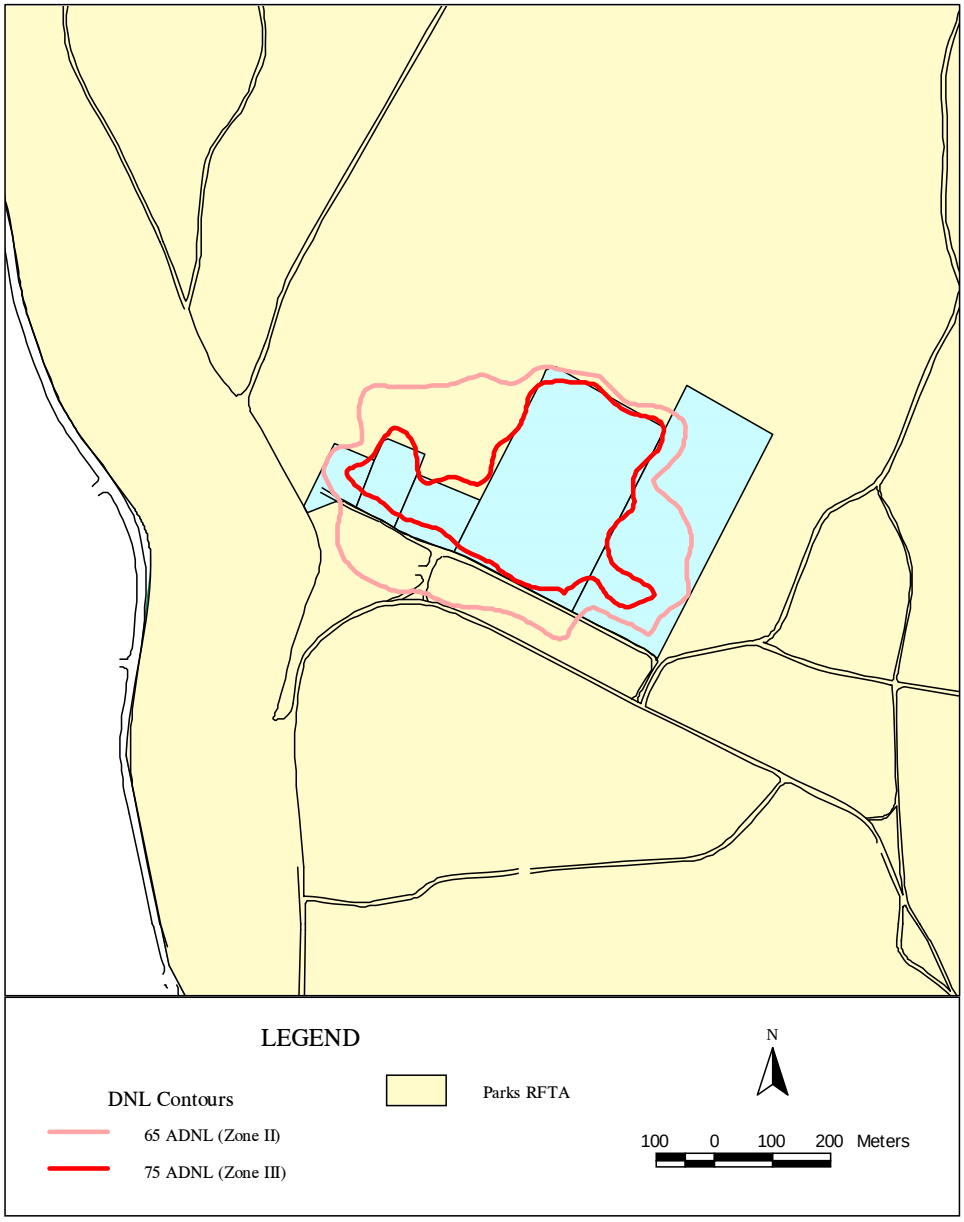


Figure 4-3. DNL Noise Contours for Small Arms Ranges.

Peak Noise Levels for Small Arms Ranges (Figure 4-4)

Many times the DNL comes under heavy bombardment when presented at public meetings. People often don't like the idea of average noise levels. The DNL was developed based on studies done of areas where the noise generated was relatively constant, such as a major airport or active military installation. Since the number of events drives the DNL, the DNL noise contours stay on the installation at CPTS. But, a study conducted on small arms ranges (Sorensen and Magnusson 1979) where the number of rounds fired annually varied form 11,000 to 71,000, found that the extent of annoyance does not increase with increasing the number of shots fired. In fact, they found that there was a small tendency in the opposite direction. This study is applicable to CPTS, where range usage varies from day to day and month to month. A good predictor of public reaction might be peak noise levels rather than average noise levels. Up until 1997, Peak Noise Levels were the standard metric used to evaluate noise levels for small arms ranges. Peak Noise Contours delineated areas where the noise levels reach above 104 dBP and those that reach between 87 and 104 dBP. The levels of 87 dBP and 104 dBP were chosen based on studies that corresponded high annoyance levels to Peak Noise Levels. Above 104 dBP, over 39 percent of the population is expected to be highly annoyed. Between 87 dBP and 104 dBP, between 15 and 39 percent of the population may be highly annoyed. These levels of annoyance correspond to those that occur for DNL Noise Zones III and II. The SARNAM was used to generate contours showing the Peak Noise Contours for CPTS (Figure 4-4).

- **NOISE.** Peak level contours above 104 dBP from the small arms ranges remain entirely within the installation range and maneuver areas. Areas where the Peak levels are between 87 dBP and 104 dBP extend beyond the boundary up to approximately .5 mile along the western and northern boundaries. The 87-104 peak zone encompasses parts of San Ramon, Dublin, and unincorporated areas of Contra Costa County.

- **CURRENT LAND USE.** The land within the contour above 104 dBP is used for range and training operations. Some land within the 87-104 dBP contour presently contains residential land use and there are plans for more residential development within the contour.

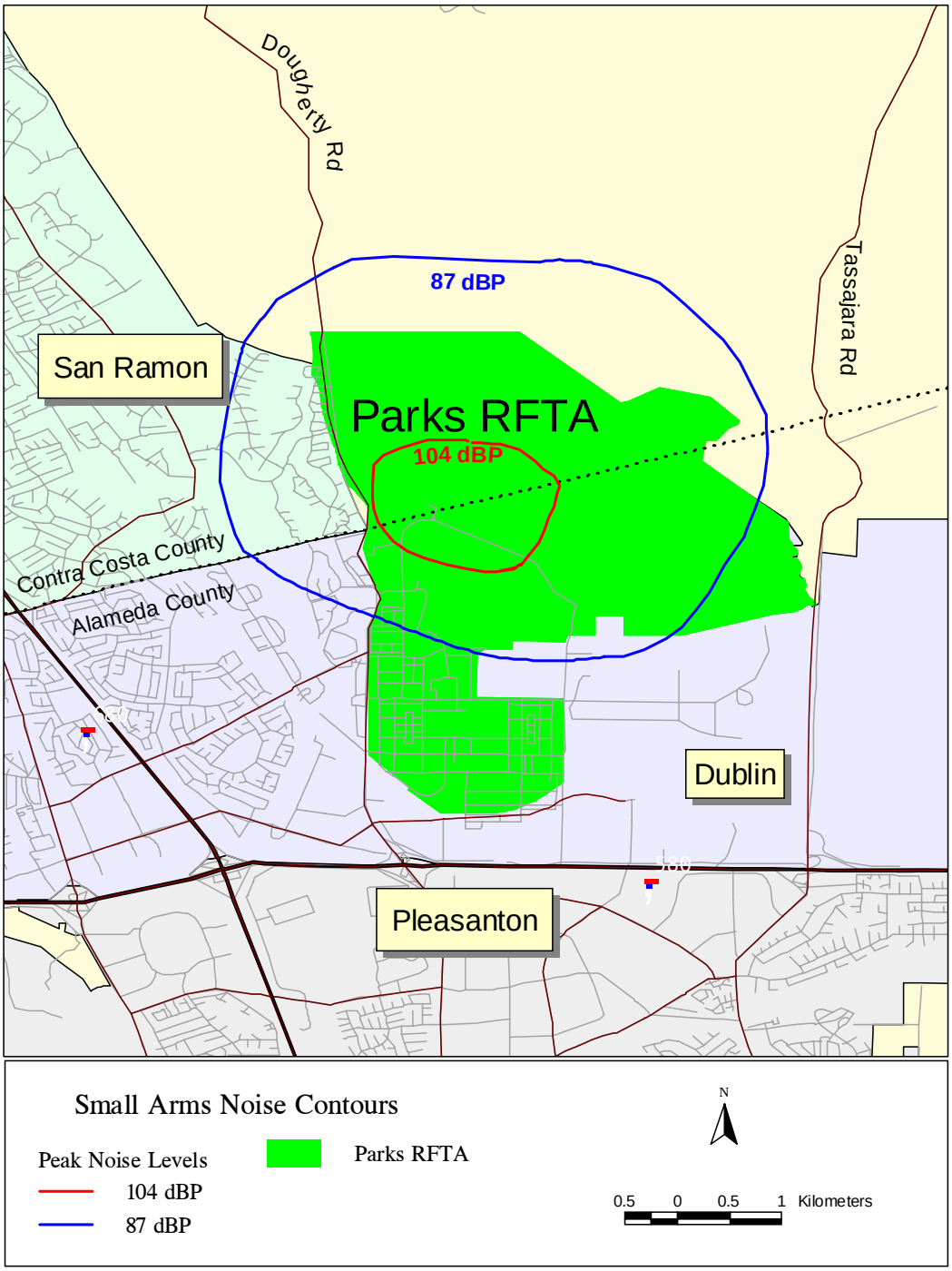


Figure 4-4. Peak Noise Contours for Small Arms Range

SMALL ARMS NOISE MONITORING

Another means of determining noise impacts, or validating model results, is through the use of noise monitoring. Noise levels were monitored at CPTS for three days; July 16 - 18 1999. During this period, the small arms range was in use for approximately ten hours on July 17 and 18. Monitors were placed at two locations (Figure 4-5) and one-minute Leqs and unweighted peak noise levels (dBP) were measured for the 72-hour period. One of the monitoring sites was at range control (Site A) and the other was placed closer to Dougherty Road (Site B), near the western boundary. The average peak noise levels were calculated at the two sites when the ranges were in use (hot time). The results are shown in Table 4-3.

Table 4-3. Small Arms Monitoring Results

	Average Peak Levels (dBP) Hot Time
Site A	104
Site B	102

Table 4-4 lists the number and types of round that were fired during the monitoring period. The data was entered into SARNAM to generate peak noise contours for the time period. The predicted contours and the monitored peak noise levels are depicted in Figure 4-5.

Table 4-4 Operational Data 17-18 July 1999

Operational Data	
17-Jul	# Rounds
5.56 mm	3450
9 mm	2000
18-Jul	
5.56 mm	3450
9 mm	850

In 2003 through 2004, baffles were constructed on Firing Ranges 4 and 5 to contain bullets on site. Although the baffles were constructed for safety reasons, they also serve the purpose of noise reduction. A complete noise survey has not been undertaken since the construction, but two peak noise-monitoring samples were taken on September 29, 2004 (Figure 4-6).

Sample point A produced peak noise readings between 74 and 82 dB approximately 4,120 feet from pistol firing at Firing Range 3. Sample point B produced peak noise readings between 70 and 77 dB approximately 5,600 feet from pistol firing at Firing Range 3. These levels are approximately 13-17 dB lower than the July 1999 noise study and reflect noise reduction resulting from the safety baffles.

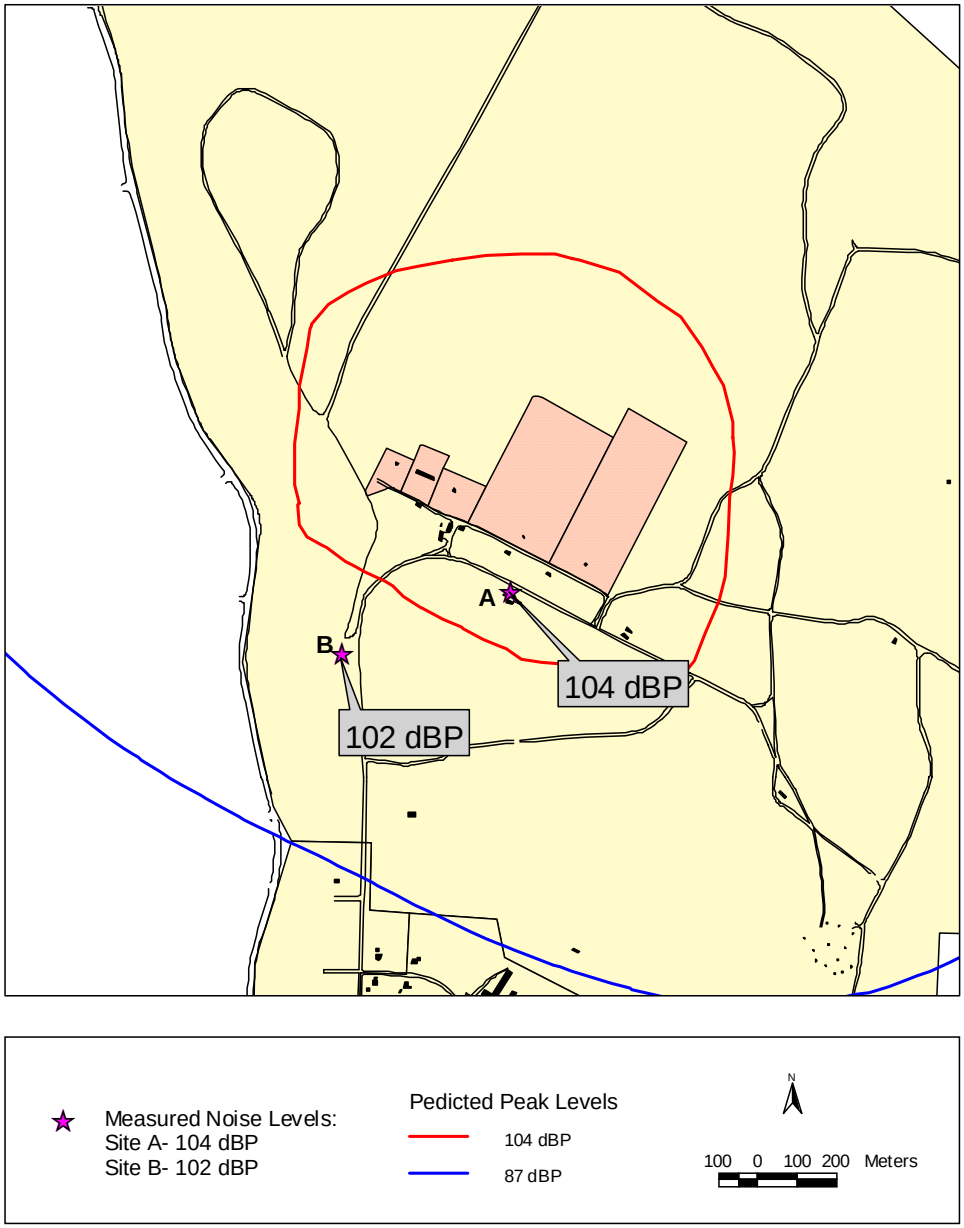


Figure 4-5. Small Arms Monitoring - Average Peak Noise Levels (dBP)

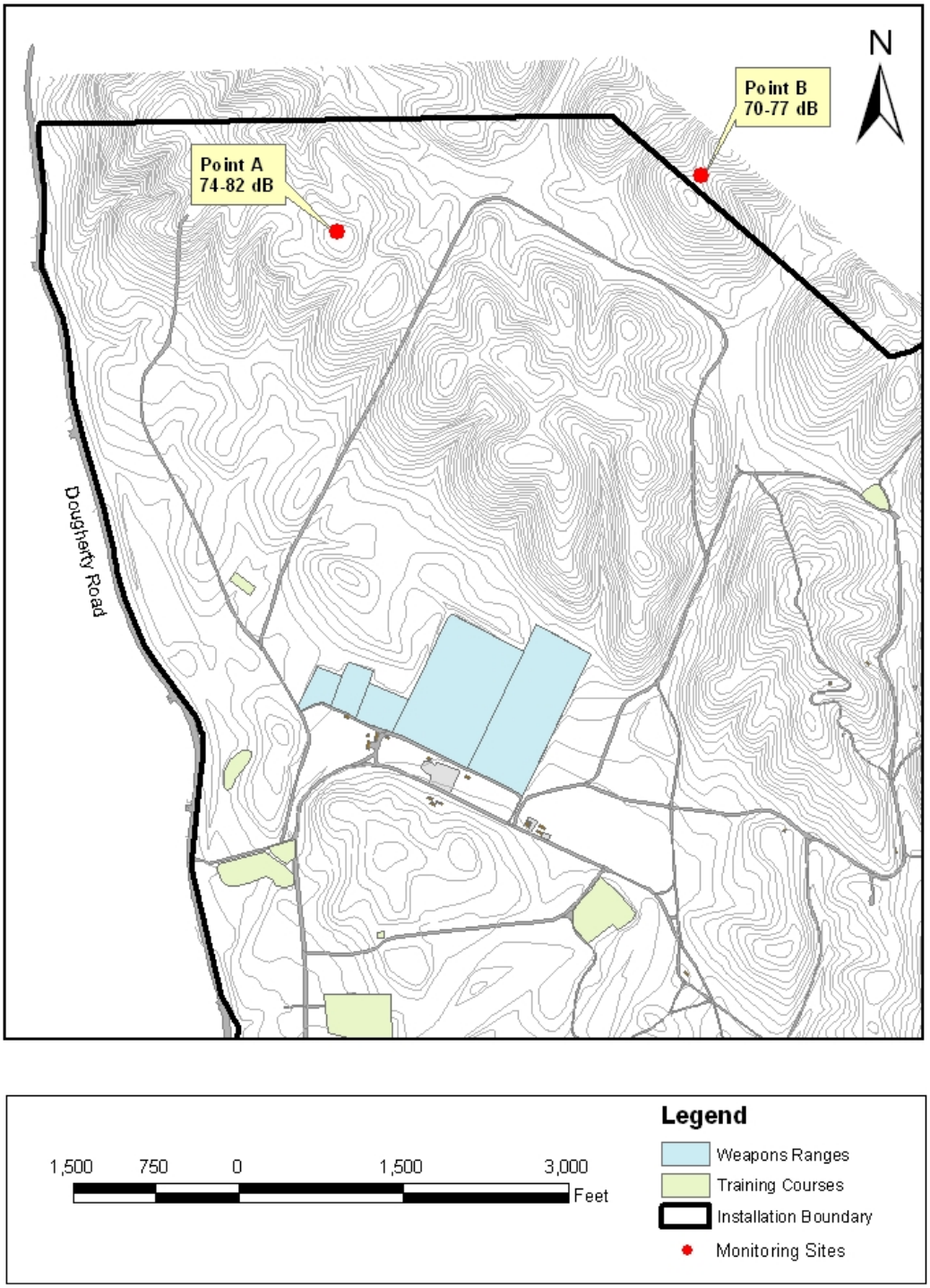


Figure 4-6. September 29 2004 Monitoring Locations with Peak Noise Levels

4.5.4 TRAINING EXERCISES

When units train at CPTS, noise levels are often attributed to many different types of sources. When noise is generated from multiple sources, such as troops, vehicles, generators, and helicopters, computer noise models cannot be used. In these types of situations, noise monitoring can be used to determine noise impacts.

OPERATION GOLDEN MEDIC MONITORING STUDY

Operation Golden Medic is a multi-echelon training exercise at CPTS that was surveyed for noise levels in July 1999. Noise sources from the exercise included generators, vehicles, troops, and helicopters. In order to evaluate the noise impact on surrounding communities, the U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM) was asked to monitor noise levels during Operation Golden Medic and compare them to noise levels when no training was occurring. Noise monitors were placed at two sites (Figure 4-6). Site 1 was placed at the installation boundary, just west of Tassajara Road, and site 2 was located on a hilltop between training areas J and M. During Operation Golden Medic, the monitors recorded one-minute equivalent sound levels (Leqs) from 16 July through 19 July. The one-minute Leqs were then used to calculate the Community Noise Exposure Levels (CNEL). The CNEL is the metric that California uses to determine land use compatibility. The CNEL is metric is calculated by adding a 5 decibel penalty to all noise levels between 7 p.m. and 10 p.m., and a 10 decibel penalty to all levels between 10 p.m. and 7 a.m. The California State Office of Noise Control designates the land use compatibility noise level for noise-sensitive land uses at 60 dB or less. The CNELs are shown in Table 4-5. The noise levels were higher at site 1 during Operation Golden Medic than at site 2 because of helicopter landings occurring as part of Golden Medic near site 1.

Table 4-5. Operation Golden Medic (CNEL)

Date	Site 1	Site 2
Golden Medic	70	59
Ambient	55	54
Difference	15	5

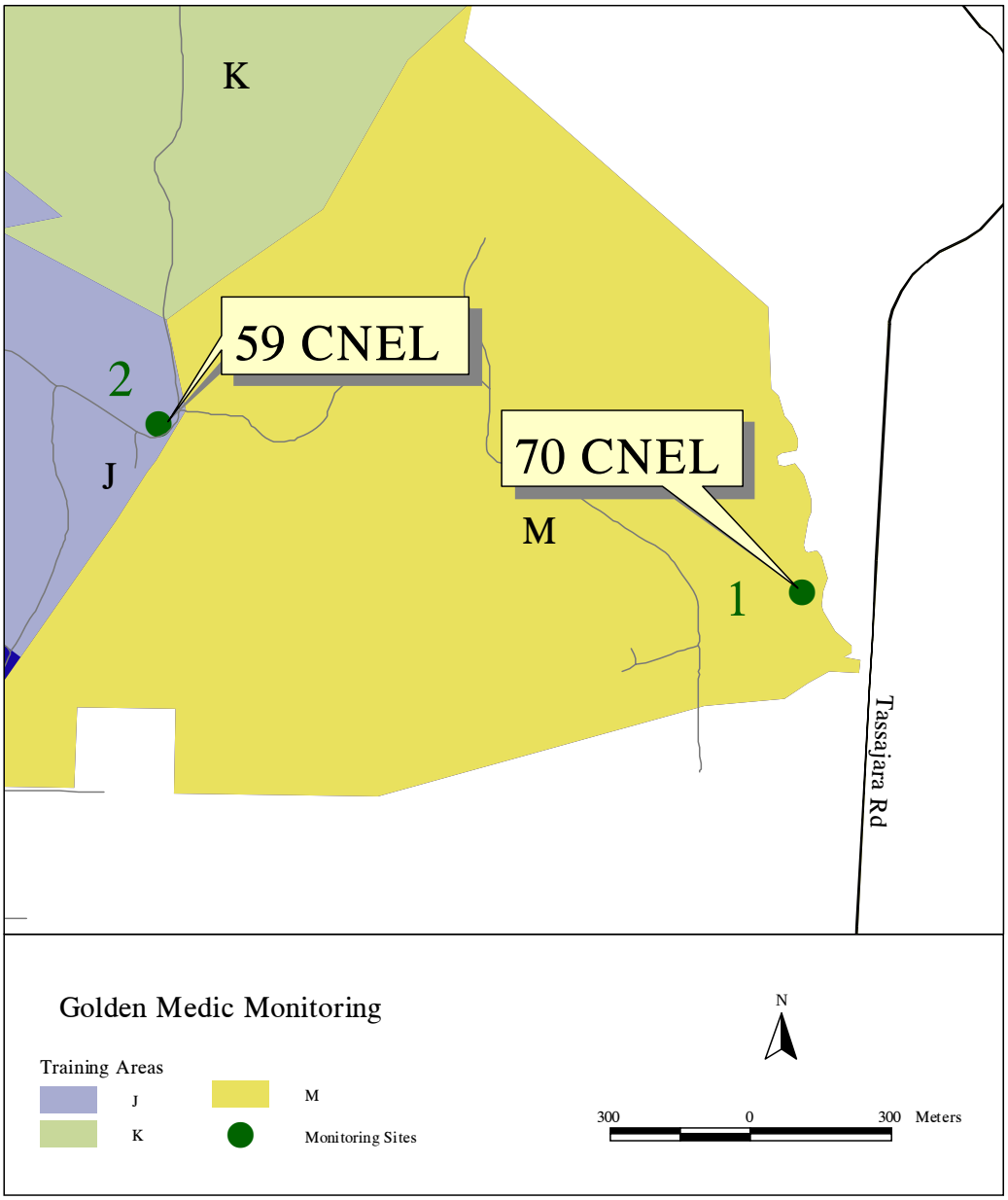


Figure 4-7. Operation Golden Medic Monitoring Locations with Measured Noise Levels

4.6 EFFECTS ON SURROUNDING COMMUNITIES.

There is a high demand for residential property in the areas surrounding CPTS. This demand has lead to residential development occurring in areas that are impacted by the noise generated from CPTS's operations.

There is little that can be done about the urbanization that has occurred in the past. However, CPTS can take steps to ensure that new residents are aware of their existence and of the noise that is generated by mission requirements. In this respect, see Appendix E for land use guidelines in noise zones. In addition, noise disclosure documents are included in Appendices A and B.

ANNOYANCE FROM NOISE

Even though the DNL noise contours show a minimal impact, people living near CPTS may be annoyed and could complain about the noise environment due to peak noise levels from small arms, helicopter activity, and training exercises. The amount of annoyance also depends on the time of day the noise takes place, the background noise environment, and whether the person is indoors or outdoors at the time. The annoyance and complaint potential from single events, such as a flyover of a UH-60 helicopter, is highly subjective. The measured noise levels during Operation Golden Medic showed that sites along CPTS's eastern boundary, noise levels at times exceed those recommended for residential land use.

The usual complaint pattern is that economic activity unrelated to the installation stimulates increased population and development in the vicinity. Segments of the new population are not economically dependent on the installation, and tend to be annoyed by the noise or other aspects of the government presence. The noise from the ranges provides a specific and undeniable object to complain about. As time goes on, the complainant become more articulate and eventually address their complaints to higher levels of command and government. When the situation becomes political, the installation's mission can be jeopardized.

Individual responses of community members to noise depends on many factors. Some of these factors are the characteristics of the noise, including the intensity and spectral characteristics, duration, repetitions, abruptness of onset or cessation, and the noise climate or background noise against which a particular noise event occurs. Social surveys show that the following are all factors related to annoyance:

- The degree of interference of the noise with activity.
- The previous experience of the community with the particular noise.
- The time of day during which the intruding noise occurs.
- Fear of personal danger associated with the activities of the noise sources.
- Socioeconomic status and educational level of the community.
- The extent the people believe that the noise output could be controlled.
- Level of economic importance of installation to the community.
- Prior public awareness of noise events.

4.7 NOISE MITIGATION.

Public attitude surveys have shown that noise is considered an "enemy" in urban, suburban, and even rural areas. It is often rated worse than crime, litter, and abandoned buildings, since it seems to infiltrate homes and minds incessantly. As the public, in general, has become less tolerant of noise, the noise from military unique sources - artillery, low-level jet operations, helicopters, and small arms firing has increased both in intensity and frequency. Even though the military departments have made concerted efforts to reduce the noise from training and operations, weapons platforms and systems have become larger and louder.

CPTS wants to be a good neighbor to surrounding communities, and as such, has taken the following steps:

NOISE COMPLAINTS. A noise complaint procedure has been established to receive and record complaints about noise. While not used as the sole criterion for judging the severity of environmental noise impacts, citizen complaints may be indicators of situations where noise control measures are necessary or established policies are being violated. Such complaints are logged, investigated, and corrective action applied where applicable. In many instances, such problems can be resolved to the mutual satisfaction of the Army and the civilian element involved.

CONTROL PROCEDURES. CPTS has implemented the following mitigation measures which are listed in their Standard Operating Procedure.

- All helicopter traffic will enter and exit the installation via the designated approach and departure routes (Appendix C, Figure C-2).

- No training that involves environmental noise hazards will be conducted from 1800 hours through 0700 hours (6pm-7am) without prior approval of the Department of Plans and Training.

MITIGATION. CPTS constructed berms at the small arms ranges, which achieved a lowering of noise levels in the surrounding communities. In addition, baffles were constructed on Firing Ranges 4 and 5 for the purpose of bullet containment, but also serve the purpose of noise reduction.

OTHER CONSIDERATIONS.

Feasible noise mitigation is also investigated during the National Environmental Policy Act (NEPA) process for new operations and proposed changes in existing operations. Computer modeling of new training sites offers the prospect of predicting whether the proposed action will be compatible with adjacent land use. This is a proactive technique in that it offers the opportunity to eliminate sites from consideration before the undesirable effects of noise ever becomes a factor. It also allows the installation to minimize the noise impact when designing sites.

The noise contours are incorporated as a layer on the Geographic Information System (GIS). This layer can be overlaid with other layers, for example, land uses, and used in siting future facilities.

4.8 SUMMARY

The purpose of the ENMP is to assist CPTS in managing its noise environment, with a minimal impact on its mission, while being a good neighbor. The ENMP expands on the Installation Compatible Use Zone (ICUZ) program to include education, complaint management, and noise mitigation.

The environmental noise impacts of activities at CPTS extend beyond the military reservation boundary. Therefore, officials at CPTS depend upon the goodwill and cooperation of the civilian sector to promote public support for and understanding of the installation's mission requirements. Although a number of positive steps have been taken by CPTS to minimize the unfavorable effects of noise and hazards to the public welfare and safety, these unilateral actions do not guarantee that the post will be able to carry out its training mission into the infinite future.

In order to have a reasonable assurance that CPTS will continue as a viable installation for the Army Reserve Command, a comprehensive effort should be made to inform neighbors about what goes on at CPTS and why it is necessary. This can be accomplished by CPTS through media releases and community outreach. The local jurisdictions can help CPTS by making sure new residents are educated about CPTS before they move into the neighborhood.

SECTION FIVE

LAND USE AND DEVELOPMENT CONTROLS

5.1 FEDERAL.

Federal agencies having regulatory authority affecting land use and growth issues in Contra Costa and Alameda Counties include, without limitation, the Environmental Protection Agency, the Army Corps of Engineers, and the U.S. Fish and Wildlife Service.

5.2 STATE.

California State law requires each city and county to adopt a general plan. There are seven elements that must be included in the general plan: land use, circulation, housing, conservation, open space, *noise*, and safety. Pursuant to the law, subdivisions, capital improvements, and development agreements must be consistent with the adopted general plan. Zoning and specific plans are also required to conform to the general plan (California Code Section 65302).

The Noise Element of the General Plan must identify and appraise major noise sources including heliports, military airport operations, aircraft overflights, and other stationary ground sources.

Another way the state can influence land use is through the California Department of Real Estate. California has disclosure laws which would include environmental noise. For existing residential development, sellers must fill out a real estate transfer disclosure statement form. One of the items that must be disclosed is "Neighborhood noise problems or other nuisances." For new subdivisions, the developer has to present a public report which must disclose unusual land uses surrounding a new subdivision.

5.3 LOCAL.

In fulfillment of state regulations, land use planning surrounding CPTS is controlled by many local jurisdictions in municipal, county, and regional plans. Each individual plan contains a noise element in accordance with state law.

The unincorporated area of Contra Costa County north of CPTS is covered by the Dougherty Valley Specific Plan. The plan includes 11,000 housing units and 800,000 square feet of commercial space on 6,000 acres for the region.

The area to the northeast falls under the Contra Costa General Plan. This area is designated for open space and agricultural land use.

The lands southeast of CPTS are addressed in the Alameda County East Area Plan (1994) as well as the Dublin Eastern Extended Planning Area. It is realized that Dublin, to the

west of CPTS has run out of space for development potential, and is developing the area east of the installation as a means of expansion.

South of CPTS is the City of Pleasanton. A vacant land survey, dated March 1999, depicts only small areas of open space that are still available for development. The properties closest to the installation that are classified as vacant land are zoned for commercial and office space as well as the Hacienda Business Park.

The lands adjacent to the northwest boundary of the installation are included in San Ramon's General Plan.

5.4 OTHER PLANNING TOOLS.

No installation can consider itself isolated, nor can planners ignore the surrounding communities. Evolving Army missions, equipment, and operations cause annoyances to those communities. Disregarding them can ultimately lead to unwanted limitations on future installation operation, such as changes in flight patterns, range uses, or levels of military activities that adversely affect private property. A Joint Land Use Study (JLUS) can remedy some of these problems (U.S. Army 1996a). The JLUS program is sponsored by the Department of Defense Office of Economic Adjustment (DODI 1983) to help local communities fund comprehensive plan development to resolve perceived community-versus-installation land use incompatibilities. The scope of the program is divided into three major tasks:

- Impact analysis provides an in-depth review of existing and proposed land use patterns: drainage, as it affects land use designations; mission encroachment, particularly noise; transportation improvements, existing and proposed routes; and noise/vibration as presented in the ENMP or ICUZ Study.

- Land use and mission compatibility plan examines the above findings to identify conflicts in land use and provide alternative land use solutions: to project the impact on growth potential for adjacent areas; and to project the impact of military missions on the surrounding jurisdictions.

A JLUS program can assist the local communities and counties with implementing the ICUZ program. The JLUS program can provide technical and financial assistance to the planning agencies for developing master plans which are consistent, when economically feasible, with the noise, accident potential, and safety concerns from PRFTA training and operations.

The JLUS (Fort Knox 1994) is a continuation and implementation of the ICUZ program. It is a collaborative land use planning effort involving the military installation and adjacent local governments. The study evaluates the planning rationale necessary to support and encourage compatible land use development surrounding the installation. Its purpose is to provide land use support to sustain and provide flexibility to military

missions on the installation while guiding the long-term land use needs of the neighboring counties and communities. Implementation lists a series of actions and proposals for adoption by local jurisdictions to resolve land use conflicts and move toward a compatible land use plan for the installation and the adjacent counties and communities therein. While the study report makes certain recommendations, it must be kept in mind that each participating jurisdiction must decide which recommendations are best suited to their particular needs. Implementation will follow the final recommendations at the discretion of the elected officials in each jurisdiction and the installation military command.

5.5 ARMY POLICY AND ITS APPLICATION AT CPTS.

It is Army policy to manage lands, facilities and resources under its control in a manner that provides maximum mission effectiveness while recognizing the importance of the conservation of resources and preservation of the quality of human and natural environments. The Army developed the ENMP and the ICUZ program to provide a mechanism for identifying and addressing issues and concerns between the community and the installation.

5.6 LAND USE PLANNING DETERMINANTS.

Compliance with the laws, regulations, executive orders, and guidelines which are applicable to current operations and to restoration of sites contaminated by previous activities is fundamental to attaining DA goals associated with environmental protection and conservation of natural resources. In this respect, DA has designated the achievement of the following goals, applicable in land use planning, as an integral part of the overall Army mission.

- Demonstrate leadership in environmental protection and improvement.
- Minimize adverse environmental and health impacts while maximizing readiness and strategic preparedness.
- Assure that consideration of the environment is an integral part of Army decision-making.
- Initiate aggressive action to comply with all applicable federal, state, regional, and local environmental quality laws.
- Restore lands and waters damaged through past waste disposal activities.

To achieve the foregoing Department of the Army (DA) goals, the policy at CPTS, which applies to all subordinate organizations, agencies and activities, is to:

- Comply with Army Regulation 200-1, and all applicable federal, state, and local environmental quality laws, regulations, and other requirements.

- Plan, initiate, and carry out all actions and programs in a manner that will preserve, protect, restore, or mitigate the degradation of human and natural environments.

- Ensure historic, archeological, and cultural sites, structures, and other objects under CPTS's jurisdiction will be preserved, restored, and maintained for the benefit of future generations.

- Eliminate or control environmental degradation resulting from training, operations, maintenance, repair, or construction of real property facilities owned, leased, or supported by the Army Reserve Command.

5.7 LAND USE COMPATIBILITY.

At CPTS, the successful accomplishment of the Army training mission depends upon the positive involvement of the civilian communities in all elements of the ENMP including land use planning and control. The land owned by the USAR at CPTS is needed to conduct training and other mission essential operations. There is a significant amount of interest by officials at CPTS in achieving civilian community cooperation in regulating use of land around the perimeter of the installation.

5.8 SUMMARY.

The purpose of this section was to examine the Federal, state and local land use policies and controls. The State of California puts land use control in the hands of local governments, therefore, CPTS must work with surrounding local governments to ensure that land use and noise levels surrounding the installation are compatible.

SECTION SIX

CPTS & COMMUNITY RESPONSIBILITIES AND RECOMMENDATIONS

6.1 INTRODUCTION.

In the civilian sector, responsibility for integrating noise considerations and safety of humans and property into the land use planning process rests with county and municipal governments. Within the military sector, consideration of these noise management issues is the responsibility of the Installation Commander. Neither can work in isolation. The emphasis of this section is the joint nature of environmental noise management.

Noise is considered to be one of the most important aspects of the environmental quality of life and needs to be considered in the planning process. Failure to do so can result in irritation, complaints, and possible legal action, all of which are detrimental to a harmonious relationship between CPTS and the citizens who live in the surrounding areas. Recommendations to achieve compatibility between the needs of the civilian community and CPTS's training responsibilities are provided in this section.

6.2 LAND USE GUIDELINES.

Land use guidelines are meant to ensure compatibility with the noise environment while allowing maximum beneficial use of contiguous property. The Department of the Army has no desire to recommend land use regulations which render property economically useless. It does have an obligation to the communities around CPTS and the citizens of the United States to point out ways to protect both the people in adjacent areas and the public investment in the installation.

6.3 NOISE IMPLICATIONS.

Analysis of the noise impacts upon privately owned land around CPTS shows that citizens are not exposed to average yearly noise levels that exceed the levels recommended under federal land use guidelines (FICUN 1980). But, there are times when noise events could cause annoyance or complaints. Training requirements such as helicopter flyovers, weekend small arms training, or large training exercises such as Golden Medic, generate peak noise levels that could be objectionable to neighbors of CPTS. With the increase of development surrounding CPTS, the risk of complaints increase. This exposure of citizens to noise proliferation is a matter of concern to officials at CPTS and emphasizes the importance of the ENMP. Overlaying the Peak Noise Contours and the areas exposed to helicopter noise shows the areas of particular concern to CPTS (Figure 6-1). People in this area could also be impacted from noise generated by training exercises such as Golden Medic.

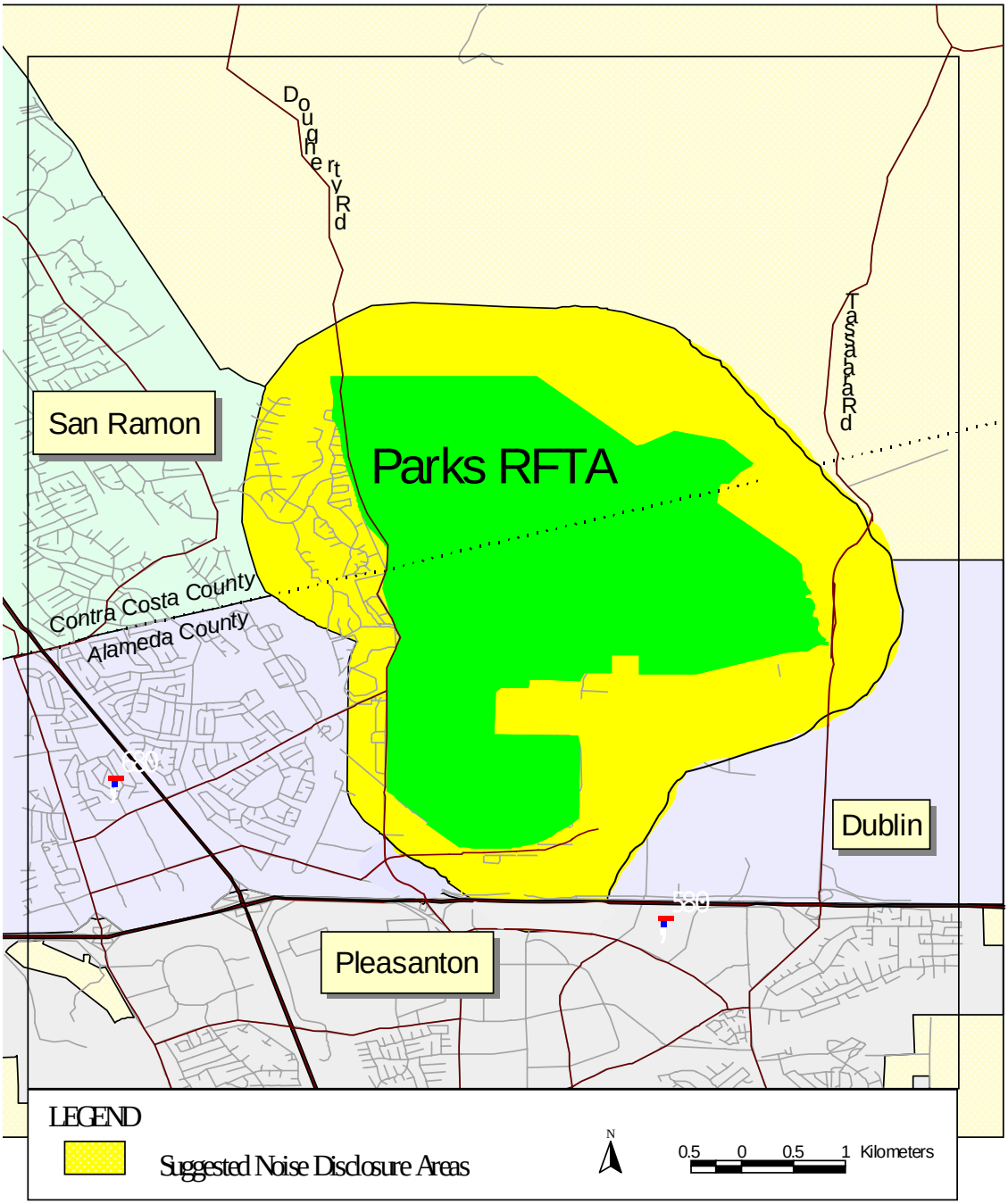


Figure 6-1. Suggested Noise Disclosure Areas

6.4 CPTS RESPONSIBILITIES.

CPTS views the purpose of the ENMP as two-fold. First, to ensure that all possible steps have been taken to reduce the noise and safety impacts generated by military training and operations. Second, to be an active and willing participant in an ongoing cooperative educating and planning process, through which compatible land use plans can be developed by local citizens through their elected representatives.

RESPONSIBILITY FOR NOISE IMPACT REDUCTION.

The ENMP describes the USAR's responsibilities for reducing the impact of CPTS's noise environment on the surrounding communities.

CPTS has taken the following specific actions to limit noise exposure:

- **Fly Neighborly Program.** In accordance with AR 95-1, CPTS has adopted a "Fly Neighborly Program" which works to reduce noise by training Army helicopter pilots on how to reduce noise complaints when flying in developed areas. Significant aspects of the CPTS program include:

    - ♦ Investigation of Noise Complaints.

    - ♦ Designation of Noise Sensitive Areas.

- **Aircraft Control Procedures.** Control procedures designed to avoid or reduce noise include: avoidance of residences, buildings and farm related facilities; avoidance of towns, cities and villages; and use of designated traffic patterns and altitudes. Pilots will follow Federal Aviation Regulation (FAR) Part 91 which sets the minimum fight altitude at 500 feet AGL.

- **Small Arms Noise Mitigation.** CPTS has constructed berms approximately nine feet high to the left of, and twenty feet high behind the small arms ranges. The berms have reduced the noise levels in surrounding communities that resulted from the small arms training. In addition, CPTS has constructed bullet-containment baffles on Firing Ranges 4 and 5 that have reduced noise levels.

- **Firing of Blanks.** CPTS will prohibit the firing of blanks within 60 meters of the installation boundary.

- **Artillery Simulators.** CPTS will prohibit the use of artillery simulators within 200 meters of the installation boundary.

RESPONSIBILITY FOR SAFETY OF OPERATIONS.

The USAR Safety Program is designed to provide a safe and healthful environment for all personnel and others exposed to USAR's operations. This includes civilians who live in the vicinity of or work on CPTS. The objectives of the program include:

- Prevention of injury due to USAR operations.
- Detecting and eliminating causes of preventable, inadvertent damage to property both on and off the military reservation, which could result from military activities.
- Prevention of accidents.
- Compliance with federal statutes dealing with the safety of people, property or the environment.

Facets of the USAR Safety Program pertinent to this study include:

- Safety of operations associated with training and operations.
- Safety of the airspace above the firing ranges.
- Safety of training and operational activities conducted by military aircraft.

In keeping with its concern over the safety of Army training and allied activities, the Army had designated safety zones of fixed dimensions at its airfields, and ranges. These safety zones provide a means for identifying areas with the environs where an accident is likely to take place.

RESPONSIBILITY FOR PARTICIPATION WITH LOCAL COMMUNITIES.

This report is one effort to fulfill CPTS's responsibility to the local communities by notifying elected officials, civic and business organizations, and other interested persons of its willingness to cooperate in noise management and promotion of the safety of people and property. These responsibilities include:

- **EDUCATION.** CPTS has the civic responsibility to educate, through media releases, public meetings and open houses, the surrounding communities about CPTS's mission. This education also includes what the USAR is doing to reduce the impact of CPTS activities on the noise environment.
- **NOISE COMPLAINT MANAGEMENT.** CPTS has the responsibility to maintain good public relations with their neighbors by being responsive to the concerns of these neighbors. CPTS must continue with its noise complaint

management program and further develop a written Standard Operating Procedure as required by AR 200-1.

- **COMPLIANCE WITH NOISE REDUCTION REGULATIONS.** Community noise level reduction codes and regulations will be complied and consistent with the requirements for essential military activities. When compliance is not feasible, CPTS officials will assist in seeking alternatives.

- **MITIGATIVE ACTIONS.** All reasonable actions to reduce noise during periods requested by local officials, as well as actions to resolve individual complaints, are considered.

6.5 CIVILIAN COMMUNITY RESPONSIBILITIES.

Local government planning responsibilities include the protection of the environmental quality of life of the community and protection of individual and community investments. Communities near military installations have the additional responsibility of assisting in maintaining our national security by protecting the mission capability of the installation.

CPTS has made great strides toward the reduction of noise and safety hazards at the source, for example by building berms around the small arms ranges, but neither noise nor safety hazards can be eliminated completely. In recognition of these facts, the Installation Compatible Use Zone (ICUZ) element of the Environmental Noise Management Plan (ENMP) has been developed to help military and civilian planners identify the various levels of noise to which people are exposed, as well as areas of potential accidents. Integrating noise and safety considerations into the community planning process, however, rests with the various elected bodies that have control over actual off-post land development.

6.6 RECOMMENDATIONS.

In providing these recommendations, the Army does not have any desire to make privately owned land economically useless. However, when the prospect of future development around CPTS is considered, it becomes apparent that actions are appropriate to guide the future development of the surrounding or adjoining private property. Failure to do so creates a long-term threat to CPTS's future. The recommendations are offered in a spirit of mutual cooperation.

CPTS RESPONSIBILITIES

PUBLIC RECORD. The USAR should distribute the CPTS Environmental Noise Management Plan to the county and municipal governments and insure that it is filed in the office of official records to become a matter of public record.

EDUCATION PROGRAM. CPTS should continue to educate its personnel in the techniques needed to minimize the noise and safety impact from their training

and operations. In addition, CPTS should educate the communities surrounding its facilities on its mission and what it is doing to reduce and minimize the negative impacts of its mission on the community.

NOISE COMPLAINT MANAGEMENT. CPTS should continue with its noise complaint management program, and continue to address the concerns of their neighbors. In accordance with AR 200-1, CPTS has developed a Noise Complaint Form (Figure 4-1). This will ensure consistency in how complaints are handled even if there are changes in personnel.

PUBLIC AWARENESS. Citizens are less likely to complain if they understand why noise is being generated. CPTS should utilize the media to inform citizens of their mission and of upcoming training activities. Notices can be put in local newspapers and local news stations before large training exercises, such as Golden Medic, with a description of what noise impacts can be expected and why the training is necessary.

NOISE MITIGATION. CPTS should continue with its noise mitigation policies and explore new mitigation techniques for feasibility. Guidelines should be set up to insure that noise mitigation measures, such as helicopter flight patterns and minimum altitudes, are followed. With increased residential development surrounding CPTS, it will be even more imperative that SOPs are followed.

LOCAL JURISDICTIONS.

These recommendations are provided for consideration by the elected officials of the counties, cities and towns within these counties; civic, social and business organizations; and the concerned citizens. Authorities at CPTS are available to provide additional information and advice regarding specific details.

- County and municipal governments should consider incorporation of statements into legal documents (for example, deeds, subdivision plats, comprehensive plans) that will inform property owners or buyers of the nature and extent of the noise levels generated by CPTS training and mission essential activities. It is suggested that the areas shown in Figure 6-1 be used as a guide for where the existence of CPTS, and the types of noise they generate, be disclosed. Examples of deed disclosure and real estate disclosure documents are contained in Appendices A and B.

- Disclosure of the existence of CPTS, and of noise levels from training operations, should be mandatory for any property impacted by noise from training at CPTS. Optimally, for any new residential development, or transfer of existing residences, information about CPTS should be included in the real estate disclosures required by the State of California. The following gives suggestions on how this could be accomplished.

New Subdivisions - California Department of Real Estate requires all new subdivisions to prepare a Subdivision Public Report. This legal means should be used to ensure that purchasers of homes in new subdivisions are aware of CPTS and the noise that can be generated by training activities.

Transfer of Residential Property- California requires a Real Estate Transfer Disclosure Statement when property containing one-to-four dwelling units is transferred by sale. Neighborhood noise problems are one of the items that must be disclosed in the statement. If noise from CPTS is a nuisance, the seller is responsible for disclosing this to a potential buyer.

- County and municipal governments should provide a means for informing individuals, companies and/or corporations of the types of noise, the levels of noise, and hazards to humans and property generated by military activities in the areas adjacent to CPTS.

- Proposed development in areas depicted in Figure 6-1 should require a public hearing to provide both the public and CPTS with an opportunity to comment.

- County and municipal governments should provide advisory services, either direct or via library reference, to those persons wishing to build in areas where noise from training at CPTS could impact the property. The advice could include Noise Level Reduction specifications, siting modifications, and berm and barrier information for noise reduction.

- County and municipal governments are encouraged to support concerns regarding land uses around CPTS that are not compatible with the noise potential generated by training and other mission essential activities.

- County and municipal governments are urged to consider any of the techniques listed below that are deemed appropriate and feasible to promote uses of land not under the control of CPTS and which are compatible with the noise and safety concerns identified in this report.

Zoning. Although zoning is not effective for correcting existing noise or safety problems, it can be effective in controlling land use density, as well as the character of uses permitted, in areas that are in a state of transition from, for example, agricultural or open land to residential.

Special Permits. Special permits provide a mechanism for achieving flexibility in land use in communities with zoning ordinances. In applying for a special permit, the property owner can be required to demonstrate that the proposed land use will be compatible with the noise or hazards to safety created by CPTS's activities.

Special Projects. Modify zoning ordinances to permit planned unit developments where the buildings are clustered and the resulting open space provides a buffer between noise sources and the buildings.

Subdivision Regulations. Noise performance standards can be included in subdivision regulations. In areas that lie in proximity to CPTS's boundary, a subdivision regulation can require dedication of land as open space.

Capital Improvements. Local governments may have an opportunity in the planning process to structure capital improvements so as to promote land uses that are compatible with CPTS's noise and safety environs.

Building Codes. Building codes can be adopted, or existing codes can be modified, to require noise attenuation features in the vertical design and construction of noise sensitive buildings located in high noise zones.

Tax Incentives. Jurisdictions with taxing authority can use tax incentives, in the form of special or preferential tax assessments of land, as a technique for maintaining open space in areas depicted in Figure 6-1.

JOINT ACTION RECOMMENDATIONS.

- **LAND USE AGREEMENTS.** CPTS, in cooperation with the county and/or municipal government affected by noise, may negotiate agreements regarding land use in the areas affected by these concerns. Surrounding jurisdictions should notify CPTS when there are proposals for changes in zoning or land use surrounding the installation so that CPTS may offer comments. Comprehensive Land Use Plans, initiated by any county or municipal government, should be coordinated with CPTS to develop recommendations for land use compatibility areas adjacent to its facilities. Within each land use compatibility area, land uses compatible with training and operations at CPTS should be established.

APPENDIX A: DEED DISCLOSURE STATEMENT

This Agreement is between (name of property owner) (hereinafter "Grantor") and the (name of jurisdiction) through its Planning Board.

Grantor herein gives notice that the real estate located at (address of property) and recorded in the (jurisdiction-city, county, etc.) Registry of Deeds in Book #, Page # (Book of Plans #, Page #) is subject to certain over flight rights of the United States Army to/from Parks Reserve Forces Training Area.

A more definitive description of said rights as they may affect the aforesaid premises is available at the Office of the Planning Board of the (jurisdiction and address of office) and as specifically described in an Environmental Noise Management Plan dated December 2000.

Grantor agrees that reference to this notice shall run with the land and shall obligate the Grantor and his heirs and successors and assigns to make reference to this notice in each and every conveyance of this parcel or any part thereof.

Dated:

_____
(Typed name of signer)

_____
(Typed name) Planning Board

_____
(Typed name) Planning Board

_____
(Typed name) Planning Board

_____
(Typed name) Planning Board

APPENDIX B: REAL ESTATE DISCLOSURE STATEMENT

Significant Property Uses in the Vicinity of *(name of the development).*

Camp Parks Training Site (CPTS).

CPTS (a.k.a. Camp Parks) is an U.S. Army Reserve installation located approximately *(distance from CPTS)* from *(name of the development)*. The Buyer and Seller hereby acknowledge that as of the date of this Purchase Agreement the described property is situated in an area that may be subjected to conditions resulting from military training at CPTS.
CPTS has approximately 700 acres of administrative facilities and over 2,000 acres of open grassland for year-round weapons and field training. Activities with the potential to generate significant noise levels outside of CPTS include: weapons firing; tactical vehicle operation; field power generator operation; and helicopter operations. Helicopters enter and exit from the southern and eastern boundaries of CPTS. The noise from these helicopters directly overhead at an altitude of 500 feet will approach 90 A-weighted decibels (dBA). Historically, 35% of the population exposed to 90 dBA are expected to be highly annoyed. CPTS periodically conducts controlled burning activities, which generate large amounts of smoke. **Buyers of homes adjacent to CPTS should carefully consider the impact of these activities that ordinarily and necessarily produce nuisances including, but not limited to, noise, smoke, and dust.** The Buyer and Seller hereby acknowledge the existence of CPTS and waive all common law rights to object to normal and necessary military training activities legally conducted on CPTS. For more information, contact the CPTS Public Affairs Office at (925) 875-4269.

APPENDIX C: NEW HELICOPTER FLIGHT PATH

Camp Parks Training Site
Helicopter Noise Abatement Arrival/Departure Routes

NOTES:

1. The high-density population areas surrounding the CPTS are noise sensitive.

2. Avoid over-flying any residential and commercial area at less than 1000' AGL or 1400' MSL particularly in the Dublin CA and CPTS area.

3. All aircraft will strictly comply with the following noise abatement procedures unless controller instructions or safe procedures consistent with the aircraft flight manual for your aircraft dictate otherwise.

4. The SE half of CPTS lies beneath the Livermore Airport class D airspace. Aircrews approaching CPTS from any direction are advised to contact Livermore Tower on 118.1 VHF. (AIM para 3-2-5.b.3: Two-way radio communication must be established with the ATC facility providing ATC services prior to entry and thereafter maintain those communications while in the Class D airspace.)

5. Stay alert for other helicopters operating in the CPTS.

6. Note the location and status of the CPTS small arms ranges.

7. Departing aircraft should use the maximum climb rate that is consistent with safe procedures and the aircraft operator's manual.

PROCEDURES:

1. <u>Aircraft approaching the CPTS from west of the city of Dublin, or generally west of an I-680 N-S axis</u>:
   a. Intercept I-**5**80 well west of the built-up area of Dublin at approximately 1000' **A**GL.
   b. Follow I-580 eastbound toward Parks. Descend to <u>no lower than</u> 1400' MSL (approx. 1000' AGL) in the Dublin area.
   c. Observe "rules of the road" when following I-580 and be alert for possible opposite-direction traffic.
   d. At the Dougherty Road overpass, turn left to enter the CPTS.
   e. Begin descent for landing no earlier than the Parks boundary.
   f. Modify traffic pattern as necessary (circle, teardrop, etc.) to remain within the Parks boundary.

2. <u>Aircraft departing CPTS to the west</u>:

a. Climb as rapidly as possible to at least 1000' AGL, or higher, by maneuvering as necessary to remain within the confines of the Parks reservation.
b. Depart Parks in a southerly direction crossing above the contonement area helipad to join I-580 in the vicinity of the Dougherty Road overpass.
c. Proceed westbound along I-580 maintaining at least 1000' AGL until well west of the city of Dublin before turning on course.
d. Observe "rules of the road" when following I-580 and be alert for possible opposite-direction traffic.

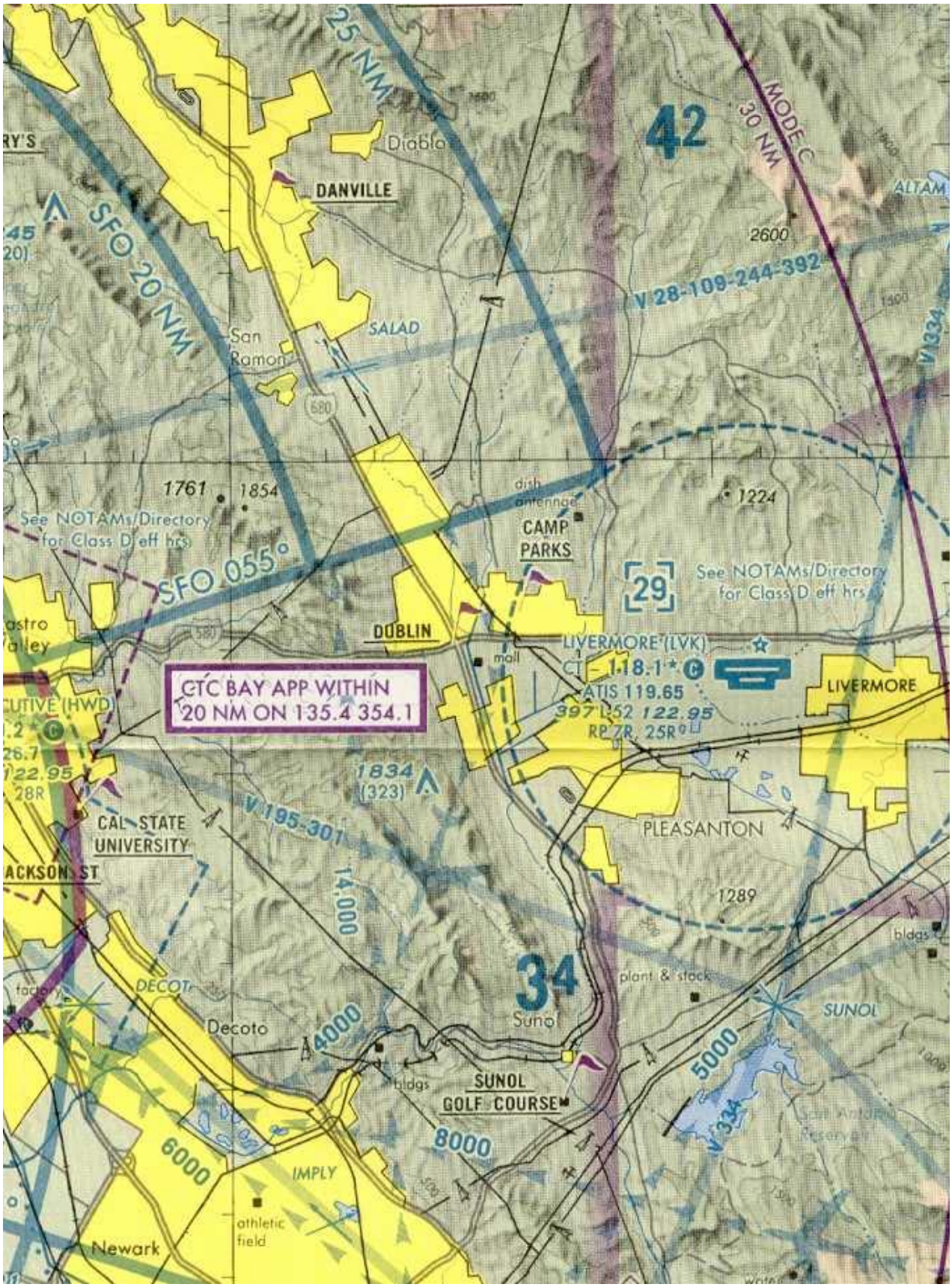
3. Aircraft approaching CPTS from the east sector:
   a. Are advised to comply with the requirements of the class D airspace surrounding Livermore airport.
   b. Proceed direct to the large dish antenna on the NE corner of the CPTS at no less than 1000' AGL, or 1400' MSL, as appropriate for terrain. (Traffic pattern altitude at Livermore Airport is 1400' MSL.)
   c. Begin descent for landing to desired Parks helipad no earlier than the Parks boundary.
   d. Modify traffic pattern as necessary (circle, teardrop, etc.) to keep final descent within the Parks boundary.

4. Aircraft departing CPTS to the east:
   a. Comply with the requirements of the Livermore Class D airspace east of CPTS.
   b. Climb as rapidly as possible to 1000' AGL, or higher, by maneuvering as necessary to remain within the confines of the Parks reservation.
   c. Proceed to the large dish antenna on the NE corner of the CPTS and, at no less than 1000' AGL, depart the reservation on course.
   d. Traffic pattern altitude at Livermore Airport is 1400' MSL.

5. See attached graphics:
   Page 3 – CPTS area overview from San Francisco VFR Terminal Area Chart.
   Page 4 – CPTS arrival / departure routes on USGS 1:24000 topographic map.

END

Note: This flight path replaces Figure 4-2 of the CPTS Environmental Noise Management Plan.


25 NM
42
MODE C
30 NM
Diablo
DANVILLE
SFO 20 NM
V 28-109-244-392
SALAD
San Ramon
1761
1854
1224
See NOTAMs/Directory for Class D eff hrs
CAMP PARKS
SFO 055°
29
See NOTAMs/Directory for Class D eff hrs
DUBLIN
LIVERMORE (LVK)
CTC BAY APP WITHIN 20 NM ON 135.4 354.1
ATIS 119.65
122.95
LIVERMORE
1834
(323)
V 195-301
CAL STATE UNIVERSITY
PLEASANTON
14,000
1289
34
Sunol
DECOTO
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4000
SUNOL
5000
SUNOL GOLF COURSE
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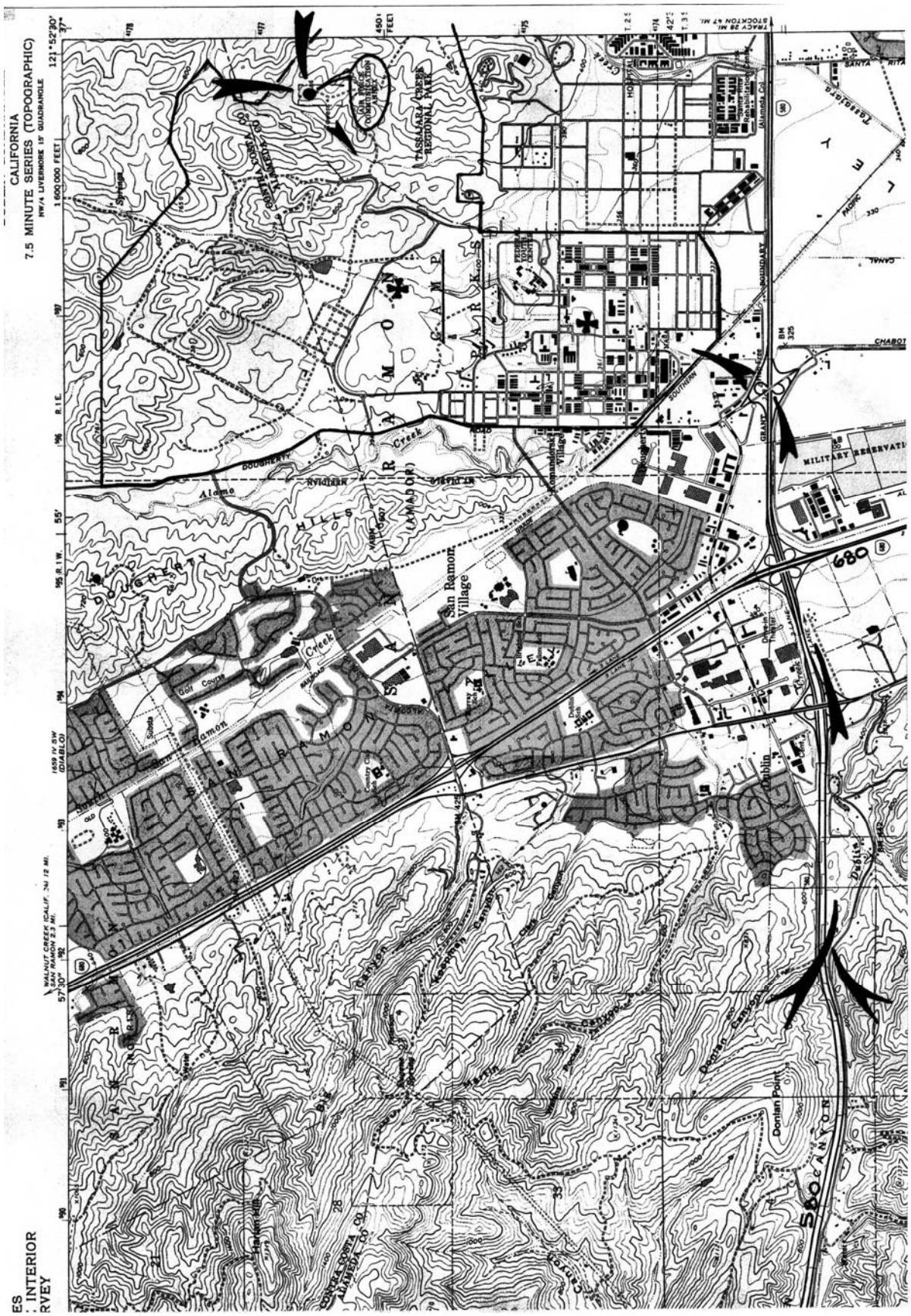
6000
IMPLY
Newark
athletic field


CALIFORNIA
7.5 MINUTE SERIES (TOPOGRAPHIC)
NW/4 LIVERMORE 15' QUADRANGLE
1 600 000 FEET
121°52'30"
37°
4490 FEET
TASSAJARA CREEK REGIONAL PARK
CAMP PARKS
DOUGHERTY HILLS
Alamo
Creek
San Ramon Village
San Ramon
Golf Course
Dublin
680
MILITARY RESERVATI
SOUTHERN
PACIFIC
CANAL
CHABOT
SANTA RITA
Dublin Canyon
Donlan Point
SAN RAMON
WALNUT CREEK (CALIF.) 24 1/2 MI.
SAN RAMON 2.3 MI.
1659 IV SW (DIABLO)
57'30"
122°
55'
R.1 W.
R.1 E.
INTERIOR
RVEY

APPENDIX D

DESCRIPTION OF THE NOISE ENVIRONMENT, NOISE EVALUATORS AND NOISE CONTOURING PROCEDURES

D.1 INTRODUCTION.

Noise is defined as unwanted sound. Sound is the variation of air pressure about a mean (atmospheric) pressure. These changes in the atmospheric pressure [100,000 Pascals (14.7 pounds per square inch) (psi)] vary from approximately 0.0006 Pascals for a whisper at 2 meters to 1,000 Pascals for firing an M16 rifle at shoulder height. Because of this large range of sound pressure and the fact that the human ear responds more closely to a logarithmic scale rather than a linear scale, sound pressure level is defined as 20 times the common logarithm of the ratio of the sound pressure to the reference pressure (0.00002 Pascal). The sound pressure level is measured in decibels (dB). For example, if the sound pressure doubles from 0.2 to 0.4 Pascals, the level increases by 6 dB from 80 to 86 dB.

A characteristic of environmental noise is that it is not steady, but varies in amplitude from one moment to the next. To account for these variations in the sound pressure level with time, and to assess environmental noise in a consistent and practical manner, a statistical approach has been used to reduce the time-varying levels to single numbers. The currently accepted single-number evaluators are the equivalent sound level (LEQ) and the day-night level (DNL).

The physical basis of the noise system is the noise source, path and receiver relationship. Noise emanates from a source, travels along a path, and is perceived by the receiver. The effect of noise on the receiver can be considered the focal point of the entire system.

Before a noise problem can be resolved, however, the nature and intensity of the noise must be quantified. Because of the different types of noise, e.g., fixed- and rotary-wing aircraft flyovers, ground run-up, and explosive detonations, a weighting system was developed to measure these various types of noise.

In environmental noise, the sound pressure level is usually measured using one of the frequency networks of the sound level meter. Since the human ear is more sensitive to sounds of 1,000 Hertz and above than sounds of 125 Hertz and below, it is appropriate to apply a weighting function to the noise spectrum which will approximate the response of the human ear. The A-weighting frequency network of the sound level meter de-emphasizes the lower frequency portion of the noise spectrum to approximate the human ear's response to the noise. This A-weighting frequency response is specified by an American National Standards Institute (ANSI) standard (ANSI 1983). Thus, the A-weighting of the frequency content of the noise signal has been found to have an excellent correlation with the human subjective judgment of annoyance of the noise. The sound pressure levels measured using the A-weighting network are expressed as dBA.

D.2 HISTORY OF NOISE EVALUATORS.

Before the mid 1970's, every organization had its own set of preferred environmental noise evaluators. This resulted in a wide variety of evaluators. Since each evaluator was developed for a specific purpose, a noise environment measured with one evaluator could not be compared with an environment measured using another evaluator.

In carrying out its responsibilities under the Noise Control Act of 1972 (PL 92-574 1972), the U.S. Environmental Protection Agency (EPA) recommended the adoption of a single environmental noise evaluator, the LEQ and its 24-hour version, DNL. The Department of Defense, along with most other U.S. Government Agencies followed the EPA recommendation. The DNL is the most widely accepted descriptor for environmental noise (FAA 1990) because of the following characteristics:

- The DNL is a measurable quantity.
- The DNL is simple to understand and use by planners and the public who are not familiar with acoustics or acoustical theory.
- The DNL provides a simple method to compare the effectiveness of alternative scenarios.
- The DNL is a "figure of merit" for noise impacts which is based on communities' reactions to environmental noise.
- The DNL is the best measure of noise exposure to identify significant impacts on the quality of the human environment.
- By Federal interagency agreement, the DNL is the best descriptor of all noise sources for land use compatibility planning.
- The DNL is the only metric with substantial body of scientific survey data on the reactions of people to noise.

In recommending the DNL, the EPA noted that most noise environments are characterized by repetitive behavior from day to day, with some variation imposed by differences between weekday and weekend activity, as well as seasonal variation. To account for these variations, an annual average is used. Since annoyance is caused by long-term dissatisfaction with the noise environment, the annual average is an excellent predictor of the average community annoyance, but, the annual DNL is not a good predictor of noise complaints, since complaints represent the person's immediate dissatisfaction with the noise environment. The purpose of the DNL is for determining where any type of noise-sensitive land use would be inappropriate.

D.3 LEQ/DNL/CNEL NOISE EVALUATORS.

The equivalent sound level (LEQ) is defined as the equivalent steady state sound level which, in a stated period of time, would contain the same acoustic energy as the time-varying sound during the same period. The LEQ is an energy average. The energy average puts more emphasis on the higher sound pressure levels than the arithmetic average. The LEQ is usually computed for a 1-minute, 10-minute, 30-minute, 1-hour, 8-hour or 24-hour segment of environmental noise.

To assess the added annoyance of the environmental noise during the nighttime hours (2200 - 0700 hours), the DNL is used. The DNL is the 24-hour LEQ, with a 10 dB penalty added to the nighttime levels.

The State of California uses a variation of the DNL, the Community Noise Exposure Level (CNEL). The difference between the DNL and CNEL is as well as the 10 dB penalty added to nighttime noise events between 2200 and 0700 hours, a 5 dB penalty is added from 1900 to 2200 as well.

By using the LEQ and DNL or CNEL, the three important determinants of noise annoyance can be described by using a single number. The three determinants are the intensity of the noise event, the duration of the noise event, and the number of times the noise event takes place. Numerous laboratory and field studies have confirmed that the tradeoff between intensity, duration and number is adequately described by averaging the total acoustical energy.

D.4 NOISE CONTOURS.

DNL CONTOURS

Noise contours for can be generated using the DNL (A- or C-weighted) or unweighted peak levels (dBP). DNL contours are computed by averaging over the time period of interest, the acoustical energy from the operations of the set of noise sources of interest. The averaging period is usually a busy day, a training cycle, or a year. The contours, representing the boundaries between the noise zones, are constructed by connecting points of equal acoustical energy.

For example, DNL contours for a small arms range are computed by averaging at many points the acoustical energy arriving at these points from small arms activity. A 10 dB penalty is added to all nighttime operations. The contours for the range are constructed by connecting all points having a total acoustical energy equal to 65 dBA and connecting all points equal to 75 dBA.

Unweighted peak contours, like DNL contours, are generated by calculating the peak level that can be expected by an event and then connecting points of equal levels. Small arms peak contours are delineated at 87 dBP and 104 dBP. These levels were chosen because the percentage of the population found to be highly annoyed equates the annoyance levels found at the DNL ZN II and ZN III (65 and 75 ADNL).

D.4.1. AIRCRAFT NOISE.

The noise levels for aircraft activity at CPTS were generated using the NOISEMAP 6.5 program database. This program was developed for the US Air Force by Wyle Laboratories (U.S. Air Force 1990a).

D.4.2. SMALL ARMS NOISE.

Small arms noise contours were generated using the Small Arms Range Noise Assessment Model 2.0 (SARNAM). It incorporates the latest available information on weapons noise source models (including directivity and spectrum), sound propagation, effects of noise mitigation and safety structures (walls, berms, ricochet barriers), and community response protocols for small arms noise (Pater et al. 1999). SARNAM is used for generating DNL and peak level contours. It includes an extensive selection of weapons in the source library, can handle multiple ranges of various types, and is designed to maximize user productivity. The graphical output shows noise contours and range boundaries and can also display installation features.

D.5 NOISE LEVEL REDUCTION FEATURES.

The outside noise environment can be reduced inside structures with the appropriate construction. Examples of aircraft and vehicle noise level reduction (NLR) between outside and inside a structure are given in Table A-1 for various types of construction.

TABLE D-1. TYPICAL BUILDING CONSTRUCTION NLR VALUES. (U.S. Army 1978)

Type of Construction	NLR, dBA
Conventional wood frame	
- windows open	15 - 20
- windows closed	25 - 30
- no windows or 0.25 inch glass windows, sealed in place*	30 - 35
- 0.125 inch glass windows, sealed in place*	20 - 25
- 0.25 inch glass windows sealed in place*	25 - 30
Walls and roof - weighting 20 to 40 pounds per square foot, no windows*	35 - 40
- weighting 40 to 80 pounds per square foot, no windows*	40 - 45
- weighting over 80 pounds per square foot, no windows*	45 – 50

*Assuming a surface area consisting of only this element.

In addition to the types of construction listed in the Table, the NLR of a structure can be increased by:

- WALLS. The NLR of walls can be increased by increasing the mass of the walls, using "dead" air spaces, increasing air space between walls, using staggered studs, sealing cracks and edges, using or increasing insulation, and using acoustic coatings. Also, special attention should be given to openings (electrical outlets, medicine cabinets, etc.) and the use of resilient materials to hold panels to studs.

- ROOFS. The NLR of roofs can be increased by increasing the mass of the roof and sealing cracks and edges.

- CEILINGS. The NLR of ceilings can be increased by using or increasing insulation, using acoustic coatings or ceilings, and using non-fixed suspension methods.

- FLOORS. The NLR of floors can be increased by increasing the mass of the floor, blocking off all joists, and using resilient supports between joists and floor.

- WINDOWS. The NLR of windows can be increased by using sealed windows, increasing glass thickness, using double glazed windows, and increasing the volume of "dead" air space in double glazed windows.

- DOORS. The NLR of doors can be increased by using solid core doors and using doorframe gaskets.

- INTERIOR DESIGN. The NLR of interior spaces can be increased by using heavy drapes and carpets, and using acoustic ceiling treatment.

APPENDIX E
GUIDELINES FOR COMPATIBLE LAND USE

E.1 GUIDELINES FOR CONSIDERING NOISE IN LAND USE PLANNING AND CONTROL. (FICUN 1980)

		NOISE ZONES/ADNL LEVELS						
		NZ I		NZ II		NZ III		
SLUCM No.	LAND USE	0-55	55-65	65-70	70-75	75-80	80-85	85 +
10	**RESIDENTIAL**							
11	Household Units	Yes	Yes*	25[1]	30[1]	No	No	No
12	Group Quarters	Yes	Yes*	25[1]	30[1]	No	No	No
13	Residential Hotels	Yes	Yes*	25[1]	30[1]	No	No	No
14	Mobile Home Parks or Courts	Yes	Yes*	No	No	No	No	No
15	Transient Lodgings	Yes	Yes*	25[1]	30[1]	35[1]	No	No
16	Other Residential	Yes	Yes*	25[1]	30[1]	No	No	No
20,30	**MANUFACTURING**							
21	Food & Kindred Products	Yes	Yes	Yes	Yes[2]	Yes[3]	Yes[4]	No
22	Textile Mill Products	Yes	Yes	Yes	Yes[2]	Yes[3]	Yes[4]	No

		NOISE ZONES/ADNL LEVELS						
		NZ I		NZ II		NZ III		
SLUCM No.	LAND USE	0-55	55-65	65-70	70-75	75-80	80-85	85 +
20,30	**MANUFACTURING continued:**							
23	Apparel/Other Finished Products	Yes	Yes	Yes	Yes[2]	Yes[3]	Yes[4]	No
24	Lumber & Wood Products	Yes	Yes	Yes	Yes[2]	Yes[3]	Yes[4]	No
25	Furniture & Fixtures	Yes	Yes	Yes	Yes[2]	Yes[3]	Yes[4]	No
26	Paper & Allied Products	Yes	Yes	Yes	Yes[2]	Yes[3]	Yes[4]	No
27	Printing, Publishing & Allied Industries	Yes	Yes	Yes	Yes[2]	Yes[3]	Yes[4]	No
28	Chemicals & Allied Products	Yes	Yes	Yes	Yes[2]	Yes[3]	Yes[4]	No
29	Petroleum Refining & Related Industries	Yes	Yes	Yes	Yes[2]	Yes[3]	Yes[4]	No
31	Rubber & Misc Plastic Products - Manufac	Yes	Yes	Yes	Yes[2]	Yes[3]	Yes[4]	No

32	Stone, Clay & Glass Products - Manufac	Yes	Yes	Yes	Yes[2]	Yes[3]	Yes[4]	No
33	Primary Metal Industries	Yes	Yes	Yes	Yes[2]	Yes[3]	Yes[4]	No
34	Fabricated Metal Products - Manufac	Yes	Yes	Yes	Yes[2]	Yes[3]	Yes[4]	No
35	Professional, Scientific & Controls	Yes	Yes	Yes	25	30	No	No
39	Miscellaneous Manufacturing	Yes	Yes	Yes	Yes[2]	Yes[3]	Yes[4]	No
40	**TRANSPORT, COMMS & UTIL**							
41	Railroad, Rapid Rail Transit & Street Rail	Yes	Yes	Yes	Yes[2]	Yes[3]	Yes[4]	Yes[4]
42	Motor Vehicle Transportation	Yes	Yes	Yes	Yes[2]	Yes[3]	Yes[4]	Yes[4]
43	Aircraft Transportation	Yes	Yes	Yes	Yes[2]	Yes[3]	Yes[4]	Yes[4]

NOISE ZONES/ADNL LEVELS

		NZ I		NZ II		NZ III		
SLUCM No.	LAND USE	0-55	55-65	65-70	70-75	75-80	80-85	85 +
40	**TRANSPORT, COMMS & UTIL continued**							
44	Marine Craft Transportation	Yes	Yes	Yes	Yes[2]	Yes[3]	Yes[4]	Yes[4]
45	Highway & Street Right-of-Way	Yes	Yes	Yes	Yes[2]	Yes[3]	Yes[4]	Yes[4]
46	Automobile Parking	Yes	Yes	Yes	Yes[2]	Yes[3]	Yes[4]	No
47	Communications	Yes	Yes	Yes	25[5]	30[5]	No	No
48	Utilities	Yes	Yes	Yes	Yes[2]	Yes[3]	Yes[4]	Yes[4]
49	Other Transportation, Comms & Utilities	Yes	Yes	Yes	25[5]	30[5]	No	No
50	**TRADE**							
51	Wholesale Trade	Yes	Yes	Yes	Yes[2]	Yes[3]	Yes[4]	No
52	Retail - Building Materials, Hardware/ Farm	Yes	Yes	Yes	Yes[2]	Yes[3]	Yes[4]	No
53	Retail - General Merchandise	Yes	Yes	Yes	25	30	No	No
54	Retail - Food	Yes	Yes	Yes	25	30	No	No
55	Retail - Auto, Marine,							

	Aircraft & Parts	Yes	Yes	Yes	25	30	No	No
56	Retail - Apparel & Accessories	Yes	Yes	Yes	25	30	No	No
57	Retail - Furniture, Furnishings & Equipment	Yes	Yes	Yes	25	30	No	No
58	Retail - Eating & Drinking Facilities	Yes	Yes	Yes	25	30	No	No
59	Other Retail Trade	Yes	Yes	Yes	25	30	No	No
60	**SERVICES**							
61	Finance, Insurance & Real Estate Services	Yes	Yes	Yes	25	30	No	No

		NOISE ZONES/ADNL LEVELS						
		NZ I		NZ II		NZ III		
SLUCM No.	LAND USE	0-55	55-65	65-70	70-75	75-80	80-85	85 +
60	**SERVICES continued**							
62	Personal Services	Yes	Yes	Yes	25	30	No	No
62.4	Cemeteries[11]	Yes	Yes	Yes	Yes[2]	Yes[3]	Yes[4]	Yes[6]
63	Business Services	Yes	Yes	Yes	25	30	No	No
64	Repair Services	Yes	Yes	Yes	Yes[2]	Yes[3]	Yes[4]	No
65	Professional Services	Yes	Yes	Yes	25	30	No	No
65.1	Hospitals, Nursing Homes	Yes	Yes*	25*	30*	No	No	No
65.1	Other Medical Facilities	Yes	Yes	Yes	25	30	No	No
66	Contract Construction Services	Yes	Yes	Yes	25	30	No	No
67	Government Services	Yes	Yes*	Yes*	25*	30*	No	No
68	Educational Services	Yes	Yes*	25*	30*	No	No	No
69	Miscellaneous Services	Yes	Yes	Yes	25	30	No	No
70	**CULTURAL, ENTERTAINMENT & REC**							
71	Cultural Activities, Including Churches	Yes	Yes*	25*	30*	No	No	No
71.2	Nature Exhibits	Yes	Yes*	Yes*	No	No	No	No
72	Public Assembly	Yes	Yes	Yes	No	No	No	No
72.1	Auditoriums, Concert Halls	Yes	Yes	25	30	No	No	No

72.11 Outdoor Music Shells, Amphitheaters	Yes	Yes*	No	No	No	No	No
72.2 Outdoor Sports Arenas, Spectator Sports	Yes	Yes	Yes[7]	Yes[7]	No	No	No
73 Amusements	Yes	Yes	Yes	Yes	No	No	No
74 Recreational Activities	Yes	Yes*	Yes*	25*	30*	No	No
75 Resorts, Groups & Camps	Yes	Yes*	Yes*	Yes*	No	No	No
76 Parks	Yes	Yes*	Yes*	Yes*	No	No	No

		NOISE ZONES/ADNL LEVELS						
		NZ I		NZ II		NZ III		
SLUCM No.	LAND USE	0-55	55-65	65-70	70-75	75-80	80-85	85 +
79	Other Cultural, Entertainment & Recreation	Yes	Yes*	Yes*	Yes*	No	No	No
80	**RESOURCE PRODUCT & EXTRACT**							
81	Agriculture (Except Livestock)[11]	Yes	Yes	Yes[8]	Yes[9]	Yes[10]	Yes[10]	Yes[10]
81.5- 81.7	Livestock Farming & Animal Breeding	Yes	Yes	Yes[8]	Yes[9]	No	No	No
82	Agricultural Related Activities[11]	Yes	Yes	Yes[8]	Yes[9]	Yes[10]	Yes[10]	Yes[10]
83	Forestry Activities & Related Services[11]	Yes	Yes	Yes[8]	Yes[9]	Yes[10]	Yes[10]	Yes[10]
84	Fishing Activities & Related Services	Yes	Yes	Yes	Yes	Yes	Yes	Yes
85	Mining Activities & Related Services	Yes	Yes	Yes	Yes	Yes	Yes	Yes
89	Other Resource Production & Extraction	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Legend:

SLCUM Standard Land Use Coding Manual

Yes Land use and related structures compatible without restrictions.

No — Land use and related structures are not compatible and should be prohibited.

ADNL — A-weighted day-night sound level

NZ — Noise Zone

Yes[x] — (Yes with restrictions) Land use and related structures generally compatible; see footnotes.

25,30,35 — Land use and related structures generally compatible; measures to achieve noise level reduction (NLR) of 25, 30 or 35 must be incorporated into design and construction of structure.

25[x]30[x]35[x] — Land use generally compatible with NLR; however, measures to achieve an overall NLR do not necessarily solve noise difficulties; additional evaluation is warranted.

NLR — Noise level reduction (outdoor to indoor) to be achieved through incorporation of noise attenuation into the design and construction of the structure.

<u>Footnotes:</u>

[*] The designation of these uses as "compatible" in this zone reflects individual Federal agencies' consideration of general cost and feasibility factors as well as past community experiences and program objectives. Localities, when evaluating the application of these guidelines to specific situations, may have different concerns or goals to consider.

[1] (a) Although local conditions may require residential use, it is discouraged in 65-70 ADNL and strongly discouraged in 70-75 ADNL. The absence of viable alternative development options should be determined and an evaluation indicating that a demonstrated community need for residential use would not be met if development were prohibited in these zones should be conducted prior to approvals.
(b) Where the community determines that residential uses must be allowed, measures to achieve outdoor to indoor NLR of at least 25 dB (65-70 ADNL) and 30 dB (70-75 ADNL) should be incorporated into building codes and be considered in individual approvals. Normal construction can be expected to provide a NLR of 20 dB, thus the reduction requirements are often stated as 5, 10, or 15 dB over standard construction and normally assume mechanical ventilation and closed windows year round. Additional consideration should be given to modifying NLR levels based on peak noise levels.
(c) NLR criteria will not eliminate outdoor noise problems. However, building location and site planning, design, and use of berms and barriers can help mitigate outdoor noise exposure particularly from ground level transportation sources.

Measures that reduce noise at a site should be used wherever practical in preference to measures which only protect interior spaces.

2 Measures to achieve NLR of 25 must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas, or where the normal noise level is low.

3 Measures to achieve NLR of 30 must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas, or where the normal noise level is low.

4 Measures to achieve NLR of 35 must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas, or where the normal noise level is low.

5 If noise sensitive, use indicated NLR; if not, use is compatible.

6 No buildings.

7 Land use compatible provided special sound reinforcement systems are installed.

8 Residential buildings require a NLR of 25.

9 Residential buildings require a NLR of 30.

10 Residential buildings not permitted.

11 In areas with ADNL greater than 80, land use not recommended, but if community decides use is necessary, hearing protection devices should be worn by personnel.

APPENDIX F

LAND USE PLANNING AND CONTROL TECHNIQUES

F.1 GENERAL. (U.S. Army 1988a)

Several different planning and land-use control techniques are normally available to local governments to prevent noise intrusions. Controls that are generally most useful for achieving compatibility zoning, easements and development rights, and land purchase are discussed in this appendix. Other controls such as building codes (noise insulation requirements), health and housing codes, programming of public capital improvements, and cooperation of financial institutions have either less or specialized applicability.

F.2 ZONING.

The most common and useful land-use control method is zoning. This method is an exercise of the police powers of state and local governments that designates the uses permitted on each parcel of land. It normally consists of a zoning ordinance that delineates the various use districts and includes a zoning map based on the land-use element of the community's comprehensive general plan. At the same time, a zone is subject to change and must be monitored continually if it is to remain a viable compatibility tool.

- **USES OF ZONING.** Zoning should be applied fairly and based on a comprehensive plan. Zoning ordinances implement provisions of the comprehensive plan. This plan must consider the total needs of the community along with specific needs of the installation. For example, to zone a parcel of land for industrial or warehouse usage simply because it lies within a noise impact area is not acceptable. Such an action could be considered "arbitrary, capricious, or unreasonable" and thus vulnerable in the event of judicial review. The plan must clearly demonstrate that there is a reasonable present or future need for such usage. Zoning can and should be used constructively to increase the value and productivity of land within the noise areas. Used within its limitations, zoning is the preferred method of controlling land use in noise-impacted areas.

- **LIMITATIONS OF ZONING.** Zoning has several limitations that must be considered when using it as a compatibility implementation tool. These limitations include:

Zoning is usually not retroactive. That is, changing a zone primarily for the purpose of prohibiting a use that already exists is normally not possible. However, if such zoning is accomplished, the use must be permitted to remain as a "nonconforming" element until the owner has had ample opportunity to recoup his/her investment.

Zoning is jurisdiction-limited. Installation impacts often span more than one zoning jurisdiction. In this case, zoning requires coordination of all involved jurisdictions. Zoning that implements, a compatibility plan will often be composed of existing and new

zoning districts within each of the zoning jurisdictions covered by the plan. Each jurisdiction is likely to have a different base zoning ordinance with districts having different applicability for implementing the compatibility plan. Counties in many states do not have zoning authority; hence, land-use control via zoning in these states stops at the municipal boundary.

Zoning is <u>not</u> permanent. In any jurisdiction, zoning can be changed by the current government body; it is not bound by prior zoning actions. Consequently, zoning that achieves compatibility is subject to continual pressure for change from both urban expansion and enterprises that might profit from such changes. When these changes are proposed, the environmental impacts may require assessment. Also, from time-to-time the entire zoning ordinance for a jurisdiction will be updated to accommodate increased growth or incorporate new land-use concepts.

Cumulative zoning can permit incompatible development. Several communities still have "cumulative" type zoning districts that permit all "higher" uses (such as residential) in "lower" use districts (such as commercial or industrial), thus supporting development that may be incompatible. In these instances, it is necessary to prepare and adopt new or additional zoning districts of the "exclusionary" type that clearly specify the uses permitted and exclude all others.

Zoning Board of Adjustment actions granting variances. variances to the zoning district or exceptions (e.g., schools or churches) written into the zoning ordinance can also permit development that may be incompatible.

- **POSITIVE FEATURES OF ZONING.** The zoning ordinance may be the most attractive land-use control to prevent development around installations. First, zoning is the most effective control because, by law, it can prohibit specific developments. Second, this technique normally costs the installation nothing.

- **NEGATIVE FEATURES OF ZONING.** The installation must rely on the municipality's governing body for proper zoning solutions. This may involve a political struggle beyond the installation's control. Also, the municipality must be wary of "taking land without just compensation," which is an issue often raised in zoning proceedings.

F.3 TRANSFER OF DEVELOPMENT RIGHTS (TDR).

TDR involves separate ownership and use of various "rights" associated with a parcel of real estate. Under the TDR concept, some of the property's developmental rights are transferred to a remote location where they may be used to intensify allowable development. With TDR, for example, lands within an installation's noise-impacted area could be kept in open space or agricultural areas and their developmental rights for residential uses transferred to locations outside the area. Landowners could be compensated for the transferred rights by their sale at the new locations or the rights could be purchased by the MNARNG. Depending on market conditions and/or legal requirements, the MNARNG could either hold or resell the rights. The TDR approach

must be fully coordinated with the community's planning and zoning office. It may be necessary for the zoning ordinance to be amended so that it permits TDR's. Also, transfers usually must be contained within single zoning jurisdictions.

- **POSITIVE FEATURES OF TDRs.** The program would be inexpensive or cost-free to the installation since the local government would administer it. The program could also stimulate growth and development of the property to which developmental rights were being transferred.

- **NEGATIVE FEATURES OF TDRs.** One potential problem is record keeping. Because of the complexity of the transaction, it is often difficult to keep track of the principals and the exact number of rights that are sold and bought.

F.4 LAND PURCHASE.

Fee-simple purchase of noise-impacted land is the most positive form of land-use control. It is also usually the most expensive. However, when combined with either resale for compatible uses or retention and use for a compatible public purpose, the net cost may be reduced greatly. As a preventive measure, purchase should usually be limited to critical locations or to cases for which other solutions would not work. Acquisition can be through negotiation with the property owner, by deed or gift, or through condemnation.

- **POSITIVE FEATURES OF LAND PURCHASE.** An obvious positive feature of this method is that it allows the installation to gain complete control over the use of surrounding land. Ownership also allows eventual sale of property. This installation program reduces initial expenditures by allowing the property to be acquired over time.

- **NEGATIVE FEATURES OF LAND PURCHASE.** The biggest problem with this method is the initial cost of acquiring the land. This initial outlay may prove too expensive to justify the acquisition. In addition, the cost of maintaining the property may prove too expensive in the future. Development on the property still could be prevented by restrictive or sales agreements.

F.5 BUILDING CODES.

A building code prescribes the basic requirements that regulate construction of structures. The building code is adopted by the local governing body to protect the health, safety, and general welfare of the occupants of these structures. The code establishes a set of requirements covering matters such as fire protection, building materials, lights, ventilation, exits, plumbing, and others. Although building codes are not a technique to actually prevent development, they can restrict it, especially near Army installations. A code can require that walls, partitions, and floor-ceiling construction have minimum sound transmission capabilities. The code can specify a certain sound transmission class (STC) that must be obtained. Specific construction techniques and materials can be stated in the code. Also, the code should require that certain noise levels are maintained after the structure is complete.

- **POSITIVE FEATURE OF BUILDING CODES.** The positive feature of the building code is that it promotes construction and development of structures that contain noise-proofing features.

- **NEGATIVE FEATURE OF BUILDING CODE.** The negative feature of building codes is that they do not prevent or restrict any type of land use around installations.

F.6 SUBDIVISION REGULATION.

Subdivision regulations are a means by which local government can ensure that proper lot layout, design, and improvements are included in new residential developments. These regulations specifically set guidelines that developers must follow when constructing their subdivisions; examples are minimum requirements for road widths, lot arrangements, allocation of facilities, the relationship of the subdivision to the surrounding area, and the dedication of property. Subdivision regulations are used to ensure that the health and habitability of each new residential development are maintained.

All local government subdivision regulations require some type of dedication of open space to the public. This provision could be structured such that the space is located nearest CPTS. Noise barriers might also be erected along these buffer areas. Also, larger buffer areas could be required for subdivisions closer to the noise source.

- **POSITIVE FEATURES OF SUBDIVISION REGULATIONS.** Subdivision regulations can be used effectively diminish noise levels in a residential area. This control can be achieved by carefully locating open spaces among units in the subdivision.

- **NEGATIVE FEATURES OF SUBDIVISION REGULATIONS.** Subdivision regulations alone will not prevent development around or near an installation. They are only a way to diminish the impact of noise emanating from the installation. Buffers placed in the subdivision may not be adequate to reduce the noise levels, providing only partial noise reduction. Administrative responsibility for subdivision regulations would then increase because of the additional requirements for noise attenuation. Thus, the cost to both the local government and the homeowner would increase.

F.7 HEALTH CODES.

The health code in a given community sets up the requirements that protect residents from adverse elements that may endanger them. These elements include disease, poor sanitary facilities, and inadequate or unsafe water supplies. Requirements in the code encompass all types of land uses. Similar to the building code, the health code does not actually prevent development around Army installations. The codes, however, can protect people from the noise impact of a nearby installation. At standard can be built into the code that would apply to noise-sensitive uses such as homes. The developer

would be required to prohibit excessive noise levels in the development or consider another use that is not noise-sensitive.

- **POSITIVE FEATURES OF HEALTH CODES.** The health code could be used in areas where zoning either is not used or is not an option. In most cases, the health code would be too strict to allow residential uses near installations, thus requiring some other, more compatible land use such as a manufacturing plant.

- **NEGATIVE FEATURES OF HEALTH CODES.** The health code, depending on its complexity, is often difficult to administer. Also, field checks have to be done to ensure compliance. The paperwork needed to administer the program is substantial. In addition, the time-consuming paperwork and field checks slow development.

F.8 DISCLOSURE OF NOISE LEVELS.

Noise levels in the community can be measured and recorded. By making these levels public information, incompatible uses around Army installations might be prevented. Noise levels can be disclosed in several ways. One method is by an ordinance or an amendment to an existing ordinance, which could be passed by the local governing body, requiring disclosure. Another method would be to implement a voluntary program among realtors in the community, who would inform the potential purchaser of any unacceptable noise levels.

There are several ways in which such a program can be applied at the local level. First, a statement of noise levels could be included in the deed so that the purchaser of the property knows about them. Second, real estate or leasing agents could be required to inform prospective purchasers or tenants about the potential noise problem. Also, the noise level for that area could be posted on any "for sale" or "for lease" sign placed on the property. Finally, noise contours could be published on all subdivision plots and possibly all municipal, land use, and zoning maps.

- **POSITIVE FEATURES OF DISCLOSING NOISE LEVELS.** The program would make information available to the public that had not been previously, including new residents who are unfamiliar with the area. The public could then make more informed choices about locating their residences and businesses.

- **NEGATIVE FEATURES OF DISCLOSING NOISE LEVELS.** Simply disclosing the noise level information does not mean that the information will be used. Programs will be required to educate the public and ensure that the public remains informed in the future. Moreover, this measure could become costly and time-consuming if noise contours were required to be placed on all municipal maps.

F.9 HUD/VA REGULATIONS.

Both the Department of Housing and Urban Development (HUD) and the Department of Veterans Affairs (VA) have regulations concerning noise levels in areas where they might help finance new construction. Both agencies follow the DOD guidelines

concerning the ICUZ Program. Neither agency will make loans in areas identified as having unacceptable noise levels. These areas correspond to a ADNL of 75 or greater (noise zone III). Only when the ADNL is less than 65 is a site totally acceptable. This control method has potential application to all DOD installations.

- **POSITIVE FEATURES OF HUD/VA REGULATIONS.** The program is similar to the development loan restriction except that public money is involved. Development, mostly residential, would be prohibited near an Army installation where noise levels are unacceptable.

- **NEGATIVE FEATURES OF HUD/VA REGULATIONS.** These provisions do nothing for existing developments. Also, there is no current provision to prevent loans on the resale and subsequent purchase of existing structures. This measure is primarily limited to one type of land use - residential.

F.10 LAND BANKING.

The term "land banking" is defined as a system in which a government acquires a substantial fraction of land in a region available for future development for the purpose of implementing a public land-use policy. Land banking prohibits the land being acquired from becoming committed to a specific use at the time of acquisition; in addition, the land must be large enough to have a substantial effect on urban growth patterns. Land banking differs from permanent acquisition in that it places the land in a temporary holding status to be turned over for development at a future date. Land banking can be used when development of a future installation is known. For example, land in excess of that required for the installation can be purchased and held for future use.

- **POSITIVE FEATURES OF LAND BANKING.** The two primary arguments in favor of land banking are that it will have an anti-inflationary effect on land prices, thus preventing land speculation, and it will permit more rational patterns of development rather than urban sprawl.

- **NEGATIVE FEATURES OF LAND BANKING.** Positive aspects of land banking are disputed on the basis that if there is an orderly development of land, there will be no land that is "wasted". Therefore, the functional use of each parcel of land will increase, thus raising the price of that parcel. Another factor to consider is that the program may become politically manipulated. Government officials in charge of the program could show favoritism both when lands are acquired and opened for sale on the market. In addition, an expenditure may be too large to even begin a program of land banking. Proponents claim, however, that the money can be recovered once the site is developed.

F.11 SPECIAL TAX TREATMENT.

Special or preferential tax assessment of land by a local government allows an owner of a piece of property to pay lower or no property tax. By taxing land around Army installations differently, open space can be maintained. There are three primary methods

of using taxes to keep space open. First, tax exemption of open property could be encouraged. Second, preferential assessment of land would allow agricultural or open land to be taxed at a substantially lower rate. Third, tax deferral allows the owner of open property to forego property tax payments until a non-open space use is developed. Before such use is approved, however, all tax deferrals would have to be paid.

The States of Maryland and Pennsylvania have used preferential assessment in efforts to preserve open space; Virginia pioneered the tax deferral scheme. Both of these programs should be studied to determine their applicability to specific installations.

- **POSITIVE FEATURES OF SPECIAL TAX TREATMENT.** These methods are, again, a way of preventing development at no cost to the USAR. The preservation of existing uses, especially agriculture, is promoted as well. Property that abuts the open space will become more valuable through the amenity that open space provides. The added value translates into increased tax revenue for the local government. Because the open space is adjacent to CPTS, the value of the amenity is somewhat diminished, however. Even if the value of the abutting land uses stays constant, the tax program has worked.

- **NEGATIVE FEATURE OF SPECIAL TAX TREATMENT.** The cost of the program must be absorbed by the local government, which may refuse to implement it for this reason.

F.12 CAPITAL IMPROVEMENTS PROGRAM (CIP).

Capital improvements programming is the multi-year scheduling of physical upgrades to public property. A capital improvements program (CIP) is a planning tool used by local jurisdictions to phase the installation of needed public facilities (e.g., water and sewer, roads, schools) on a priority basis. A CIP usually projects needs three to six years into the future. It specifies what public improvements will be constructed. Scheduling is based on studies of fiscal resources available and improvements needed. Many communities are starting growth management systems, of which a CIP is an important component. The CIP identifies the methods by which improvements will be financed and the source of the funds. Usually, development occurs where capital improvements are located. Extension of municipal services into an area makes that area more attractive to developers than sites without the improvements (i.e., the developer saves both time and money). Local governments should avoid extending capital improvements into high-noise areas to avoid the possibility of incompatible uses.

- **POSITIVE FEATURES OF CIP.** There are many benefits to an effective CIP. For example, the CIP can: ensure that plans for community facilities are completed; effectively schedule public improvements that require more than one year to construct; avoid improvement mismanagement; and lead to effective growth management, among other features. CIP can and should be coordinated with local zoning ordinances to provide for growth management.

- **NEGATIVE FEATURES OF CIP.** Capital improvements are limited to expenditures for physical facilities with relatively long-term usefulness and permanence. Often, misuse of a CIP can lead to haphazard or unwanted development.

F.13 PUBLIC/PRIVATE LEASEBACK.

Leaseback is a financial arrangement in which the land is acquired and controlled, but not necessarily occupied, by the owner. This method can be used by both the public and private sectors. The leaseback arrangement in the private sector requires two simultaneous steps. First, an investor purchases real estate owned and used by a business firm or government. Second, the property is leased back to the firm or government by private persons for specific uses in accordance with the approved plan for the area. Customarily, the terms of the lease ranges from 20 to 40 years.

- **POSITIVE FEATURES OF PUBLIC/PRIVATE LEASEBACK.** Leaseback offers a way for public agencies to acquire land, yet provide for the continued use of the land by others. Public agencies can thus limit the land use, while acquiring some income from the property. The leaseback method is popular in the private sector because it provides capital from outside sources and is a flexible form of financing.

- **NEGATIVE FEATURES OF PUBLIC/PRIVATE LEASEBACK.** Public agencies often have the usual landlord's management problems. The leaseback arrangement also keeps land off the tax roles when used by the public sector, which lowers income to the government. Problems arise in the private sector when there is no repurchase option and the value of the property appreciates. Without this option, the lessee will not share in any value increases.

F.14 SALES AGREEMENT.

An essential ingredient in transferring real estate into a valuable commodity is the written agreement. A contract is a legally binding document in which certain parties agree to do or refrain from doing some action. The sales agreement is a legal contract which can be enforced through the legal process by either of the parties if the other party does not willingly comply with contract terms.

A sales agreement is needed to establish the terms agreed upon by the seller and buyer. The buyer usually accepts the terms in the purchase agreement. Final acceptance of the purchase or sales agreement may be conditional upon proof of a clear title, rezoning to fit the land-use plans of the buyer, or adequate financing from lenders. The minimum requirements for a sales contract are the parties' agreement to conditions of the sale, a description of the property, and signatures of the agreeing parties. The USAR, through sales agreements, can restrict the use of land surrounding CPTS if they own or control them. Of course, the buyer must accept the terms of the sales agreement.

- **POSITIVE FEATURES OF SALES AGREEMENTS.** After signing, the sales agreement is a legally binding contract. The buyer and/or seller can seek legal recourse through the courts if the contract is broken.

- **NEGATIVE FEATURES OF SALES AGREEMENTS.** Unlike the restrictive covenant, the sales agreement pertains only to the prospective buyer. The agreement does not carry over to future sales of the property unless so stated in the contract. In addition, certain areas of agreements and contracts are subject to possible misrepresentation and fraud.

F.15 DEED/COVENANTS.

A deed is the document conveying ownership of land from one party to another. Restrictions (known as "covenants") can be added to become an integral part of the deed. Such covenants specify the uses which the new owner may make of the land. Deed restrictions apply in addition to any zoning laws. They may even supersede the zoning law by prohibiting a specified use that might otherwise be legal from a zoning standpoint. Restrictive covenants are known technically as "running with the land". That is, no matter how often the land is subsequently resold, these restrictions remain in effect. They are a part of the land. There is usually a time limit placed on covenants of 20 to 30 years, after which they are no longer in effect. In certain instances, restrictions that have become impractical can be legally removed by the landowner, if deemed justifiable by the courts.

For deed restrictions to be an effective tool, the installation must first own or acquire the property surrounding the installation. In later reselling this property, agents can specify which uses will be permitted on the land. The government can thereby prevent residential (or otherwise incompatible) land uses for as long as the restrictions remain in effect. This method is particularly useful in controlling development on the property most vulnerable to installation noise.

- **POSITIVE FEATURES OF DEED/COVENANTS.** This method is attractive because the installation retains control over surrounding land uses without needing to continue ownership of the land, thus lessening the tax burden. Deed restrictions are legally enforceable, regardless of how many times the property is resold.

- **NEGATIVE FEATURES OF DEED/COVENANTS.** Some minor problems are associated with this method. The amount of land originally purchased for CPTS must exceed the amount actually needed. This situation may present an excessive financial burden. Also, placing land-use restrictions in the deed might hinder attempts to sell the land later.

F.16 PURCHASE OF DEVELOPMENT RIGHTS.

A title to real property contains several rights, including that of development. By purchasing this one right, incompatible land uses near CPTS might be prevented. Purchase of development rights would resemble a fee-simple purchase in terms of actual

transaction and necessary legal paperwork. The difference would be that only one right is purchased rather than all of them. The development right of any property is usually the most valuable and desirable. The cost of the right is equal to the difference between the value of that parcel at its highest and best use and its existing value. A program of purchasing development rights could be used when insufficient funds are available for fee-simple purchases of land. The program would work best where development rights of agricultural land are purchased; the land would remain productive and yet no incompatible use could be developed.

- **POSITIVE FEATURES OF PURCHASING DEVELOPMENT RIGHTS.** By purchasing development rights, land uses adjoining CPTS can be kept compatible. The purchase of these rights on lands surrounding CPTS would thus achieve the goal of preventing development of any kind. After all the purchases have been made, no more administrative work would be needed. If the program could be completed in a relatively short period of time, administrative and land acquisition costs could be reduced. Also, purchasing development rights is much less expensive, in most cases, than fee-simple purchase.

- **NEGATIVE FEATURES OF PURCHASING DEVELOPMENT RIGHTS.** Such a program requires major expenditure of funds because of the amount of land that encompasses CPTS. Unwilling sellers may present a problem as well. If the highest and best use of the land is a high density one (e.g., multifamily), the price of the development rights would not be much less than that of fee-simple ownership.

F.17 PURCHASE OPTION.

An option is an agreement between the buyer and seller of a piece of property. In the agreement, the seller will hold the property for a specified time. In turn, the buyer agrees to pay a sum of money as consideration for the offer. At the time the option is granted, no real property ownership rights pass. Instead, the buyer is purchasing the right to buy at a fixed price within a specified period of time. The seller retains the money paid regardless of whether the option is exercised. Option costs vary, but usually include the property taxes and a standard interest charge. The option can be used when funds cannot be acquired to purchase the property outright. During the period of the option, funds presumably can be obtained to make the purchase. This period can also be used to examine rezoning possibilities or other actions that would affect ownership of the property.

- **POSITIVE FEATURES OF PURCHASE OPTION.** As mentioned above, an option allows the buyer time to locate and secure funds necessary to make the final purchase. Also, the option prevents others from developing the property in a way unacceptable to the installation.

- **NEGATIVE FEATURES OF PURCHASE OPTION.** This technique requires expenditure of funds to purchase the option. Even more funds must be appropriated if the option is set up to be renewed continuously.

F.18 TECHNIQUES FOR DEALING WITH NOISE IN LAND USE PLANNING.
(FICUN 1980)

TECHNIQUE	SITUATION WHERE MOST APPLICABLE	COMMENTS
Increased Citizen Awareness.		
Citizen Education	Anywhere`	Can be an important factor in determining the marketability of homes and other land uses. Can have a direct effect on developers and builders. Use in combination with other actions.
Prior Notice of Noise Levels to Renters and Purchasers	Anywhere	Can be required by local ordinance. Enable renters and purchasers to choose environment with full information. May reduce or eliminate subsequent complaints or damage claims.
Coordination.		
OMB Cir A-95 Process	Where Federal and Federally assisted projects are proposed.	Allows identification of noise problems in the review and comment of Federal and Federally assisted plans, programs and projects. Indirect control.
Environmental Assessment Process	Anywhere Environmental Impact Analyses are required.	Indirect control. Increase awareness of noise. May discourage Inappropriate projects. A mechanism to propose mitigation measures.

TECHNIQUE	SITUATION WHERE MOST APPLICABLE	COMMENTS
Providing Advisory Services.		
Architectural and/or Planning Review	Where there is appropriate staff or funding.	Site-specific analysis for each case.
Design Assistance	Where there is appropriate staff or funding.	Allows inclusion of noise mitigation measures such as building attenuation, siting modification, berms, and barriers, etc.
Information Libraries	Anywhere	Passive advisory service.
Comprehensive Planning Process.		
Incorporating noise issues into Comprehensive Planning Process	Where comprehensive planning process is established particularly when controls (zoning) must implement plan.	Works best when noise is considered a basic suitability factor along with others such as slope, soil conditions, etc. Should be addressed in all types of plans. May require enabling legislation.
Environmental Management Programs.		
Incorporating noise issues into EnvironmentalWaste Management Programs	Where programs such as Area-wide Management, Air Quality, Coastal Zone Management, Prime and Unique Agricultural Lands, Floodplain and Wetlands are established.	These programs influence land use policy.

TECHNIQUE	SITUATION WHERE MOST APPLICABLE	COMMENTS
Development Codes and Policies.		
Subdivision Regulations and/ or site plan approvals.	Where portions of development projects fall within noise	May not be applicable for airborne aircraft. May require enabling legislation. Require Noise exposure areas. Considerations in site design (site orientation, buffers, barriers, etc.).
Building Codes. Require sound insulation, isolation, absorption in building construction.	Where interior noise exposure can be reduced to acceptable levels and buildings should otherwise be prohibited.	Noise Level Reduction (NLR) up to 35 dB (15 dB above normal construction). Outdoor environment not protected. May require enabling legislation to use noise zones for building code restrictions. Difficult to apply retro-actively. Local opposition to increased building costs possible related to energy conservation. Requirements might also be incorporated into health and/or occupancy codes.
Special Permits and/or Special Planning Districts	Anywhere a permit granting system exists or can be started.	Site-specific analysis would be required for each case. May require enabling legislation.

TECHNIQUE	SITUATION WHERE MOST APPLICABLE	COMMENTS
Special Use Designations	Anywhere unique or special land characteristics exist (cultural or historic, scenic, wetlands, floodplain, prime agricultural lands, water supply sources).	Such areas may be noise exposed and those designations will normally assure noise compatibility. May require legislation.
Official Map	Anywhere streets exist or are planned.	Planned major streets should avoid noise sensitive areas and should encourage development in areas not exposed to noise.
Capital Improvements	Anywhere.	Governmental constructed utilities, streets, and facilities should be sited to encourage compatible use and be in themselves compatible.
Land Use Controls (Zoning).		
For Compatible Land Uses	Anywhere.	Should be based on a comprehensive plan. May require enabling legislation to use noise as a criterion. Not retroactive and can be removed upon short notice. Most effective for undeveloped areas.

TECHNIQUE	SITUATION WHERE MOST APPLICABLE	COMMENTS
To Require Buffer Areas	Where noise source is at ground level.	Easy to implement in low density areas. Not effective for airborne aircraft. May require enabling legislation.
To Require Berms or Barriers	Where noise source is at ground level.	Effective, but care is needed to insure that it is aesthetically desirable. May require enabling legislation.
To Allow Cluster or Planned Unit Development	For medium and large developments.	Significant potential benefits. Builders can incorporate buffer areas without reducing number of units. May require enabling legislation.
Purchase Real Property Interests.		
Fee Purchase for Compatibility	Where noise levels are extreme.	Attempts to contain worst noise effects within the right-of-way or site. May require enabling legislation.
Fee Purchase for Public Use	Where public use is compatible and	Limited by need for compatible public uses. needed in that location.

TECHNIQUE	SITUATION WHERE MOST APPLICABLE	COMMENTS
Fee Purchase and Resale with Development Restrictions	Where other measures are are impractical.	Public authority may be reluctant. Local government may object to controls. Business may object to government becoming developer. Dependent on demand feasibility for compatible use. May require enabling legislation.
Easement (Development Rights) Purchase	Where other measures are impractical.	May be more practical than Fee Simple purchase. May require enabling legislation.
Agricultural Land Preservation District	Where land is suitable.	Requires appropriate legislation. Minimum site size of 50 acres is typical and usually allows a single farm residence. Presents possible bird strike hazards.
Property Tax Incentives.		
Property Tax Incentive (Open Space, Agricultural, etc.)	Where tax pressures exist on owners of undeveloped	Requires enabling legislation. Easy in many cases to implement. Cannot prevent incompatible development but can allow economically productive compatible land use.

APPENDIX G

GLOSSARY OF TERMS, ACRONYMS & ABBREVIATIONS

G.1 GLOSSARY OF TERMS.

A-Weighted Sound Level, A-Level (AL) - The ear does not respond equally to sounds of all frequencies, but is less efficient at low and high frequencies than it is at medium or speech range frequencies. Thus, to obtain a single number representing the sound pressure level of a noise containing a wide range of frequencies in a manner approximating the response of the ear, it is necessary to reduce, or weight, the effects of the low and high frequencies with respect to the medium frequencies. Thus, the low and high frequencies are de-emphasized with the A-weighting.

The A-scale sound level is a quantity, in decibels, read from a standard sound-level meter with A-weighting circuitry. The A-scale weighting discriminates against the lower frequencies according to a relationship approximating the auditory sensitivity of the human ear. The A-scale sound level measures approximately the relative "noisiness" or "annoyance" of many common sounds.

Aircraft - Fixed-wing (FW) (Airplane) and rotary-wing (RW) (Helicopter).

Annual Average Busy Day - The average of the 12 monthly averages of workday operations. This is obtained by computing a workday average over a monthly period for each month and then averaging the 12 values.

Average Sound Level - The mean-squared sound exposure level of all events occurring in a stated time interval, plus ten times the common logarithm of the quotient formed by the number of events in the time interval, divided by the duration of the time interval in seconds.

C-Weighted Sound Level, C-Level (CL) - The C-scale sound level is a quantity, in decibels, read from a standard sound level meter with C-weighting circuitry. The C-scale incorporates slight de-emphasis of the low and high portion of the audible frequency spectrum.

Community. Community means those individuals, organizations, or special interest groups affected by or interested in decisions affecting towns, cities, or unincorporated areas near or adjoining a military installation; and officials of local, state and federal governments, and Native American tribal councils responsible for decision making and administration of programs affecting those communities.

Community Noise Exposure Level (CNEL) The measure CNEL itself is essentially the same as L_{dn} except for the method of treating nighttime noises. In CNEL, the 24-hour period is broken into three periods: day (0700-1900), evening (1900-2200), and night (2200-0700). Weightings of 5 dB are applied to the evening period and 10 dB to the night period. For most time distributions of aircraft noise around airports, the numerical difference between a two-period and three-period day are not significant, being of the order of several tenths of a decibel at most.

Community Involvement Program. Community involvement program means a carefully designed program, using a variety of techniques, which, in addition to informing the public of possible decisions and their potential consequences, provides opportunities for consultation with the public, and considers the public's views before making decisions and taking actions.

Continuous Noise - On-going noise whose intensity remains at a measurable level without interruption over an indefinite or a specified period of time.

Controlled Firing Area - Airspace wherein activities are conducted under conditions so controlled as to eliminate hazardous to nonparticipating aircraft and to ensure the safety of persons and property on the ground.

Day-Night Average Sound Level (DNL) - The 24-hour average frequency-weighted sound level, in decibels, from midnight to midnight, obtained after addition of 10 decibels to sound levels in the night from midnight up to 7 a.m. and from 10 p.m. to midnight (0000 up to 0700 and 2200 up to 2400 hours). A-Weighting is understood unless otherwise specified.

Decibels (dB) - The decibel is a logarithmic unit of measure of sound pressure.

Equivalent Sound Level (LEQ) - The level of a constant sound which, in a given situation and time period, has the same energy as does a time varying sound. For noise sources, which are not in continuous operation, the equivalent sound level may be obtained by summing individual sound exposure level (SEL) values and normalizing over the appropriate time period.

Established Airfield Elevation - The elevation, in feet, above mean sea level, of the highest point on the usable landing surface.

Fixed-Wing Aircraft - A powered aircraft that has wings attached to the fuselage so that they are either rigidly fixed in place or adjustable, as distinguished from aircraft with rotating wings, like a helicopter.

Frequency - Number of complete oscillation cycles per unit of time. The unit of frequency is the Hertz (Hz).

Helicopter - An aircraft deriving both lift and control from one or more power driven rotors rotating on substantially vertical axes.

Hertz - Unit of frequency equal to one cycle per second.

Impulse Noise (Impulsive Noise) - Noise of short duration (typically less than one second), especially of high intensity, abrupt onset and rapid decay, and often rapidly changing spectral composition. Impulse noise is characteristically associated with such sources as explosions, impacts, the discharge of firearms, the passage of supersonic aircraft (sonic boom) and many industrial processes.

Instrument Flight Rules (IFR) - Rules that govern the procedure for conducting instrument flight.

Intermittent Noise - Fluctuating noise whose level falls one or more times to low or immeasurable values during an exposure.

Involvement. Involvement means systematic opportunities for members of the public to know about and express their opinions regarding possible decisions to be made as part of the Environmental Noise Management Program.

Noise - unwanted sound.

Noise Exposure - The cumulative acoustic stimulation reaching the ear of a person over a specified period of time (e.g., a work shift, a day, or a lifetime).

Noise Hazard (Hazardous Noise) - Acoustic stimulation of the ear, which is likely to produce noise-induced permanent threshold shift in some portion of the population.

Noise Level Reduction (NLR) - NLR is the difference in decibels, between the A-weighted sound level outside a building and the A-weighted sound level inside a designated room in the building. The NLR is dependent upon the transmission loss characteristics of the building surfaces exposed to an exterior noise source, the particular noise characteristics of the exterior noise source and the acoustic properties of the designated room in the building.

Noise Zone III (NZ III) - NZ III consists of an area around the source of the noise in which the day-night sound level (DNL) is greater than 75 decibels, A-weighted (dBA) or 70 decibels, C-weighted (dBC). The noise level within NZ III is considered so severe that noise sensitive activities should not be conducted therein.

Noise Zone II (NZ II) - NZ II consists of a area where the day-night sound level is between 65 and 75 dBA or 62 and 70 dBC. Exposure to noise within this area is considered significant and use of the land within NZ II should normally be limited to activities such as industrial, manufacturing, transportation and resource production.

Noise Zone I (NZ I) - NZ I includes all areas around a noise source in which the day-night sound level is less than 65 dBA or 62 dBC. This area is usually suitable for all types of land use activities.

Obstacle - A natural or manmade object that violates airfield or heliport clearances, or projects into imaginary airspace surfaces.

Prohibited Area - Designated airspace within which the flight of aircraft is prohibited (Refer to Enroute Charts).

Public. Public, for the purposes of this management plan, means the same thing as community.

Public Information Program. Public information program means a carefully designed effort, using a variety of techniques, to inform those people most likely to be interested or affected by actions resulting from the Environmental Noise Management Program and Plan.

Restricted Area - Airspace designated under FAR, Part 73, within which the flight of aircraft, while not wholly prohibited, is subject to restriction. Most restricted areas are designated joint use and IFR/VFR operations in the area may be authorized by controlling ATC facility when it is not being utilized by the using agency. Restricted areas are depicted on enroute charts. Where joint use is authorized, the name of the ATC controlling facility is also shown. (Refer to FAR, Part 73)

Runway - A designated rectangular area, on an airfield or heliport prepared for the landing and takeoff run of aircraft along its length.

Sound Exposure Level (SEL) - The level of the sound pressure squared, integrated over a given time.

Sound Level Meter - An instrument that provides a direct reading of the sound pressure level at a particular location. It consists of a microphone and electronic amplifier together with a meter having a scale graduated in decibels. Using appropriate built-in electrical filters, it is possible to directly measure the overall A- and C-weighted sound pressure levels. Standard sound level meters must satisfy the requirements of American National Standards Institute (ANSI) Specification for Sound Level Meters, S1.4-1983.

Standard Land Use Coding Manual (SLUCM) - Standard system for identifying and coding land use activities. Published by the U.S. Department of Commerce, 1965.

Vibration - An oscillation where the quantity is a parameter that defines the motion of a mechanical system.

Visual Flight Rules (VFR) - Rules that govern the procedures for conducting flight under visual conditions.

Warning Area - Special use airspace, which may contain hazards to nonparticipating aircraft in international airspace.

G.2 GLOSSARY OF ACRONYMS AND ABBREVIATIONS.

A

AAF	Army Airfield
ADNL	A-weighted Day-Night Average Sound Level
A-DZ	Approach-Departure Zone
AGL	Above Ground Level
AHO	Above Highest Obstacle
AL	A-weighted Sound Level
ANSI	American National Standards Institute
AO	Area of Operation
AR	Army Regulation
ARNG	Army National Guard
ATC	Air Traffic Control

B

BN	Battalion

C

CDNL	C-weighted Day-Night Level
CHABA	National Academy of Sciences Committee on Hearing, Bioacoustics and Biomechanics
CIP	Capital Improvement Program
CL	C-weighted Sound Level
CPTS	Camp Parks Training Site

D

DA	Department of the Army
dB	Decibels
dBA	Decibels, A-weighted
dBC	Decibels, C-weighted
DNL	Day-Night Average Sound Level
DOD	Department of Defense
DODI	Department of Defense Instruction

E

EA	Environmental Assessment
EIS	Environmental Impact Statement
ENMP	Environmental Noise Management Plan
EPA	Environmental Protection Agency

F

FAA	Federal Aviation Administration
FAR	Federal Aviation Regulation
FHL	Ft. Hunter-Liggett
FICUN	Federal Interagency Committee on Urban Noise

FORSCOM	U.S. Army Forces Command
FW	Fixed-wing Aircraft
FY	Fiscal Year

G

GIS	Geographic Information System

H

HQ	Headquarters
HQDA	Headquarters, Department of the Army
HR	U.S. House of Representatives
HUD	U.S. Department of Housing and Urban Development
Hz	Hertz

I

ICUZ	Installation Compatible Use Zone
IFR	Instrument Flight Rules
IG	Inspector General

J

JLUS	Joint Land Use Study

K

None

L

LEQ	Equivalent Sound Level

M

MAST	Military Assistance to Safety and Traffic
MEDEVAC	Medical Evacuation
MMB	Multi Media Branch
MOA	Military Operations Area
MP	Military Police
MSL	Mean Sea Level

N

NAS	Naval Air Station
NAVAIDS	Aids to Navigation
NEPA	National Environmental Policy Act
NGB	National Guard Bureau
NLR	Noise Level Reduction
NOE	Nap of the Earth
NZ	Noise Zone
NZ I	Noise Zone I
NZ II	Noise Zone II
NZ III	Noise Zone III

O

OMB	Office of Management and Budget

P

PAO	Public Affairs Officer
PL	Public Law
PMO	Provost Marshal Office

Q

None

R

R&D	Research and Development
RC	Reserve Components
ROTC	Reserve Officers Training Corps
RW	Rotary-wing Aircraft (Helicopter)

S

SCS	Soil Conservation Service (US)
SE	Southeast
SEL	Sound Exposure Level
SGS	Secretary of the General Staff
SJA	Staff Judge Advocate
SLUCM	Standard Land Use Coding Manual
SR	State Route
STC	Sound Transmission Class

T

TDR	Transfer of Development Rights
TM	Technical Manual
TRADOC	U.S. Army Training and Doctrine Command

U

USACERL	U.S. Army Construction Engineering Research Laboratories
USACHPPM	U.S. Army Center for Health Promotion and Preventive Medicine
USAF	U.S. Air Force
USAR	U.S. Army Reserve
USC	U.S. Code
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Service

V

VA	U.S. Department of Veterans Affairs
VFR	Visual Flight Rules

	VMC	Visual Meteorological Conditions
W		
	WCG(P)	West Coast Garrison (Provisional)
X		
	None	
Y		
	None	
Z		
	None	

APPENDIX H

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Appendix D:
Transportation Supporting Data

Existing Peak Hour Intersection Turning Movement Counts

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(510) 848-9233

File Name : 1am
Site Code : 00000001
Start Date : 05/22/2008
Page No : 1

Crwo Canyon/Bolinger Canyon - San Ramon

Groups Printed- Unshifted

	Bollinger Canyon From North				Crwo Canyon From East				Bollinger Canyon From South				Crow Canyon From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	4	1	2	0	6	163	9	0	14	4	30	0	4	116	1	0	354
07:15 AM	6	6	8	0	4	192	5	0	16	3	33	0	10	175	1	0	459
07:30 AM	2	6	3	0	6	165	11	0	16	2	33	0	13	195	3	0	455
07:45 AM	5	18	3	0	9	147	23	0	21	7	27	0	21	228	5	0	514
Total	17	31	16	0	25	667	48	0	67	16	123	0	48	714	10	0	1782
08:00 AM	2	41	9	0	4	136	30	0	41	14	39	0	20	232	2	0	570
08:15 AM	2	10	3	0	9	183	15	0	35	5	27	0	12	180	1	0	482
08:30 AM	4	4	8	0	7	150	14	0	21	25	23	0	23	232	6	0	517
08:45 AM	2	9	8	0	9	129	12	0	18	17	20	0	17	189	2	0	432
Total	10	64	28	0	29	598	71	0	115	61	109	0	72	833	11	0	2001
Grand Total	27	95	44	0	54	1265	119	0	182	77	232	0	120	1547	21	0	3783
Apprch %	16.3	57.2	26.5	0.0	3.8	88.0	8.3	0.0	37.1	15.7	47.3	0.0	7.1	91.6	1.2	0.0	
Total %	0.7	2.5	1.2	0.0	1.4	33.4	3.1	0.0	4.8	2.0	6.1	0.0	3.2	40.9	0.6	0.0	

	Bollinger Canyon From North					Crwo Canyon From East					Bollinger Canyon From South					Crow Canyon From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Intersection	07:45 AM																				
Volume	13	73	23	0	109	29	616	82	0	727	118	51	116	0	285	76	872	14	0	962	2083
Percent	11.9	67.0	21.1	0.0		4.0	84.7	11.3	0.0		41.4	17.9	40.7	0.0		7.9	90.6	1.5	0.0		
08:00 Volume	2	41	9	0	52	4	136	30	0	170	41	14	39	0	94	20	232	2	0	254	570
Peak Factor																					0.914
High Int.	08:00 AM					08:15 AM					08:00 AM					08:30 AM					
Volume	2	41	9	0	52	9	183	15	0	207	41	14	39	0	94	23	232	6	0	261	
Peak Factor					0.524					0.878					0.758					0.921	

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File Name : 1pm
Site Code : 00000001
Start Date : 05/22/2008
Page No : 1

Crow Canyon/Bollinger Canyon - San Ramon

Groups Printed- Unshifted

	Bollinger Canyon From North				Crow Canyon From East				Bollinger Canyon From South				Crow Canyon From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	1	12	6	0	6	203	11	0	22	8	18	0	14	183	4	0	488
04:15 PM	2	8	8	0	11	160	23	0	27	7	28	0	25	181	3	0	483
04:30 PM	4	11	10	0	11	202	16	0	12	11	29	0	29	166	5	0	506
04:45 PM	4	17	8	0	6	179	16	0	19	9	26	0	16	176	3	0	479
Total	11	48	32	0	34	744	66	0	80	35	101	0	84	706	15	0	1956
05:00 PM	4	5	7	0	3	229	30	0	19	8	23	0	26	161	3	0	518
05:15 PM	5	11	5	0	8	189	22	0	30	16	30	0	27	171	4	0	518
05:30 PM	5	11	9	0	9	176	25	0	23	9	30	0	36	190	7	0	530
05:45 PM	3	14	5	0	10	163	28	0	17	10	14	0	34	224	3	1	526
Total	17	41	26	0	30	757	105	0	89	43	97	0	123	746	17	1	2092
Grand Total	28	89	58	0	64	1501	171	0	169	78	198	0	207	1452	32	1	4048
Apprch %	16.0	50.9	33.1	0.0	3.7	86.5	9.9	0.0	38.0	17.5	44.5	0.0	12.2	85.8	1.9	0.1	
Total %	0.7	2.2	1.4	0.0	1.6	37.1	4.2	0.0	4.2	1.9	4.9	0.0	5.1	35.9	0.8	0.0	

	Bollinger Canyon From North					Crow Canyon From East					Bollinger Canyon From South					Crow Canyon From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	05:00 PM																				
Volume	17	41	26	0	84	30	757	105	0	892	89	43	97	0	229	123	746	17	1	887	2092
Percent	20.2	48.8	31.0	0.0		3.4	84.9	11.8	0.0		38.9	18.8	42.4	0.0		13.9	84.1	1.9	0.1		
05:30 Volume	5	11	9	0	25	9	176	25	0	210	23	9	30	0	62	36	190	7	0	233	530
Peak Factor																					0.987
High Int.	05:30 PM					05:00 PM					05:15 PM					05:45 PM					
Volume	5	11	9	0	25	3	229	30	0	262	30	16	30	0	76	34	224	3	1	262	
Peak Factor					0.840					0.851					0.753					0.846	

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File Name : 2am
Site Code : 00000002
Start Date : 05/29/2008
Page No : 1

Twin Creeks/Crow Canyon - San Ramon

Groups Printed- Unshifted

	Drwy From North				Crow Canyon From East				Twin Creeks From South				Crow Canyon From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	4	0	0	0	2	233	21	0	24	0	19	0	21	174	0	0	498
07:15 AM	4	2	0	0	9	238	32	0	52	0	20	0	17	220	0	0	594
07:30 AM	6	0	0	0	3	212	38	0	39	1	30	0	16	266	1	0	612
07:45 AM	1	1	1	0	2	264	42	0	49	2	36	0	44	296	3	0	741
Total	15	3	1	0	16	947	133	0	164	3	105	0	98	956	4	0	2445
08:00 AM	0	0	0	0	1	324	42	0	81	0	56	0	50	327	1	0	882
08:15 AM	0	0	1	0	0	291	36	0	58	0	42	0	35	300	0	0	763
08:30 AM	1	0	0	0	3	298	66	0	66	0	34	0	24	316	1	0	809
08:45 AM	0	1	3	0	4	299	41	0	43	0	31	0	32	380	1	0	835
Total	1	1	4	0	8	1212	185	0	248	0	163	0	141	1323	3	0	3289
Grand Total	16	4	5	0	24	2159	318	0	412	3	268	0	239	2279	7	0	5734
Apprch %	64.0	16.0	20.0	0.0	1.0	86.3	12.7	0.0	60.3	0.4	39.2	0.0	9.5	90.3	0.3	0.0	
Total %	0.3	0.1	0.1	0.0	0.4	37.7	5.5	0.0	7.2	0.1	4.7	0.0	4.2	39.7	0.1	0.0	

	Drwy From North					Crow Canyon From East					Twin Creeks From South					Crow Canyon From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Intersection	08:00 AM																				
Volume	1	1	4	0	6	8	1212	185	0	1405	248	0	163	0	411	141	1323	3	0	1467	3289
Percent	16.7	16.7	66.7	0.0		0.6	86.3	13.2	0.0		60.3	0.0	39.7	0.0		9.6	90.2	0.2	0.0		
08:00 Volume	0	0	0	0	0	1	324	42	0	367	81	0	56	0	137	50	327	1	0	378	882
Peak Factor																					0.932
High Int.	08:45 AM					08:00 AM					08:00 AM					08:45 AM					
Volume	0	1	3	0	4	1	324	42	0	367	81	0	56	0	137	32	380	1	0	413	
Peak Factor					0.375					0.957					0.750					0.888	

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File Name : 2pm
Site Code : 00000002
Start Date : 05/29/2008
Page No : 1

Twin Creeks/Crwo Canyon - San Ramon

Groups Printed- Unshifted

	Drwy From North				Crow Canyon From East				Twin Creeks From South				Crow Canyon From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	2	0	0	0	3	291	63	0	35	0	35	0	23	269	1	0	722
04:15 PM	0	0	0	0	0	256	66	0	36	1	48	0	27	274	0	0	708
04:30 PM	0	3	2	0	4	278	74	0	25	0	69	0	49	387	0	0	891
04:45 PM	0	1	2	0	1	284	76	0	36	0	45	0	40	384	4	0	873
Total	2	4	4	0	8	1109	279	0	132	1	197	0	139	1314	5	0	3194
05:00 PM	2	2	6	0	0	322	70	0	38	0	57	0	45	424	2	0	968
05:15 PM	2	0	4	0	0	334	106	0	44	3	52	0	50	381	0	0	976
05:30 PM	0	0	2	0	0	310	69	0	46	0	85	0	49	415	0	0	976
05:45 PM	0	0	0	0	0	311	96	0	65	0	43	0	25	410	0	0	950
Total	4	2	12	0	0	1277	341	0	193	3	237	0	169	1630	2	0	3870
Grand Total	6	6	16	0	8	2386	620	0	325	4	434	0	308	2944	7	0	7064
Apprch %	21.4	21.4	57.1	0.0	0.3	79.2	20.6	0.0	42.6	0.5	56.9	0.0	9.5	90.3	0.2	0.0	
Total %	0.1	0.1	0.2	0.0	0.1	33.8	8.8	0.0	4.6	0.1	6.1	0.0	4.4	41.7	0.1	0.0	

	Drwy From North					Crow Canyon From East					Twin Creeks From South					Crow Canyon From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	05:00 PM																				
Volume	4	2	12	0	18	0	1277	341	0	1618	193	3	237	0	433	169	1630	2	0	1801	3870
Percent	22.2	11.1	66.7	0.0		0.0	78.9	21.1	0.0		44.6	0.7	54.7	0.0		9.4	90.5	0.1	0.0		
05:30 Volume	0	0	2	0	2	0	310	69	0	379	46	0	85	0	131	49	415	0	0	464	976
Peak Factor																					0.991
High Int.	05:00 PM					05:15 PM					05:30 PM					05:00 PM					
Volume	2	2	6	0	10	0	334	106	0	440	46	0	85	0	131	45	424	2	0	471	
Peak Factor					0.450					0.919					0.826					0.956	

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File Name : 3am
Site Code : 00000003
Start Date : 05/29/2008
Page No : 1

San Ramon Valley/Crow Canyon - San Ramon

Groups Printed- Unshifted

	San Ramon Valley From North				Crow Canyon From East				San Ramon Valley From South				Crow Canyon From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	11	39	33	0	43	328	117	0	45	21	10	0	15	117	5	0	784
07:15 AM	10	33	76	0	54	285	99	0	84	27	15	0	20	202	15	0	920
07:30 AM	5	36	82	0	47	277	134	0	82	30	16	0	23	204	16	0	952
07:45 AM	7	52	104	0	37	282	135	0	61	37	17	0	32	214	25	0	1003
Total	33	160	295	0	181	1172	485	0	272	115	58	0	90	737	61	0	3659
08:00 AM	7	51	117	0	82	310	119	0	66	27	26	0	33	232	38	0	1108
08:15 AM	16	43	98	0	38	328	146	0	61	36	31	0	20	225	44	0	1086
08:30 AM	15	28	85	0	47	390	152	0	106	57	27	0	35	234	44	0	1220
08:45 AM	8	33	102	0	30	381	125	0	100	52	34	0	45	224	19	0	1153
Total	46	155	402	0	197	1409	542	0	333	172	118	0	133	915	145	0	4567
Grand Total	79	315	697	0	378	2581	1027	0	605	287	176	0	223	1652	206	0	8226
Apprch %	7.2	28.9	63.9	0.0	9.5	64.8	25.8	0.0	56.6	26.9	16.5	0.0	10.7	79.4	9.9	0.0	
Total %	1.0	3.8	8.5	0.0	4.6	31.4	12.5	0.0	7.4	3.5	2.1	0.0	2.7	20.1	2.5	0.0	

	San Ramon Valley From North					Crow Canyon From East					San Ramon Valley From South					Crow Canyon From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Intersection	08:00 AM																				
Volume	46	155	402	0	603	197	1409	542	0	2148	333	172	118	0	623	133	915	145	0	1193	4567
Percent	7.6	25.7	66.7	0.0		9.2	65.6	25.2	0.0		53.5	27.6	18.9	0.0		11.1	76.7	12.2	0.0		
08:30 Volume	15	28	85	0	128	47	390	152	0	589	106	57	27	0	190	35	234	44	0	313	1220
Peak Factor																					0.936
High Int.	08:00 AM					08:30 AM					08:30 AM					08:30 AM					
Volume	7	51	117	0	175	47	390	152	0	589	106	57	27	0	190	35	234	44	0	313	
Peak Factor					0.861					0.912					0.820					0.953	

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File Name : 3pm
Site Code : 00000003
Start Date : 05/29/2008
Page No : 1

San Ramon Valley/Crow Canyon - San Ramon

Groups Printed- Unshifted

	San Ramon Valley From North				Crow Canyon From East				San Ramon Valley From South				Crow Canyon From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	12	68	116	0	77	301	185	0	106	86	35	0	13	245	43	0	1287
04:15 PM	24	80	119	0	63	328	165	0	119	98	58	0	18	229	45	0	1346
04:30 PM	25	95	147	0	77	310	119	0	187	125	33	0	22	264	54	0	1458
04:45 PM	19	82	127	0	90	244	185	0	157	124	59	0	22	281	71	0	1461
Total	80	325	509	0	307	1183	654	0	569	433	185	0	75	1019	213	0	5552
05:00 PM	21	59	110	0	53	284	140	0	128	107	47	0	21	227	64	0	1261
05:15 PM	43	72	126	0	109	355	118	0	141	86	42	0	37	291	52	0	1472
05:30 PM	23	92	135	0	89	328	148	0	130	136	45	0	23	250	80	0	1479
05:45 PM	16	95	121	0	122	354	199	0	155	120	67	0	25	263	53	0	1590
Total	103	318	492	0	373	1321	605	0	554	449	201	0	106	1031	249	0	5802
Grand Total	183	643	1001	0	680	2504	1259	0	1123	882	386	0	181	2050	462	0	11354
Apprch %	10.0	35.2	54.8	0.0	15.3	56.4	28.3	0.0	47.0	36.9	16.1	0.0	6.7	76.1	17.2	0.0	
Total %	1.6	5.7	8.8	0.0	6.0	22.1	11.1	0.0	9.9	7.8	3.4	0.0	1.6	18.1	4.1	0.0	

	San Ramon Valley From North					Crow Canyon From East					San Ramon Valley From South					Crow Canyon From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	05:00 PM																				
Volume	103	318	492	0	913	373	1321	605	0	2299	554	449	201	0	1204	106	1031	249	0	1386	5802
Percent	11.3	34.8	53.9	0.0		16.2	57.5	26.3	0.0		46.0	37.3	16.7	0.0		7.6	74.4	18.0	0.0		
05:45 Volume	16	95	121	0	232	122	354	199	0	675	155	120	67	0	342	25	263	53	0	341	1590
Peak Factor																					0.912
High Int.	05:30 PM					05:45 PM					05:45 PM					05:15 PM					
Volume	23	92	135	0	250	122	354	199	0	675	155	120	67	0	342	37	291	52	0	380	
Peak Factor					0.913					0.851					0.880					0.912	

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File Name : 6am-ab
Site Code : 00000006
Start Date : 05/21/2008
Page No : 1

Crow Canyon/Crow Canyon Pl - San Ramon

Groups Printed- Unshifted

	Crow Canyon Pl From North				Crow Canyon From East				Crow Canyon Pl From South				Crow Canyon From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	54	13	9	0	28	338	18	0	7	7	29	0	73	290	38	0	904
07:15 AM	58	8	20	0	27	437	10	0	7	7	49	0	88	357	52	0	1120
07:30 AM	75	17	26	0	43	361	9	0	5	9	43	0	166	459	83	0	1296
07:45 AM	79	6	23	0	30	419	12	0	5	9	53	0	160	472	80	0	1348
Total	266	44	78	0	128	1555	49	0	24	32	174	0	487	1578	253	0	4668
08:00 AM	101	26	29	0	29	397	37	0	10	7	39	0	173	489	123	0	1460
08:15 AM	68	21	32	0	27	441	23	0	9	17	52	0	118	467	77	0	1352
08:30 AM	60	22	29	0	39	437	44	0	15	20	29	0	201	531	104	0	1531
08:45 AM	65	28	51	0	24	405	30	0	16	12	61	0	270	502	110	0	1574
Total	294	97	141	0	119	1680	134	0	50	56	181	0	762	1989	414	0	5917
Grand Total	560	141	219	0	247	3235	183	0	74	88	355	0	1249	3567	667	0	10585
Apprch %	60.9	15.3	23.8	0.0	6.7	88.3	5.0	0.0	14.3	17.0	68.7	0.0	22.8	65.1	12.2	0.0	
Total %	5.3	1.3	2.1	0.0	2.3	30.6	1.7	0.0	0.7	0.8	3.4	0.0	11.8	33.7	6.3	0.0	

	Crow Canyon Pl From North					Crow Canyon From East					Crow Canyon Pl From South					Crow Canyon From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Intersection	08:00 AM																				
Volume	294	97	141	0	532	119	1680	134	0	1933	50	56	181	0	287	762	1989	414	0	3165	5917
Percent	55.3	18.2	26.5	0.0		6.2	86.9	6.9	0.0		17.4	19.5	63.1	0.0		24.1	62.8	13.1	0.0		
08:45 Volume	65	28	51	0	144	24	405	30	0	459	16	12	61	0	89	270	502	110	0	882	1574
Peak Factor																					0.940
High Int.	08:00 AM					08:30 AM					08:45 AM					08:45 AM					
Volume	101	26	29	0	156	39	437	44	0	520	16	12	61	0	89	270	502	110	0	882	
Peak Factor					0.853					0.929					0.806					0.897	

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Crow Canyon/Crow Canyon Pl - San Ramon

Groups Printed- Unshifted

	Crow Canyon Pl From North				Crow Canyon From East				Crow Canyon Pl From South				Crow Canyon From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	67	26	31	0	30	448	17	0	29	40	146	0	152	417	245	0	1648
04:15 PM	123	32	24	0	24	447	19	0	30	33	190	0	179	316	151	0	1568
04:30 PM	91	33	48	0	33	555	25	0	40	42	136	0	126	396	156	0	1681
04:45 PM	132	15	55	0	26	479	21	0	38	57	148	0	176	302	145	0	1594
Total	413	106	158	0	113	1929	82	0	137	172	620	0	633	1431	697	0	6491
05:00 PM	130	59	41	0	26	499	20	0	35	39	178	0	145	435	178	0	1785
05:15 PM	133	36	69	0	30	414	25	0	61	44	145	0	230	435	146	0	1768
05:30 PM	101	36	48	0	30	462	20	0	47	28	101	0	154	482	205	0	1714
05:45 PM	102	35	32	0	25	341	23	0	39	71	152	0	137	432	161	0	1550
Total	466	166	190	0	111	1716	88	0	182	182	576	0	666	1784	690	0	6817
Grand Total	879	272	348	0	224	3645	170	0	319	354	1196	0	1299	3215	1387	0	13308
Apprch %	58.6	18.1	23.2	0.0	5.5	90.2	4.2	0.0	17.1	18.9	64.0	0.0	22.0	54.5	23.5	0.0	
Total %	6.6	2.0	2.6	0.0	1.7	27.4	1.3	0.0	2.4	2.7	9.0	0.0	9.8	24.2	10.4	0.0	

	Crow Canyon Pl From North					Crow Canyon From East					Crow Canyon Pl From South					Crow Canyon From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	04:45 PM																				
Volume	496	146	213	0	855	112	1854	86	0	2052	181	168	572	0	921	705	1654	674	0	3033	6861
Percent	58.0	17.1	24.9	0.0		5.5	90.4	4.2	0.0		19.7	18.2	62.1	0.0		23.2	54.5	22.2	0.0		
05:00 Volume	130	59	41	0	230	26	499	20	0	545	35	39	178	0	252	145	435	178	0	758	1785
Peak Factor																					0.961
High Int.	05:15 PM					05:00 PM					05:00 PM					05:30 PM					
Volume	133	36	69	0	238	26	499	20	0	545	35	39	178	0	252	154	482	205	0	841	
Peak Factor					0.898					0.941					0.914					0.902	

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Crow Canyon/Camino Ramon - San Ramon

Groups Printed- Unshifted

	Camino Ramon From North				Crow Canyon From East				Camino Ramon From South				Crow Canyon From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	RTOR	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	5	9	3	0	13	264	29	0	2	4	13	0	96	205	22	12	677
07:15 AM	9	12	15	0	27	332	38	0	1	5	14	0	112	244	21	13	843
07:30 AM	12	14	12	0	34	345	42	0	5	9	18	0	148	310	33	13	995
07:45 AM	5	14	13	0	26	389	50	0	12	7	21	0	125	351	25	13	1051
Total	31	49	43	0	100	1330	159	0	20	25	66	0	481	1110	101	51	3566
08:00 AM	9	30	20	0	49	416	82	0	8	15	28	0	197	332	33	8	1227
08:15 AM	11	15	14	0	48	402	67	0	6	26	41	0	157	341	42	35	1205
08:30 AM	9	19	16	0	39	402	62	0	7	5	23	0	117	392	28	10	1129
08:45 AM	8	25	24	0	42	385	66	0	15	20	34	0	104	410	37	8	1178
Total	37	89	74	0	178	1605	277	0	36	66	126	0	575	1475	140	61	4739
Grand Total	68	138	117	0	278	2935	436	0	56	91	192	0	1056	2585	241	112	8305
Apprch %	21.1	42.7	36.2	0.0	7.6	80.4	11.9	0.0	16.5	26.8	56.6	0.0	26.4	64.7	6.0	2.8	
Total %	0.8	1.7	1.4	0.0	3.3	35.3	5.2	0.0	0.7	1.1	2.3	0.0	12.7	31.1	2.9	1.3	

	Camino Ramon From North					Crow Canyon From East					Camino Ramon From South					Crow Canyon From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	RTOR	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Intersection	08:00 AM																				
Volume	37	89	74	0	200	178	1605	277	0	2060	36	66	126	0	228	575	1475	140	61	2251	4739
Percent	18.5	44.5	37.0	0.0		8.6	77.9	13.4	0.0		15.8	28.9	55.3	0.0		25.5	65.5	6.2	2.7		
08:00 Volume	9	30	20	0	59	49	416	82	0	547	8	15	28	0	51	197	332	33	8	570	1227
Peak Factor																					0.966
High Int.	08:00 AM					08:00 AM					08:15 AM					08:15 AM					
Volume	9	30	20	0	59	49	416	82	0	547	6	26	41	0	73	157	341	42	35	575	
Peak Factor					0.847					0.941					0.781					0.979	

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Fostoria Way/Crow Canyon Pl-Camoino Ramon - San Ramon

Groups Printed- Unshifted

	Camino Ramon From North				Crow Canyon From East				Camino Ramon From South				Crow Canyon From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	RTOR	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	16	29	32	0	63	290	38	0	14	30	108	0	55	401	36	5	1117
04:15 PM	45	58	69	0	84	314	31	0	23	73	117	0	51	334	37	19	1255
04:30 PM	22	67	85	0	94	333	40	0	21	95	147	0	41	408	40	13	1406
04:45 PM	30	51	74	0	80	302	24	0	21	85	126	0	54	347	25	21	1240
Total	113	205	260	0	321	1239	133	0	79	283	498	0	201	1490	138	58	5018
05:00 PM	26	45	72	0	41	280	30	0	23	104	134	0	37	433	23	12	1260
05:15 PM	17	32	52	2	71	264	32	0	21	80	113	0	40	46	41	18	829
05:30 PM	34	30	74	0	55	235	17	0	23	9	106	0	41	504	45	11	1184
05:45 PM	34	42	59	0	59	253	28	0	25	54	92	0	58	435	27	19	1185
Total	111	149	257	2	226	1032	107	0	92	247	445	0	176	1418	136	60	4458
Grand Total	224	354	517	2	547	2271	240	0	171	530	943	0	377	2908	274	118	9476
Apprch %	20.4	32.3	47.1	0.2	17.9	74.3	7.8	0.0	10.4	32.2	57.4	0.0	10.3	79.1	7.5	3.2	
Total %	2.4	3.7	5.5	0.0	5.8	24.0	2.5	0.0	1.8	5.6	10.0	0.0	4.0	30.7	2.9	1.2	

	Camino Ramon From North					Crow Canyon From East					Camino Ramon From South					Crow Canyon From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	RTOR	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	04:15 PM																				
Volume	123	221	300	0	644	299	1229	125	0	1653	88	357	524	0	969	183	1522	125	65	1895	5161
Percent	19.1	34.3	46.6	0.0		18.1	74.3	7.6	0.0		9.1	36.8	54.1	0.0		9.7	80.3	6.6	3.4		
04:30 Volume	22	67	85	0	174	94	333	40	0	467	21	95	147	0	263	41	408	40	13	502	1406
Peak Factor																					0.918
High Int.	04:30 PM					04:30 PM					04:30 PM					05:00 PM					
Volume	22	67	85	0	174	94	333	40	0	467	21	95	147	0	263	37	433	23	12	505	
Peak Factor					0.925					0.885					0.921					0.938	

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Crow Canyon/El Cpaitan-Tahiti - San Ramon

Groups Printed- Unshifted

	El Capitan From North				Crow Canyon From East				Tahiti From South				Crow Canyon From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	81	0	3	0	2	305	1	0	0	0	15	0	1	47	44	0	499
07:15 AM	85	2	10	0	3	338	0	0	0	0	16	0	2	66	25	0	547
07:30 AM	71	0	8	0	14	362	0	0	2	1	17	0	8	90	24	0	597
07:45 AM	87	0	14	0	25	447	0	0	0	0	16	0	2	110	41	0	742
Total	324	2	35	0	44	1452	1	0	2	1	64	0	13	313	134	0	2385
08:00 AM	105	1	8	0	23	481	2	0	4	3	22	0	5	111	42	0	807
08:15 AM	100	0	11	0	23	447	3	0	4	0	17	0	9	168	56	0	838
08:30 AM	77	0	14	0	35	498	2	0	1	0	12	0	5	100	29	0	773
08:45 AM	67	0	16	0	8	374	2	0	1	1	10	0	6	135	37	0	657
Total	349	1	49	0	89	1800	9	0	10	4	61	0	25	514	164	0	3075
Grand Total	673	3	84	0	133	3252	10	0	12	5	125	0	38	827	298	0	5460
Apprch %	88.6	0.4	11.1	0.0	3.9	95.8	0.3	0.0	8.5	3.5	88.0	0.0	3.3	71.1	25.6	0.0	
Total %	12.3	0.1	1.5	0.0	2.4	59.6	0.2	0.0	0.2	0.1	2.3	0.0	0.7	15.1	5.5	0.0	

	El Capitan From North					Crow Canyon From East					Tahiti From South					Crow Canyon From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Intersection	07:45 AM																				
Volume	369	1	47	0	417	106	1873	7	0	1986	9	3	67	0	79	21	489	168	0	678	3160
Percent	88.5	0.2	11.3	0.0		5.3	94.3	0.4	0.0		11.4	3.8	84.8	0.0		3.1	72.1	24.8	0.0		
08:15 Volume	100	0	11	0	111	23	447	3	0	473	4	0	17	0	21	9	168	56	0	233	838
Peak Factor																					0.943
High Int.	08:00 AM					08:30 AM					08:00 AM					08:15 AM					
Volume	105	1	8	0	114	35	498	2	0	535	4	3	22	0	29	9	168	56	0	233	
Peak Factor					0.914					0.928					0.681					0.727	

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File Name : 9pm
Site Code : 00000009
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Crow Canyon/El Capitan-Tahiti - San Ramon

Groups Printed- Unshifted

	El Capitan From North				Crow Canyon From East				Tahiti From South				Crow Canyon From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	63	0	17	0	27	216	0	1	0	0	8	0	13	250	87	0	682
04:15 PM	51	1	17	0	17	218	0	0	3	1	3	0	9	305	84	0	709
04:30 PM	56	1	14	0	24	178	0	0	1	2	9	0	22	346	128	0	781
04:45 PM	59	2	16	0	21	166	1	0	0	1	11	0	10	399	103	0	789
Total	229	4	64	0	89	778	1	1	4	4	31	0	54	1300	402	0	2961
05:00 PM	37	1	32	0	18	160	1	0	1	1	9	0	11	454	138	0	863
05:15 PM	47	0	12	0	21	166	3	0	0	0	9	0	13	435	104	0	810
05:30 PM	63	2	19	0	20	170	2	0	5	3	8	0	8	362	116	0	778
05:45 PM	60	1	33	0	42	177	0	0	2	3	3	0	11	414	109	0	855
Total	207	4	96	0	101	673	6	0	8	7	29	0	43	1665	467	0	3306
Grand Total	436	8	160	0	190	1451	7	1	12	11	60	0	97	2965	869	0	6267
Apprch %	72.2	1.3	26.5	0.0	11.5	88.0	0.4	0.1	14.5	13.3	72.3	0.0	2.5	75.4	22.1	0.0	
Total %	7.0	0.1	2.6	0.0	3.0	23.2	0.1	0.0	0.2	0.2	1.0	0.0	1.5	47.3	13.9	0.0	

	El Capitan From North					Crow Canyon From East					Tahiti From South					Crow Canyon From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	05:00 PM																				
Volume	207	4	96	0	307	101	673	6	0	780	8	7	29	0	44	43	1665	467	0	2175	3306
Percent	67.4	1.3	31.3	0.0		12.9	86.3	0.8	0.0		18.2	15.9	65.9	0.0		2.0	76.6	21.5	0.0		
05:00 Volume	37	1	32	0	70	18	160	1	0	179	1	1	9	0	11	11	454	138	0	603	863
Peak Factor																					0.958
High Int.	05:45 PM					05:45 PM					05:30 PM					05:00 PM					
Volume	60	1	33	0	94	42	177	0	0	219	5	3	8	0	16	11	454	138	0	603	
Peak Factor					0.816					0.890					0.688					0.902	

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San Ramon Valley/Norris Canyon - San Ramon

Groups Printed- Unshifted

	San Ramon Valley From North				Norris Canyon From East				San Ramon Valley From South				Norris Canyon From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	6	22	57	0	16	6	11	0	22	13	2	0	7	33	5	0	200
07:15 AM	6	19	73	0	24	9	11	0	23	28	5	0	13	34	12	0	257
07:30 AM	3	27	78	0	25	20	19	0	15	45	8	0	12	64	11	0	327
07:45 AM	10	40	109	0	34	27	17	0	39	46	13	0	15	98	17	0	465
Total	25	108	317	0	99	62	58	0	99	132	28	0	47	229	45	0	1249
08:00 AM	5	35	119	0	54	45	29	0	80	47	14	0	19	212	20	0	679
08:15 AM	6	52	104	0	50	51	35	0	50	71	12	0	25	120	15	0	591
08:30 AM	6	48	95	0	40	26	18	0	71	90	16	0	18	106	19	0	553
08:45 AM	12	34	68	0	72	15	38	0	56	90	12	0	13	48	16	0	474
Total	29	169	386	0	216	137	120	0	257	298	54	0	75	486	70	0	2297
Grand Total	54	277	703	0	315	199	178	0	356	430	82	0	122	715	115	0	3546
Apprch %	5.2	26.8	68.0	0.0	45.5	28.8	25.7	0.0	41.0	49.5	9.4	0.0	12.8	75.1	12.1	0.0	
Total %	1.5	7.8	19.8	0.0	8.9	5.6	5.0	0.0	10.0	12.1	2.3	0.0	3.4	20.2	3.2	0.0	

	San Ramon Valley From North					Norris Canyon From East					San Ramon Valley From South					Norris Canyon From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Intersection	08:00 AM																				
Volume	29	169	386	0	584	216	137	120	0	473	257	298	54	0	609	75	486	70	0	631	2297
Percent	5.0	28.9	66.1	0.0		45.7	29.0	25.4	0.0		42.2	48.9	8.9	0.0		11.9	77.0	11.1	0.0		
08:00 Volume	5	35	119	0	159	54	45	29	0	128	80	47	14	0	141	19	212	20	0	251	679
Peak Factor																					0.846
High Int.	08:15 AM					08:15 AM					08:30 AM					08:00 AM					
Volume	6	52	104	0	162	50	51	35	0	136	71	90	16	0	177	19	212	20	0	251	
Peak Factor					0.901					0.869					0.860					0.628	

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Site Code : 00000010
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San Ramon Valley/Norris Canyon - San Ramon

Groups Printed- Unshifted

	San Ramon Valley From North				Norris Canyon From East				San Ramon Valley From South				Norris Canyon From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	5	71	32	0	65	27	51	0	9	42	7	0	9	21	6	0	345
04:15 PM	14	83	54	0	92	50	35	0	13	78	19	0	12	28	16	0	494
04:30 PM	14	99	39	0	94	61	64	0	16	64	14	0	19	34	14	0	532
04:45 PM	18	126	43	0	83	73	55	0	27	109	15	0	10	34	22	0	615
Total	51	379	168	0	334	211	205	0	65	293	55	0	50	117	58	0	1986
05:00 PM	16	78	49	0	121	73	86	0	15	77	21	0	21	35	7	0	599
05:15 PM	12	63	40	0	118	64	68	0	16	68	9	0	6	46	14	0	524
05:30 PM	17	93	74	0	101	65	74	0	19	86	13	0	10	40	13	0	605
05:45 PM	19	88	59	0	101	67	54	0	27	91	17	0	11	40	7	0	581
Total	64	322	222	0	441	269	282	0	77	322	60	0	48	161	41	0	2309
Grand Total	115	701	390	0	775	480	487	0	142	615	115	0	98	278	99	0	4295
Apprch %	9.5	58.1	32.3	0.0	44.5	27.6	28.0	0.0	16.3	70.5	13.2	0.0	20.6	58.5	20.8	0.0	
Total %	2.7	16.3	9.1	0.0	18.0	11.2	11.3	0.0	3.3	14.3	2.7	0.0	2.3	6.5	2.3	0.0	

	San Ramon Valley From North					Norris Canyon From East					San Ramon Valley From South					Norris Canyon From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	04:45 PM																				
Volume	63	360	206	0	629	423	275	283	0	981	77	340	58	0	475	47	155	56	0	258	2343
Percent	10.0	57.2	32.8	0.0		43.1	28.0	28.8	0.0		16.2	71.6	12.2	0.0		18.2	60.1	21.7	0.0		
04:45 Volume	18	126	43	0	187	83	73	55	0	211	27	109	15	0	151	10	34	22	0	66	615
Peak Factor																					0.952
High Int.	04:45 PM					05:00 PM					04:45 PM					04:45 PM					
Volume	18	126	43	0	187	121	73	86	0	280	27	109	15	0	151	10	34	22	0	66	
Peak Factor					0.841					0.876					0.786					0.977	

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Norris Canyon/Bishop-Annabel - San Ramon

Groups Printed- Unshifted

	Annable From North				Norris Canyon From East				Bishop From South				Norris Canyon From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	1	2	1	0	4	40	10	0	2	2	5	0	76	63	18	0	224
07:15 AM	0	1	0	0	3	43	11	0	1	0	6	0	57	81	13	0	216
07:30 AM	1	1	1	0	6	59	11	0	4	0	6	0	86	116	18	0	309
07:45 AM	2	3	1	0	10	69	4	0	5	1	3	0	107	137	13	0	355
Total	4	7	3	0	23	211	36	0	12	3	20	0	326	397	62	0	1104
08:00 AM	2	3	1	0	7	109	18	0	2	2	10	0	196	253	23	0	626
08:15 AM	1	2	3	0	9	130	11	0	3	4	22	0	117	181	9	0	492
08:30 AM	0	0	2	0	4	68	15	0	7	0	8	0	103	180	23	0	410
08:45 AM	2	2	2	0	9	103	16	0	10	0	12	0	66	103	8	0	333
Total	5	7	8	0	29	410	60	0	22	6	52	0	482	717	63	0	1861
Grand Total	9	14	11	0	52	621	96	0	34	9	72	0	808	1114	125	0	2965
Apprch %	26.5	41.2	32.4	0.0	6.8	80.8	12.5	0.0	29.6	7.8	62.6	0.0	39.5	54.4	6.1	0.0	
Total %	0.3	0.5	0.4	0.0	1.8	20.9	3.2	0.0	1.1	0.3	2.4	0.0	27.3	37.6	4.2	0.0	

	Annable From North					Norris Canyon From East					Bishop From South					Norris Canyon From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Intersection	07:45 AM																				
Volume	5	8	7	0	20	30	376	48	0	454	17	7	43	0	67	523	751	68	0	1342	1883
Percent	25.0	40.0	35.0	0.0		6.6	82.8	10.6	0.0		25.4	10.4	64.2	0.0		39.0	56.0	5.1	0.0		
08:00 Volume	2	3	1	0	6	7	109	18	0	134	2	2	10	0	14	196	253	23	0	472	626
Peak Factor																					0.752
High Int.	07:45 AM					08:15 AM					08:15 AM					08:00 AM					
Volume	2	3	1	0	6	9	130	11	0	150	3	4	22	0	29	196	253	23	0	472	
Peak Factor					0.833					0.757					0.578					0.711	

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Norris Canyon.Bishop-Annabel - San Ramon

Groups Printed- Unshifted

	Annabel From North				Norris Canyon From East				Bishop From South				Norris Canyon From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	24	2	4	0	8	116	10	0	22	2	92	0	23	88	6	0	397
04:15 PM	9	2	4	0	7	125	12	0	17	1	73	0	26	87	1	0	364
04:30 PM	14	3	6	0	12	134	8	0	22	3	95	0	18	79	7	0	401
04:45 PM	13	2	8	0	6	131	7	0	24	2	101	0	20	90	1	0	405
Total	60	9	22	0	33	506	37	0	85	8	361	0	87	344	15	0	1567
05:00 PM	45	2	9	0	5	236	6	0	30	3	131	0	25	104	3	0	599
05:15 PM	17	3	5	0	5	184	11	0	18	1	112	0	24	120	2	0	502
05:30 PM	19	2	8	0	5	191	5	0	19	1	102	0	25	98	1	0	476
05:45 PM	9	3	13	0	4	126	13	0	21	0	85	0	33	103	1	0	411
Total	90	10	35	0	19	737	35	0	88	5	430	0	107	425	7	0	1988
Grand Total	150	19	57	0	52	1243	72	0	173	13	791	0	194	769	22	0	3555
Apprch %	66.4	8.4	25.2	0.0	3.8	90.9	5.3	0.0	17.7	1.3	81.0	0.0	19.7	78.1	2.2	0.0	
Total %	4.2	0.5	1.6	0.0	1.5	35.0	2.0	0.0	4.9	0.4	22.3	0.0	5.5	21.6	0.6	0.0	

	Annabel From North					Norris Canyon From East					Bishop From South					Norris Canyon From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	05:00 PM																				
Volume	90	10	35	0	135	19	737	35	0	791	88	5	430	0	523	107	425	7	0	539	1988
Percent	66.7	7.4	25.9	0.0		2.4	93.2	4.4	0.0		16.8	1.0	82.2	0.0		19.9	78.8	1.3	0.0		
05:00 Volume	45	2	9	0	56	5	236	6	0	247	30	3	131	0	164	25	104	3	0	132	599
Peak Factor																					0.830
High Int.	05:00 PM					05:00 PM					05:00 PM					05:15 PM					
Volume	45	2	9	0	56	5	236	6	0	247	30	3	131	0	164	24	120	2	0	146	
Peak Factor					0.603					0.801					0.797					0.923	

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Camino Ramon/Norris Canyon - San Ramon

Groups Printed- Unshifted

	Camino Ramon From North				Norris Canyon From East				Camino Ramon From South				Norris Canyon From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	14	90	23	0	5	23	13	0	3	13	1	0	9	36	12	0	242
07:15 AM	20	119	23	0	13	49	14	0	7	14	11	0	22	57	7	0	356
07:30 AM	17	143	32	0	18	46	19	0	10	14	7	0	17	68	15	0	406
07:45 AM	29	167	34	0	16	63	34	0	6	13	12	0	33	58	23	0	488
Total	80	519	112	0	52	181	80	0	26	54	31	0	81	219	57	0	1492
08:00 AM	16	137	47	0	32	105	33	0	12	31	44	0	60	157	25	0	699
08:15 AM	23	109	42	0	23	69	29	0	13	33	10	0	26	74	14	0	465
08:30 AM	31	106	65	0	30	65	26	0	10	27	11	0	21	40	22	0	454
08:45 AM	26	94	51	0	22	58	23	0	8	21	8	0	23	29	17	0	380
Total	96	446	205	0	107	297	111	0	43	112	73	0	130	300	78	0	1998
Grand Total	176	965	317	0	159	478	191	0	69	166	104	0	211	519	135	0	3490
Apprch %	12.1	66.2	21.7	0.0	19.2	57.7	23.1	0.0	20.4	49.0	30.7	0.0	24.4	60.0	15.6	0.0	
Total %	5.0	27.7	9.1	0.0	4.6	13.7	5.5	0.0	2.0	4.8	3.0	0.0	6.0	14.9	3.9	0.0	

	Camino Ramon From North					Norris Canyon From East					Camino Ramon From South					Norris Canyon From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Intersection	07:45 AM																				
Volume	99	519	188	0	806	101	302	122	0	525	41	104	77	0	222	140	329	84	0	553	2106
Percent	12.3	64.4	23.3	0.0		19.2	57.5	23.2	0.0		18.5	46.8	34.7	0.0		25.3	59.5	15.2	0.0		
08:00 Volume	16	137	47	0	200	32	105	33	0	170	12	31	44	0	87	60	157	25	0	242	699
Peak Factor																					0.753
High Int.	07:45 AM					08:00 AM					08:00 AM					08:00 AM					
Volume	29	167	34	0	230	32	105	33	0	170	12	31	44	0	87	60	157	25	0	242	
Peak Factor					0.876					0.772					0.638					0.571	

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amino Ramon/Norris Canyon - San Ramon

Groups Printed- Unshifted

	Camino Ramon From North				Norris Canyon From East				Camino Ramon From South				Norris Canyon From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	26	72	26	0	43	73	8	1	22	155	23	0	7	46	35	0	537
04:15 PM	34	78	32	0	47	82	13	6	35	113	23	0	12	60	28	0	563
04:30 PM	30	70	30	0	45	63	9	0	35	149	40	0	5	59	31	0	566
04:45 PM	35	67	24	0	44	93	8	0	46	125	47	0	8	68	26	0	591
Total	125	287	112	0	179	311	38	7	138	542	133	0	32	233	120	0	2257
05:00 PM	48	65	33	0	68	111	9	0	45	151	56	0	9	83	21	0	699
05:15 PM	32	78	37	0	35	110	7	0	34	154	52	0	14	93	27	0	673
05:30 PM	30	53	21	0	28	86	7	0	53	129	24	0	15	100	23	0	569
05:45 PM	26	61	33	0	29	81	4	0	39	118	31	0	11	84	19	0	536
Total	136	257	124	0	160	388	27	0	171	552	163	0	49	360	90	0	2477
Grand Total	261	544	236	0	339	699	65	7	309	1094	296	0	81	593	210	0	4734
Apprch %	25.1	52.3	22.7	0.0	30.5	63.0	5.9	0.6	18.2	64.4	17.4	0.0	9.2	67.1	23.8	0.0	
Total %	5.5	11.5	5.0	0.0	7.2	14.8	1.4	0.1	6.5	23.1	6.3	0.0	1.7	12.5	4.4	0.0	

	Camino Ramon From North					Norris Canyon From East					Camino Ramon From South					Norris Canyon From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	04:45 PM																				
Volume	145	263	115	0	523	175	400	31	0	606	178	559	179	0	916	46	344	97	0	487	2532
Percent	27.7	50.3	22.0	0.0		28.9	66.0	5.1	0.0		19.4	61.0	19.5	0.0		9.4	70.6	19.9	0.0		
05:00 Volume	48	65	33	0	146	68	111	9	0	188	45	151	56	0	252	9	83	21	0	113	699
Peak Factor																					0.906
High Int.	05:15 PM					05:00 PM					05:00 PM					05:30 PM					
Volume	32	78	37	0	147	68	111	9	0	188	45	151	56	0	252	15	100	23	0	138	
Peak Factor					0.889					0.806					0.909					0.882	

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Alcosta/Norris Canyon - San Ramon

Groups Printed- Unshifted

	Alcosta From North				Norris Canyon From East				Alcosta From South				Norris Canyon From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	33	49	49	0	9	4	2	1	6	25	16	0	17	4	5	0	220
07:15 AM	34	51	30	0	7	4	2	0	4	34	38	0	47	12	12	0	275
07:30 AM	36	54	40	0	14	14	6	0	6	40	43	0	28	4	23	0	308
07:45 AM	48	62	40	3	14	9	6	1	6	28	51	0	42	6	4	0	320
Total	151	216	159	3	44	31	16	2	22	127	148	0	134	26	44	0	1123
08:00 AM	84	124	58	0	12	7	10	0	3	91	91	0	110	16	12	0	618
08:15 AM	61	71	59	1	14	5	2	0	5	84	87	0	33	15	23	0	460
08:30 AM	44	61	54	0	21	11	1	0	15	49	63	0	21	20	13	0	373
08:45 AM	63	72	73	0	11	6	3	1	27	54	49	0	18	21	19	0	417
Total	252	328	244	1	58	29	16	1	50	278	290	0	182	72	67	0	1868
Grand Total	403	544	403	4	102	60	32	3	72	405	438	0	316	98	111	0	2991
Apprch %	29.8	40.2	29.8	0.3	51.8	30.5	16.2	1.5	7.9	44.3	47.9	0.0	60.2	18.7	21.1	0.0	
Total %	13.5	18.2	13.5	0.1	3.4	2.0	1.1	0.1	2.4	13.5	14.6	0.0	10.6	3.3	3.7	0.0	

	Alcosta From North					Norris Canyon From East					Alcosta From South					Norris Canyon From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Intersection	08:00 AM																				
Volume	252	328	244	1	825	58	29	16	1	104	50	278	290	0	618	182	72	67	0	321	1868
Percent	30.5	39.8	29.6	0.1		55.8	27.9	15.4	1.0		8.1	45.0	46.9	0.0		56.7	22.4	20.9	0.0		
08:00 Volume	84	124	58	0	266	12	7	10	0	29	3	91	91	0	185	110	16	12	0	138	618
Peak Factor																					0.756
High Int.	08:00 AM					08:30 AM					08:00 AM					08:00 AM					
Volume	84	124	58	0	266	21	11	1	0	33	3	91	91	0	185	110	16	12	0	138	
Peak Factor					0.775					0.788					0.835					0.582	

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Alcosta/Norris Canyon - San Ramon

Groups Printed- Unshifted

	Alcosta From North				Norris Canyon From East				Alcosta From South				Norris Canyon From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	32	52	30	0	23	21	8	0	3	49	36	0	20	5	30	0	309
04:15 PM	34	60	21	0	40	33	14	0	5	57	37	0	37	11	81	0	430
04:30 PM	38	83	24	0	58	26	24	0	4	85	23	0	42	15	74	0	496
04:45 PM	36	83	21	0	45	27	14	0	3	107	38	0	38	5	80	0	497
Total	140	278	96	0	166	107	60	0	15	298	134	0	137	36	265	0	1732
05:00 PM	39	80	10	0	44	37	22	0	3	86	34	0	67	5	108	0	535
05:15 PM	39	113	12	0	42	18	16	0	1	71	42	0	92	18	62	0	526
05:30 PM	32	87	12	0	35	22	17	0	4	115	74	0	58	9	84	0	549
05:45 PM	10	63	19	0	29	6	6	0	1	45	42	0	42	9	72	0	344
Total	120	343	53	0	150	83	61	0	9	317	192	0	259	41	326	0	1954
Grand Total	260	621	149	0	316	190	121	0	24	615	326	0	396	77	591	0	3686
Apprch %	25.2	60.3	14.5	0.0	50.4	30.3	19.3	0.0	2.5	63.7	33.8	0.0	37.2	7.2	55.5	0.0	
Total %	7.1	16.8	4.0	0.0	8.6	5.2	3.3	0.0	0.7	16.7	8.8	0.0	10.7	2.1	16.0	0.0	

	Alcosta From North					Norris Canyon From East					Alcosta From South					Norris Canyon From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	04:45 PM																				
Volume	146	363	55	0	564	166	104	69	0	339	11	379	188	0	578	255	37	334	0	626	2107
Percent	25.9	64.4	9.8	0.0		49.0	30.7	20.4	0.0		1.9	65.6	32.5	0.0		40.7	5.9	53.4	0.0		
05:30 Volume	32	87	12	0	131	35	22	17	0	74	4	115	74	0	193	58	9	84	0	151	549
Peak Factor																					0.959
High Int.	05:15 PM					05:00 PM					05:30 PM					05:00 PM					
Volume	39	113	12	0	164	44	37	22	0	103	4	115	74	0	193	67	5	108	0	180	
Peak Factor					0.860					0.823					0.749					0.869	

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Bollinger Canyon/San Ramon Valley - San Ramon

Groups Printed- Unshifted

	San Ramon Valley From North				Bollinger Canyon From East				San Ramon Valley From South				Bollinger Canyon From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	RTOR	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	14	66	78	0	38	108	80	0	44	55	33	29	23	66	22	0	656
04:15 PM	28	63	80	0	43	140	127	0	70	72	44	26	33	74	23	0	823
04:30 PM	15	101	73	0	42	104	112	0	67	77	46	25	20	80	22	0	784
04:45 PM	15	80	107	0	41	155	184	0	67	64	31	20	36	85	25	0	910
Total	72	310	338	0	164	507	503	0	248	268	154	100	112	305	92	0	3173
05:00 PM	11	111	105	0	38	145	137	0	50	86	57	23	34	71	24	0	892
05:15 PM	16	89	113	0	44	151	137	0	33	53	36	25	27	64	24	0	812
05:30 PM	18	74	75	0	60	183	151	1	77	84	37	28	25	79	21	0	913
05:45 PM	19	103	96	0	62	153	110	0	71	97	65	29	39	78	45	0	967
Total	64	377	389	0	204	632	535	1	231	320	195	105	125	292	114	0	3584
Grand Total	136	687	727	0	368	1139	1038	1	479	588	349	205	237	597	206	0	6757
Apprch %	8.8	44.3	46.9	0.0	14.5	44.7	40.8	0.0	29.5	36.3	21.5	12.6	22.8	57.4	19.8	0.0	
Total %	2.0	10.2	10.8	0.0	5.4	16.9	15.4	0.0	7.1	8.7	5.2	3.0	3.5	8.8	3.0	0.0	

	San Ramon Valley From North					Bollinger Canyon From East					San Ramon Valley From South					Bollinger Canyon From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	RTOR	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	05:00 PM																				
Volume	64	377	389	0	830	204	632	535	1	1372	231	320	195	105	851	125	292	114	0	531	3584
Percent	7.7	45.4	46.9	0.0		14.9	46.1	39.0	0.1		27.1	37.6	22.9	12.3		23.5	55.0	21.5	0.0		
05:45 Volume	19	103	96	0	218	62	153	110	0	325	71	97	65	29	262	39	78	45	0	162	967
Peak Factor																					0.927
High Int.	05:00 PM					05:30 PM					05:45 PM					05:45 PM					
Volume	11	111	105	0	227	60	183	151	1	395	71	97	65	29	262	39	78	45	0	162	
Peak Factor					0.914					0.868					0.812					0.819	

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Bollinger Canyon/San Ramon Valley - San Ramon

Groups Printed- Unshifted

	San Ramon Valley From North				Bollinger Canyon From East				San Ramon Valley From South				Bollinger Canyon From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	RTOR	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	2	15	20	0	12	35	35	0	82	37	11	36	12	68	6	0	371
07:15 AM	0	8	40	0	14	38	37	0	87	27	13	48	17	85	3	0	417
07:30 AM	1	24	53	0	21	36	44	0	130	83	28	26	21	90	3	0	560
07:45 AM	2	54	67	0	20	55	92	0	95	83	30	44	46	118	1	0	707
Total	5	101	180	0	67	164	208	0	394	230	82	154	96	361	13	0	2055
08:00 AM	1	38	50	0	34	45	97	0	86	41	43	40	99	140	10	0	724
08:15 AM	5	67	73	0	43	104	136	0	126	99	92	12	89	130	13	0	989
08:30 AM	5	42	85	0	42	84	96	0	107	116	83	23	39	137	39	0	898
08:45 AM	2	38	60	0	53	88	97	0	133	119	52	23	15	101	55	0	836
Total	13	185	268	0	172	321	426	0	452	375	270	98	242	508	117	0	3447
Grand Total	18	286	448	0	239	485	634	0	846	605	352	252	338	869	130	0	5502
Apprch %	2.4	38.0	59.6	0.0	17.6	35.7	46.7	0.0	41.2	29.4	17.1	12.3	25.3	65.0	9.7	0.0	
Total %	0.3	5.2	8.1	0.0	4.3	8.8	11.5	0.0	15.4	11.0	6.4	4.6	6.1	15.8	2.4	0.0	

	San Ramon Valley From North					Bollinger Canyon From East					San Ramon Valley From South					Bollinger Canyon From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	RTOR	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Intersection	08:00 AM																				
Volume	13	185	268	0	466	172	321	426	0	919	452	375	270	98	1195	242	508	117	0	867	3447
Percent	2.8	39.7	57.5	0.0		18.7	34.9	46.4	0.0		37.8	31.4	22.6	8.2		27.9	58.6	13.5	0.0		
08:15 Volume	5	67	73	0	145	43	104	136	0	283	126	99	92	12	329	89	130	13	0	232	989
Peak Factor																					0.871
High Int.	08:15 AM					08:15 AM					08:15 AM					08:00 AM					
Volume	5	67	73	0	145	43	104	136	0	283	126	99	92	12	329	99	140	10	0	249	
Peak Factor					0.803					0.812					0.908					0.870	

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Bollinger Canyon/Sunset - San Ramon

Groups Printed- Unshifted

	Sunset From North				Bollinger Canyon From East				Chevron Drwy From South				From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	17	11	5	0	11	275	64	2	1	5	3	0	260	205	155	1	1015
07:15 AM	31	11	15	0	5	320	55	0	10	5	3	0	193	330	158	1	1137
07:30 AM	14	8	5	0	9	328	51	0	2	1	5	0	207	388	127	4	1149
07:45 AM	20	23	8	0	17	330	62	0	3	1	4	0	210	428	176	0	1282
Total	82	53	33	0	42	1253	232	2	16	12	15	0	870	1351	616	6	4583
08:00 AM	30	6	8	0	22	312	80	0	7	5	7	0	258	338	225	1	1299
08:15 AM	50	10	11	0	35	335	64	0	12	4	10	0	177	410	190	0	1308
08:30 AM	51	8	17	0	23	318	65	0	14	6	8	0	121	366	244	0	1241
08:45 AM	41	5	11	0	42	320	31	0	7	1	11	0	113	388	206	0	1176
Total	172	29	47	0	122	1285	240	0	40	16	36	0	669	1502	865	1	5024
Grand Total	254	82	80	0	164	2538	472	2	56	28	51	0	1539	2853	1481	7	9607
Apprch %	61.1	19.7	19.2	0.0	5.2	79.9	14.9	0.1	41.5	20.7	37.8	0.0	26.2	48.5	25.2	0.1	
Total %	2.6	0.9	0.8	0.0	1.7	26.4	4.9	0.0	0.6	0.3	0.5	0.0	16.0	29.7	15.4	0.1	

	Sunset From North					Bollinger Canyon From East					Chevron Drwy From South					From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Intersection	07:45 AM																				
Volume	151	47	44	0	242	97	1295	271	0	1663	36	16	29	0	81	766	1542	835	1	3144	5130
Percent	62.4	19.4	18.2	0.0		5.8	77.9	16.3	0.0		44.4	19.8	35.8	0.0		24.4	49.0	26.6	0.0		
08:15 Volume	50	10	11	0	71	35	335	64	0	434	12	4	10	0	26	177	410	190	0	777	1308
Peak Factor																					0.981
High Int.	08:30 AM					08:15 AM					08:30 AM					08:00 AM					
Volume	51	8	17	0	76	35	335	64	0	434	14	6	8	0	28	258	338	225	1	822	
Peak Factor					0.796					0.958					0.723					0.956	

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Bollinger Canyon/Sunset - San Ramon

Groups Printed- Unshifted

	Sunset From North				Bollinger From East				Cheveron Drwy From South				Bollinger From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	118	2	71	0	14	388	2	0	17	6	113	0	6	290	92	0	1119
04:15 PM	191	7	56	0	41	365	6	0	29	19	133	1	8	331	109	0	1296
04:30 PM	204	1	94	0	42	410	9	1	29	5	142	1	2	322	84	0	1346
04:45 PM	166	3	70	0	31	438	7	3	34	4	119	0	11	380	86	0	1352
Total	679	13	291	0	128	1601	24	4	109	34	507	2	27	1323	371	0	5113
05:00 PM	194	7	84	0	17	534	5	0	66	11	158	0	10	371	90	0	1547
05:15 PM	173	2	77	0	31	466	3	0	53	11	158	0	4	422	113	0	1513
05:30 PM	130	2	102	8	32	411	17	0	43	5	117	0	3	430	118	0	1418
05:45 PM	117	1	86	9	41	390	4	0	29	3	98	0	1	466	100	0	1345
Total	614	12	349	17	121	1801	29	0	191	30	531	0	18	1689	421	0	5823
Grand Total	1293	25	640	17	249	3402	53	4	300	64	1038	2	45	3012	792	0	10936
Apprch %	65.5	1.3	32.4	0.9	6.7	91.7	1.4	0.1	21.4	4.6	73.9	0.1	1.2	78.3	20.6	0.0	
Total %	11.8	0.2	5.9	0.2	2.3	31.1	0.5	0.0	2.7	0.6	9.5	0.0	0.4	27.5	7.2	0.0	

	Sunset From North					Bollinger From East					Cheveron Drwy From South					Bollinger From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	04:45 PM																				
Volume	663	14	333	8	1018	111	1849	32	3	1995	196	31	552	0	779	28	1603	407	0	2038	5830
Percent	65.1	1.4	32.7	0.8		5.6	92.7	1.6	0.2		25.2	4.0	70.9	0.0		1.4	78.7	20.0	0.0		
05:00 Volume	194	7	84	0	285	17	534	5	0	556	66	11	158	0	235	10	371	90	0	471	1547
Peak Factor																					0.942
High Int.	05:00 PM					05:00 PM					05:00 PM					05:30 PM					
Volume	194	7	84	0	285	17	534	5	0	556	66	11	158	0	235	3	430	118	0	551	
Peak Factor					0.893					0.897					0.829					0.925	

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Bollinger Canyon/Camino Ramon - San Ramon

Groups Printed- Unshifted

	Camino Ramon From North				Bollinger Canyon From East				Chevron Drwy From South				Bollinger Canyon From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	12	1	8	0	38	332	8	0	0	2	1	0	85	163	90	0	740
07:15 AM	21	11	7	0	33	366	7	0	0	2	2	0	79	150	73	0	751
07:30 AM	11	9	16	0	75	370	8	0	1	5	3	0	121	189	138	0	946
07:45 AM	22	12	11	0	76	388	9	0	2	3	2	0	94	161	118	0	898
Total	66	33	42	0	222	1456	32	0	3	12	8	0	379	663	419	0	3335
08:00 AM	26	12	17	0	103	376	8	0	5	7	7	0	113	196	181	0	1051
08:15 AM	42	11	10	0	91	390	12	0	2	1	4	0	115	193	145	0	1016
08:30 AM	13	8	13	0	102	396	4	0	6	6	4	0	93	263	180	0	1088
08:45 AM	16	4	22	0	100	382	10	0	1	8	5	0	80	229	125	0	982
Total	97	35	62	0	396	1544	34	0	14	22	20	0	401	881	631	0	4137
Grand Total	163	68	104	0	618	3000	66	0	17	34	28	0	780	1544	1050	0	7472
Apprch %	48.7	20.3	31.0	0.0	16.8	81.4	1.8	0.0	21.5	43.0	35.4	0.0	23.1	45.8	31.1	0.0	
Total %	2.2	0.9	1.4	0.0	8.3	40.1	0.9	0.0	0.2	0.5	0.4	0.0	10.4	20.7	14.1	0.0	

	Camino Ramon From North					Bollinger Canyon From East					Chevron Drwy From South					Bollinger Canyon From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Intersection	08:00 AM																				
Volume	97	35	62	0	194	396	1544	34	0	1974	14	22	20	0	56	401	881	631	0	1913	4137
Percent	50.0	18.0	32.0	0.0		20.1	78.2	1.7	0.0		25.0	39.3	35.7	0.0		21.0	46.1	33.0	0.0		
08:30 Volume	13	8	13	0	34	102	396	4	0	502	6	6	4	0	16	93	263	180	0	536	1088
Peak Factor																					0.951
High Int.	08:15 AM					08:30 AM					08:00 AM					08:30 AM					
Volume	42	11	10	0	63	102	396	4	0	502	5	7	7	0	19	93	263	180	0	536	
Peak Factor					0.770					0.983					0.737					0.892	

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Bollinger Canyon/Camino Ramon - San Ramon

Groups Printed- Unshifted

	Camino Ramon From North				Bollinger Canyon From East				Chevron Drwy From South				Bollinger Canyon From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	90	6	115	0	55	237	5	0	7	9	69	0	9	313	25	0	940
04:15 PM	113	6	112	0	48	231	8	0	17	6	66	0	9	333	30	0	979
04:30 PM	146	13	118	0	53	262	12	0	18	15	62	0	9	336	34	0	1078
04:45 PM	147	11	142	0	61	276	11	0	23	12	59	0	8	410	27	0	1187
Total	496	36	487	0	217	1006	36	0	65	42	256	0	35	1392	116	0	4184
05:00 PM	~~213~~ 183	11	143	0	73	287	21	0	25	18	96	0	9	428	38	0	1362
05:15 PM	120	11	152	0	33	284	12	0	25	20	80	0	5	483	33	0	1258
05:30 PM	140	18	184	0	75	240	22	0	47	27	105	0	5	498	22	0	1383
05:45 PM	103	11	105	0	63	262	21	0	34	16	62	0	2	491	16	0	1186
Total	576	51	584	0	244	1073	76	0	131	81	343	0	21	1900	109	0	5189
Grand Total	1072	87	1071	0	461	2079	112	0	196	123	599	0	56	3292	225	0	9373
Apprch %	48.1	3.9	48.0	0.0	17.4	78.4	4.2	0.0	21.4	13.4	65.3	0.0	1.6	92.1	6.3	0.0	
Total %	11.4	0.9	11.4	0.0	4.9	22.2	1.2	0.0	2.1	1.3	6.4	0.0	0.6	35.1	2.4	0.0	

	Camino Ramon From North					Bollinger Canyon From East					Chevron Drwy From South					Bollinger Canyon From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	04:45 PM																				
Volume	620	51	621	0	1292	242	1087	66	0	1395	120	77	340	0	537	27	1819	120	0	1966	5190
Percent	48.0	3.9	48.1	0.0		17.3	77.9	4.7	0.0		22.3	14.3	63.3	0.0		1.4	92.5	6.1	0.0		
05:30 Volume	140	18	184	0	342	75	240	22	0	337	47	27	105	0	179	5	498	22	0	525	1383
Peak Factor																					0.938
High Int.	05:00 PM					05:00 PM					05:30 PM					05:30 PM					
Volume	213	11	143	0	367	73	287	21	0	381	47	27	105	0	179	5	498	22	0	525	
Peak Factor					0.880					0.915					0.750					0.936	

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Bollinger Canyon/Market Place - San Ramon

Groups Printed- Unshifted

	Park Drwy From North				Bollinger Canyon From East				Market place From South				Bollinger Canyon From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	0	0	0	0	1	372	5	0	5	0	63	0	19	132	1	0	598
07:15 AM	0	0	0	0	0	348	5	0	11	0	72	0	39	103	0	0	578
07:30 AM	1	0	0	0	0	433	6	0	7	0	78	0	36	125	3	0	689
07:45 AM	1	1	0	0	0	504	4	0	4	1	74	0	42	148	7	0	786
Total	2	1	0	0	1	1657	20	0	27	1	287	0	136	508	11	0	2651
08:00 AM	1	0	2	0	1	486	11	0	4	0	93	0	44	154	10	0	806
08:15 AM	0	2	0	0	1	563	9	0	12	0	82	0	45	163	18	0	895
08:30 AM	1	1	0	0	1	448	9	0	17	1	87	0	60	172	21	0	818
08:45 AM	0	1	1	0	4	437	14	0	13	1	117	0	57	183	4	0	832
Total	2	4	3	0	7	1934	43	0	46	2	379	0	206	672	53	0	3351
Grand Total	4	5	3	0	8	3591	63	0	73	3	666	0	342	1180	64	0	6002
Apprch %	33.3	41.7	25.0	0.0	0.2	98.1	1.7	0.0	9.8	0.4	89.8	0.0	21.6	74.4	4.0	0.0	
Total %	0.1	0.1	0.0	0.0	0.1	59.8	1.0	0.0	1.2	0.0	11.1	0.0	5.7	19.7	1.1	0.0	

	Park Drwy From North					Bollinger Canyon From East					Market place From South					Bollinger Canyon From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Intersection	08:00 AM																				
Volume	2	4	3	0	9	7	1934	43	0	1984	46	2	379	0	427	206	672	53	0	931	3351
Percent	22.2	44.4	33.3	0.0		0.4	97.5	2.2	0.0		10.8	0.5	88.8	0.0		22.1	72.2	5.7	0.0		
08:15 Volume	0	2	0	0	2	1	563	9	0	573	12	0	82	0	94	45	163	18	0	226	895
Peak Factor																					0.936
High Int.	08:00 AM					08:15 AM					08:45 AM					08:30 AM					
Volume	1	0	2	0	3	1	563	9	0	573	13	1	117	0	131	60	172	21	0	253	
Peak Factor					0.750					0.866					0.815					0.920	

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File Name : 19pm
Site Code : 00000019
Start Date : 06/12/2008
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Bollinger Canyon/Market Place - San Ramon

Groups Printed- Unshifted

	Park Drwy From North				Bollinger From East				Market Place From South				Bollinger From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	0	0	0	0	3	171	21	0	27	0	94	0	94	285	1	0	696
04:15 PM	0	2	1	0	0	207	23	0	25	0	80	0	111	322	2	0	773
04:30 PM	0	2	4	0	2	211	27	0	24	0	79	0	116	411	2	0	878
04:45 PM	0	0	4	0	0	192	27	0	26	1	84	0	105	426	1	0	866
Total	0	4	9	0	5	781	98	0	102	1	337	0	426	1444	6	0	3213
05:00 PM	0	2	2	0	1	214	14	0	28	0	73	0	134	447	0	0	915
05:15 PM	0	0	1	0	0	161	20	0	31	2	102	0	132	501	6	0	956
05:30 PM	0	0	0	0	0	230	12	0	27	0	74	0	158	540	3	2	1046
Grand Total	0	6	12	0	6	1386	144	0	188	3	586	0	850	2932	15	2	6130
Apprch %	0.0	33.3	66.7	0.0	0.4	90.2	9.4	0.0	24.2	0.4	75.4	0.0	22.4	77.2	0.4	0.1	
Total %	0.0	0.1	0.2	0.0	0.1	22.6	2.3	0.0	3.1	0.0	9.6	0.0	13.9	47.8	0.2	0.0	

	Park Drwy From North					Bollinger From East					Market Place From South					Bollinger From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:30 PM - Peak 1 of 1																					
Intersection	04:45 PM																				
Volume	0	2	7	0	9	1	797	73	0	871	112	3	333	0	448	529	1914	10	2	2455	3783
Percent	0.0	22.2	77.8	0.0		0.1	91.5	8.4	0.0		25.0	0.7	74.3	0.0		21.5	78.0	0.4	0.1		
05:30 Volume	0	0	0	0	0	0	230	12	0	242	27	0	74	0	101	158	540	3	2	703	1046
Peak Factor																					0.904
High Int.	04:45 PM					05:30 PM					05:15 PM					05:30 PM					
Volume	0	0	4	0	4	0	230	12	0	242	31	2	102	0	135	158	540	3	2	703	
Peak Factor					0.563					0.900					0.830					0.873	

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File Name : 21am
Site Code : 00000021
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San Ramon Valley/Alcosta - San Ramon

Groups Printed- Unshifted

	San Ramon Valley From North				Alcosta From East				San Ramon Valley From South				Westside From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	1	27	41	0	98	16	43	0	47	14	0	0	2	16	3	0	308
07:15 AM	9	52	46	0	133	32	99	0	76	25	5	0	2	61	4	0	544
07:30 AM	5	99	72	0	134	31	104	0	147	33	6	0	5	67	1	0	704
07:45 AM	2	103	68	0	219	26	150	0	187	41	12	0	7	88	4	0	907
Total	17	281	227	0	584	105	396	0	457	113	23	0	16	232	12	0	2463
08:00 AM	2	121	90	0	226	23	150	0	155	67	16	0	14	49	7	0	920
08:15 AM	6	85	72	0	211	26	142	0	143	48	8	0	12	45	7	0	805
08:30 AM	5	76	75	0	193	21	95	0	133	44	13	0	6	47	3	0	711
08:45 AM	8	72	72	0	130	30	110	0	91	39	17	0	1	56	2	0	628
Total	21	354	309	0	760	100	497	0	522	198	54	0	33	197	19	0	3064
Grand Total	38	635	536	0	1344	205	893	0	979	311	77	0	49	429	31	0	5527
Apprch %	3.1	52.5	44.3	0.0	55.0	8.4	36.6	0.0	71.6	22.8	5.6	0.0	9.6	84.3	6.1	0.0	
Total %	0.7	11.5	9.7	0.0	24.3	3.7	16.2	0.0	17.7	5.6	1.4	0.0	0.9	7.8	0.6	0.0	

	San Ramon Valley From North					Alcosta From East					San Ramon Valley From South					Westside From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Intersection	07:45 AM																				
Volume	15	385	305	0	705	849	96	537	0	1482	618	200	49	0	867	39	229	21	0	289	3343
Percent	2.1	54.6	43.3	0.0		57.3	6.5	36.2	0.0		71.3	23.1	5.7	0.0		13.5	79.2	7.3	0.0		
08:00 Volume	2	121	90	0	213	226	23	150	0	399	155	67	16	0	238	14	49	7	0	70	920
Peak Factor																					0.908
High Int.	08:00 AM					08:00 AM					07:45 AM					07:45 AM					
Volume	2	121	90	0	213	226	23	150	0	399	187	41	12	0	240	7	88	4	0	99	
Peak Factor					0.827					0.929					0.903					0.730	

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File Name : 21pm
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San Ramon Valley/Alost-Westside - San Ramon

Groups Printed- Unshifted

	San Ramon Valley From North				Alcosta From East				San Ramon Valley From South				Westside From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	6	103	120	0	94	48	66	0	84	86	27	0	17	26	5	0	682
04:15 PM	13	110	140	0	136	67	79	0	104	82	40	0	9	59	2	0	841
04:30 PM	6	95	166	0	162	85	89	0	129	99	20	0	8	50	1	0	910
04:45 PM	7	161	154	0	138	101	58	0	119	96	25	0	8	61	3	0	931
Total	32	469	580	0	530	301	292	0	436	363	112	0	42	196	11	0	3364
05:00 PM	13	126	194	0	180	63	79	0	159	116	33	0	9	55	3	0	1030
05:15 PM	14	163	197	0	177	84	76	0	118	118	40	0	11	54	4	0	1056
05:30 PM	13	119	161	0	138	81	81	0	111	114	38	0	11	56	6	0	929
05:45 PM	11	147	204	0	148	62	69	0	122	99	42	0	17	50	7	0	978
Total	51	555	756	0	643	290	305	0	510	447	153	0	48	215	20	0	3993
Grand Total	83	1024	1336	0	1173	591	597	0	946	810	265	0	90	411	31	0	7357
Apprch %	3.4	41.9	54.7	0.0	49.7	25.0	25.3	0.0	46.8	40.1	13.1	0.0	16.9	77.3	5.8	0.0	
Total %	1.1	13.9	18.2	0.0	15.9	8.0	8.1	0.0	12.9	11.0	3.6	0.0	1.2	5.6	0.4	0.0	

	San Ramon Valley From North					Alcosta From East					San Ramon Valley From South					Westside From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	05:00 PM																				
Volume	51	555	756	0	1362	643	290	305	0	1238	510	447	153	0	1110	48	215	20	0	283	3993
Percent	3.7	40.7	55.5	0.0		51.9	23.4	24.6	0.0		45.9	40.3	13.8	0.0		17.0	76.0	7.1	0.0		
05:15 Volume	14	163	197	0	374	177	84	76	0	337	118	118	40	0	276	11	54	4	0	69	1056
Peak Factor																					0.945
High Int.	05:15 PM					05:15 PM					05:00 PM					05:45 PM					
Volume	14	163	197	0	374	177	84	76	0	337	159	116	33	0	308	17	50	7	0	74	
Peak Factor					0.910					0.918					0.901					0.956	

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File Name : 22am
Site Code : 00000022
Start Date : 06/03/2008
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San Ramon Valley/I-680 SB off-ramp - San Ramon

Groups Printed- Unshifted

	San Ramon Valley From North				SB I-680 off-ramp From East				San Ramon Valley From South				Shopping Center From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	3	51	133	0	5	3	54	0	52	29	5	0	0	2	5	0	342
07:15 AM	10	43	163	0	4	4	45	1	68	46	7	0	0	1	0	0	392
07:30 AM	16	70	168	0	7	7	75	0	61	42	5	0	1	3	5	0	460
07:45 AM	6	55	184	0	6	5	47	0	82	45	10	0	2	4	1	0	447
Total	35	219	648	0	22	19	221	1	263	162	27	0	3	10	11	0	1641
08:00 AM	8	67	168	0	10	19	74	0	93	66	13	0	2	5	6	0	531
08:15 AM	12	52	160	0	4	6	82	0	86	73	5	0	6	9	1	0	496
08:30 AM	16	67	137	0	4	12	71	0	96	61	10	0	2	7	6	0	489
08:45 AM	4	63	133	0	9	11	53	0	78	45	9	0	1	9	4	0	419
Total	40	249	598	0	27	48	280	0	353	245	37	0	11	30	17	0	1935
Grand Total	75	468	1246	0	49	67	501	1	616	407	64	0	14	40	28	0	3576
Apprch %	4.2	26.2	69.6	0.0	7.9	10.8	81.1	0.2	56.7	37.4	5.9	0.0	17.1	48.8	34.1	0.0	
Total %	2.1	13.1	34.8	0.0	1.4	1.9	14.0	0.0	17.2	11.4	1.8	0.0	0.4	1.1	0.8	0.0	

	San Ramon Valley From North					SB I-680 off-ramp From East					San Ramon Valley From South					Shopping Center From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Intersection	07:45 AM																				
Volume	42	241	649	0	932	24	42	274	0	340	357	245	38	0	640	12	25	14	0	51	1963
Percent	4.5	25.9	69.6	0.0		7.1	12.4	80.6	0.0		55.8	38.3	5.9	0.0		23.5	49.0	27.5	0.0		
08:00 Volume	8	67	168	0	243	10	19	74	0	103	93	66	13	0	172	2	5	6	0	13	531
Peak Factor																					0.924
High Int.	07:45 AM					08:00 AM					08:00 AM					08:15 AM					
Volume	6	55	184	0	245	10	19	74	0	103	93	66	13	0	172	6	9	1	0	16	
Peak Factor					0.951					0.825					0.930					0.797	

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File Name : 22pm
Site Code : 00000022
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San Ramon Valley/SB I-680 off-ramp - San Ramon

Groups Printed- Unshifted

	San Ramon Valley From North				Shopping Center From East				San Ramon Valley From South				SB I-680 off-ramp - Samn Ramon From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	24	53	70	0	5	9	86	0	50	105	11	0	13	5	19	0	450
04:15 PM	14	57	66	0	6	8	110	0	42	119	9	0	3	7	22	0	463
04:30 PM	14	50	62	0	6	19	135	1	55	143	10	0	5	4	28	0	532
04:45 PM	13	48	61	0	5	14	150	0	32	88	13	0	3	9	26	0	462
Total	65	208	259	0	22	50	481	1	179	455	43	0	24	25	95	0	1907
05:00 PM	7	44	43	0	0	14	135	0	37	136	11	0	2	3	14	0	446
05:15 PM	10	42	48	0	10	10	158	0	44	108	4	0	1	8	26	0	469
05:30 PM	12	48	42	0	3	26	120	0	37	128	11	0	3	10	20	0	460
05:45 PM	15	50	58	0	4	14	121	0	45	108	18	0	1	3	15	0	452
Total	44	184	191	0	17	64	534	0	163	480	44	0	7	24	75	0	1827
Grand Total	109	392	450	0	39	114	1015	1	342	935	87	0	31	49	170	0	3734
Apprch %	11.5	41.2	47.3	0.0	3.3	9.8	86.8	0.1	25.1	68.5	6.4	0.0	12.4	19.6	68.0	0.0	
Total %	2.9	10.5	12.1	0.0	1.0	3.1	27.2	0.0	9.2	25.0	2.3	0.0	0.8	1.3	4.6	0.0	

	San Ramon Valley From North					Shopping Center From East					San Ramon Valley From South					SB I-680 off-ramp - Samn Ramon From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	04:30 PM																				
Volume	44	184	214	0	442	21	57	578	1	657	168	475	38	0	681	11	24	94	0	129	1909
Percent	10.0	41.6	48.4	0.0		3.2	8.7	88.0	0.2		24.7	69.8	5.6	0.0		8.5	18.6	72.9	0.0		
04:30 Volume	14	50	62	0	126	6	19	135	1	161	55	143	10	0	208	5	4	28	0	37	532
Peak Factor																					0.897
High Int.	04:30 PM					05:15 PM					04:30 PM					04:45 PM					
Volume	14	50	62	0	126	10	10	158	0	178	55	143	10	0	208	3	9	26	0	38	
Peak Factor					0.877					0.923					0.819					0.849	

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File Name : 23am
Site Code : 00000023
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NB I-680 off-ramp/Alcosta - San Ramon

Groups Printed- Unshifted

	From North				Alcosta From East				NB I-680 off-ramp From South				Alcosta From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	0	0	0	0	68	157	0	0	9	0	37	21	0	33	47	0	372
07:15 AM	0	0	0	0	100	171	0	0	15	0	42	30	0	41	67	0	466
07:30 AM	0	0	0	0	113	267	0	0	28	0	34	44	0	87	66	0	639
07:45 AM	0	0	0	0	138	299	0	0	16	0	57	54	0	108	95	0	767
Total	0	0	0	0	419	894	0	0	68	0	170	149	0	269	275	0	2244
08:00 AM	0	0	0	0	112	310	0	0	32	0	77	36	0	125	85	0	777
08:15 AM	0	0	0	0	130	346	0	0	32	0	50	62	0	98	96	0	814
08:30 AM	0	0	0	0	130	345	0	0	32	0	49	57	0	114	107	0	834
08:45 AM	0	0	0	0	110	222	0	0	25	0	55	48	0	77	91	0	628
Total	0	0	0	0	482	1223	0	0	121	0	231	203	0	414	379	0	3053
Grand Total	0	0	0	0	901	2117	0	0	189	0	401	352	0	683	654	0	5297
Apprch %	0.0	0.0	0.0	0.0	29.9	70.1	0.0	0.0	20.1	0.0	42.6	37.4	0.0	51.1	48.9	0.0	
Total %	0.0	0.0	0.0	0.0	17.0	40.0	0.0	0.0	3.6	0.0	7.6	6.6	0.0	12.9	12.3	0.0	

	From North					Alcosta From East					NB I-680 off-ramp From South					Alcosta From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Intersection	07:45 AM																				
Volume	0	0	0	0	0	510	1300	0	0	1810	112	0	233	209	554	0	445	383	0	828	3192
Percent	0.0	0.0	0.0	0.0		28.2	71.8	0.0	0.0		20.2	0.0	42.1	37.7		0.0	53.7	46.3	0.0		
08:30 Volume	0	0	0	0	0	130	345	0	0	475	32	0	49	57	138	0	114	107	0	221	834
Peak Factor																					0.957
High Int.	6:45:00 AM					08:15 AM					08:00 AM					08:30 AM					
Volume	0	0	0	0	0	130	346	0	0	476	32	0	77	36	145	0	114	107	0	221	
Peak Factor										0.951					0.955					0.937	

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NB-I680 off-ramp/Alcoasta - San Ramon

Groups Printed- Unshifted

	From North				Alcosta From East				NB I-680 off-ramp From South				Alcosta From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	0	0	0	0	73	128	0	0	73	1	133	68	0	129	75	0	680
04:15 PM	0	0	0	0	75	126	0	0	83	0	151	53	0	168	58	0	714
04:30 PM	0	0	0	0	56	135	0	0	67	1	127	71	0	163	71	0	691
04:45 PM	0	0	0	0	48	154	0	0	99	3	134	75	0	165	66	0	744
Total	0	0	0	0	252	543	0	0	322	5	545	267	0	625	270	0	2829
05:00 PM	0	0	0	0	57	131	0	0	134	0	182	54	0	176	72	0	806
05:15 PM	0	0	0	0	60	179	0	0	159	0	201	53	0	182	85	0	919
05:30 PM	0	0	0	0	68	132	0	0	211	1	307	53	0	200	108	0	1080
05:45 PM	0	0	0	0	60	178	0	0	187	0	232	42	0	210	100	0	1009
Total	0	0	0	0	245	620	0	0	691	1	922	202	0	768	365	0	3814
Grand Total	0	0	0	0	497	1163	0	0	1013	6	1467	469	0	1393	635	0	6643
Apprch %	0.0	0.0	0.0	0.0	29.9	70.1	0.0	0.0	34.3	0.2	49.6	15.9	0.0	68.7	31.3	0.0	
Total %	0.0	0.0	0.0	0.0	7.5	17.5	0.0	0.0	15.2	0.1	22.1	7.1	0.0	21.0	9.6	0.0	

	From North					Alcosta From East					NB I-680 off-ramp From South					Alcosta From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	05:00 PM																				
Volume	0	0	0	0	0	245	620	0	0	865	691	1	922	202	1816	0	768	365	0	1133	3814
Percent	0.0	0.0	0.0	0.0		28.3	71.7	0.0	0.0		38.1	0.1	50.8	11.1		0.0	67.8	32.2	0.0		
05:30 Volume	0	0	0	0	0	68	132	0	0	200	211	1	307	53	572	0	200	108	0	308	1080
Peak Factor																					0.883
High Int.	3:45:00 PM					05:15 PM					05:30 PM					05:45 PM					
Volume	0	0	0	0	0	60	179	0	0	239	211	1	307	53	572	0	210	100	0	310	
Peak Factor										0.905					0.794					0.914	

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File Name : 24am
Site Code : 00000026
Start Date : 06/04/2008
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Davon/Alcosta - San Ramon

Groups Printed- Unshifted

	Davona From North				Alcosta From East				Davona From South				Alcosta From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	31	0	3	0	5	166	1	0	4	1	24	0	10	35	5	0	285
07:15 AM	34	2	4	0	4	227	3	0	2	0	24	0	9	54	13	0	376
07:30 AM	46	1	7	0	2	261	1	0	0	0	58	0	20	94	19	0	509
07:45 AM	42	1	8	0	2	336	3	0	1	2	56	0	36	115	16	0	618
Total	153	4	22	0	13	990	8	0	7	3	162	0	75	298	53	0	1788
08:00 AM	48	2	2	0	18	281	5	0	2	1	61	0	13	129	23	0	585
08:15 AM	40	8	26	0	10	266	3	0	7	1	58	0	26	77	14	0	536
08:30 AM	49	5	20	0	3	334	15	0	10	2	98	0	45	117	9	0	707
08:45 AM	27	0	4	0	5	195	3	0	4	2	37	0	20	108	11	0	416
Total	164	15	52	0	36	1076	26	0	23	6	254	0	104	431	57	0	2244
Grand Total	317	19	74	0	49	2066	34	0	30	9	416	0	179	729	110	0	4032
Apprch %	77.3	4.6	18.0	0.0	2.3	96.1	1.6	0.0	6.6	2.0	91.4	0.0	17.6	71.6	10.8	0.0	
Total %	7.9	0.5	1.8	0.0	1.2	51.2	0.8	0.0	0.7	0.2	10.3	0.0	4.4	18.1	2.7	0.0	

	Davona From North					Alcosta From East					Davona From South					Alcosta From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Intersection	07:45 AM																				
Volume	179	16	56	0	251	33	1217	26	0	1276	20	6	273	0	299	120	438	62	0	620	2446
Percent	71.3	6.4	22.3	0.0		2.6	95.4	2.0	0.0		6.7	2.0	91.3	0.0		19.4	70.6	10.0	0.0		
08:30 Volume	49	5	20	0	74	3	334	15	0	352	10	2	98	0	110	45	117	9	0	171	707
Peak Factor																					0.865
High Int.	08:15 AM					08:30 AM					08:30 AM					08:30 AM					
Volume	40	8	26	0	74	3	334	15	0	352	10	2	98	0	110	45	117	9	0	171	
Peak Factor					0.848					0.906					0.680					0.906	

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File Name : 24pm
Site Code : 00000024
Start Date : 06/04/2008
Page No : 1

Davona/Alcosta - San Ramon

Groups Printed- Unshifted

	Davona From North				Alcosta From East				Davona From South				Alcosta From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	12	1	3	0	5	148	1	0	3	2	29	0	31	179	31	0	445
04:15 PM	19	1	7	0	26	120	0	0	4	0	35	0	31	222	30	0	495
04:30 PM	27	4	3	0	18	148	2	0	1	0	24	0	28	215	41	0	511
04:45 PM	22	0	5	0	12	124	2	0	3	2	24	0	42	238	52	0	526
Total	80	6	18	0	61	540	5	0	11	4	112	0	132	854	154	0	1977
05:00 PM	17	0	13	0	13	139	3	0	4	2	30	0	47	268	52	0	588
05:15 PM	19	0	2	0	10	183	5	0	1	1	25	0	49	330	45	0	670
05:30 PM	24	0	6	0	4	162	1	0	1	1	24	0	57	326	46	0	652
05:45 PM	17	5	10	0	7	132	3	0	5	2	34	0	35	345	54	0	649
Total	77	5	31	0	34	616	12	0	11	6	113	0	188	1269	197	0	2559
Grand Total	157	11	49	0	95	1156	17	0	22	10	225	0	320	2123	351	0	4536
Apprch %	72.4	5.1	22.6	0.0	7.5	91.2	1.3	0.0	8.6	3.9	87.5	0.0	11.5	76.0	12.6	0.0	
Total %	3.5	0.2	1.1	0.0	2.1	25.5	0.4	0.0	0.5	0.2	5.0	0.0	7.1	46.8	7.7	0.0	

	Davona From North					Alcosta From East					Davona From South					Alcosta From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	05:00 PM																				
Volume	77	5	31	0	113	34	616	12	0	662	11	6	113	0	130	188	1269	197	0	1654	2559
Percent	68.1	4.4	27.4	0.0		5.1	93.1	1.8	0.0		8.5	4.6	86.9	0.0		11.4	76.7	11.9	0.0		
05:15 Volume	19	0	2	0	21	10	183	5	0	198	1	1	25	0	27	49	330	45	0	424	670
Peak Factor																					0.955
High Int.	05:45 PM					05:15 PM					05:45 PM					05:45 PM					
Volume	17	5	10	0	32	10	183	5	0	198	5	2	34	0	41	35	345	54	0	434	
Peak Factor					0.883					0.836					0.793					0.953	

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File Name : 25am
Site Code : 00000025
Start Date : 05/20/2008
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Fostoria Way/Crow Canyon Pl-Camoino Ramon - San Ramon

Groups Printed- Unshifted

	Camino Ramon From North				Fostoria Way From East				Crow Canyon Pl From South				Fostoria Way From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	8	36	7	0	5	13	5	0	7	14	3	0	10	15	2	0	125
07:15 AM	2	45	3	0	3	19	10	0	11	5	5	0	25	18	0	0	146
07:30 AM	6	48	6	0	9	18	9	0	12	18	4	0	23	25	4	0	182
07:45 AM	11	58	3	0	4	30	13	0	15	25	5	0	23	26	8	0	221
Total	27	187	19	0	21	80	37	0	45	62	17	0	81	84	14	0	674
08:00 AM	14	43	11	0	3	30	16	0	15	35	14	0	25	38	1	0	245
08:15 AM	10	51	12	0	20	34	7	0	17	56	29	0	28	32	8	0	304
08:30 AM	3	61	19	0	17	29	13	0	13	48	23	0	30	29	7	0	292
08:45 AM	5	82	16	0	20	32	9	0	18	45	13	0	18	27	7	0	292
Total	32	237	58	0	60	125	45	0	63	184	79	0	101	126	23	0	1133
Grand Total	59	424	77	0	81	205	82	0	108	246	96	0	182	210	37	0	1807
Apprch %	10.5	75.7	13.8	0.0	22.0	55.7	22.3	0.0	24.0	54.7	21.3	0.0	42.4	49.0	8.6	0.0	
Total %	3.3	23.5	4.3	0.0	4.5	11.3	4.5	0.0	6.0	13.6	5.3	0.0	10.1	11.6	2.0	0.0	

	Camino Ramon From North					Fostoria Way From East					Crow Canyon Pl From South					Fostoria Way From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Intersection	08:00 AM																				
Volume	32	237	58	0	327	60	125	45	0	230	63	184	79	0	326	101	126	23	0	250	1133
Percent	9.8	72.5	17.7	0.0		26.1	54.3	19.6	0.0		19.3	56.4	24.2	0.0		40.4	50.4	9.2	0.0		
08:15 Volume	10	51	12	0	73	20	34	7	0	61	17	56	29	0	102	28	32	8	0	68	304
Peak Factor																					0.932
High Int.	08:45 AM					08:15 AM					08:15 AM					08:15 AM					
Volume	5	82	16	0	103	20	34	7	0	61	17	56	29	0	102	28	32	8	0	68	
Peak Factor					0.794					0.943					0.799					0.919	

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File Name : 25pm
Site Code : 00000025
Start Date : 05/20/2008
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Fostoria Way/Crow Canyo Pl-Camino Ramon - San Ramon

Groups Printed- Unshifted

	Camino Ramon From North				Fostoria Way From East				Crow Canyon Pl From South				Fostoria Way From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	13	54	8	0	14	24	34	0	29	43	10	0	13	32	23	0	297
04:15 PM	24	38	7	0	20	36	18	0	27	45	22	0	18	31	21	0	307
04:30 PM	11	37	5	0	35	63	43	0	31	48	10	0	25	40	30	0	378
04:45 PM	11	62	19	0	23	54	33	0	47	84	18	0	19	53	27	0	450
Total	59	191	39	0	92	177	128	0	134	220	60	0	75	156	101	0	1432
05:00 PM	19	40	10	0	33	63	27	0	40	80	15	0	19	80	28	0	454
05:15 PM	21	66	15	0	32	61	51	0	43	128	17	0	26	67	21	0	548
05:30 PM	19	45	11	0	36	67	47	0	48	104	16	0	25	47	23	0	488
05:45 PM	7	54	9	0	23	49	31	0	53	81	16	0	21	69	16	0	429
Total	66	205	45	0	124	240	156	0	184	393	64	0	91	263	88	0	1919
Grand Total	125	396	84	0	216	417	284	0	318	613	124	0	166	419	189	0	3351
Apprch %	20.7	65.5	13.9	0.0	23.6	45.5	31.0	0.0	30.1	58.1	11.8	0.0	21.4	54.1	24.4	0.0	
Total %	3.7	11.8	2.5	0.0	6.4	12.4	8.5	0.0	9.5	18.3	3.7	0.0	5.0	12.5	5.6	0.0	

	Camino Ramon From North					Fostoria Way From East					Crow Canyon Pl From South					Fostoria Way From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	04:45 PM																				
Volume	70	213	55	0	338	124	245	158	0	527	178	396	66	0	640	89	247	99	0	435	1940
Percent	20.7	63.0	16.3	0.0		23.5	46.5	30.0	0.0		27.8	61.9	10.3	0.0		20.5	56.8	22.8	0.0		
05:15 Volume	21	66	15	0	102	32	61	51	0	144	43	128	17	0	188	26	67	21	0	114	548
Peak Factor																					0.885
High Int.	05:15 PM					05:30 PM					05:15 PM					05:00 PM					
Volume	21	66	15	0	102	36	67	47	0	150	43	128	17	0	188	19	80	28	0	127	
Peak Factor					0.828					0.878					0.851					0.856	

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File Name : 26am
Site Code : 00000026
Start Date : 05/29/2008
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Camino Ramon/Executive Pkwy - San Ramon

Groups Printed- Unshifted

	Camino Ramon From North				Executive Pkwy From East				Camino Ramon From South				Executive Pkwy From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	31	72	4	0	1	3	1	0	14	16	17	0	6	1	1	0	167
07:15 AM	46	68	10	0	0	3	3	0	26	31	29	0	5	1	0	0	222
07:30 AM	41	84	11	0	3	3	6	0	19	29	29	0	7	0	4	0	236
07:45 AM	51	111	14	0	9	8	4	0	41	44	49	0	8	8	2	0	349
Total	169	335	39	0	13	17	14	0	100	120	124	0	26	10	7	0	974
08:00 AM	47	90	37	0	28	8	40	0	45	54	66	0	1	33	3	0	452
08:15 AM	41	99	16	0	29	19	14	0	42	53	50	0	5	14	3	0	385
08:30 AM	30	74	7	0	3	4	6	0	35	61	63	0	2	3	8	0	296
08:45 AM	32	81	6	0	3	3	8	0	29	68	29	0	6	2	4	0	271
Total	150	344	66	0	63	34	68	0	151	236	208	0	14	52	18	0	1404
Grand Total	319	679	105	0	76	51	82	0	251	356	332	0	40	62	25	0	2378
Apprch %	28.9	61.6	9.5	0.0	36.4	24.4	39.2	0.0	26.7	37.9	35.4	0.0	31.5	48.8	19.7	0.0	
Total %	13.4	28.6	4.4	0.0	3.2	2.1	3.4	0.0	10.6	15.0	14.0	0.0	1.7	2.6	1.1	0.0	

	Camino Ramon From North					Executive Pkwy From East					Camino Ramon From South					Executive Pkwy From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Intersection	07:45 AM																				
Volume	169	374	74	0	617	69	39	64	0	172	163	212	228	0	603	16	58	16	0	90	1482
Percent	27.4	60.6	12.0	0.0		40.1	22.7	37.2	0.0		27.0	35.2	37.8	0.0		17.8	64.4	17.8	0.0		
08:00 Volume	47	90	37	0	174	28	8	40	0	76	45	54	66	0	165	1	33	3	0	37	452
Peak Factor																					0.820
High Int.	07:45 AM					08:00 AM					08:00 AM					08:00 AM					
Volume	51	111	14	0	176	28	8	40	0	76	45	54	66	0	165	1	33	3	0	37	
Peak Factor					0.876					0.566					0.914					0.608	

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File Name : 26pm
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Camino Ramon/Executive Pkwy - San Ramon

Groups Printed- Unshifted

	Camino Ramon From North				Executive Plwy From East				Camino Ramon From South				Executive Plwy From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	9	82	6	0	13	2	20	0	4	117	6	0	12	7	38	0	316
04:15 PM	9	76	4	0	13	3	30	0	7	116	6	0	28	5	28	0	325
04:30 PM	8	88	1	0	16	2	45	0	4	114	8	0	49	2	53	0	390
04:45 PM	6	84	4	0	13	2	21	0	5	106	3	0	44	4	47	0	339
Total	32	330	15	0	55	9	116	0	20	453	23	0	133	18	166	0	1370
05:00 PM	5	92	4	0	43	6	47	0	3	130	8	0	38	7	56	0	439
05:15 PM	23	128	0	0	21	1	33	0	9	132	6	0	46	5	42	0	446
05:30 PM	8	93	5	0	18	3	20	0	10	121	2	0	40	4	42	0	366
05:45 PM	5	78	1	0	17	0	14	0	7	121	6	0	19	5	25	0	298
Total	41	391	10	0	99	10	114	0	29	504	22	0	143	21	165	0	1549
Grand Total	73	721	25	0	154	19	230	0	49	957	45	0	276	39	331	0	2919
Apprch %	8.9	88.0	3.1	0.0	38.2	4.7	57.1	0.0	4.7	91.1	4.3	0.0	42.7	6.0	51.2	0.0	
Total %	2.5	24.7	0.9	0.0	5.3	0.7	7.9	0.0	1.7	32.8	1.5	0.0	9.5	1.3	11.3	0.0	

	Camino Ramon From North					Executive Plwy From East					Camino Ramon From South					Executive Plwy From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	04:30 PM																				
Volume	42	392	9	0	443	93	11	146	0	250	21	482	25	0	528	177	18	198	0	393	1614
Percent	9.5	88.5	2.0	0.0		37.2	4.4	58.4	0.0		4.0	91.3	4.7	0.0		45.0	4.6	50.4	0.0		
05:15 Volume	23	128	0	0	151	21	1	33	0	55	9	132	6	0	147	46	5	42	0	93	446
Peak Factor																					0.905
High Int.	05:15 PM					05:00 PM					05:15 PM					04:30 PM					
Volume	23	128	0	0	151	43	6	47	0	96	9	132	6	0	147	49	2	53	0	104	
Peak Factor					0.733					0.651					0.898					0.945	

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File Name : 27am
Site Code : 00000027
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Camino Ramon/Bishop - San Ramon

Groups Printed- Unshifted

	Camino Ramon From North				Bishop From East				Camino Ramon From South				Bishop From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	2	20	2	0	0	0	2	0	15	116	5	0	2	0	9	0	173
07:15 AM	1	31	2	0	0	2	0	0	12	125	1	0	2	2	10	0	188
07:30 AM	6	33	4	0	1	0	1	0	12	178	5	0	4	1	9	0	254
07:45 AM	6	26	2	0	0	0	0	0	19	140	10	0	5	1	7	0	216
Total	15	110	10	0	1	2	3	0	58	559	21	0	13	4	35	0	831
08:00 AM	7	25	2	0	0	1	0	0	31	181	8	0	1	0	4	0	260
08:15 AM	9	30	4	0	0	0	0	0	14	123	11	0	3	1	5	0	200
08:30 AM	10	44	8	0	0	0	4	0	38	198	15	0	8	3	8	0	336
08:45 AM	6	38	3	0	0	1	0	0	18	203	15	0	3	1	10	0	298
Total	32	137	17	0	0	2	4	0	101	705	49	0	15	5	27	0	1094
Grand Total	47	247	27	0	1	4	7	0	159	1264	70	0	28	9	62	0	1925
Apprch %	14.6	76.9	8.4	0.0	8.3	33.3	58.3	0.0	10.6	84.7	4.7	0.0	28.3	9.1	62.6	0.0	
Total %	2.4	12.8	1.4	0.0	0.1	0.2	0.4	0.0	8.3	65.7	3.6	0.0	1.5	0.5	3.2	0.0	

	Camino Ramon From North					Bishop From East					Camino Ramon From South					Bishop From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Intersection	08:00 AM																				
Volume	32	137	17	0	186	0	2	4	0	6	101	705	49	0	855	15	5	27	0	47	1094
Percent	17.2	73.7	9.1	0.0		0.0	33.3	66.7	0.0		11.8	82.5	5.7	0.0		31.9	10.6	57.4	0.0		
08:30 Volume	10	44	8	0	62	0	0	4	0	4	38	198	15	0	251	8	3	8	0	19	336
Peak Factor																					0.814
High Int.	08:30 AM					08:30 AM					08:30 AM					08:30 AM					
Volume	10	44	8	0	62	0	0	4	0	4	38	198	15	0	251	8	3	8	0	19	
Peak Factor					0.750					0.375					0.852					0.618	

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Camino Ramon/Bishop - San Ramon

Groups Printed- Unshifted

	Camino Ramon From North				Bishop From East				Camino Ramon From South				Bishop From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	21	154	0	0	1	2	23	0	0	70	10	0	9	1	29	0	320
04:15 PM	16	151	1	0	6	5	21	0	0	61	7	0	15	0	23	0	306
04:30 PM	28	218	1	0	2	3	21	0	1	64	7	0	24	1	22	0	392
04:45 PM	27	214	0	0	0	4	23	0	3	52	6	0	22	0	24	0	375
Total	92	737	2	0	9	14	88	0	4	247	30	0	70	2	98	0	1393
05:00 PM	26	234	0	0	4	3	31	0	1	78	8	0	19	0	30	0	434
05:15 PM	30	279	1	0	5	6	36	0	0	66	10	0	32	0	41	0	506
05:30 PM	21	175	1	0	5	3	18	0	1	72	10	0	22	0	30	0	358
05:45 PM	22	195	0	0	0	3	19	0	0	62	12	0	32	1	42	0	388
Total	99	883	2	0	14	15	104	0	2	278	40	0	105	1	143	0	1686
Grand Total	191	1620	4	0	23	29	192	0	6	525	70	0	175	3	241	0	3079
Apprch %	10.5	89.3	0.2	0.0	9.4	11.9	78.7	0.0	1.0	87.4	11.6	0.0	41.8	0.7	57.5	0.0	
Total %	6.2	52.6	0.1	0.0	0.7	0.9	6.2	0.0	0.2	17.1	2.3	0.0	5.7	0.1	7.8	0.0	

	Camino Ramon From North					Bishop From East					Camino Ramon From South					Bishop From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	04:30 PM																				
Volume	111	945	2	0	1058	11	16	111	0	138	5	260	31	0	296	97	1	117	0	215	1707
Percent	10.5	89.3	0.2	0.0		8.0	11.6	80.4	0.0		1.7	87.8	10.5	0.0		45.1	0.5	54.4	0.0		
05:15 Volume	30	279	1	0	310	5	6	36	0	47	0	66	10	0	76	32	0	41	0	73	506
Peak Factor																					0.843
High Int.	05:15 PM					05:15 PM					05:00 PM					05:15 PM					
Volume	30	279	1	0	310	5	6	36	0	47	1	78	8	0	87	32	0	41	0	73	
Peak Factor					0.853					0.734					0.851					0.736	

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San Ramon Valley/Fostoria Way - San Ramon

Groups Printed- Unshifted

	San Ramon Valley From North				Fostoria Way From East				San Ramon Valley From South				Fostoria Way From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	19	48	7	0	13	9	6	0	11	50	23	0	16	13	5	0	220
07:15 AM	29	57	14	0	11	14	2	0	12	42	22	0	34	24	7	0	268
07:30 AM	28	48	14	0	16	17	5	0	20	57	28	0	38	19	7	0	297
07:45 AM	33	82	17	0	16	15	8	0	20	72	24	0	41	24	17	0	369
Total	109	235	52	0	56	55	21	0	63	221	97	0	129	80	36	0	1154
08:00 AM	29	69	15	0	16	31	13	0	13	113	36	0	41	34	34	0	444
08:15 AM	32	93	33	0	36	34	8	0	22	213	22	0	46	26	39	0	604
08:30 AM	40	143	13	0	32	36	7	0	19	331	27	0	37	36	31	0	752
08:45 AM	43	98	23	0	22	24	6	0	18	276	39	0	27	28	32	0	636
Total	144	403	84	0	106	125	34	0	72	933	124	0	151	124	136	0	2436
Grand Total	253	638	136	0	162	180	55	0	135	1154	221	0	280	204	172	0	3590
Apprch %	24.6	62.1	13.2	0.0	40.8	45.3	13.9	0.0	8.9	76.4	14.6	0.0	42.7	31.1	26.2	0.0	
Total %	7.0	17.8	3.8	0.0	4.5	5.0	1.5	0.0	3.8	32.1	6.2	0.0	7.8	5.7	4.8	0.0	

	San Ramon Valley From North					Fostoria Way From East					San Ramon Valley From South					Fostoria Way From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Intersection	08:00 AM																				
Volume	144	403	84	0	631	106	125	34	0	265	72	933	124	0	1129	151	124	136	0	411	2436
Percent	22.8	63.9	13.3	0.0		40.0	47.2	12.8	0.0		6.4	82.6	11.0	0.0		36.7	30.2	33.1	0.0		
08:30 Volume	40	143	13	0	196	32	36	7	0	75	19	331	27	0	377	37	36	31	0	104	752
Peak Factor																					0.810
High Int.	08:30 AM					08:15 AM					08:30 AM					08:15 AM					
Volume	40	143	13	0	196	36	34	8	0	78	19	331	27	0	377	46	26	39	0	111	
Peak Factor					0.805					0.849					0.749					0.926	

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San Ramon Valley/Fostoria Way - San Ramon

Groups Printed- Unshifted

	San Ramon Valley From North				Fostoria Way From East				San Ramon Valley From South				Fostoria Way From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	27	103	37	0	19	31	13	0	26	135	51	0	33	42	43	0	560
04:15 PM	29	120	26	0	27	34	16	0	34	137	33	0	41	46	49	0	592
04:30 PM	36	136	31	0	32	52	14	0	33	139	50	0	44	43	88	0	698
04:45 PM	33	133	37	0	40	34	23	0	33	192	44	0	52	48	76	0	745
Total	125	492	131	0	118	151	66	0	126	603	178	0	170	179	256	0	2595
05:00 PM	43	120	33	0	25	40	17	0	35	221	62	0	52	69	62	0	779
05:15 PM	33	130	32	0	41	23	28	0	43	190	46	0	50	66	118	0	800
05:30 PM	41	100	36	0	36	48	31	0	44	194	58	0	45	52	91	0	776
05:45 PM	27	130	34	0	33	35	24	0	25	207	52	0	63	77	124	0	831
Total	144	480	135	0	135	146	100	0	147	812	218	0	210	264	395	0	3186
Grand Total	269	972	266	0	253	297	166	0	273	1415	396	0	380	443	651	0	5781
Apprch %	17.9	64.5	17.7	0.0	35.3	41.5	23.2	0.0	13.1	67.9	19.0	0.0	25.8	30.1	44.2	0.0	
Total %	4.7	16.8	4.6	0.0	4.4	5.1	2.9	0.0	4.7	24.5	6.9	0.0	6.6	7.7	11.3	0.0	

	San Ramon Valley From North					Fostoria Way From East					San Ramon Valley From South					Fostoria Way From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	05:00 PM																				
Volume	144	480	135	0	759	135	146	100	0	381	147	812	218	0	1177	210	264	395	0	869	3186
Percent	19.0	63.2	17.8	0.0		35.4	38.3	26.2	0.0		12.5	69.0	18.5	0.0		24.2	30.4	45.5	0.0		
05:45 Volume	27	130	34	0	191	33	35	24	0	92	25	207	52	0	284	63	77	124	0	264	831
Peak Factor																					0.958
High Int.	05:00 PM					05:30 PM					05:00 PM					05:45 PM					
Volume	43	120	33	0	196	36	48	31	0	115	35	221	62	0	318	63	77	124	0	264	
Peak Factor					0.968					0.828					0.925					0.823	

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File Name : 29am
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Alcosta/HMontevideo - San Ramon

Groups Printed- Unshifted

	Alcosta From North				From East				Alcosta From South				Montevideo From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	16	27	0	0	0	0	0	0	0	41	7	0	3	0	20	0	114
07:15 AM	32	38	0	0	0	0	0	0	0	64	5	0	5	0	37	0	181
07:30 AM	18	31	0	0	0	0	0	0	0	51	4	0	4	0	33	0	141
07:45 AM	34	40	0	0	0	0	0	0	0	82	7	0	5	0	33	0	201
Total	100	136	0	0	0	0	0	0	0	238	23	0	17	0	123	0	637
08:00 AM	73	55	0	0	0	0	0	0	0	90	17	0	11	0	45	0	291
08:15 AM	77	75	0	0	0	0	0	0	0	102	10	0	10	0	55	0	329
08:30 AM	12	46	0	0	0	0	0	0	0	88	12	0	5	0	46	0	209
08:45 AM	13	40	0	0	0	0	0	0	0	66	10	0	5	0	18	0	152
Total	175	216	0	0	0	0	0	0	0	346	49	0	31	0	164	0	981
Grand Total	275	352	0	0	0	0	0	0	0	584	72	0	48	0	287	0	1618
Apprch %	43.9	56.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	89.0	11.0	0.0	14.3	0.0	85.7	0.0	
Total %	17.0	21.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.1	4.4	0.0	3.0	0.0	17.7	0.0	

	Alcosta From North					From East					Alcosta From South					Montevideo From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Intersection	07:45 AM																				
Volume	196	216	0	0	412	0	0	0	0	0	0	362	46	0	408	31	0	179	0	210	1030
Percent	47.6	52.4	0.0	0.0		0.0	0.0	0.0	0.0		0.0	88.7	11.3	0.0		14.8	0.0	85.2	0.0		
08:15 Volume	77	75	0	0	152	0	0	0	0	0	0	102	10	0	112	10	0	55	0	65	329
Peak Factor																					0.783
High Int.	08:15 AM					6:45:00 AM					08:15 AM					08:15 AM					
Volume	77	75	0	0	152	0	0	0	0	0	0	102	10	0	112	10	0	55	0	65	
Peak Factor					0.678										0.911					0.808	

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File Name : 29pm
Site Code : 00000029
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Alcosta/Montevideo - San Ramon

Groups Printed- Unshifted

	Alcosta From North				From East				Alcosta From South				From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	30	88	0	0	0	0	0	0	0	57	20	0	8	0	28	0	231
04:15 PM	35	67	0	0	0	0	0	0	0	66	11	0	5	0	30	0	214
04:30 PM	46	91	0	0	0	0	0	0	0	71	6	0	8	0	27	0	249
04:45 PM	47	94	0	0	0	0	0	0	0	70	12	0	12	0	43	0	278
Total	158	340	0	0	0	0	0	0	0	264	49	0	33	0	128	0	972
05:00 PM	35	103	0	0	0	0	0	0	0	71	7	0	10	0	30	0	256
05:15 PM	45	120	0	0	0	0	0	0	0	88	12	0	8	0	25	0	298
05:30 PM	34	113	0	0	0	0	0	0	0	89	9	0	10	0	45	0	300
05:45 PM	27	113	0	0	0	0	0	0	0	52	19	0	12	0	29	0	252
Total	141	449	0	0	0	0	0	0	0	300	47	0	40	0	129	0	1106
Grand Total	299	789	0	0	0	0	0	0	0	564	96	0	73	0	257	0	2078
Apprch %	27.5	72.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	85.5	14.5	0.0	22.1	0.0	77.9	0.0	
Total %	14.4	38.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.1	4.6	0.0	3.5	0.0	12.4	0.0	

	Alcosta From North					From East					Alcosta From South					From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	04:45 PM																				
Volume	161	430	0	0	591	0	0	0	0	0	0	318	40	0	358	40	0	143	0	183	1132
Percent	27.2	72.8	0.0	0.0		0.0	0.0	0.0	0.0		0.0	88.8	11.2	0.0		21.9	0.0	78.1	0.0		
05:30 Volume	34	113	0	0	147	0	0	0	0	0	0	89	9	0	98	10	0	45	0	55	300
Peak Factor																					0.943
High Int.	05:15 PM					3:45:00 PM					05:15 PM					04:45 PM					
Volume	45	120	0	0	165	0	0	0	0	0	0	88	12	0	100	12	0	43	0	55	
Peak Factor					0.895										0.895					0.832	

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File Name : 30am
Site Code : 00000030
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San Ramon Valley/Monte Video - San Ramon

Groups Printed- Unshifted

	San Ramon Valley From North				Monte Video From East				San Ramon Valley From South				From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	0	18	41	0	69	0	47	0	5	42	0	0	0	0	0	0	222
07:15 AM	0	34	110	0	98	0	56	0	9	49	0	0	0	0	0	0	356
07:30 AM	0	43	70	0	151	0	66	0	5	78	0	0	0	0	0	0	413
07:45 AM	0	65	57	0	111	1	63	0	13	86	0	0	0	0	0	0	396
Total	0	160	278	0	429	1	232	0	32	255	0	0	0	0	0	0	1387
08:00 AM	0	80	126	0	103	0	65	0	23	95	0	1	0	0	0	0	493
08:15 AM	0	108	155	0	157	0	51	0	51	108	0	0	0	0	0	0	630
08:30 AM	0	55	65	0	185	0	78	0	15	92	0	0	0	0	0	0	490
08:45 AM	0	51	40	0	110	0	39	0	11	94	0	0	0	0	0	0	345
Total	0	294	386	0	555	0	233	0	100	389	0	1	0	0	0	0	1958
09:00 AM	0	50	38	0	72	0	29	0	10	77	0	0	0	0	0	0	276
Grand Total	0	504	702	0	1056	1	494	0	142	721	0	1	0	0	0	0	3621
Apprch %	0.0	41.8	58.2	0.0	68.1	0.1	31.9	0.0	16.4	83.4	0.0	0.1	0.0	0.0	0.0	0.0	
Total %	0.0	13.9	19.4	0.0	29.2	0.0	13.6	0.0	3.9	19.9	0.0	0.0	0.0	0.0	0.0	0.0	

	San Ramon Valley From North					Monte Video From East					San Ramon Valley From South					From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 07:00 AM to 09:00 AM - Peak 1 of 1																					
Intersection	07:45 AM																				
Volume	0	308	403	0	711	556	1	257	0	814	102	381	0	1	484	0	0	0	0	0	2009
Percent	0.0	43.3	56.7	0.0		68.3	0.1	31.6	0.0		21.1	78.7	0.0	0.2		0.0	0.0	0.0	0.0		
08:15 Volume	0	108	155	0	263	157	0	51	0	208	51	108	0	0	159	0	0	0	0	0	630
Peak Factor																					0.797
High Int.	08:15 AM					08:30 AM					08:15 AM					6:45:00 AM					
Volume	0	108	155	0	263	185	0	78	0	263	51	108	0	0	159						
Peak Factor					0.676					0.774					0.761						

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File Name : 30pm
Site Code : 00000030
Start Date : 06/03/2008
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San Ramon Valley/Monte Video - San Ramon

Groups Printed- Unshifted

	San Ramon Valley From North				Monte Video From East				San ramon Valley From South				From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	0	100	84	0	68	2	36	0	33	97	0	0	0	0	0	0	420
04:15 PM	0	113	87	0	84	0	23	0	32	96	0	0	0	0	0	0	435
04:30 PM	0	105	84	0	70	0	28	0	44	112	0	0	0	0	0	0	443
04:45 PM	0	132	104	0	70	0	31	0	53	74	0	0	0	0	0	0	464
Total	0	450	359	0	292	2	118	0	162	379	0	0	0	0	0	0	1762
05:00 PM	0	137	118	0	67	0	17	0	61	105	0	0	0	0	0	0	505
05:15 PM	0	161	127	0	76	0	23	0	52	101	0	0	0	0	0	0	540
05:30 PM	0	126	120	0	67	0	20	0	67	122	0	0	0	0	0	0	522
05:45 PM	0	146	119	0	52	0	36	0	55	97	0	0	0	0	0	0	505
Total	0	570	484	0	262	0	96	0	235	425	0	0	0	0	0	0	2072
Grand Total	0	1020	843	0	554	2	214	0	397	804	0	0	0	0	0	0	3834
Apprch %	0.0	54.8	45.2	0.0	71.9	0.3	27.8	0.0	33.1	66.9	0.0	0.0	0.0	0.0	0.0	0.0	
Total %	0.0	26.6	22.0	0.0	14.4	0.1	5.6	0.0	10.4	21.0	0.0	0.0	0.0	0.0	0.0	0.0	

	San Ramon Valley From North					Monte Video From East					San ramon Valley From South					From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	05:00 PM																				
Volume	0	570	484	0	1054	262	0	96	0	358	235	425	0	0	660	0	0	0	0	0	2072
Percent	0.0	54.1	45.9	0.0		73.2	0.0	26.8	0.0		35.6	64.4	0.0	0.0		0.0	0.0	0.0	0.0		
05:15 Volume	0	161	127	0	288	76	0	23	0	99	52	101	0	0	153	0	0	0	0	0	540
Peak Factor																					0.959
High Int.	05:15 PM					05:15 PM					05:30 PM					3:45:00 PM					
Volume	0	161	127	0	288	76	0	23	0	99	67	122	0	0	189						
Peak Factor					0.915					0.904					0.873						

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File Name : 31am
Site Code : 00000031
Start Date : 06/03/2008
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San Ramon Valley/Pine Valley - San Ramon

Groups Printed- Unshifted

	San Ramon Valley From North				Pine Valley From East				San Ramon Valley From South				Pine Valley From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	1	64	13	0	15	1	84	0	25	19	2	0	10	1	1	0	236
07:15 AM	0	77	10	0	26	5	91	0	24	19	2	0	5	11	5	0	275
07:30 AM	7	92	7	0	27	9	100	0	28	35	7	0	13	7	3	0	335
07:45 AM	0	131	22	0	28	1	119	0	21	40	2	0	13	9	5	0	391
Total	8	364	52	0	96	16	394	0	98	113	13	0	41	28	14	0	1237
08:00 AM	2	121	39	0	56	15	97	0	26	46	5	0	11	42	5	0	465
08:15 AM	2	94	53	0	50	27	128	0	25	44	6	0	11	45	9	0	494
08:30 AM	5	104	13	0	38	34	153	0	8	56	2	0	10	28	8	0	459
08:45 AM	6	59	11	0	30	10	68	0	19	42	4	0	7	8	5	0	269
Total	15	378	116	0	174	86	446	0	78	188	17	0	39	123	27	0	1687
Grand Total	23	742	168	0	270	102	840	0	176	301	30	0	80	151	41	0	2924
Apprch %	2.5	79.5	18.0	0.0	22.3	8.4	69.3	0.0	34.7	59.4	5.9	0.0	29.4	55.5	15.1	0.0	
Total %	0.8	25.4	5.7	0.0	9.2	3.5	28.7	0.0	6.0	10.3	1.0	0.0	2.7	5.2	1.4	0.0	

	San Ramon Valley From North					Pine Valley From East					San Ramon Valley From South					Pine Valley From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Intersection	07:45 AM																				
Volume	9	450	127	0	586	172	77	497	0	746	80	186	15	0	281	45	124	27	0	196	1809
Percent	1.5	76.8	21.7	0.0		23.1	10.3	66.6	0.0		28.5	66.2	5.3	0.0		23.0	63.3	13.8	0.0		
08:15 Volume	2	94	53	0	149	50	27	128	0	205	25	44	6	0	75	11	45	9	0	65	494
Peak Factor																					0.915
High Int.	08:00 AM					08:30 AM					08:00 AM					08:15 AM					
Volume	2	121	39	0	162	38	34	153	0	225	26	46	5	0	77	11	45	9	0	65	
Peak Factor					0.904					0.829					0.912					0.754	

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File Name : 31pm
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San Ramon Valley/Pine Valley - San Ramon

Groups Printed- Unshifted

	San Ramon Valley From North				Pine Valley From East				San Ramon Valley From South				Pine Valley From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	12	76	37	0	29	6	51	0	57	110	3	0	3	10	4	0	398
04:15 PM	8	84	37	0	23	5	42	0	65	82	11	0	4	3	8	0	372
04:30 PM	6	77	34	0	33	6	45	0	69	135	7	0	3	5	6	0	426
04:45 PM	7	92	48	0	23	6	42	0	85	87	10	0	8	10	11	0	429
Total	33	329	156	0	108	23	180	0	276	414	31	0	18	28	29	0	1625
05:00 PM	10	79	63	0	26	4	45	0	58	136	11	0	7	7	3	0	449
05:15 PM	6	98	55	0	31	2	52	0	88	125	8	0	5	2	12	0	484
05:30 PM	8	83	45	0	33	4	52	0	74	135	12	0	6	3	5	0	460
05:45 PM	8	102	46	0	27	5	66	0	70	107	9	0	6	4	4	0	454
Total	32	362	209	0	117	15	215	0	290	503	40	0	24	16	24	0	1847
Grand Total	65	691	365	0	225	38	395	0	566	917	71	0	42	44	53	0	3472
Apprch %	5.8	61.6	32.6	0.0	34.2	5.8	60.0	0.0	36.4	59.0	4.6	0.0	30.2	31.7	38.1	0.0	
Total %	1.9	19.9	10.5	0.0	6.5	1.1	11.4	0.0	16.3	26.4	2.0	0.0	1.2	1.3	1.5	0.0	

	San Ramon Valley From North					Pine Valley From East					San Ramon Valley From South					Pine Valley From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	05:00 PM																				
Volume	32	362	209	0	603	117	15	215	0	347	290	503	40	0	833	24	16	24	0	64	1847
Percent	5.3	60.0	34.7	0.0		33.7	4.3	62.0	0.0		34.8	60.4	4.8	0.0		37.5	25.0	37.5	0.0		
05:15 Volume	6	98	55	0	159	31	2	52	0	85	88	125	8	0	221	5	2	12	0	19	484
Peak Factor																					0.954
High Int.	05:15 PM					05:45 PM					05:15 PM					05:15 PM					
Volume	6	98	55	0	159	27	5	66	0	98	88	125	8	0	221	5	2	12	0	19	
Peak Factor					0.948					0.885					0.942					0.842	

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File Name : 33am
Site Code : 00000033
Start Date : 06/04/2008
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Doughtery/Old Ranch - San Rmaon

Groups Printed- Unshifted

	Dougherty From North				From East				Dougherty From South				Old Ranch From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	18	174	0	0	0	0	0	0	0	87	9	0	22	0	11	0	321
07:15 AM	36	210	0	0	0	0	0	0	0	84	16	0	23	0	18	0	387
07:30 AM	38	213	1	0	0	0	0	0	0	65	18	0	20	0	20	0	375
07:45 AM	58	256	0	0	0	0	0	0	0	87	31	0	34	0	22	0	488
Total	150	853	1	0	0	0	0	0	0	323	74	0	99	0	71	0	1571
08:00 AM	54	274	0	0	0	0	0	0	0	84	23	0	25	0	29	0	489
08:15 AM	97	252	0	0	0	0	0	0	0	62	24	0	15	0	27	0	477
08:30 AM	67	223	0	0	0	0	0	0	0	86	23	0	19	0	34	0	452
08:45 AM	43	220	0	0	0	0	0	0	0	63	28	0	25	0	31	0	410
Total	261	969	0	0	0	0	0	0	0	295	98	0	84	0	121	0	1828
Grand Total	411	1822	1	0	0	0	0	0	0	618	172	0	183	0	192	0	3399
Apprch %	18.4	81.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	78.2	21.8	0.0	48.8	0.0	51.2	0.0	
Total %	12.1	53.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.2	5.1	0.0	5.4	0.0	5.6	0.0	

	Dougherty From North					From East					Dougherty From South					Old Ranch From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Intersection	07:45 AM																				
Volume	276	1005	0	0	1281	0	0	0	0	0	0	319	101	0	420	93	0	112	0	205	1906
Percent	21.5	78.5	0.0	0.0		0.0	0.0	0.0	0.0		0.0	76.0	24.0	0.0		45.4	0.0	54.6	0.0		
08:00 Volume	54	274	0	0	328	0	0	0	0	0	0	84	23	0	107	25	0	29	0	54	489
Peak Factor																					0.974
High Int.	08:15 AM					6:45:00 AM					07:45 AM					07:45 AM					
Volume	97	252	0	0	349	0	0	0	0	0	0	87	31	0	118	34	0	22	0	56	
Peak Factor					0.918										0.890					0.915	

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File Name : 33pm
Site Code : 00000033
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Dougherty/Old Ranch - San Ramon

Groups Printed- Unshifted

	Dougherty From North				From East				Dougherty From South				Old Ranch From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	40	134	0	0	0	0	0	0	0	186	38	0	11	0	34	0	443
04:15 PM	24	142	0	0	0	0	0	0	0	162	60	0	29	0	33	0	450
04:30 PM	31	124	0	0	0	0	0	0	0	158	45	0	35	0	46	0	439
04:45 PM	31	139	0	0	0	0	0	0	0	193	59	0	44	0	26	0	492
Total	126	539	0	0	0	0	0	0	0	699	202	0	119	0	139	0	1824
05:00 PM	35	120	0	0	0	0	0	0	0	183	37	0	19	0	41	0	435
05:15 PM	27	101	0	0	0	0	0	0	0	270	85	0	49	0	55	0	587
05:30 PM	22	114	0	0	0	0	0	0	0	234	52	0	36	0	47	0	505
05:45 PM	46	113	0	0	0	0	0	0	0	235	71	0	26	0	62	0	553
Total	130	448	0	0	0	0	0	0	0	922	245	0	130	0	205	0	2080
Grand Total	256	987	0	0	0	0	0	0	0	1621	447	0	249	0	344	0	3904
Apprch %	20.6	79.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	78.4	21.6	0.0	42.0	0.0	58.0	0.0	
Total %	6.6	25.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	41.5	11.4	0.0	6.4	0.0	8.8	0.0	

	Dougherty From North					From East					Dougherty From South					Old Ranch From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	05:00 PM																				
Volume	130	448	0	0	578	0	0	0	0	0	0	922	245	0	1167	130	0	205	0	335	2080
Percent	22.5	77.5	0.0	0.0		0.0	0.0	0.0	0.0		0.0	79.0	21.0	0.0		38.8	0.0	61.2	0.0		
05:15 Volume	27	101	0	0	128	0	0	0	0	0	0	270	85	0	355	49	0	55	0	104	587
Peak Factor																					0.886
High Int.	05:45 PM					3:45:00 PM					05:15 PM					05:15 PM					
Volume	46	113	0	0	159	0	0	0	0	0	0	270	85	0	355	49	0	55	0	104	
Peak Factor					0.909										0.822					0.805	

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File Name : 35am
Site Code : 00000035
Start Date : 06/05/2008
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Canyon Lakes/Bollinger Canyon - San Ramon

Groups Printed- Unshifted

	Canyon Lakes From North				Bollinger Canyon From East				Canyon View Cir From South				Bollinger Canyon From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	35	0	6	0	11	228	1	0	3	0	36	0	3	113	19	0	455
07:15 AM	52	2	14	0	15	321	1	0	11	0	55	0	11	113	18	0	613
07:30 AM	53	0	15	0	18	405	2	0	5	0	50	0	5	142	22	0	717
07:45 AM	50	0	13	0	18	414	0	0	7	0	57	0	4	148	30	0	741
Total	190	2	48	0	62	1368	4	0	26	0	198	0	23	516	89	0	2526
08:00 AM	79	1	10	0	15	420	1	0	6	4	72	0	10	115	35	0	768
08:15 AM	53	0	24	0	38	450	3	0	7	0	81	0	15	137	75	0	883
08:30 AM	52	0	8	0	50	434	10	0	7	3	47	0	11	148	87	0	857
08:45 AM	49	0	8	0	21	330	1	0	2	0	31	0	13	169	81	0	705
Total	233	1	50	0	124	1634	15	0	22	7	231	0	49	569	278	0	3213
Grand Total	423	3	98	0	186	3002	19	0	48	7	429	0	72	1085	367	0	5739
Apprch %	80.7	0.6	18.7	0.0	5.8	93.6	0.6	0.0	9.9	1.4	88.6	0.0	4.7	71.2	24.1	0.0	
Total %	7.4	0.1	1.7	0.0	3.2	52.3	0.3	0.0	0.8	0.1	7.5	0.0	1.3	18.9	6.4	0.0	

	Canyon Lakes From North					Bollinger Canyon From East					Canyon View Cir From South					Bollinger Canyon From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Intersection	07:45 AM																				
Volume	234	1	55	0	290	121	1718	14	0	1853	27	7	257	0	291	40	548	227	0	815	3249
Percent	80.7	0.3	19.0	0.0		6.5	92.7	0.8	0.0		9.3	2.4	88.3	0.0		4.9	67.2	27.9	0.0		
08:15 Volume	53	0	24	0	77	38	450	3	0	491	7	0	81	0	88	15	137	75	0	227	883
Peak Factor																					0.920
High Int.	08:00 AM					08:30 AM					08:15 AM					08:30 AM					
Volume	79	1	10	0	90	50	434	10	0	494	7	0	81	0	88	11	148	87	0	246	
Peak Factor					0.806					0.938					0.827					0.828	

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File Name : 35pm
Site Code : 00000035
Start Date : 06/05/2008
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Canyon Lakes/Bollinger Canyon - San Ramon

Groups Printed- Unshifted

	Canyon Lakes From North				Bollinger Canyon From East				Canyon View Cir From South				Bollinger Canyon From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	36	1	22	0	26	242	5	0	1	0	15	0	23	278	53	0	702
04:15 PM	38	1	22	0	25	246	2	0	6	1	19	0	29	338	93	0	820
04:30 PM	44	0	28	0	26	284	3	0	4	1	22	0	37	298	87	0	834
04:45 PM	35	1	18	0	15	194	4	0	3	2	12	0	22	384	73	0	763
Total	153	3	90	0	92	966	14	0	14	4	68	0	111	1298	306	0	3119
05:00 PM	56	2	30	0	35	210	7	0	3	1	15	0	38	410	83	0	890
05:15 PM	61	0	58	0	8	224	5	0	1	1	17	0	40	461	84	0	960
05:30 PM	55	2	38	0	21	212	8	0	8	2	25	0	38	507	81	0	997
05:45 PM	42	1	47	0	20	221	14	0	6	0	17	0	41	493	76	0	978
Total	214	5	173	0	84	867	34	0	18	4	74	0	157	1871	324	0	3825
Grand Total	367	8	263	0	176	1833	48	0	32	8	142	0	268	3169	630	0	6944
Apprch %	57.5	1.3	41.2	0.0	8.6	89.1	2.3	0.0	17.6	4.4	78.0	0.0	6.6	77.9	15.5	0.0	
Total %	5.3	0.1	3.8	0.0	2.5	26.4	0.7	0.0	0.5	0.1	2.0	0.0	3.9	45.6	9.1	0.0	

	Canyon Lakes From North					Bollinger Canyon From East					Canyon View Cir From South					Bollinger Canyon From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	05:00 PM																				
Volume	214	5	173	0	392	84	867	34	0	985	18	4	74	0	96	157	1871	324	0	2352	3825
Percent	54.6	1.3	44.1	0.0		8.5	88.0	3.5	0.0		18.8	4.2	77.1	0.0		6.7	79.5	13.8	0.0		
05:30 Volume	55	2	38	0	95	21	212	8	0	241	8	2	25	0	35	38	507	81	0	626	997
Peak Factor																					0.959
High Int.	05:15 PM					05:45 PM					05:30 PM					05:30 PM					
Volume	61	0	58	0	119	20	221	14	0	255	8	2	25	0	35	38	507	81	0	626	
Peak Factor					0.824					0.966					0.686					0.939	

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Alcosta/Village Pkwy - San Ramon

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	From North				Alcosta From East				Village Pkwy From South				Alcosta From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	0	0	0	0	0	79	7	0	8	0	14	0	10	40	0	0	158
07:15 AM	0	0	0	0	0	88	16	0	9	0	38	0	18	42	0	0	211
07:30 AM	0	0	0	0	0	115	19	0	11	0	36	0	21	56	0	0	258
07:45 AM	0	0	0	0	0	147	26	0	16	0	30	0	16	82	0	0	317
Total	0	0	0	0	0	429	68	0	44	0	118	0	65	220	0	0	944
08:00 AM	0	0	0	0	0	179	32	0	29	0	63	0	19	87	0	0	409
08:15 AM	0	0	0	0	0	177	43	0	29	0	41	0	30	107	0	0	427
08:30 AM	0	0	0	0	0	137	21	0	22	0	42	0	29	110	0	0	361
08:45 AM	0	0	0	0	0	109	22	0	25	0	45	0	38	76	0	0	315
Total	0	0	0	0	0	602	118	0	105	0	191	0	116	380	0	0	1512
Grand Total	0	0	0	0	0	1031	186	0	149	0	309	0	181	600	0	0	2456
Apprch %	0.0	0.0	0.0	0.0	0.0	84.7	15.3	0.0	32.5	0.0	67.5	0.0	23.2	76.8	0.0	0.0	
Total %	0.0	0.0	0.0	0.0	0.0	42.0	7.6	0.0	6.1	0.0	12.6	0.0	7.4	24.4	0.0	0.0	

	From North					Alcosta From East					Village Pkwy From South					Alcosta From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Intersection	07:45 AM																				
Volume	0	0	0	0	0	0	640	122	0	762	96	0	176	0	272	94	386	0	0	480	1514
Percent	0.0	0.0	0.0	0.0		0.0	84.0	16.0	0.0		35.3	0.0	64.7	0.0		19.6	80.4	0.0	0.0		
08:15 Volume	0	0	0	0	0	0	177	43	0	220	29	0	41	0	70	30	107	0	0	137	427
Peak Factor																					0.886
High Int.	6:45:00 AM					08:15 AM					08:00 AM					08:30 AM					
Volume	0	0	0	0	0	0	177	43	0	220	29	0	63	0	92	29	110	0	0	139	
Peak Factor										0.866					0.739					0.863	

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Alcosta/Village Pkwy - San Ramon

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	From North				Alcosta From East				Village Pkwy From South				Alcosta From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	0	0	0	0	0	88	26	0	19	0	39	0	23	80	0	0	275
04:15 PM	0	0	0	0	0	59	32	0	36	0	36	0	42	96	0	0	301
04:30 PM	0	0	0	0	0	90	40	0	31	0	54	0	29	97	0	0	341
04:45 PM	0	0	0	0	0	74	34	0	39	0	40	0	29	104	0	0	320
Total	0	0	0	0	0	311	132	0	125	0	169	0	123	377	0	0	1237
05:00 PM	0	0	0	0	0	86	52	0	46	0	45	0	46	130	0	0	405
05:15 PM	0	0	0	0	0	93	48	0	42	0	70	0	37	153	0	0	443
05:30 PM	0	0	0	0	0	79	34	0	43	0	29	0	38	176	0	0	399
05:45 PM	0	0	0	0	0	73	34	0	46	0	58	0	31	199	0	0	441
Total	0	0	0	0	0	331	168	0	177	0	202	0	152	658	0	0	1688
Grand Total	0	0	0	0	0	642	300	0	302	0	371	0	275	1035	0	0	2925
Apprch %	0.0	0.0	0.0	0.0	0.0	68.2	31.8	0.0	44.9	0.0	55.1	0.0	21.0	79.0	0.0	0.0	
Total %	0.0	0.0	0.0	0.0	0.0	21.9	10.3	0.0	10.3	0.0	12.7	0.0	9.4	35.4	0.0	0.0	

	From North					Alcosta From East					Village Pkwy From South					Alcosta From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	05:00 PM																				
Volume	0	0	0	0	0	0	331	168	0	499	177	0	202	0	379	152	658	0	0	810	1688
Percent	0.0	0.0	0.0	0.0		0.0	66.3	33.7	0.0		46.7	0.0	53.3	0.0		18.8	81.2	0.0	0.0		
05:15 Volume	0	0	0	0	0	0	93	48	0	141	42	0	70	0	112	37	153	0	0	190	443
Peak Factor																					0.953
High Int.	3:45:00 PM					05:15 PM					05:15 PM					05:45 PM					
Volume	0	0	0	0	0	0	93	48	0	141	42	0	70	0	112	31	199	0	0	230	
Peak Factor										0.885					0.846					0.880	

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Belle Meade/Alcosta - San Ramon

Groups Printed- Unshifted

	Belle Meade From North				Alcosta From East				Belle Meade From South				Alcosta From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	35	0	9	0	7	94	1	0	1	1	4	0	0	45	4	0	201
07:15 AM	31	2	12	0	7	134	0	0	0	7	3	0	1	49	9	0	255
07:30 AM	51	4	23	0	6	151	0	0	0	2	5	0	3	63	9	0	317
07:45 AM	39	1	23	0	4	190	0	0	2	8	7	0	0	72	14	0	360
Total	156	7	67	0	24	569	1	0	3	18	19	0	4	229	36	0	1133
08:00 AM	56	8	34	1	14	219	0	0	1	11	11	0	0	82	19	0	456
08:15 AM	34	4	31	0	7	248	1	0	0	3	13	0	4	108	16	0	469
08:30 AM	27	0	25	0	6	168	0	0	0	1	2	0	1	119	17	0	366
08:45 AM	21	0	13	0	3	148	0	0	1	1	7	0	2	94	11	0	301
Total	138	12	103	1	30	783	1	0	2	16	33	0	7	403	63	0	1592
Grand Total	294	19	170	1	54	1352	2	0	5	34	52	0	11	632	99	0	2725
Apprch %	60.7	3.9	35.1	0.2	3.8	96.0	0.1	0.0	5.5	37.4	57.1	0.0	1.5	85.2	13.3	0.0	
Total %	10.8	0.7	6.2	0.0	2.0	49.6	0.1	0.0	0.2	1.2	1.9	0.0	0.4	23.2	3.6	0.0	

	Belle Meade From North					Alcosta From East					Belle Meade From South					Alcosta From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Intersection	07:45 AM																				
Volume	156	13	113	1	283	31	825	1	0	857	3	23	33	0	59	5	381	66	0	452	1651
Percent	55.1	4.6	39.9	0.4		3.6	96.3	0.1	0.0		5.1	39.0	55.9	0.0		1.1	84.3	14.6	0.0		
08:15 Volume	34	4	31	0	69	7	248	1	0	256	0	3	13	0	16	4	108	16	0	128	469
Peak Factor																					0.880
High Int.	08:00 AM					08:15 AM					08:00 AM					08:30 AM					
Volume	56	8	34	1	99	7	248	1	0	256	1	11	11	0	23	1	119	17	0	137	
Peak Factor					0.715					0.837					0.641					0.825	

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Belle Meade/Alcosta - San Ramon

Groups Printed- Unshifted

	Belle Meade From North				Alcosta From East				Belle Meade From South				Alcosta From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	18	0	12	0	9	120	0	0	4	0	2	0	1	92	35	0	293
04:15 PM	21	0	16	0	9	85	2	0	1	1	2	0	4	131	23	0	295
04:30 PM	13	0	10	0	10	126	1	0	0	0	1	0	2	118	20	0	301
04:45 PM	17	2	16	0	11	101	0	0	1	0	1	0	1	116	39	0	305
Total	69	2	54	0	39	432	3	0	6	1	6	0	8	457	117	0	1194
05:00 PM	20	0	12	0	14	109	0	0	0	0	0	0	3	158	39	0	355
05:15 PM	18	0	9	0	22	119	3	0	1	2	1	0	9	152	50	0	386
05:30 PM	25	0	19	0	15	114	2	0	0	0	2	0	4	175	53	0	409
05:45 PM	13	0	15	0	18	112	2	0	0	0	5	0	9	197	37	0	408
Total	76	0	55	0	69	454	7	0	1	2	8	0	25	682	179	0	1558
Grand Total	145	2	109	0	108	886	10	0	7	3	14	0	33	1139	296	0	2752
Apprch %	56.6	0.8	42.6	0.0	10.8	88.2	1.0	0.0	29.2	12.5	58.3	0.0	2.2	77.6	20.2	0.0	
Total %	5.3	0.1	4.0	0.0	3.9	32.2	0.4	0.0	0.3	0.1	0.5	0.0	1.2	41.4	10.8	0.0	

	Belle Meade From North					Alcosta From East					Belle Meade From South					Alcosta From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	05:00 PM																				
Volume	76	0	55	0	131	69	454	7	0	530	1	2	8	0	11	25	682	179	0	886	1558
Percent	58.0	0.0	42.0	0.0		13.0	85.7	1.3	0.0		9.1	18.2	72.7	0.0		2.8	77.0	20.2	0.0		
05:30 Volume	25	0	19	0	44	15	114	2	0	131	0	0	2	0	2	4	175	53	0	232	409
Peak Factor																					0.952
High Int.	05:30 PM					05:15 PM					05:45 PM					05:45 PM					
Volume	25	0	19	0	44	22	119	3	0	144	0	0	5	0	5	9	197	37	0	243	
Peak Factor					0.744					0.920					0.550					0.912	

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Alcosta/Vera Cruz - San Ramon

Groups Printed- Unshifted

	From North				From East				From South				From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	21	112	3	0	12	0	1	0	0	93	1	0	0	0	21	0	264
04:15 PM	27	112	5	0	5	1	1	0	1	71	0	0	1	1	19	0	244
04:30 PM	31	141	3	0	7	0	2	0	0	92	6	0	2	3	24	0	311
04:45 PM	26	134	16	0	5	1	1	0	1	74	1	0	6	0	22	0	287
Total	105	499	27	0	29	2	5	0	2	330	8	0	9	4	86	0	1106
05:00 PM	29	164	14	0	5	0	2	0	1	91	3	0	3	0	21	0	333
05:15 PM	27	153	5	0	3	1	1	0	2	87	4	0	1	1	22	0	307
05:30 PM	27	148	8	0	7	1	3	0	1	107	2	0	2	1	17	0	324
05:45 PM	22	137	5	0	4	0	1	0	0	92	0	0	1	0	15	0	277
Total	105	602	32	0	19	2	7	0	4	377	9	0	7	2	75	0	1241
Grand Total	210	1101	59	0	48	4	12	0	6	707	17	0	16	6	161	0	2347
Apprch %	15.3	80.4	4.3	0.0	75.0	6.3	18.8	0.0	0.8	96.8	2.3	0.0	8.7	3.3	88.0	0.0	
Total %	8.9	46.9	2.5	0.0	2.0	0.2	0.5	0.0	0.3	30.1	0.7	0.0	0.7	0.3	6.9	0.0	

	From North					From East					From South					From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	04:45 PM																				
Volume	109	599	43	0	751	20	3	7	0	30	5	359	10	0	374	12	2	82	0	96	1251
Percent	14.5	79.8	5.7	0.0		66.7	10.0	23.3	0.0		1.3	96.0	2.7	0.0		12.5	2.1	85.4	0.0		
05:00 Volume	29	164	14	0	207	5	0	2	0	7	1	91	3	0	95	3	0	21	0	24	333
Peak Factor																					0.939
High Int.	05:00 PM					05:30 PM					05:30 PM					04:45 PM					
Volume	29	164	14	0	207	7	1	3	0	11	1	107	2	0	110	6	0	22	0	28	
Peak Factor					0.907					0.682					0.850					0.857	

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Alcosta/Vera Cruz - San Ramon

Groups Printed- Unshifted

	Alcosta From North				Vera Cruz From East				Alcosta From South				Vera Cruz From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	17	53	5	0	7	0	0	0	0	66	0	0	0	0	16	0	164
07:15 AM	21	54	6	0	10	1	0	0	1	78	0	0	0	0	20	0	191
07:30 AM	36	73	2	0	11	2	2	0	2	105	0	0	3	1	36	0	273
07:45 AM	72	144	3	0	7	8	6	0	1	154	0	0	2	1	42	0	440
Total	146	324	16	0	35	11	8	0	4	403	0	0	5	2	114	0	1068
08:00 AM	73	149	2	0	10	2	5	0	5	155	2	0	5	1	42	0	451
08:15 AM	21	50	5	0	9	1	5	0	1	150	1	0	0	0	50	0	293
08:30 AM	14	56	4	0	6	1	1	0	0	94	0	0	2	1	23	0	202
08:45 AM	16	44	2	0	3	0	2	0	0	101	0	0	0	0	18	0	186
Total	124	299	13	0	28	4	13	0	6	500	3	0	7	2	133	0	1132
Grand Total	270	623	29	0	63	15	21	0	10	903	3	0	12	4	247	0	2200
Apprch %	29.3	67.6	3.1	0.0	63.6	15.2	21.2	0.0	1.1	98.6	0.3	0.0	4.6	1.5	93.9	0.0	
Total %	12.3	28.3	1.3	0.0	2.9	0.7	1.0	0.0	0.5	41.0	0.1	0.0	0.5	0.2	11.2	0.0	

	Alcosta From North					Vera Cruz From East					Alcosta From South					Vera Cruz From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Intersection	07:30 AM																				
Volume	202	416	12	0	630	37	13	18	0	68	9	564	3	0	576	10	3	170	0	183	1457
Percent	32.1	66.0	1.9	0.0		54.4	19.1	26.5	0.0		1.6	97.9	0.5	0.0		5.5	1.6	92.9	0.0		
08:00 Volume	73	149	2	0	224	10	2	5	0	17	5	155	2	0	162	5	1	42	0	48	451
Peak Factor																					0.808
High Int.	08:00 AM					07:45 AM					08:00 AM					08:15 AM					
Volume	73	149	2	0	224	7	8	6	0	21	5	155	2	0	162	0	0	50	0	50	
Peak Factor					0.703					0.810					0.889					0.915	

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Fostoria Way/Camino Ramon - San Ramon

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	Costco Drwy From North				Fostoria Way From East				Camino Ramon From South				Fostoria Way From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	0	1	0	0	0	7	5	0	3	5	18	0	10	5	0	0	54
07:15 AM	0	0	0	0	0	4	9	0	4	1	29	0	32	9	0	0	88
07:30 AM	0	4	0	0	0	18	6	0	7	1	33	0	29	11	1	0	110
07:45 AM	0	0	0	0	0	10	5	0	2	4	35	0	28	18	0	0	102
Total	0	5	0	0	0	39	25	0	16	11	115	0	99	43	1	0	354
08:00 AM	0	0	0	0	1	19	6	0	6	0	43	0	33	25	2	0	135
08:15 AM	1	3	1	0	0	15	5	0	8	3	48	0	52	10	2	0	148
08:30 AM	0	3	0	0	1	12	1	0	8	4	51	0	57	25	1	0	163
08:45 AM	0	5	1	0	0	11	10	0	6	3	85	0	65	18	0	0	204
Total	1	11	2	0	2	57	22	0	28	10	227	0	207	78	5	0	650
Grand Total	1	16	2	0	2	96	47	0	44	21	342	0	306	121	6	0	1004
Apprch %	5.3	84.2	10.5	0.0	1.4	66.2	32.4	0.0	10.8	5.2	84.0	0.0	70.7	27.9	1.4	0.0	
Total %	0.1	1.6	0.2	0.0	0.2	9.6	4.7	0.0	4.4	2.1	34.1	0.0	30.5	12.1	0.6	0.0	

	Costco Drwy From North					Fostoria Way From East					Camino Ramon From South					Fostoria Way From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Intersection	08:00 AM																				
Volume	1	11	2	0	14	2	57	22	0	81	28	10	227	0	265	207	78	5	0	290	650
Percent	7.1	78.6	14.3	0.0		2.5	70.4	27.2	0.0		10.6	3.8	85.7	0.0		71.4	26.9	1.7	0.0		
08:45 Volume	0	5	1	0	6	0	11	10	0	21	6	3	85	0	94	65	18	0	0	83	204
Peak Factor																					0.797
High Int.	08:45 AM					08:00 AM					08:45 AM					08:30 AM					
Volume	0	5	1	0	6	1	19	6	0	26	6	3	85	0	94	57	25	1	0	83	
Peak Factor					0.583					0.779					0.705					0.873	

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File Name : 39pm
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Fostoria Way/Camino Ramon - San Ramon

Groups Printed- Unshifted

	Costco Drwy From North				Fostoria Way From East				Fostoria Way From South				Fostoria Way From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	6	34	0	0	1	14	4	0	5	55	70	0	58	12	1	0	260
04:15 PM	7	37	2	0	1	23	4	0	16	61	42	0	50	14	2	0	259
04:30 PM	12	63	2	0	0	24	8	0	9	81	101	0	60	9	2	0	371
04:45 PM	12	70	3	0	0	10	23	0	5	64	88	0	72	21	4	0	372
Total	37	204	7	0	2	71	39	0	35	261	301	0	240	56	9	0	1262
05:00 PM	10	67	2	0	0	10	8	0	5	60	80	0	83	10	2	0	337
05:15 PM	7	47	0	0	1	16	3	0	5	82	89	0	94	26	3	0	373
05:30 PM	4	49	2	0	0	21	10	0	17	86	96	0	86	15	1	0	387
05:45 PM	10	65	2	0	2	12	11	0	10	63	70	0	96	16	3	0	360
Total	31	228	6	0	3	59	32	0	37	291	335	0	359	67	9	0	1457
Grand Total	68	432	13	0	5	130	71	0	72	552	636	0	599	123	18	0	2719
Apprch %	13.3	84.2	2.5	0.0	2.4	63.1	34.5	0.0	5.7	43.8	50.5	0.0	80.9	16.6	2.4	0.0	
Total %	2.5	15.9	0.5	0.0	0.2	4.8	2.6	0.0	2.6	20.3	23.4	0.0	22.0	4.5	0.7	0.0	

	Costco Drwy From North					Fostoria Way From East					Fostoria Way From South					Fostoria Way From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	04:45 PM																				
Volume	33	233	7	0	273	1	57	44	0	102	32	292	353	0	677	335	72	10	0	417	1469
Percent	12.1	85.3	2.6	0.0		1.0	55.9	43.1	0.0		4.7	43.1	52.1	0.0		80.3	17.3	2.4	0.0		
05:30 Volume	4	49	2	0	55	0	21	10	0	31	17	86	96	0	199	86	15	1	0	102	387
Peak Factor																					0.949
High Int.	04:45 PM					04:45 PM					05:30 PM					05:15 PM					
Volume	12	70	3	0	85	0	10	23	0	33	17	86	96	0	199	94	26	3	0	123	
Peak Factor					0.803					0.773					0.851					0.848	

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File Name : 40am
Site Code : 00000040
Start Date : 06/05/2008
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Alcosta/Woodland - San Ramon

Groups Printed- Unshifted

	Alcosta From North				Woodland From East				Alcosta From South				Woodland From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	0	39	0	0	3	0	3	0	0	55	2	0	1	0	0	0	103
07:15 AM	3	45	1	0	5	0	2	0	2	79	23	0	11	0	12	0	183
07:30 AM	4	41	3	0	2	1	4	0	4	94	32	0	37	2	23	0	247
07:45 AM	2	55	3	0	3	1	4	0	1	103	32	0	27	1	25	0	257
Total	9	180	7	0	13	2	13	0	7	331	89	0	76	3	60	0	790
08:00 AM	4	114	13	0	12	2	15	0	5	158	106	0	88	1	41	0	559
08:15 AM	3	92	10	0	20	1	1	0	3	166	27	0	63	0	52	0	438
08:30 AM	0	65	5	0	2	0	10	0	4	163	17	0	6	0	5	0	277
08:45 AM	4	73	4	0	2	0	3	0	4	131	3	0	7	0	5	0	236
Total	11	344	32	0	36	3	29	0	16	618	153	0	164	1	103	0	1510
Grand Total	20	524	39	0	49	5	42	0	23	949	242	0	240	4	163	0	2300
Apprch %	3.4	89.9	6.7	0.0	51.0	5.2	43.8	0.0	1.9	78.2	19.9	0.0	59.0	1.0	40.0	0.0	
Total %	0.9	22.8	1.7	0.0	2.1	0.2	1.8	0.0	1.0	41.3	10.5	0.0	10.4	0.2	7.1	0.0	

	Alcosta From North					Woodland From East					Alcosta From South					Woodland From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Intersection	07:45 AM																				
Volume	9	326	31	0	366	37	4	30	0	71	13	590	182	0	785	184	2	123	0	309	1531
Percent	2.5	89.1	8.5	0.0		52.1	5.6	42.3	0.0		1.7	75.2	23.2	0.0		59.5	0.6	39.8	0.0		
08:00 Volume	4	114	13	0	131	12	2	15	0	29	5	158	106	0	269	88	1	41	0	130	559
Peak Factor																					0.685
High Int.	08:00 AM					08:00 AM					08:00 AM					08:00 AM					
Volume	4	114	13	0	131	12	2	15	0	29	5	158	106	0	269	88	1	41	0	130	
Peak Factor					0.698					0.612					0.730					0.594	

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Alcosta/Woodland - San Ramon

Groups Printed- Unshifted

	Alcosta From North				Woodland From East				Alcosta From South				Woodland From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	0	142	4	0	8	0	5	0	7	93	0	0	5	0	2	0	266
04:15 PM	1	154	11	0	4	0	2	0	7	114	7	0	5	0	6	0	311
04:30 PM	5	177	7	0	3	0	2	0	5	107	8	0	2	0	3	0	319
04:45 PM	1	181	12	0	9	0	3	0	3	118	4	0	0	0	6	0	337
Total	7	654	34	0	24	0	12	0	22	432	19	0	12	0	17	0	1233
05:00 PM	0	206	5	0	3	0	3	0	2	106	6	0	1	0	1	0	333
05:15 PM	0	217	4	0	2	0	4	0	1	100	7	0	1	0	3	0	339
05:30 PM	5	212	8	0	4	0	6	0	10	117	6	0	0	0	1	0	369
05:45 PM	2	188	11	0	6	0	10	0	16	99	4	0	1	0	0	0	337
Total	7	823	28	0	15	0	23	0	29	422	23	0	3	0	5	0	1378
Grand Total	14	1477	62	0	39	0	35	0	51	854	42	0	15	0	22	0	2611
Apprch %	0.9	95.1	4.0	0.0	52.7	0.0	47.3	0.0	5.4	90.2	4.4	0.0	40.5	0.0	59.5	0.0	
Total %	0.5	56.6	2.4	0.0	1.5	0.0	1.3	0.0	2.0	32.7	1.6	0.0	0.6	0.0	0.8	0.0	

	Alcosta From North					Woodland From East					Alcosta From South					Woodland From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	04:45 PM																				
Volume	6	816	29	0	851	18	0	16	0	34	16	441	23	0	480	2	0	11	0	13	1378
Percent	0.7	95.9	3.4	0.0		52.9	0.0	47.1	0.0		3.3	91.9	4.8	0.0		15.4	0.0	84.6	0.0		
05:30 Volume	5	212	8	0	225	4	0	6	0	10	10	117	6	0	133	0	0	1	0	1	369
Peak Factor																					0.934
High Int.	05:30 PM					04:45 PM					05:30 PM					04:45 PM					
Volume	5	212	8	0	225	9	0	3	0	12	10	117	6	0	133	0	0	6	0	6	
Peak Factor					0.946					0.708					0.902					0.542	

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Alcosta/Overlook - San Ramon

Groups Printed- Unshifted

	Alcosta From North				Overlook From East				Alcosta From South				Overlook From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	3	52	1	0	2	0	5	0	1	62	1	0	0	0	0	0	127
07:15 AM	3	64	1	0	3	0	2	0	0	71	2	0	2	0	1	0	149
07:30 AM	2	87	2	0	3	0	6	0	2	98	2	0	0	0	1	0	203
07:45 AM	0	81	1	0	1	0	6	0	0	158	1	0	1	0	1	0	250
Total	8	284	5	0	9	0	19	0	3	389	6	0	3	0	3	0	729
08:00 AM	3	119	0	0	6	0	19	0	1	157	6	0	1	0	1	0	313
08:15 AM	12	118	4	0	2	0	9	0	4	176	9	0	0	0	3	0	337
08:30 AM	3	92	2	0	0	0	3	0	2	174	15	0	0	1	0	0	292
08:45 AM	15	80	0	0	3	2	1	0	5	123	17	0	2	0	0	0	248
Total	33	409	6	0	11	2	32	0	12	630	47	0	3	1	4	0	1190
Grand Total	41	693	11	0	20	2	51	0	15	1019	53	0	6	1	7	0	1919
Apprch %	5.5	93.0	1.5	0.0	27.4	2.7	69.9	0.0	1.4	93.7	4.9	0.0	42.9	7.1	50.0	0.0	
Total %	2.1	36.1	0.6	0.0	1.0	0.1	2.7	0.0	0.8	53.1	2.8	0.0	0.3	0.1	0.4	0.0	

	Alcosta From North					Overlook From East					Alcosta From South					Overlook From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Intersection	07:45 AM																				
Volume	18	410	7	0	435	9	0	37	0	46	7	665	31	0	703	2	1	5	0	8	1192
Percent	4.1	94.3	1.6	0.0		19.6	0.0	80.4	0.0		1.0	94.6	4.4	0.0		25.0	12.5	62.5	0.0		
08:15 Volume	12	118	4	0	134	2	0	9	0	11	4	176	9	0	189	0	0	3	0	3	337
Peak Factor																					0.884
High Int.	08:15 AM					08:00 AM					08:30 AM					08:15 AM					
Volume	12	118	4	0	134	6	0	19	0	25	2	174	15	0	191	0	0	3	0	3	
Peak Factor					0.812					0.460					0.920					0.667	

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Alcosta/Overlook - San Ramon

Groups Printed- Unshifted

	Alcosta From North				Overlook From East				Alcosta From South				Overlook From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	0	122	2	0	2	0	6	0	1	82	12	0	2	0	1	0	230
04:15 PM	2	127	2	0	3	0	2	0	3	102	4	0	3	1	3	0	252
04:30 PM	3	145	5	0	5	1	6	0	2	95	4	0	2	0	2	0	270
04:45 PM	0	167	2	0	3	0	3	0	8	125	6	0	0	0	2	0	316
Total	5	561	11	0	13	1	17	0	14	404	26	0	7	1	8	0	1068
05:00 PM	1	183	6	0	4	0	3	0	2	105	7	0	4	0	2	0	317
05:15 PM	2	184	6	0	3	0	3	0	1	123	14	0	1	0	0	0	337
05:30 PM	4	196	5	0	1	0	4	0	3	110	11	0	6	0	2	0	342
05:45 PM	6	180	2	0	2	2	4	0	7	92	7	0	4	1	2	0	309
Total	13	743	19	0	10	2	14	0	13	430	39	0	15	1	6	0	1305
Grand Total	18	1304	30	0	23	3	31	0	27	834	65	0	22	2	14	0	2373
Apprch %	1.3	96.4	2.2	0.0	40.4	5.3	54.4	0.0	2.9	90.1	7.0	0.0	57.9	5.3	36.8	0.0	
Total %	0.8	55.0	1.3	0.0	1.0	0.1	1.3	0.0	1.1	35.1	2.7	0.0	0.9	0.1	0.6	0.0	

	Alcosta From North					Overlook From East					Alcosta From South					Overlook From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	04:45 PM																				
Volume	7	730	19	0	756	11	0	13	0	24	14	463	38	0	515	11	0	6	0	17	1312
Percent	0.9	96.6	2.5	0.0		45.8	0.0	54.2	0.0		2.7	89.9	7.4	0.0		64.7	0.0	35.3	0.0		
05:30 Volume	4	196	5	0	205	1	0	4	0	5	3	110	11	0	124	6	0	2	0	8	342
Peak Factor																					0.959
High Int.	05:30 PM					05:00 PM					04:45 PM					05:30 PM					
Volume	4	196	5	0	205	4	0	3	0	7	8	125	6	0	139	6	0	2	0	8	
Peak Factor					0.922					0.857					0.926					0.531	

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File Name : 42am
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Alcosta/Kimball - San Ramon

Groups Printed- Unshifted

	From North				Alcosta From East				Kimball From South				Alcosta From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	0	0	0	0	0	145	7	0	6	0	58	0	5	38	0	0	259
07:15 AM	0	0	0	0	0	175	5	0	8	0	53	0	16	54	0	0	311
07:30 AM	0	0	0	0	3	201	6	0	3	0	60	0	30	78	0	0	381
07:45 AM	0	0	0	0	0	235	8	0	5	0	85	0	49	106	0	0	488
Total	0	0	0	0	3	756	26	0	22	0	256	0	100	276	0	0	1439
08:00 AM	0	0	0	0	0	265	9	0	12	0	71	0	28	101	0	0	486
08:15 AM	0	0	0	0	0	248	9	0	4	0	56	0	22	116	0	0	455
08:30 AM	0	0	0	0	0	216	9	0	3	0	66	0	24	153	0	0	471
08:45 AM	0	0	0	0	0	168	9	0	4	0	52	0	14	95	0	0	342
Total	0	0	0	0	0	897	36	0	23	0	245	0	88	465	0	0	1754
Grand Total	0	0	0	0	3	1653	62	0	45	0	501	0	188	741	0	0	3193
Apprch %	0.0	0.0	0.0	0.0	0.2	96.2	3.6	0.0	8.2	0.0	91.8	0.0	20.2	79.8	0.0	0.0	
Total %	0.0	0.0	0.0	0.0	0.1	51.8	1.9	0.0	1.4	0.0	15.7	0.0	5.9	23.2	0.0	0.0	

	From North					Alcosta From East					Kimball From South					Alcosta From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Intersection	07:45 AM																				
Volume	0	0	0	0	0	0	964	35	0	999	24	0	278	0	302	123	476	0	0	599	1900
Percent	0.0	0.0	0.0	0.0		0.0	96.5	3.5	0.0		7.9	0.0	92.1	0.0		20.5	79.5	0.0	0.0		
07:45 Volume	0	0	0	0	0	0	235	8	0	243	5	0	85	0	90	49	106	0	0	155	488
Peak Factor																					0.973
High Int.	6:45:00 AM					08:00 AM					07:45 AM					08:30 AM					
Volume	0	0	0	0	0	0	265	9	0	274	5	0	85	0	90	24	153	0	0	177	
Peak Factor										0.911					0.839					0.846	

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Alcosta/Kimball- San Ramon

Groups Printed- Unshifted

	From North				Alcosta From East				Kimball From South				Alcosta From West				
Start Time	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	R	T	L	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	0	0	0	0	0	128	5	0	8	0	27	0	40	144	0	0	352
04:15 PM	0	0	0	0	0	109	2	0	5	0	23	0	58	159	0	0	356
04:30 PM	0	0	0	0	0	137	6	0	4	0	27	0	43	141	0	0	358
04:45 PM	0	0	0	0	0	107	11	0	6	0	23	0	60	156	0	0	363
Total	0	0	0	0	0	481	24	0	23	0	100	0	201	600	0	0	1429
05:00 PM	0	0	0	0	0	132	10	0	4	0	53	0	56	191	0	0	446
05:15 PM	0	0	0	0	0	155	6	0	1	0	35	0	73	240	0	0	510
05:30 PM	0	0	0	0	0	151	7	0	5	0	33	0	71	264	0	0	531
05:45 PM	0	0	0	0	0	143	8	0	6	0	33	0	68	280	0	0	538
Total	0	0	0	0	0	581	31	0	16	0	154	0	268	975	0	0	2025
Grand Total	0	0	0	0	0	1062	55	0	39	0	254	0	469	1575	0	0	3454
Apprch %	0.0	0.0	0.0	0.0	0.0	95.1	4.9	0.0	13.3	0.0	86.7	0.0	22.9	77.1	0.0	0.0	
Total %	0.0	0.0	0.0	0.0	0.0	30.7	1.6	0.0	1.1	0.0	7.4	0.0	13.6	45.6	0.0	0.0	

	From North					Alcosta From East					Kimball From South					Alcosta From West					
Start Time	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	R	T	L	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	05:00 PM																				
Volume	0	0	0	0	0	0	581	31	0	612	16	0	154	0	170	268	975	0	0	1243	2025
Percent	0.0	0.0	0.0	0.0		0.0	94.9	5.1	0.0		9.4	0.0	90.6	0.0		21.6	78.4	0.0	0.0		
05:45 Volume	0	0	0	0	0	0	143	8	0	151	6	0	33	0	39	68	280	0	0	348	538
Peak Factor																					0.941
High Int.	3:45:00 PM					05:15 PM					05:00 PM					05:45 PM					
Volume	0	0	0	0	0	0	155	6	0	161	4	0	53	0	57	68	280	0	0	348	
Peak Factor										0.950					0.746					0.893	

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File Name : 4am-ab
Site Code : 00000004
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SB I-680 offramp/Crow Canyon - San Ramon

Groups Printed- 1 - Unshifted

	SB I-680 offramp From North				Crow Canyon From East				From South				Crow Canyon From West				
Start Time	Right	Thru	Left	RTOR	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	96	0	116	18	131	126	0	0	0	0	0	0	59	179	0	0	725
07:15 AM	118	0	158	12	170	140	0	0	0	0	0	0	79	225	0	0	902
07:30 AM	168	0	163	15	241	150	0	0	0	0	0	0	109	268	0	0	1114
07:45 AM	153	0	152	11	218	185	0	0	0	0	0	0	109	289	0	0	1117
Total	535	0	589	56	760	601	0	0	0	0	0	0	356	961	0	0	3858
08:00 AM	192	0	197	8	249	168	0	0	0	0	0	0	123	279	0	0	1216
08:15 AM	163	0	215	9	295	196	0	0	0	0	0	0	110	295	0	0	1283
08:30 AM	134	0	188	3	245	229	0	0	0	0	0	0	110	282	0	0	1191
08:45 AM	128	0	192	3	266	135	0	0	0	0	0	0	118	254	0	0	1096
Total	617	0	792	23	1055	728	0	0	0	0	0	0	461	1110	0	0	4786
Grand Total	1152	0	1381	79	1815	1329	0	0	0	0	0	0	817	2071	0	0	8644
Apprch %	44.1	0.0	52.9	3.0	57.7	42.3	0.0	0.0	0.0	0.0	0.0	0.0	28.3	71.7	0.0	0.0	
Total %	13.3	0.0	16.0	0.9	21.0	15.4	0.0	0.0	0.0	0.0	0.0	0.0	9.5	24.0	0.0	0.0	

	SB I-680 offramp From North					Crow Canyon From East					From South					Crow Canyon From West					
Start Time	Right	Thru	Left	RTOR	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Intersection	07:45 AM																				
Volume	642	0	752	31	1425	1007	778	0	0	1785	0	0	0	0	0	452	1145	0	0	1597	4807
Percent	45.1	0.0	52.8	2.2		56.4	43.6	0.0	0.0		0.0	0.0	0.0	0.0		28.3	71.7	0.0	0.0		
08:15 Volume	163	0	215	9	387	295	196	0	0	491	0	0	0	0	0	110	295	0	0	405	1283
Peak Factor																					0.937
High Int.	08:00 AM					08:15 AM					6:45:00 AM					08:15 AM					
Volume	192	0	197	8	397	295	196	0	0	491	0	0	0	0	0	110	295	0	0	405	
Peak Factor					0.897					0.909										0.986	

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SB I-680 offrmap/Crow Canyon - San Ramon

Groups Printed- 1 - Unshifted

	SB I-680 offramp From North				Crow Canyon From East				From South				Crow Canyon From West				
Start Time	Right	Thru	Left	RTOR	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	134	0	104	28	212	176	0	0	0	0	0	0	121	275	0	0	1050
04:15 PM	173	0	146	31	182	257	0	0	0	0	0	0	124	266	0	0	1179
04:30 PM	198	0	164	28	191	289	0	0	0	0	0	0	128	303	0	0	1301
04:45 PM	248	0	189	21	238	288	0	0	0	0	0	0	154	314	0	0	1452
Total	753	0	603	108	823	1010	0	0	0	0	0	0	527	1158	0	0	4982
05:00 PM	239	0	197	9	236	397	0	0	0	0	0	0	167	295	0	0	1540
05:15 PM	277	0	188	7	295	308	0	0	0	0	0	0	213	352	0	0	1640
05:30 PM	249	0	179	5	225	367	0	0	0	0	0	0	172	342	0	0	1539
05:45 PM	243	0	168	10	177	374	0	0	0	0	0	0	166	377	0	0	1515
Total	1008	0	732	31	933	1446	0	0	0	0	0	0	718	1366	0	0	6234
Grand Total	1761	0	1335	139	1756	2456	0	0	0	0	0	0	1245	2524	0	0	11216
Apprch %	54.4	0.0	41.3	4.3	41.7	58.3	0.0	0.0	0.0	0.0	0.0	0.0	33.0	67.0	0.0	0.0	
Total %	15.7	0.0	11.9	1.2	15.7	21.9	0.0	0.0	0.0	0.0	0.0	0.0	11.1	22.5	0.0	0.0	

	SB I-680 offramp From North					Crow Canyon From East					From South					Crow Canyon From West					
Start Time	Right	Thru	Left	RTOR	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	05:00 PM																				
Volume	1008	0	732	31	1771	933	1446	0	0	2379	0	0	0	0	0	718	1366	0	0	2084	6234
Percent	56.9	0.0	41.3	1.8		39.2	60.8	0.0	0.0		0.0	0.0	0.0	0.0		34.5	65.5	0.0	0.0		
05:15 Volume	277	0	188	7	472	295	308	0	0	603	0	0	0	0	0	213	352	0	0	565	1640
Peak Factor																					0.950
High Int.	05:15 PM					05:00 PM					3:45:00 PM					05:15 PM					
Volume	277	0	188	7	472	236	397	0	0	633	0	0	0	0	0	213	352	0	0	565	
Peak Factor					0.938					0.940										0.922	

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NB I-680 offramp/Crow Canyon - San Ramon

Groups Printed- 1 - Unshifted

	From North				Crow Canyon From East				NB I-680 offramp From South				Crow Canyon From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	RTOR	Right	Thru	Left	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	0	0	0	0	132	189	0	0	43	0	73	46	80	207	0	0	770
07:15 AM	0	0	0	0	147	257	0	0	104	0	58	41	105	268	0	0	980
07:30 AM	0	0	0	0	148	264	0	0	138	0	139	39	69	368	0	0	1165
07:45 AM	0	0	0	0	170	271	0	0	195	0	119	26	38	412	0	0	1231
Total	0	0	0	0	597	981	0	0	480	0	389	152	292	1255	0	0	4146
08:00 AM	0	0	0	0	139	250	0	0	211	0	149	36	61	433	0	0	1279
08:15 AM	0	0	0	0	175	310	0	0	193	0	129	44	75	415	0	0	1341
08:30 AM	0	0	0	0	133	291	0	0	172	0	132	20	54	431	0	0	1233
08:45 AM	0	0	0	0	114	267	0	0	154	0	142	27	48	411	0	0	1163
Total	0	0	0	0	561	1118	0	0	730	0	552	127	238	1690	0	0	5016
Grand Total	0	0	0	0	1158	2099	0	0	1210	0	941	279	530	2945	0	0	9162
Apprch %	0.0	0.0	0.0	0.0	35.6	64.4	0.0	0.0	49.8	0.0	38.7	11.5	15.3	84.7	0.0	0.0	
Total %	0.0	0.0	0.0	0.0	12.6	22.9	0.0	0.0	13.2	0.0	10.3	3.0	5.8	32.1	0.0	0.0	

	From North					Crow Canyon From East					NB I-680 offramp From South					Crow Canyon From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	RTOR	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Intersection	07:45 AM																				
Volume	0	0	0	0	0	617	1122	0	0	1739	771	0	529	126	1426	228	1691	0	0	1919	5084
Percent	0.0	0.0	0.0	0.0		35.5	64.5	0.0	0.0		54.1	0.0	37.1	8.8		11.9	88.1	0.0	0.0		
08:15 Volume	0	0	0	0	0	175	310	0	0	485	193	0	129	44	366	75	415	0	0	490	1341
Peak Factor																					0.948
High Int.	6:45:00 AM					08:15 AM					08:00 AM					08:00 AM					
Volume	0	0	0	0	0	175	310	0	0	485	211	0	149	36	396	61	433	0	0	494	
Peak Factor										0.896					0.900					0.971	

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NB 680 offrmap/Crow Canyon - San Ramon

Groups Printed- 1 - Unshifted

	From North				Crow Canyon From East				NB I-680 offramp From South				Crow Canyon From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	RTOR	Right	Thru	Left	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	0	0	0	0	279	277	0	0	117	0	141	42	45	335	0	0	1236
04:15 PM	0	0	0	0	236	281	0	0	114	0	126	66	97	311	0	0	1231
04:30 PM	0	0	0	0	221	325	0	0	166	0	149	44	101	363	0	0	1369
04:45 PM	0	0	0	0	221	305	0	0	220	0	235	36	128	379	0	0	1524
Total	0	0	0	0	957	1188	0	0	617	0	651	188	371	1388	0	0	5360
05:00 PM	0	0	0	0	230	341	0	0	284	0	292	31	51	452	0	0	1681
05:15 PM	0	0	0	0	172	404	0	0	202	0	237	25	66	489	0	0	1595
05:30 PM	0	0	0	0	184	376	0	0	199	0	189	41	81	436	0	0	1506
05:45 PM	0	0	0	0	170	282	0	0	215	0	265	36	63	488	0	0	1519
Total	0	0	0	0	756	1403	0	0	900	0	983	133	261	1865	0	0	6301
Grand Total	0	0	0	0	1713	2591	0	0	1517	0	1634	321	632	3253	0	0	11661
Apprch %	0.0	0.0	0.0	0.0	39.8	60.2	0.0	0.0	43.7	0.0	47.1	9.2	16.3	83.7	0.0	0.0	
Total %	0.0	0.0	0.0	0.0	14.7	22.2	0.0	0.0	13.0	0.0	14.0	2.8	5.4	27.9	0.0	0.0	

	From North					Crow Canyon From East					NB I-680 offramp From South					Crow Canyon From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	RTOR	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	04:45 PM																				
Volume	0	0	0	0	0	807	1426	0	0	2233	905	0	953	133	1991	326	1756	0	0	2082	6306
Percent	0.0	0.0	0.0	0.0		36.1	63.9	0.0	0.0		45.5	0.0	47.9	6.7		15.7	84.3	0.0	0.0		
05:00 Volume	0	0	0	0	0	230	341	0	0	571	284	0	292	31	607	51	452	0	0	503	1681
Peak Factor																					0.938
High Int.	3:45:00 PM					05:15 PM					05:00 PM					05:15 PM					
Volume	0	0	0	0	0	172	404	0	0	576	284	0	292	31	607	66	489	0	0	555	
Peak Factor										0.969					0.820					0.938	

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Alcosta/Crow Canyon - San Ramon

Groups Printed- Unshifted

	Crow Canyon From North				Crow Canyon From East				Alcosta From South				Crow Canyon From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	0	0	0	0	0	217	53	0	8	0	29	0	64	106	0	0	477
07:15 AM	0	0	0	0	0	362	95	0	15	0	20	0	48	101	0	0	641
07:30 AM	0	0	0	0	0	480	147	0	38	0	40	0	92	143	0	0	940
07:45 AM	0	0	0	0	0	357	193	0	50	0	44	0	85	166	0	0	895
Total	0	0	0	0	0	1416	488	0	111	0	133	0	289	516	0	0	2953
08:00 AM	0	0	0	0	0	406	243	0	37	0	62	0	139	121	0	0	1008
08:15 AM	0	0	0	0	0	401	209	0	73	0	83	0	112	134	0	0	1012
08:30 AM	0	0	0	0	0	406	210	0	42	0	56	0	145	149	0	0	1008
08:45 AM	0	0	0	0	0	337	147	0	33	0	47	0	122	165	0	0	851
Total	0	0	0	0	0	1550	809	0	185	0	248	0	518	569	0	0	3879
Grand Total	0	0	0	0	0	2966	1297	0	296	0	381	0	807	1085	0	0	6832
Apprch %	0.0	0.0	0.0	0.0	0.0	69.6	30.4	0.0	43.7	0.0	56.3	0.0	42.7	57.3	0.0	0.0	
Total %	0.0	0.0	0.0	0.0	0.0	43.4	19.0	0.0	4.3	0.0	5.6	0.0	11.8	15.9	0.0	0.0	

	Crow Canyon From North					Crow Canyon From East					Alcosta From South					Crow Canyon From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Intersection	07:45 AM																				
Volume	0	0	0	0	0	0	1570	855	0	2425	202	0	245	0	447	481	570	0	0	1051	3923
Percent	0.0	0.0	0.0	0.0		0.0	64.7	35.3	0.0		45.2	0.0	54.8	0.0		45.8	54.2	0.0	0.0		
08:15 Volume	0	0	0	0	0	0	401	209	0	610	73	0	83	0	156	112	134	0	0	246	1012
Peak Factor																					0.969
High Int.	6:45:00 AM					08:00 AM					08:15 AM					08:30 AM					
Volume	0	0	0	0	0	0	406	243	0	649	73	0	83	0	156	145	149	0	0	294	
Peak Factor										0.934					0.716					0.894	

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File Name : 8pm
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Alcosta/Crow Canyon - San Ramon

Groups Printed- Unshifted

	From North				Crow Canyon From East				Alcosta From South				Crow Canyon From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	0	0	0	0	0	249	99	0	108	0	173	0	89	329	0	0	1047
04:15 PM	0	0	0	0	0	229	110	0	106	0	127	0	88	337	0	0	997
04:30 PM	0	0	0	0	0	228	63	0	107	0	224	0	171	363	0	0	1156
04:45 PM	0	0	0	0	0	232	108	0	121	0	125	0	107	365	0	0	1058
Total	0	0	0	0	0	938	380	0	442	0	649	0	455	1394	0	0	4258
05:00 PM	0	0	0	0	0	167	108	0	126	0	186	0	104	418	0	0	1109
05:15 PM	0	0	0	0	0	171	71	0	123	0	138	0	96	374	0	0	973
05:30 PM	0	0	0	0	0	273	98	0	136	0	130	0	128	441	0	0	1206
05:45 PM	0	0	0	0	0	197	57	0	112	0	96	0	63	422	0	0	947
Total	0	0	0	0	0	808	334	0	497	0	550	0	391	1655	0	0	4235
Grand Total	0	0	0	0	0	1746	714	0	939	0	1199	0	846	3049	0	0	8493
Apprch %	0.0	0.0	0.0	0.0	0.0	71.0	29.0	0.0	43.9	0.0	56.1	0.0	21.7	78.3	0.0	0.0	
Total %	0.0	0.0	0.0	0.0	0.0	20.6	8.4	0.0	11.1	0.0	14.1	0.0	10.0	35.9	0.0	0.0	

	From North					Crow Canyon From East					Alcosta From South					Crow Canyon From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	04:45 PM																				
Volume	0	0	0	0	0	0	843	385	0	1228	506	0	579	0	1085	435	1598	0	0	2033	4346
Percent	0.0	0.0	0.0	0.0		0.0	68.6	31.4	0.0		46.6	0.0	53.4	0.0		21.4	78.6	0.0	0.0		
05:30 Volume	0	0	0	0	0	0	273	98	0	371	136	0	130	0	266	128	441	0	0	569	1206
Peak Factor																					0.901
High Int.	3:45:00 PM					05:30 PM					05:00 PM					05:30 PM					
Volume	0	0	0	0	0	0	273	98	0	371	126	0	186	0	312	128	441	0	0	569	
Peak Factor										0.827					0.869					0.893	

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File Name : 15am-ab
Site Code : 00000015
Start Date : 10/20/2009
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SB I-680 offramp/Bollinger Canyon - San Ramon

Groups Printed- 1 - Unshifted

	SB I-680 offramp From North				Bollinger Canyon From East				P&R Lot From South				Bollinger Canyon From West						
Start Time	Right	Thru	Left	RTOR	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	To P &R Lot	Exclu. Total	Inclu. Total	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0			
07:00 AM	16	8	208	19	144	70	0	0	13	0	0	0	29	213	0	6	25	701	726
07:15 AM	27	7	307	13	195	89	0	0	12	0	1	0	74	255	0	3	16	967	983
07:30 AM	36	6	306	7	211	93	0	0	23	0	1	0	44	245	0	1	8	965	973
07:45 AM	56	2	297	13	274	131	0	0	15	0	1	0	48	278	0	4	17	1102	1119
Total	135	23	1118	52	824	383	0	0	63	0	3	0	195	991	0	14	66	3735	3801
08:00 AM	61	3	246	3	240	175	0	0	22	0	0	0	61	237	0	7	10	1045	1055
08:15 AM	40	6	229	3	211	131	0	0	12	0	0	0	45	293	0	6	9	967	976
08:30 AM	31	6	262	8	236	106	0	0	11	0	0	0	35	199	0	7	15	886	901
08:45 AM	36	4	266	5	265	120	0	0	8	0	0	0	37	189	0	2	7	925	932
Total	168	19	1003	19	952	532	0	0	53	0	0	0	178	918	0	22	41	3823	3864
Grand Total	303	42	2121	71	1776	915	0	0	116	0	3	0	373	1909	0	36	107	7558	7665
Apprch %	12.3	1.7	86.0		66.0	34.0	0.0		97.5	0.0	2.5		16.3	83.7	0.0				
Total %	4.0	0.6	28.1		23.5	12.1	0.0		1.5	0.0	0.0		4.9	25.3	0.0		1.4	98.6	

	SB I-680 offramp From North				Bollinger Canyon From East				P&R Lot From South				Bollinger Canyon From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Intersection	07:15 AM																
Volume	180	18	1156	1354	920	488	0	1408	72	0	3	75	227	1015	0	1242	4079
Percent	13.3	1.3	85.4		65.3	34.7	0.0		96.0	0.0	4.0		18.3	81.7	0.0		
07:45 Volume	56	2	297	355	274	131	0	405	15	0	1	16	48	278	0	326	1102
Peak Factor																	0.925
High Int.	07:45 AM				08:00 AM				07:30 AM				07:15 AM				
Volume	56	2	297	355	240	175	0	415	23	0	1	24	74	255	0	329	
Peak Factor				0.954				0.848				0.781				0.944	

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File Name : 15pm-ab
Site Code : 00000015
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SB I-680 offram/Bollinger Canyon- San Ramon

Groups Printed- 1 - Unshifted

	I-680 offramp From North				Bollinger Canyon From East				Park & Ride Lot From South				Bollinger Canyon From West						
Start Time	Right	Thru	Left	RTOR	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	To P&R	Exclu. Total	Inclu. Total	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0			
04:00 PM	61	1	181	9	180	162	0	0	6	0	0	0	34	168	0	3	12	793	805
04:15 PM	79	5	196	7	285	230	0	0	13	0	0	0	38	195	0	1	8	1041	1049
04:30 PM	134	4	167	13	331	240	0	0	6	0	1	0	48	146	0	1	14	1077	1091
04:45 PM	61	2	189	15	284	231	0	0	11	0	2	0	44	183	0	0	15	1007	1022
Total	335	12	733	44	1080	863	0	0	36	0	3	0	164	692	0	5	49	3918	3967
05:00 PM	66	11	211	1	303	254	0	0	21	0	0	0	49	262	0	0	1	1177	1178
05:15 PM	88	4	266	5	366	319	0	0	29	0	0	0	38	223	0	0	5	1333	1338
05:30 PM	63	16	214	14	388	289	0	0	16	0	2	0	53	186	0	0	14	1227	1241
05:45 PM	95	2	249	20	361	288	0	0	48	0	0	0	56	183	0	7	27	1282	1309
Total	312	33	940	40	1418	1150	0	0	114	0	2	0	196	854	0	7	47	5019	5066
Grand Total	647	45	1673	84	2498	2013	0	0	150	0	5	0	360	1546	0	12	96	8937	9033
Apprch %	27.4	1.9	70.7		55.4	44.6	0.0		96.8	0.0	3.2		18.9	81.1	0.0				
Total %	7.2	0.5	18.7		28.0	22.5	0.0		1.7	0.0	0.1		4.0	17.3	0.0		1.1	98.9	

	I-680 offramp From North				Bollinger Canyon From East				Park & Ride Lot From South				Bollinger Canyon From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Intersection	05:00 PM																
Volume	312	33	940	1285	1418	1150	0	2568	114	0	2	116	196	854	0	1050	5019
Percent	24.3	2.6	73.2		55.2	44.8	0.0		98.3	0.0	1.7		18.7	81.3	0.0		
05:15 Volume	88	4	266	358	366	319	0	685	29	0	0	29	38	223	0	261	1333
Peak Factor																	0.941
High Int.	05:15 PM				05:15 PM				05:45 PM				05:00 PM				
Volume	88	4	266	358	366	319	0	685	48	0	0	48	49	262	0	311	
Peak Factor				0.897				0.937				0.604				0.844	

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File Name : 16am-ab
Site Code : 00000016
Start Date : 10/20/2009
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NB I-680 offramp/Bollinger Canyon - San Ramon

Groups Printed- 1 - Unshifted

	From North				Bollinger Canyon From East				NB I-680 offramp From South				Bollinger Canyon From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	RTOR	Right	Thru	Left	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	0	0	0	0	137	174	0	0	227	0	45	27	185	227	0	0	1022
07:15 AM	0	0	0	0	151	249	0	0	327	0	61	33	228	337	0	0	1386
07:30 AM	0	0	0	0	170	242	0	0	439	0	70	27	210	344	0	0	1502
07:45 AM	0	0	0	0	114	322	0	0	521	0	103	36	224	364	0	0	1684
Total	0	0	0	0	572	987	0	0	1514	0	279	123	847	1272	0	0	5594
08:00 AM	0	0	0	0	164	325	0	0	468	0	94	33	188	301	0	0	1573
08:15 AM	0	0	0	0	185	288	0	0	396	0	66	52	217	285	0	0	1489
08:30 AM	0	0	0	0	117	290	0	0	370	0	65	52	166	309	0	0	1369
08:45 AM	0	0	0	0	132	295	0	0	417	0	94	42	155	296	0	0	1431
Total	0	0	0	0	598	1198	0	0	1651	0	319	179	726	1191	0	0	5862
Grand Total	0	0	0	0	1170	2185	0	0	3165	0	598	302	1573	2463	0	0	11456
Apprch %	0.0	0.0	0.0	0.0	34.9	65.1	0.0	0.0	77.9	0.0	14.7	7.4	39.0	61.0	0.0	0.0	
Total %	0.0	0.0	0.0	0.0	10.2	19.1	0.0	0.0	27.6	0.0	5.2	2.6	13.7	21.5	0.0	0.0	

	From North					Bollinger Canyon From East					NB I-680 offramp From South					Bollinger Canyon From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	RTOR	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Intersection	07:30 AM																				
Volume	0	0	0	0	0	633	1177	0	0	1810	1824	0	333	148	2305	839	1294	0	0	2133	6248
Percent	0.0	0.0	0.0	0.0		35.0	65.0	0.0	0.0		79.1	0.0	14.4	6.4		39.3	60.7	0.0	0.0		
07:45 Volume	0	0	0	0	0	114	322	0	0	436	521	0	103	36	660	224	364	0	0	588	1684
Peak Factor																					0.928
High Int.	6:45:00 AM					08:00 AM					07:45 AM					07:45 AM					
Volume	0	0	0	0	0	164	325	0	0	489	521	0	103	36	660	224	364	0	0	588	
Peak Factor										0.925					0.873					0.907	

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File Name : 16pm-ab
Site Code : 00000016
Start Date : 10/20/2009
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NB I-680 offrmap/Bollinger Canyon - San Ramon

Groups Printed- 1 - Unshifted

	From North				Bollinger Canyon From East				From South				Bollinger Canyon From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	RTOR	Right	Thru	Left	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	0	0	0	0	128	261	0	0	168	0	84	54	152	202	0	0	1049
04:15 PM	0	0	0	0	160	421	0	0	153	0	113	62	145	243	0	0	1297
04:30 PM	0	0	0	0	184	469	0	0	149	0	96	75	95	238	0	0	1306
04:45 PM	0	0	0	0	153	397	0	0	219	0	118	71	68	289	0	0	1315
Total	0	0	0	0	625	1548	0	0	689	0	411	262	460	972	0	0	4967
05:00 PM	0	0	0	0	128	435	0	0	239	0	121	51	183	290	0	0	1447
05:15 PM	0	0	0	0	149	537	0	0	234	0	195	62	121	362	0	0	1660
05:30 PM	0	0	0	0	178	494	0	0	283	0	178	72	62	341	0	0	1608
05:45 PM	0	0	0	0	196	447	0	0	354	0	214	71	71	368	0	0	1721
Total	0	0	0	0	651	1913	0	0	1110	0	708	256	437	1361	0	0	6436
Grand Total	0	0	0	0	1276	3461	0	0	1799	0	1119	518	897	2333	0	0	11403
Apprch %	0.0	0.0	0.0	0.0	26.9	73.1	0.0	0.0	52.4	0.0	32.6	15.1	27.8	72.2	0.0	0.0	
Total %	0.0	0.0	0.0	0.0	11.2	30.4	0.0	0.0	15.8	0.0	9.8	4.5	7.9	20.5	0.0	0.0	

	From North					Bollinger Canyon From East					From South					Bollinger Canyon From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	RTOR	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	05:00 PM																				
Volume	0	0	0	0	0	651	1913	0	0	2564	1110	0	708	256	2074	437	1361	0	0	1798	6436
Percent	0.0	0.0	0.0	0.0		25.4	74.6	0.0	0.0		53.5	0.0	34.1	12.3		24.3	75.7	0.0	0.0		
05:45 Volume	0	0	0	0	0	196	447	0	0	643	354	0	214	71	639	71	368	0	0	439	1721
Peak Factor																					0.935
High Int.	3:45:00 PM					05:15 PM					05:45 PM					05:15 PM					
Volume	0	0	0	0	0	149	537	0	0	686	354	0	214	71	639	121	362	0	0	483	
Peak Factor										0.934					0.811					0.931	

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File Name : 20am
Site Code : 00000020
Start Date : 10/22/2009
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Alcosta/Bollinger Canyon - San Ramon

Groups Printed- Unshifted

	Alcosta From North				Bollinger Canyon From East				Alcosta From South				Bollinger Canyon From West						
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Exclu. Total	Inclu. Total	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0			
07:00 AM	17	22	14	0	23	274	27	0	10	25	70	0	25	68	18	0	0	593	593
07:15 AM	26	32	16	0	35	290	48	0	31	55	120	0	22	75	24	0	0	774	774
07:30 AM	29	18	21	0	35	332	32	0	28	74	111	0	17	75	32	0	0	804	804
07:45 AM	26	68	20	0	48	401	46	0	25	91	125	0	9	78	45	0	0	982	982
Total	98	140	71	0	141	1297	153	0	94	245	426	0	73	296	119	0	0	3153	3153
08:00 AM	90	117	18	0	64	353	74	0	24	109	149	0	19	107	49	0	0	1173	1173
08:15 AM	46	33	22	0	53	380	61	0	51	102	151	0	23	100	38	0	0	1060	1060
08:30 AM	23	27	21	0	40	354	42	0	28	80	124	0	29	99	40	0	0	907	907
08:45 AM	20	32	17	0	48	270	38	0	16	57	99	0	24	103	40	0	0	764	764
Total	179	209	78	0	205	1357	215	0	119	348	523	0	95	409	167	0	0	3904	3904
Grand Total	277	349	149	0	346	2654	368	0	213	593	949	0	168	705	286	0	0	7057	7057
Apprch %	35.7	45.0	19.2		10.3	78.8	10.9		12.1	33.8	54.1		14.5	60.8	24.7				
Total %	3.9	4.9	2.1		4.9	37.6	5.2		3.0	8.4	13.4		2.4	10.0	4.1		0.0	100.0	

	Alcosta From North				Bollinger Canyon From East				Alcosta From South				Bollinger Canyon From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Intersection	07:45 AM																
Volume	185	245	81	511	205	1488	223	1916	128	382	549	1059	80	384	172	636	4122
Percent	36.2	47.9	15.9		10.7	77.7	11.6		12.1	36.1	51.8		12.6	60.4	27.0		
08:00 Volume	90	117	18	225	64	353	74	491	24	109	149	282	19	107	49	175	1173
Peak Factor																	0.879
High Int.	08:00 AM				07:45 AM				08:15 AM				08:00 AM				
Volume	90	117	18	225	48	401	46	495	51	102	151	304	19	107	49	175	
Peak Factor				0.568				0.968				0.871				0.909	

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File Name : 20pm
Site Code : 00000020
Start Date : 10/22/2009
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Alcosta/Bollinger Canyon - San Ramon

Groups Printed- Unshifted

	Alcosta From North				Bollinger Canyon From East				Alcosta From South				Bollinger Canyon From West						
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Exclu. Total	Inclu. Total	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0			
04:00 PM	41	95	39	0	38	135	50	0	32	60	53	0	51	231	34	0	0	859	859
04:15 PM	31	75	41	0	36	133	45	0	40	47	49	0	59	240	26	0	0	822	822
04:30 PM	39	71	70	0	49	130	37	0	49	53	39	0	71	310	31	0	0	949	949
04:45 PM	44	93	88	0	54	134	56	0	46	60	26	0	71	326	39	0	0	1037	1037
Total	155	334	238	0	177	532	188	0	167	220	167	0	252	1107	130	0	0	3667	3667
05:00 PM	50	99	90	0	34	147	58	0	54	49	35	0	93	383	32	0	0	1124	1124
05:15 PM	31	90	71	0	28	142	60	0	57	63	47	0	87	402	29	0	0	1107	1107
05:30 PM	30	91	60	0	31	135	63	0	54	62	41	0	82	368	26	0	0	1043	1043
05:45 PM	26	88	62	0	26	128	59	0	51	55	42	0	74	380	31	0	0	1022	1022
Total	137	368	283	0	119	552	240	0	216	229	165	0	336	1533	118	0	0	4296	4296
Grand Total	292	702	521	0	296	1084	428	0	383	449	332	0	588	2640	248	0	0	7963	7963
Apprch %	19.3	46.3	34.4		16.4	60.0	23.7		32.9	38.6	28.5		16.9	75.9	7.1				
Total %	3.7	8.8	6.5		3.7	13.6	5.4		4.8	5.6	4.2		7.4	33.2	3.1		0.0	100.0	

	Alcosta From North				Bollinger Canyon From East				Alcosta From South				Bollinger Canyon From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Intersection	04:45 PM																
Volume	155	373	309	837	147	558	237	942	211	234	149	594	333	1479	126	1938	4311
Percent	18.5	44.6	36.9		15.6	59.2	25.2		35.5	39.4	25.1		17.2	76.3	6.5		
05:00 Volume	50	99	90	239	34	147	58	239	54	49	35	138	93	383	32	508	1124
Peak Factor																	0.959
High Int.	05:00 PM				04:45 PM				05:15 PM				05:15 PM				
Volume	50	99	90	239	54	134	56	244	57	63	47	167	87	402	29	518	
Peak Factor				0.876				0.965				0.889				0.935	

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File Name : 32am
Site Code : 00000032
Start Date : 10/21/2009
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Dougherty/Crow Canyon - San Ramon

Groups Printed- Unshifted

	From North				Crow Canyon From East				Dougherty From South				Crow Canyon From West						
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Exclu. Total	Inclu. Total	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0			
07:00 AM	0	0	0	0	0	139	83	0	39	0	49	0	22	29	0	0	0	361	361
07:15 AM	0	0	0	0	0	169	102	0	58	0	54	0	21	35	0	0	0	439	439
07:30 AM	0	0	0	0	0	202	140	0	86	0	54	0	22	64	0	0	0	568	568
07:45 AM	0	0	0	0	0	222	134	0	77	0	55	0	24	66	0	0	0	578	578
Total	0	0	0	0	0	732	459	0	260	0	212	0	89	194	0	0	0	1946	1946
08:00 AM	0	0	0	0	0	252	181	0	104	0	99	0	27	94	0	0	0	757	757
08:15 AM	0	0	0	0	0	204	125	0	102	0	77	0	41	119	0	0	0	668	668
08:30 AM	0	0	0	0	0	188	141	0	77	0	77	0	25	90	0	0	0	598	598
08:45 AM	0	0	0	0	0	192	130	0	82	0	68	0	30	91	0	0	0	593	593
Total	0	0	0	0	0	836	577	0	365	0	321	0	123	394	0	0	0	2616	2616
Grand Total	0	0	0	0	0	1568	1036	0	625	0	533	0	212	588	0	0	0	4562	4562
Apprch %	0.0	0.0	0.0		0.0	60.2	39.8		54.0	0.0	46.0		26.5	73.5	0.0				
Total %	0.0	0.0	0.0		0.0	34.4	22.7		13.7	0.0	11.7		4.6	12.9	0.0		0.0	100.0	

	From North				Crow Canyon From East				Dougherty From South				Crow Canyon From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Intersection	08:00 AM																
Volume	0	0	0	0	0	836	577	1413	365	0	321	686	123	394	0	517	2616
Percent	0.0	0.0	0.0		0.0	59.2	40.8		53.2	0.0	46.8		23.8	76.2	0.0		
08:00 Volume	0	0	0	0	0	252	181	433	104	0	99	203	27	94	0	121	757
Peak Factor																	0.864
High Int.	6:45:00 AM				08:00 AM				08:00 AM				08:15 AM				
Volume	0	0	0	0	0	252	181	433	104	0	99	203	41	119	0	160	
Peak Factor								0.816				0.845				0.808	

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File Name : 32pm
Site Code : 00000032
Start Date : 10/21/2009
Page No : 1

Dougherty/Crow Canyon - San Ramon

Groups Printed- Unshifted

	From North				Crow Canyon From East				Dougherty From South				Crow Canyon From West						
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Exclu. Total	Inclu. Total	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0			
04:00 PM	0	0	0	0	0	123	117	0	138	0	41	0	46	192	0	0	0	657	657
04:15 PM	0	0	0	0	0	134	106	0	121	0	33	0	42	226	0	0	0	662	662
04:30 PM	0	0	0	0	0	121	95	0	132	0	39	0	41	207	0	0	0	635	635
04:45 PM	0	0	0	0	0	108	104	0	148	0	37	0	37	211	0	0	0	645	645
Total	0	0	0	0	0	486	422	0	539	0	150	0	166	836	0	0	0	2599	2599
05:00 PM	0	0	0	0	0	133	83	0	200	0	44	0	48	285	0	0	0	793	793
05:15 PM	0	0	0	0	0	126	113	0	176	0	46	0	50	200	0	0	0	711	711
05:30 PM	0	0	0	0	0	112	114	0	158	0	36	0	63	226	0	0	0	709	709
05:45 PM	0	0	0	0	0	112	76	0	227	0	46	0	47	247	0	0	0	755	755
Total	0	0	0	0	0	483	386	0	761	0	172	0	208	958	0	0	0	2968	2968
Grand Total	0	0	0	0	0	969	808	0	1300	0	322	0	374	1794	0	0	0	5567	5567
Apprch %	0.0	0.0	0.0		0.0	54.5	45.5		80.1	0.0	19.9		17.3	82.7	0.0				
Total %	0.0	0.0	0.0		0.0	17.4	14.5		23.4	0.0	5.8		6.7	32.2	0.0		0.0	100.0	

	From North				Crow Canyon From East				Dougherty From South				Crow Canyon From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Intersection	05:00 PM																
Volume	0	0	0	0	0	483	386	869	761	0	172	933	208	958	0	1166	2968
Percent	0.0	0.0	0.0		0.0	55.6	44.4		81.6	0.0	18.4		17.8	82.2	0.0		
05:00 Volume	0	0	0	0	0	133	83	216	200	0	44	244	48	285	0	333	793
Peak Factor																	0.936
High Int.	3:45:00 PM				05:15 PM				05:45 PM				05:00 PM				
Volume	0	0	0	0	0	126	113	239	227	0	46	273	48	285	0	333	
Peak Factor								0.909				0.854				0.875	

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File Name : 34am
Site Code : 00000034
Start Date : 10/20/2009
Page No : 1

Alcosta/Old Ranch - San Ramon

Groups Printed- Unshifted

	Alcosta From North				Old Ranch From East				Alcosta From South				Drwy From West						
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Exclu. Total	Inclu. Total	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0			
07:00 AM	0	19	47	0	46	0	52	0	19	17	3	0	0	0	0	0	0	203	203
07:15 AM	0	30	29	0	27	0	63	0	15	18	3	0	0	0	0	0	0	185	185
07:30 AM	0	35	34	0	69	0	86	0	21	38	3	0	0	0	0	0	0	286	286
07:45 AM	0	56	44	0	96	1	68	0	26	58	0	0	0	0	2	0	0	351	351
Total	0	140	154	0	238	1	269	0	81	131	9	0	0	0	2	0	0	1025	1025
08:00 AM	0	63	48	0	48	2	86	1	25	39	2	0	0	0	1	0	1	314	315
08:15 AM	0	36	40	0	38	0	64	0	42	33	1	0	0	0	0	0	0	254	254
08:30 AM	0	50	34	0	25	0	60	0	25	28	0	0	0	0	0	0	0	222	222
08:45 AM	0	42	29	0	28	0	54	0	26	23	0	0	0	0	0	0	0	202	202
Total	0	191	151	0	139	2	264	1	118	123	3	0	0	0	1	0	1	992	993
Grand Total	0	331	305	0	377	3	533	1	199	254	12	0	0	0	3	0	1	2017	2018
Apprch %	0.0	52.0	48.0		41.3	0.3	58.4		42.8	54.6	2.6		0.0	0.0	100.0				
Total %	0.0	16.4	15.1		18.7	0.1	26.4		9.9	12.6	0.6		0.0	0.0	0.1		0.0	100.0	

	Alcosta From North				Old Ranch From East				Alcosta From South				Drwy From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Intersection	07:30 AM																
Volume	0	190	166	356	251	3	304	558	114	168	6	288	0	0	3	3	1205
Percent	0.0	53.4	46.6		45.0	0.5	54.5		39.6	58.3	2.1		0.0	0.0	100.0		
07:45 Volume	0	56	44	100	96	1	68	165	26	58	0	84	0	0	2	2	351
Peak Factor																	0.858
High Int.	08:00 AM				07:45 AM				07:45 AM				07:45 AM				
Volume	0	63	48	111	96	1	68	165	26	58	0	84	0	0	2	2	
Peak Factor				0.802				0.845				0.857				0.375	

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File Name : 34pm
Site Code : 00000034
Start Date : 10/20/2009
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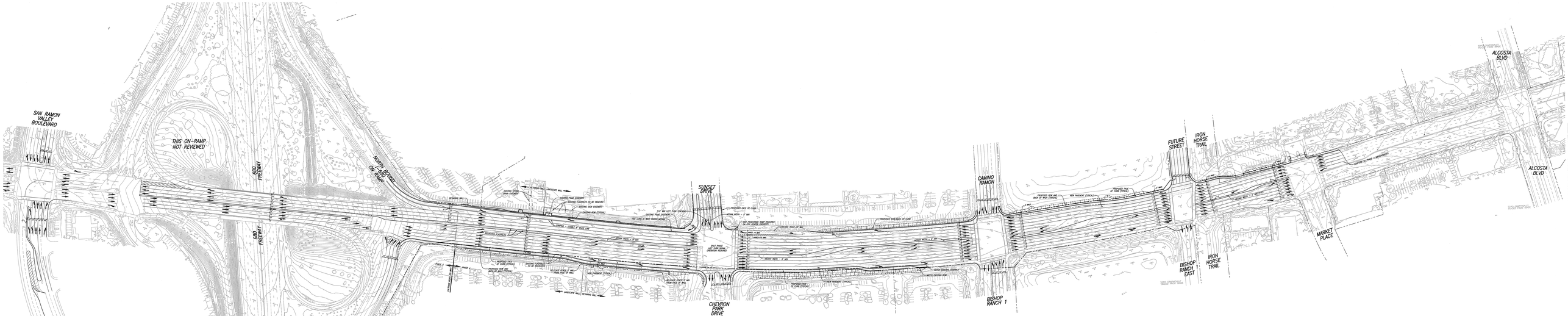
Alcosta/Old Ranch Canyon - San Ramon

Groups Printed- Unshifted

	Alcosta From North				Old Ranch From East				Alcosta From South				Drwy From West						
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Exclu. Total	Inclu. Total	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0			
04:00 PM	0	44	44	0	48	0	38	0	51	39	0	0	1	0	0	0	0	265	265
04:15 PM	0	51	34	0	43	0	37	0	48	43	1	0	0	0	0	0	0	257	257
04:30 PM	0	46	41	0	52	0	40	0	47	48	1	0	1	0	0	0	0	276	276
04:45 PM	0	41	78	0	52	0	32	0	60	63	1	0	0	0	0	0	0	327	327
Total	0	182	197	0	195	0	147	0	206	193	3	0	2	0	0	0	0	1125	1125
05:00 PM	0	51	67	0	45	0	31	0	55	41	4	0	0	0	0	0	0	294	294
05:15 PM	0	65	75	0	74	0	42	0	80	47	1	0	0	0	0	0	0	384	384
05:30 PM	0	49	52	0	67	0	41	0	81	55	3	0	0	0	0	0	0	348	348
05:45 PM	0	46	53	0	60	1	46	0	67	61	2	0	0	0	0	0	0	336	336
Total	0	211	247	0	246	1	160	0	283	204	10	0	0	0	0	0	0	1362	1362
Grand Total	0	393	444	0	441	1	307	0	489	397	13	0	2	0	0	0	0	2487	2487
Apprch %	0.0	47.0	53.0		58.9	0.1	41.0		54.4	44.2	1.4		100.0	0.0	0.0				
Total %	0.0	15.8	17.9		17.7	0.0	12.3		19.7	16.0	0.5		0.1	0.0	0.0		0.0	100.0	

	Alcosta From North				Old Ranch From East				Alcosta From South				Drwy From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Intersection	05:00 PM																
Volume	0	211	247	458	246	1	160	407	283	204	10	497	0	0	0	0	1362
Percent	0.0	46.1	53.9		60.4	0.2	39.3		56.9	41.0	2.0		0.0	0.0	0.0		
05:15 Volume	0	65	75	140	74	0	42	116	80	47	1	128	0	0	0	0	384
Peak Factor																	0.887
High Int.	05:15 PM				05:15 PM				05:30 PM				3:45:00 PM				
Volume	0	65	75	140	74	0	42	116	81	55	3	139					
Peak Factor				0.818				0.877				0.894					

Bollinger Canyon Road Ultimate Build Out Final Alignment Plans



BOLLINGER CANYON ROAD-ULTIMATE BUILD OUT FINAL ALIGNMENT STUDY

MARCH 6, 2009

NOTES:

1. THE ALIGNMENT STUDY IS BASED ON THE NUMBER OF LANES AND TURN LANE STACKING DISTANCES SHOWN ON THE MAP EXHIBIT DATED 12/04/08 THE CITY COUNCIL ON, AND THE MARCH 3, 2009 MEETING BETWEEN THE CITY OF SAN RAMON, THE CITY OF DANVILLE, THE SUNSET DEVELOPMENT, THE CORNERSTONE, THE CHEVRON SITE AND MEMBERS OF THE CITY OF SAN RAMON BOARD ON ORDERED CHEVRON RESIDENTS.
2. ALL LANE STRIPES ARE 10ft2 WIDE MINIMUM EXCEPT FOR NORTHBOUND 680 ON RAMP - 10ft2 RADIUS IS THE ALLOWABLE MINIMUM FOR 55 MPH PER THE CALTRANS HIGHWAY DESIGN MANUAL.
3. THE TOPOGRAPHY SHOWN ON THE 1ST EXHIBIT DIFFERS FROM THAT SHOWN ON THE ORIGINAL TY LIN EXHIBIT. THE TY LIN TOPO IS SHOWN INDICATED.
4. THE STUDY INCLUDES THE FOLLOWING SITE DIRECTIONS FROM THE CITY OF SAN RAMON:
   A. 2 WIDENING WITH ADDITIONAL SIDEWALK ALONG THE SOUTHERN SIDE OF BOLLINGER CANYON ROAD.
   B. 2 WIDENING WITH MEDIAN-MEDIAN-SIDEWALK BETWEEN CAMINO RAMON AND SUNSET DUE TO BISHOP RANCH 1 EAST.
5. THE PRELIMINARY GEOMETRICS SHOWN HEREON WITHIN AND NEXT OF THE CALTRANS RIGHT-OF WAY ARE AS DEPICTED IN AND PARTS OF THE CALTRANS PROJECT EXPANSION OF THE 680 FREEWAY. THE ALIGNMENT OF PHASE 2 WIDENING IS ONLY FOR THE PURPOSE OF ESTABLISHING THE ULTIMATE ALIGNMENT.
6. THIS FINAL ALIGNMENT STUDY IS BASED ON THE ULTIMATE BUILD OUT OF BOLLINGER CANYON ROAD INCLUDING PHASE 2 AND THE CITY COUNCIL "SEE "BOLLINGER CANYON ROAD-PHASE 2 IMPROVEMENTS, FINAL ALIGNMENT STUDY" FOR INTERIM IMPROVEMENTS.
7. THE PROPOSED RIGHT-OF WAY SHOWN IS PRELIMINARY AND SUBJECT TO CHANGE.

REVIEWED AND ACCEPTED:

CITY OF SAN RAMON	TITLE	DATE
SUNSET DEVELOPMENT	TITLE	DATE
CORNERSTONE HOMES	TITLE	DATE
WINDEMERE BLC	TITLE	DATE

Existing AM Peak Hour Intersection Traffic Capacity Analysis

San Ramon General Plan Update
Existing Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2001 Fostoria Way / San Ramon Valley Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.476
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	43	Level Of Service:	A

Street Name:	San Ramon Valley Blvd						Fostoria Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	1 0	2 0	1
Volume Module:												
Base Vol:	124	933	72	84	403	144	136	124	151	34	125	106
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	124	933	72	84	403	144	136	124	151	34	125	106
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	124	933	72	84	403	144	136	124	151	34	125	106
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	124	933	72	84	403	144	136	124	151	34	125	106
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	84
RTOR Vol:	124	933	72	84	403	144	136	124	151	34	125	22
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	124	933	72	84	403	144	136	124	151	34	125	22
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.86	0.14	1.00	1.47	0.53	1.00	1.00	1.00	1.00	2.00	1.00
Final Sat.:	1650	3064	236	1650	2431	869	1650	1650	1650	1650	3300	1650
Capacity Analysis Module:												
Vol/Sat:	0.08	0.30	0.30	0.05	0.17	0.17	0.08	0.08	0.09	0.02	0.04	0.01
Crit Volume:			503	84			136				63	
Crit Moves:			****	****			****				****	

San Ramon General Plan Update
Existing Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2002 Fostoria Way/Crow Canyon Pl

Cycle (sec):	100	Critical Vol./Cap.(X):	0.307
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	33	Level Of Service:	A

Street Name:	Crow Canyon Pl						Fostoria Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	1 0	1	1 0	0 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	79	184	63	58	237	32	23	126	101	45	125	60
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	79	184	63	58	237	32	23	126	101	45	125	60
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	79	184	63	58	237	32	23	126	101	45	125	60
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	79	184	63	58	237	32	23	126	101	45	125	60
RTOR Reduct:	0	0	45	0	0	0	0	0	0	0	0	0
RTOR Vol:	79	184	18	58	237	32	23	126	101	45	125	60
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	79	184	18	58	237	32	23	126	101	45	125	60
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.88	0.12	1.00	1.11	0.89	1.00	1.35	0.65
Final Sat.:	1650	1650	1650	1650	1454	196	1650	1832	1468	1650	2230	1070
Capacity Analysis Module:												
Vol/Sat:	0.05	0.11	0.01	0.04	0.16	0.16	0.01	0.07	0.07	0.03	0.06	0.06
Crit Volume:	79				269			114		45		
Crit Moves:	****				****			****		****		

San Ramon General Plan Update
Existing Conditions - AM Peak Hour LOS

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #2003 Fostoria Way / Camino Ramon / Costco DW

Cycle (sec):	100	Critical Vol./Cap.(X):	0.384
Loss Time (sec):	0	Average Delay (sec/veh):	10.1
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Camino Ramon / Costco DW						Fostoria Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0 1	0 1		0 0 1!	0 0		1 0 1	0 1		0 0 1!	0 0	
Volume Module:												
Base Vol:	227	10	28	2	11	1	5	78	207	22	57	2
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	227	10	28	2	11	1	5	78	207	22	57	2
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	227	10	28	2	11	1	5	78	207	22	57	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	227	10	28	2	11	1	5	78	207	22	57	2
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	227	10	28	2	11	1	5	78	207	22	57	2
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	0.14	0.79	0.07	1.00	1.00	1.00	0.27	0.71	0.02
Final Sat.:	590	639	731	84	462	42	591	645	740	165	429	15
Capacity Analysis Module:												
Vol/Sat:	0.38	0.02	0.04	0.02	0.02	0.02	0.01	0.12	0.28	0.13	0.13	0.13
Crit Moves:	****				****				****		****	
Delay/Veh:	12.1	8.2	7.6	8.9	8.9	8.9	8.6	8.8	9.1	9.5	9.5	9.5
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	12.1	8.2	7.6	8.9	8.9	8.9	8.6	8.8	9.1	9.5	9.5	9.5
LOS by Move:	B	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	11.4			8.9			9.0			9.5		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	11.4			8.9			9.0			9.5		
LOS by Appr:	B			A			A			A		
AllWayAvgQ:	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.1	0.1	0.1

Note: Queue reported is the number of cars per lane.

San Ramon General Plan Update
Existing Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2004 Crow Canyon Rd / Bollinger Canyon Rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.436
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	40	Level Of Service:	A

Street Name:	Bollinger Canyon Rd						Crow Canyon Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	1 0	1	1 0	0 1	0	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	116	51	118	23	73	13	14	872	76	82	616	29
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	116	51	118	23	73	13	14	872	76	82	616	29
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	116	51	118	23	73	13	14	872	76	82	616	29
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	116	51	118	23	73	13	14	872	76	82	616	29
RTOR Reduct:	0	0	82	0	0	0	0	0	76	0	0	23
RTOR Vol:	116	51	36	23	73	13	14	872	0	82	616	6
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	116	51	36	23	73	13	14	872	0	82	616	6
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.85	0.15	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1650	1650	1650	1650	1401	249	1650	3300	1650	1650	3300	1650
Capacity Analysis Module:												
Vol/Sat:	0.07	0.03	0.02	0.01	0.05	0.05	0.01	0.26	0.00	0.05	0.19	0.00
Crit Volume:	116					86		436		82		
Crit Moves:	****					****		****		****		

San Ramon General Plan Update
Existing Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2005 Crow Canyon Rd / Twin Creeks Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.491
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	37	Level Of Service:	A

Street Name:	Twin Creeks Dr						Crow Canyon Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	0 1	0 0	1	0 0	1! 0	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	163	4	248	4	1	1	3	1323	141	185	1212	8
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	163	4	248	4	1	1	3	1323	141	185	1212	8
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	163	4	248	4	1	1	3	1323	141	185	1212	8
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	163	4	248	4	1	1	3	1323	141	185	1212	8
RTOR Reduct:	0	0	185	0	0	0	0	0	0	0	0	0
RTOR Vol:	163	4	63	4	1	1	3	1323	141	185	1212	8
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	163	4	63	4	1	1	3	1323	141	185	1212	8
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.98	0.02	1.00	0.66	0.17	0.17	1.00	2.71	0.29	1.00	2.98	0.02
Final Sat.:	1679	41	1720	1147	287	287	1720	4663	497	1720	5126	34
Capacity Analysis Module:												
Vol/Sat:	0.10	0.10	0.04	0.00	0.00	0.00	0.00	0.28	0.28	0.11	0.24	0.24
Crit Volume:		167		4					488	185		
Crit Moves:		****		****					****	****		

San Ramon General Plan Update
Existing Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2006 Crow Canyon Rd. / San Ramon Valley Blvd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.552
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	51	Level Of Service:	A

Street Name:	San Ramon Valley Blvd.						Crow Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	2 0	2 0	1	2 0	2 0	1	2 0	3 0	1	2 0	3 0	1
Volume Module:												
Base Vol:	118	172	333	402	155	46	145	915	133	542	1409	197
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	118	172	333	402	155	46	145	915	133	542	1409	197
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	118	172	333	402	155	46	145	915	133	542	1409	197
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	118	172	333	402	155	46	145	915	133	542	1409	197
RTOR Reduct:	0	0	298	0	0	46	0	0	65	0	0	197
RTOR Vol:	118	172	35	402	155	0	145	915	68	542	1409	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	118	172	35	402	155	0	145	915	68	542	1409	0
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	0.91	1.00	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.91	1.00	1.00
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	3000	3300	1650	3000	3300	1650	3000	4950	1650	3000	4950	1650
Capacity Analysis Module:												
Vol/Sat:	0.04	0.05	0.02	0.13	0.05	0.00	0.05	0.18	0.04	0.18	0.28	0.00
Crit Volume:		86		201				305		271		
Crit Moves:		****		****				****		****		

San Ramon General Plan Update
Existing Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2007 Crow Canyon Rd. / I-680 SB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.442
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	33	Level Of Service:	A

Street Name:	I-680 SB Ramps						Crow Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Ignore			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	0 0	0 0	0	2 0	0 0	2	0 0	3 0	1	0 0	3 0	1
Volume Module:												
Base Vol:	0	0	0	752	0	673	0	1145	452	0	778	1007
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	752	0	673	0	1145	452	0	778	1007
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	752	0	673	0	1145	452	0	778	1007
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	752	0	673	0	1145	452	0	778	1007
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	0	0	0	752	0	673	0	1145	452	0	778	1007
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	752	0	673	0	1145	452	0	778	1007
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	1.00	1.00	1.00	0.91	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	2.00	0.00	3.00	1.00	0.00	3.00	1.00
Final Sat.:	0	0	0	3272	0	3272	0	5400	1800	0	5400	1800
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.23	0.00	0.21	0.00	0.21	0.25	0.00	0.14	0.56
Crit Volume:		0		376				382		0		
Crit Moves:				****				****		****		

San Ramon General Plan Update
Existing Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2008 Crow Canyon Rd. / I-680 NB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.632
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	62	Level Of Service:	B

Street Name:	I-680 NB Ramps						Crow Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ignore			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	1! 0	1	0 0	0 0	0	0 0	3 0	1	0 0	3 1	1
Volume Module:												
Base Vol:	529	0	897	0	0	0	0	1691	228	0	1122	617
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	529	0	897	0	0	0	0	1691	228	0	1122	617
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	529	0	897	0	0	0	0	1691	228	0	1122	617
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	529	0	897	0	0	0	0	1691	228	0	1122	617
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	529	0	897	0	0	0	0	1691	228	0	1122	617
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	529	0	897	0	0	0	0	1691	228	0	1122	617
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	0.91	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91
Lanes:	1.11	xxxx	1.89	0.00	0.00	0.00	0.00	3.00	1.00	0.00	3.23	1.77
Final Sat.:	1740	0	2950	0	0	0	0	5160	1720	0	5549	2774
Capacity Analysis Module:												
Vol/Sat:	0.30	0.00	0.30	0.00	0.00	0.00	0.00	0.33	0.13	0.00	0.20	0.22
Crit Volume:			475	0				564		0		
Crit Moves:			****					****		****		

San Ramon General Plan Update
Existing Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2009 Crow Canyon Rd. / Crow Canyon Pl.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.628
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	61	Level Of Service:	B

Street Name:	Crow Canyon Pl.						Crow Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Ovl			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	2 0	1 1	0	1 0	1 0	1	2 0	4 0	1	1 0	4 1	0
Volume Module:												
Base Vol:	181	56	50	141	97	294	414	1989	762	134	1680	119
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	181	56	50	141	97	294	414	1989	762	134	1680	119
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	181	56	50	141	97	294	414	1989	762	134	1680	119
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	181	56	50	141	97	294	414	1989	762	134	1680	119
RTOR Reduct:	0	0	0	0	0	228	0	0	100	0	0	0
RTOR Vol:	181	56	50	141	97	66	414	1989	662	134	1680	119
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	181	56	50	141	97	66	414	1989	662	134	1680	119
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	0.91	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.06	0.94	1.00	1.00	1.00	2.00	4.00	1.00	1.00	4.67	0.33
Final Sat.:	3000	1743	1557	1650	1650	1650	3000	6600	1650	1650	7704	546
Capacity Analysis Module:												
Vol/Sat:	0.06	0.03	0.03	0.09	0.06	0.04	0.14	0.30	0.40	0.08	0.22	0.22
Crit Volume:	91			141					662	134		
Crit Moves:	****			****					****	****		

San Ramon General Plan Update
Existing Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2010 Crow Canyon Rd. / Camino Ramon

Cycle (sec):	100	Critical Vol./Cap.(X):	0.516
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	47	Level Of Service:	A

Street Name:	Camino Ramon						Crow Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	2 0	1 0	1	2 0	1 1	0	2 0	4 0	1	2 0	3 1	0
Volume Module:												
Base Vol:	126	66	36	74	89	37	140	1475	636	277	1605	178
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	126	66	36	74	89	37	140	1475	636	277	1605	178
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	126	66	36	74	89	37	140	1475	636	277	1605	178
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	126	66	36	74	89	37	140	1475	636	277	1605	178
RTOR Reduct:	0	0	36	0	0	0	0	0	69	0	0	0
RTOR Vol:	126	66	0	74	89	37	140	1475	567	277	1605	178
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	126	66	0	74	89	37	140	1475	567	277	1605	178
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	0.91	1.00	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.91	1.00	1.00
Lanes:	2.00	1.00	1.00	2.00	1.41	0.59	2.00	4.00	1.00	2.00	3.60	0.40
Final Sat.:	3000	1650	1650	3000	2331	969	3000	6600	1650	3000	5941	659
Capacity Analysis Module:												
Vol/Sat:	0.04	0.04	0.00	0.02	0.04	0.04	0.05	0.22	0.34	0.09	0.27	0.27
Crit Volume:	63				63				567	139		
Crit Moves:	****				****				****	****		

San Ramon General Plan Update
Existing Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2011 Crow Canyon Rd. / Alcosta Blvd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.553
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	51	Level Of Service:	A

Street Name:	Alcosta Blvd.						Crow Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	2 0	0 0	2	0 0	0 0	0	0 0	3 0	1	2 0	3 0	0
Volume Module:												
Base Vol:	245	0	202	0	0	0	0	570	481	855	1570	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	245	0	202	0	0	0	0	570	481	855	1570	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	245	0	202	0	0	0	0	570	481	855	1570	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	245	0	202	0	0	0	0	570	481	855	1570	0
RTOR Reduct:	0	0	202	0	0	0	0	0	135	0	0	0
RTOR Vol:	245	0	0	0	0	0	0	570	346	855	1570	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	245	0	0	0	0	0	0	570	346	855	1570	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	0.91	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00
Lanes:	2.00	0.00	2.00	0.00	0.00	0.00	0.00	3.00	1.00	2.00	3.00	0.00
Final Sat.:	3127	0	3127	0	0	0	0	5160	1720	3127	5160	0
Capacity Analysis Module:												
Vol/Sat:	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.20	0.27	0.30	0.00
Crit Volume:	123				0				346	428		
Crit Moves:	****								****	****		

San Ramon General Plan Update
Existing Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2012 Crow Canyon Rd / El Capitan-Tahiti Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.702
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	62	Level Of Service:	C

Street Name:	El Capitan-Tahiti Dr						Crow Canyon Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Ignore			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	0 0	1! 0	0	1 0	1 0	1	2 0	2 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	67	3	9	47	1	369	168	489	21	7	1873	106
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	67	3	9	47	1	369	168	489	21	7	1873	106
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	67	3	9	47	1	369	168	489	21	7	1873	106
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	67	3	9	47	1	369	168	489	21	7	1873	106
RTOR Reduct:	0	0	0	0	0	0	0	0	21	0	0	0
RTOR Vol:	67	3	9	47	1	369	168	489	0	7	1873	106
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	67	3	9	47	1	369	168	489	0	7	1873	106
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00
Lanes:	0.85	0.04	0.11	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.89	0.11
Final Sat.:	1459	65	196	1720	1720	1720	3127	3440	1720	1720	3256	184
Capacity Analysis Module:												
Vol/Sat:	0.05	0.05	0.05	0.03	0.00	0.21	0.05	0.14	0.00	0.00	0.58	0.58
Crit Volume:			79	47			84					990
Crit Moves:			****	****			****					****

San Ramon General Plan Update
Existing Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2013 Crow Canyon Rd / Dougherty Rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.437
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	41	Level Of Service:	A

Street Name:	Dougherty Rd						Crow Canyon Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	2 0	0 0	2	0 0	0 0	0	0 0	1 1	0	2 0	2 0	0
Volume Module:												
Base Vol:	321	0	365	0	0	0	0	394	123	577	836	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	321	0	365	0	0	0	0	394	123	577	836	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	321	0	365	0	0	0	0	394	123	577	836	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	321	0	365	0	0	0	0	394	123	577	836	0
RTOR Reduct:	0	0	317	0	0	0	0	0	0	0	0	0
RTOR Vol:	321	0	48	0	0	0	0	394	123	577	836	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	321	0	48	0	0	0	0	394	123	577	836	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	0.91	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00
Lanes:	2.00	0.00	2.00	0.00	0.00	0.00	0.00	1.52	0.48	2.00	2.00	0.00
Final Sat.:	3127	0	3127	0	0	0	0	2622	818	3127	3440	0
Capacity Analysis Module:												
Vol/Sat:	0.10	0.00	0.02	0.00	0.00	0.00	0.00	0.15	0.15	0.18	0.24	0.00
Crit Volume:	161				0			259		289		
Crit Moves:	****							****		****		

San Ramon General Plan Update
Existing Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2014 Norris Canyon Rd. / San Ramon Valley Blvd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.540
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	50	Level Of Service:	A

Street Name:	San Ramon Valley Blvd.						Norris Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	1 1	0	2 0	1 1	0	1 0	1 1	0	1 0	1 0	1
Volume Module:												
Base Vol:	54	298	257	386	169	29	70	486	75	120	137	216
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	54	298	257	386	169	29	70	486	75	120	137	216
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	54	298	257	386	169	29	70	486	75	120	137	216
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	54	298	257	386	169	29	70	486	75	120	137	216
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	212
RTOR Vol:	54	298	257	386	169	29	70	486	75	120	137	4
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	54	298	257	386	169	29	70	486	75	120	137	4
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.07	0.93	2.00	1.71	0.29	1.00	1.73	0.27	1.00	1.00	1.00
Final Sat.:	1650	1772	1528	3000	2817	483	1650	2859	441	1650	1650	1650
Capacity Analysis Module:												
Vol/Sat:	0.03	0.17	0.17	0.13	0.06	0.06	0.04	0.17	0.17	0.07	0.08	0.00
Crit Volume:		278		193					281	120		
Crit Moves:		****		****					****	****		

San Ramon General Plan Update
Existing Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2015 Norris Canyon Rd. / Bishop Dr.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.344
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	28	Level Of Service:	A

Street Name:	Bishop Dr.						Norris Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	0 1	0 1	0	0 0	1! 0	0	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	43	7	17	7	8	5	68	751	523	48	376	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	43	7	17	7	8	5	68	751	523	48	376	30
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	43	7	17	7	8	5	68	751	523	48	376	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	43	7	17	7	8	5	68	751	523	48	376	30
RTOR Reduct:	0	0	0	0	0	0	0	0	43	0	0	7
RTOR Vol:	43	7	17	7	8	5	68	751	480	48	376	23
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	43	7	17	7	8	5	68	751	480	48	376	23
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.49	0.51	0.35	0.40	0.25	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1720	847	873	602	688	430	1720	3440	1720	1720	3440	1720
Capacity Analysis Module:												
Vol/Sat:	0.03	0.01	0.02	0.01	0.01	0.01	0.04	0.22	0.28	0.03	0.11	0.01
Crit Volume:	43				20				480	48		
Crit Moves:	****				****				****	****		

San Ramon General Plan Update
Existing Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2016 Norris Canyon Rd. / Camino Ramon

Cycle (sec):	100	Critical Vol./Cap.(X):	0.450
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	41	Level Of Service:	A

Street Name:	Camino Ramon						Norris Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	2 0	1	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	77	104	41	188	519	99	84	329	140	122	302	101
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	77	104	41	188	519	99	84	329	140	122	302	101
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	77	104	41	188	519	99	84	329	140	122	302	101
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	77	104	41	188	519	99	84	329	140	122	302	101
RTOR Reduct:	0	0	41	0	0	0	0	0	0	0	0	0
RTOR Vol:	77	104	0	188	519	99	84	329	140	122	302	101
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	77	104	0	188	519	99	84	329	140	122	302	101
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.68	0.32	1.00	1.40	0.60	1.00	1.50	0.50
Final Sat.:	1650	3300	1650	1650	2771	529	1650	2315	985	1650	2473	827
Capacity Analysis Module:												
Vol/Sat:	0.05	0.03	0.00	0.11	0.19	0.19	0.05	0.14	0.14	0.07	0.12	0.12
Crit Volume:	77				309			235		122		
Crit Moves:	****				****			****		****		

San Ramon General Plan Update
Existing Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2017 Norris Canyon Rd. / Alcosta Blvd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.367
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	36	Level Of Service:	A

Street Name:	Alcosta Blvd.						Norris Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	1 1	0	1 0	2 0	1	2 0	1 0	1	1 0	1 0	1
Volume Module:												
Base Vol:	290	278	50	244	328	252	67	72	182	16	29	58
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	290	278	50	244	328	252	67	72	182	16	29	58
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	290	278	50	244	328	252	67	72	182	16	29	58
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	290	278	50	244	328	252	67	72	182	16	29	58
RTOR Reduct:	0	0	0	0	0	37	0	0	182	0	0	58
RTOR Vol:	290	278	50	244	328	215	67	72	0	16	29	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	290	278	50	244	328	215	67	72	0	16	29	0
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.70	0.30	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1650	2797	503	1650	3300	1650	3000	1650	1650	1650	1650	1650
Capacity Analysis Module:												
Vol/Sat:	0.18	0.10	0.10	0.15	0.10	0.13	0.02	0.04	0.00	0.01	0.02	0.00
Crit Volume:	290					215		72			29	
Crit Moves:	****					****		****			****	

San Ramon General Plan Update
Existing Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2018 Executive Pkwy. / Camino Ramon

Cycle (sec):	100	Critical Vol./Cap.(X):	0.371
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	30	Level Of Service:	A

Street Name:	Camino Ramon						Executive Pkwy.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	1 1	0	1 0	1 1	0	0 1	0 0	1	0 1	0 0	1
Volume Module:												
Base Vol:	228	212	163	74	374	169	16	58	16	64	39	69
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	228	212	163	74	374	169	16	58	16	64	39	69
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	228	212	163	74	374	169	16	58	16	64	39	69
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	228	212	163	74	374	169	16	58	16	64	39	69
RTOR Reduct:	0	0	0	0	0	0	0	0	16	0	0	69
RTOR Vol:	228	212	163	74	374	169	16	58	0	64	39	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	228	212	163	74	374	169	16	58	0	64	39	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.13	0.87	1.00	1.38	0.62	0.22	0.78	1.00	0.62	0.38	1.00
Final Sat.:	1720	1945	1495	1720	2369	1071	372	1348	1720	1069	651	1720
Capacity Analysis Module:												
Vol/Sat:	0.13	0.11	0.11	0.04	0.16	0.16	0.04	0.04	0.00	0.06	0.06	0.00
Crit Volume:	228				272			74		64		
Crit Moves:	****				****			****		****		

San Ramon General Plan Update
Existing Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2019 Alcosta Blvd / Woodland Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.316
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	27	Level Of Service:	A

Street Name:	Alcosta Blvd						Woodland Dr					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	1 1	0	1 0	1 1	0	0 1	0 0	1	0 0	1! 0	0
Volume Module:												
Base Vol:	182	591	13	31	326	9	123	2	184	30	4	37
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	182	591	13	31	326	9	123	2	184	30	4	37
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	182	591	13	31	326	9	123	2	184	30	4	37
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	182	591	13	31	326	9	123	2	184	30	4	37
RTOR Reduct:	0	0	0	0	0	0	0	0	182	0	0	0
RTOR Vol:	182	591	13	31	326	9	123	2	2	30	4	37
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	182	591	13	31	326	9	123	2	2	30	4	37
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.96	0.04	1.00	1.95	0.05	0.98	0.02	1.00	0.42	0.06	0.52
Final Sat.:	1720	3366	74	1720	3348	92	1692	28	1720	727	97	896
Capacity Analysis Module:												
Vol/Sat:	0.11	0.18	0.18	0.02	0.10	0.10	0.07	0.07	0.00	0.04	0.04	0.04
Crit Volume:	182					168	123					71
Crit Moves:	****					****	****					****

San Ramon General Plan Update
Existing Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2020 Bishop Dr. / Camino Ramon

Cycle (sec):	100	Critical Vol./Cap.(X):	0.261
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	25	Level Of Service:	A

Street Name:	Camino Ramon						Bishop Dr.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	0 1	0	1 0	0 1	0
Volume Module:												
Base Vol:	49	705	101	17	137	32	27	5	15	4	2	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	49	705	101	17	137	32	27	5	15	4	2	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	49	705	101	17	137	32	27	5	15	4	2	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	49	705	101	17	137	32	27	5	15	4	2	0
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	49	705	101	17	137	32	27	5	15	4	2	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	49	705	101	17	137	32	27	5	15	4	2	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.75	0.25	1.00	1.62	0.38	1.00	0.25	0.75	1.00	1.00	0.00
Final Sat.:	1720	3009	431	1720	2789	651	1720	430	1290	1720	1720	0
Capacity Analysis Module:												
Vol/Sat:	0.03	0.23	0.23	0.01	0.05	0.05	0.02	0.01	0.01	0.00	0.00	0.00
Crit Volume:		403			17			27			2	
Crit Moves:		****			****			****			****	

San Ramon General Plan Update
Existing Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2021 Alcosta Blvd / Overlook Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.229
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	24	Level Of Service:	A

Street Name:	Alcosta Blvd						Overlook Dr					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	1	1 0	1 0	1	1 0	0 0	1!	0 0	0 0	1!	0 0
Volume Module:												
Base Vol:	31	665	7	7	410	18	5	1	2	37	0	9
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	31	665	7	7	410	18	5	1	2	37	0	9
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	31	665	7	7	410	18	5	1	2	37	0	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	31	665	7	7	410	18	5	1	2	37	0	9
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	31	665	7	7	410	18	5	1	2	37	0	9
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	31	665	7	7	410	18	5	1	2	37	0	9
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.98	0.02	1.00	1.92	0.08	0.63	0.12	0.25	0.80	0.00	0.20
Final Sat.:	1720	3404	36	1720	3295	145	1075	215	430	1383	0	337
Capacity Analysis Module:												
Vol/Sat:	0.02	0.20	0.20	0.00	0.12	0.12	0.00	0.00	0.00	0.03	0.00	0.03
Crit Volume:			336	7			5					46
Crit Moves:			****	****			****					****

San Ramon General Plan Update
Existing Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2022 Bollinger Canyon Rd / San Ramon Valley Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.733
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	85	Level Of Service:	C

Street Name:	San Ramon Valley Blvd						Bollinger Canyon Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	2 0	1 1	0	2 0	1 1	0	1 0	1 1	0	2 0	2 0	1
Volume Module:												
Base Vol:	270	375	452	268	185	13	117	508	242	426	321	172
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	270	375	452	268	185	13	117	508	242	426	321	172
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	270	375	452	268	185	13	117	508	242	426	321	172
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	270	375	452	268	185	13	117	508	242	426	321	172
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	147
RTOR Vol:	270	375	452	268	185	13	117	508	242	426	321	25
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	270	375	452	268	185	13	117	508	242	426	321	25
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00
Lanes:	2.00	1.00	1.00	2.00	1.87	0.13	1.00	1.35	0.65	2.00	2.00	1.00
Final Sat.:	3000	1650	1650	3000	3083	217	1650	2235	1065	3000	3300	1650
Capacity Analysis Module:												
Vol/Sat:	0.09	0.23	0.27	0.09	0.06	0.06	0.07	0.23	0.23	0.14	0.10	0.01
Crit Volume:			452	134				375		213		
Crit Moves:			****	****				****		****		

San Ramon General Plan Update
Existing Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2023 Bollinger Canyon Rd. / I-680 SB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.625
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	61	Level Of Service:	B

Street Name:	I-680 SB Ramps						Bollinger Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	0 0	1! 0	0	1 1	0 0	2	0 0	3 1	0	0 0	3 0	1
Volume Module:												
Base Vol:	3	0	72	1156	18	180	0	1015	227	0	488	920
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	3	0	72	1156	18	180	0	1015	227	0	488	920
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	3	0	72	1156	18	180	0	1015	227	0	488	920
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	3	0	72	1156	18	180	0	1015	227	0	488	920
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	3	0	72	1156	18	180	0	1015	227	0	488	920
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	3	0	72	1156	18	180	0	1015	227	0	488	920
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	0.91	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.04	0.00	0.96	1.97	0.03	2.00	0.00	3.27	0.73	0.00	3.00	1.00
Final Sat.:	66	0	1584	2954	51	3000	0	5394	1206	0	4950	1650
Capacity Analysis Module:												
Vol/Sat:	0.05	0.00	0.05	0.39	0.36	0.06	0.00	0.19	0.19	0.00	0.10	0.56
Crit Volume:			75	587					311	0		
Crit Moves:			****	****					****	****		

San Ramon General Plan Update
Existing Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2024 Bollinger Canyon Rd. / I-680 NB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.854
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	D

Street Name:	I-680 NB Ramps						Bollinger Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Ignore			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	0 0	2	0 0	0 0	0	0 0	3 0	1	0 0	2 1	1
Volume Module:												
Base Vol:	333	0	1972	0	0	0	0	1294	839	0	1174	633
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	333	0	1972	0	0	0	0	1294	839	0	1174	633
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	333	0	1972	0	0	0	0	1294	839	0	1174	633
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	333	0	1972	0	0	0	0	1294	839	0	1174	633
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	333	0	1972	0	0	0	0	1294	839	0	1174	633
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	333	0	1972	0	0	0	0	1294	839	0	1174	633
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91
Lanes:	1.00	0.00	2.00	0.00	0.00	0.00	0.00	3.00	1.00	0.00	2.60	1.40
Final Sat.:	1800	0	3272	0	0	0	0	5400	1800	0	4678	2293
Capacity Analysis Module:												
Vol/Sat:	0.19	0.00	0.60	0.00	0.00	0.00	0.00	0.24	0.47	0.00	0.25	0.28
Crit Volume:			986	0			0				452	
Crit Moves:			****				****				****	

San Ramon General Plan Update
Existing Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2025 Bollinger Canyon Rd / Sunset Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.689
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	73	Level Of Service:	B

Street Name:	Sunset Dr						Bollinger Canyon Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 1	0	0 1	0 1	0	0 2	2 0	3	0 1	1 0	4	0 1
Volume Module:												
Base Vol:	29	16	36	44	47	151	835	1542	766	271	1295	97
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	29	16	36	44	47	151	835	1542	766	271	1295	97
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	29	16	36	44	47	151	835	1542	766	271	1295	97
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	29	16	36	44	47	151	835	1542	766	271	1295	97
RTOR Reduct:	0	0	36	0	0	151	0	0	16	0	0	44
RTOR Vol:	29	16	0	44	47	0	835	1542	750	271	1295	53
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	29	16	0	44	47	0	835	1542	750	271	1295	53
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	0.91	1.00	1.00	1.00	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00
Lanes:	1.29	0.71	1.00	0.48	0.52	2.00	2.00	3.00	1.00	1.00	4.00	1.00
Final Sat.:	1933	1173	1650	798	852	3000	3000	4950	1650	1650	6600	1650
Capacity Analysis Module:												
Vol/Sat:	0.02	0.01	0.00	0.06	0.06	0.00	0.28	0.31	0.45	0.16	0.20	0.03
Crit Volume:	23				91				750	271		
Crit Moves:	****				****				****	****		

San Ramon General Plan Update
Existing Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2026 Bollinger Canyon Rd. / Camino Ramon

Cycle (sec):	100	Critical Vol./Cap.(X):	0.538
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	49	Level Of Service:	A

Street Name:	Camino Ramon						Bollinger Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	1 0	1	2 0	0 1	1	2 0	3 0	1	1 0	3 1	0
Volume Module:												
Base Vol:	20	22	14	62	35	97	631	881	401	34	1544	396
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	20	22	14	62	35	97	631	881	401	34	1544	396
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	20	22	14	62	35	97	631	881	401	34	1544	396
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	20	22	14	62	35	97	631	881	401	34	1544	396
RTOR Reduct:	0	0	14	0	0	97	0	0	20	0	0	0
RTOR Vol:	20	22	0	62	35	0	631	881	381	34	1544	396
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	20	22	0	62	35	0	631	881	381	34	1544	396
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	0.91	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	2.00	1.00	1.00	2.00	3.00	1.00	1.00	3.18	0.82
Final Sat.:	1650	1650	1650	3000	1650	1500	3000	4950	1650	1650	5253	1347
Capacity Analysis Module:												
Vol/Sat:	0.01	0.01	0.00	0.02	0.02	0.00	0.21	0.18	0.23	0.02	0.29	0.29
Crit Volume:		22		31			316					485
Crit Moves:		****		****			****					****

San Ramon General Plan Update
Existing Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2027 Bollinger Canyon Rd / Market Place

Cycle (sec):	100	Critical Vol./Cap.(X):	0.555
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	51	Level Of Service:	A

Street Name:	Market Place						Bollinger Canyon Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 1	0	0 1	1	0	0 1 0	1	0	3 0 1	2	0	2 1 0
Volume Module:												
Base Vol:	379	2	46	3	4	2	53	672	206	43	1934	7
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	379	2	46	3	4	2	53	672	206	43	1934	7
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	379	2	46	3	4	2	53	672	206	43	1934	7
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	379	2	46	3	4	2	53	672	206	43	1934	7
RTOR Reduct:	0	0	24	0	0	0	0	0	206	0	0	0
RTOR Vol:	379	2	22	3	4	2	53	672	0	43	1934	7
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	379	2	22	3	4	2	53	672	0	43	1934	7
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00
Lanes:	1.99	0.01	1.00	1.00	0.67	0.33	1.00	3.00	1.00	2.00	2.99	0.01
Final Sat.:	2984	17	1650	1650	1100	550	1650	4950	1650	3000	4932	18
Capacity Analysis Module:												
Vol/Sat:	0.13	0.12	0.01	0.00	0.00	0.00	0.03	0.14	0.00	0.01	0.39	0.39
Crit Volume:	191				6		53					647
Crit Moves:	****				****		****					****

San Ramon General Plan Update
Existing Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2028 Bollinger Canyon Rd. / Alcosta Blvd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.662
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	67	Level Of Service:	B

Street Name:	Alcosta Blvd.						Bollinger Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	2 0	1 1	0	2 0	2 0	1	1 0	3 0	1	1 0	3 0	1
Volume Module:												
Base Vol:	549	382	128	81	245	185	172	384	80	223	1488	205
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	549	382	128	81	245	185	172	384	80	223	1488	205
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	549	382	128	81	245	185	172	384	80	223	1488	205
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	549	382	128	81	245	185	172	384	80	223	1488	205
RTOR Reduct:	0	0	0	0	0	172	0	0	80	0	0	45
RTOR Vol:	549	382	128	81	245	13	172	384	0	223	1488	160
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	549	382	128	81	245	13	172	384	0	223	1488	160
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.50	0.50	2.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	3000	2472	828	3000	3300	1650	1650	4950	1650	1650	4950	1650
Capacity Analysis Module:												
Vol/Sat:	0.18	0.15	0.15	0.03	0.07	0.01	0.10	0.08	0.00	0.14	0.30	0.10
Crit Volume:	275				123		172				496	
Crit Moves:	****				****		****				****	

San Ramon General Plan Update
Existing Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2029 Bollinger Canyon Rd / Canyon Lakes Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.670
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	56	Level Of Service:	B

Street Name:	Canyon Lanes Dr						Bollinger Canyon Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	0 1	0	0 1	0	0 1	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	257	7	27	55	1	234	227	548	40	14	1718	121
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	257	7	27	55	1	234	227	548	40	14	1718	121
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	257	7	27	55	1	234	227	548	40	14	1718	121
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	257	7	27	55	1	234	227	548	40	14	1718	121
RTOR Reduct:	0	0	0	0	0	227	0	0	0	0	0	0
RTOR Vol:	257	7	27	55	1	7	227	548	40	14	1718	121
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	257	7	27	55	1	7	227	548	40	14	1718	121
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.21	0.79	0.98	0.02	1.00	1.00	2.80	0.20	1.00	2.80	0.20
Final Sat.:	1720	354	1366	1689	31	1720	1720	4809	351	1720	4820	340
Capacity Analysis Module:												
Vol/Sat:	0.15	0.02	0.02	0.03	0.03	0.00	0.13	0.11	0.11	0.01	0.36	0.36
Crit Volume:	257				56		227					613
Crit Moves:	****				****		****					****

San Ramon General Plan Update
Existing Conditions - AM Peak Hour LOS

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #2030 Alcosta Blvd / Vera Cruz Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.520
Loss Time (sec):	0	Average Delay (sec/veh):	13.9
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Vera Cruz Dr						Alcosta Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0 1	1 0		1 0 1	1 0		0 0 1!	0 0		0 0 1!	0 0	
Volume Module:												
Base Vol:	3	564	9	12	416	202	170	3	10	18	13	37
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	3	564	9	12	416	202	170	3	10	18	13	37
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	3	564	9	12	416	202	170	3	10	18	13	37
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	3	564	9	12	416	202	170	3	10	18	13	37
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	3	564	9	12	416	202	170	3	10	18	13	37
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.97	0.03	1.00	1.35	0.65	0.93	0.02	0.05	0.26	0.19	0.55
Final Sat.:	531	1139	18	535	799	411	480	8	28	132	95	271
Capacity Analysis Module:												
Vol/Sat:	0.01	0.50	0.49	0.02	0.52	0.49	0.35	0.35	0.35	0.14	0.14	0.14
Crit Moves:		****			****				****		****	
Delay/Veh:	9.3	14.4	14.4	9.4	14.7	13.4	12.9	12.9	12.9	10.5	10.5	10.5
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.3	14.4	14.4	9.4	14.7	13.4	12.9	12.9	12.9	10.5	10.5	10.5
LOS by Move:	A	B	B	A	B	B	B	B	B	B	B	B
ApproachDel:		14.4			14.2			12.9			10.5	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		14.4			14.2			12.9			10.5	
LOS by Appr:		B			B			B			B	
AllWayAvgQ:	0.0	0.9	0.9	0.0	1.0	0.9	0.5	0.5	0.5	0.1	0.1	0.1

Note: Queue reported is the number of cars per lane.

San Ramon General Plan Update
Existing Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2031 San Ramon Valley Blvd / Montevideo Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.524
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	48	Level Of Service:	A

Street Name:	San Ramon Valley Blvd						Montevideo Dr					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	0 0	1 1	0	1 0	2 0	0	0 0	0 0	0	1 0	0 0	1
Volume Module:												
Base Vol:	0	381	102	403	308	0	0	0	0	257	0	556
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	381	102	403	308	0	0	0	0	257	0	556
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	381	102	403	308	0	0	0	0	257	0	556
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	381	102	403	308	0	0	0	0	257	0	556
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	403
RTOR Vol:	0	381	102	403	308	0	0	0	0	257	0	153
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	381	102	403	308	0	0	0	0	257	0	153
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.58	0.42	1.00	2.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	2714	726	1720	3440	0	0	0	0	1720	0	1720
Capacity Analysis Module:												
Vol/Sat:	0.00	0.14	0.14	0.23	0.09	0.00	0.00	0.00	0.00	0.15	0.00	0.09
Crit Volume:		242		403				0		257		
Crit Moves:		****		****						****		

San Ramon General Plan Update
Existing Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2032 Montevideo Dr / Alcosta Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.209
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	29	Level Of Service:	A

Street Name:	Alcosta Blvd						Montevideo Dr					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	2 0	0	0 0	2 0	1	1 0	0 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	46	362	0	0	216	196	179	0	31	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	46	362	0	0	216	196	179	0	31	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	46	362	0	0	216	196	179	0	31	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	46	362	0	0	216	196	179	0	31	0	0	0
RTOR Reduct:	0	0	0	0	0	179	0	0	31	0	0	0
RTOR Vol:	46	362	0	0	216	17	179	0	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	46	362	0	0	216	17	179	0	0	0	0	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1720	3440	0	0	3440	1720	1720	0	1720	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.03	0.11	0.00	0.00	0.06	0.01	0.10	0.00	0.00	0.00	0.00	0.00
Crit Volume:		181		0			179				0	
Crit Moves:		****		****			****					

San Ramon General Plan Update
Existing Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2033 San Ramon Valley Blvd / Pine Valley Rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.561
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	52	Level Of Service:	A

Street Name:	San Ramon Valley Blvd						Pine Valley Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	0 1	0	1 0	0 1	0
Volume Module:												
Base Vol:	15	186	80	127	450	9	27	124	45	497	77	172
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	15	186	80	127	450	9	27	124	45	497	77	172
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	15	186	80	127	450	9	27	124	45	497	77	172
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	15	186	80	127	450	9	27	124	45	497	77	172
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	15	186	80	127	450	9	27	124	45	497	77	172
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	15	186	80	127	450	9	27	124	45	497	77	172
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.40	0.60	1.00	1.96	0.04	1.00	0.73	0.27	1.00	0.31	0.69
Final Sat.:	1650	2308	992	1650	3235	65	1650	1211	439	1650	510	1140
Capacity Analysis Module:												
Vol/Sat:	0.01	0.08	0.08	0.08	0.14	0.14	0.02	0.10	0.10	0.30	0.15	0.15
Crit Volume:			133	127					169	497		
Crit Moves:			****	****					****	****		

San Ramon General Plan Update
Existing Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2034 I-680 SB Ramps / San Ramon Valley Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.603
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	57	Level Of Service:	B

Street Name:	San Ramon Valley Blvd						I-680 SB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Ignore			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	0 1	0	1 0	1! 0	0
Volume Module:												
Base Vol:	38	245	357	649	241	42	14	25	12	274	42	24
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	38	245	357	649	241	42	14	25	12	274	42	24
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	38	245	357	649	241	42	14	25	12	274	42	24
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	38	245	357	649	241	42	14	25	12	274	42	24
RTOR Reduct:	0	0	0	0	0	14	0	0	0	0	0	0
RTOR Vol:	38	245	357	649	241	28	14	25	12	274	42	24
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	38	245	357	649	241	28	14	25	12	274	42	24
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	0.68	0.32	1.61	0.25	0.14
Final Sat.:	1650	3300	1650	1650	3300	1650	1650	1115	535	2417	408	233
Capacity Analysis Module:												
Vol/Sat:	0.02	0.07	0.22	0.39	0.07	0.02	0.01	0.02	0.02	0.11	0.10	0.10
Crit Volume:		123		649				37		170		
Crit Moves:		****		****				****		****		

San Ramon General Plan Update
Existing Conditions - AM Peak Hour LOS

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #2035 Alcosta Blvd / Old Ranch Rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.345
Loss Time (sec):	0	Average Delay (sec/veh):	11.6
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Alcosta Blvd									Old Ranch Rd								
Approach:	North Bound				South Bound				East Bound				West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Stop Sign					Stop Sign				
Rights:	Include					Include					Include					Include				
Min. Green:	0	0	0			0	0	0			0	0	0			0	0	0		
Lanes:	0	1	0	1	0	1	0	1	1	0	1	0	0	0	0	1	0	1!	0	1
Volume Module:																				
Base Vol:	6	168		114		166	190		0		3		0		0	304		3		251
Growth Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00	1.00		1.00		1.00
Initial Bse:	6	168		114		166	190		0		3		0		0	304		3		251
User Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00	1.00		1.00		1.00
PHF Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00	1.00		1.00		1.00
PHF Volume:	6	168		114		166	190		0		3		0		0	304		3		251
Reduct Vol:	0	0		0		0	0		0		0		0		0	0		0		0
Reduced Vol:	6	168		114		166	190		0		3		0		0	304		3		251
PCE Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00	1.00		1.00		1.00
MLF Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00	1.00		1.00		1.00
FinalVolume:	6	168		114		166	190		0		3		0		0	304		3		251
Saturation Flow Module:																				
Adjustment:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00	1.00		1.00		1.00
Lanes:	0.04	1.17		0.79		1.00	2.00		0.00		1.00		0.00		0.00	1.63		0.02		1.35
Final Sat.:	22	630		460		482	1029		0		460		0		0	1451		xxxx		1397
Capacity Analysis Module:																				
Vol/Sat:	0.27	0.27		0.25		0.34	0.18		xxxx		0.01		xxxx		xxxx	0.21		-0.00		0.18
Crit Moves:	****					****					****					****				
Delay/Veh:	11.5	11.3		10.5		13.5	10.9		0.0		10.3		0.0		0.0	12.2		11.6		11.1
Delay Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00	1.00		1.00		1.00
AdjDel/Veh:	11.5	11.3		10.5		13.5	10.9		0.0		10.3		0.0		0.0	12.2		11.6		11.1
LOS by Move:	B	B		B		B	B		*		B		*		*	B		B		B
ApproachDel:		11.0					12.1					10.3					11.7			
Delay Adj:		1.00					1.00					1.00					1.00			
ApprAdjDel:		11.0					12.1					10.3					11.7			
LOS by Appr:		B					B					B					B			
AllWayAvgQ:	0.3	0.3		0.3		0.5	0.2		0.2		0.0		0.0		0.0	0.4		0.4		0.4

Note: Queue reported is the number of cars per lane.

San Ramon General Plan Update
Existing Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2036 Dougherty Rd / Old Ranch Rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.372
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	36	Level Of Service:	A

Street Name:	Dougherty Rd						Old Ranch Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	3 0	0	0 0	2 1	0	1 0	0 0	2	0 0	0 0	0
Volume Module:												
Base Vol:	101	319	0	0	1005	276	112	0	93	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	101	319	0	0	1005	276	112	0	93	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	101	319	0	0	1005	276	112	0	93	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	101	319	0	0	1005	276	112	0	93	0	0	0
RTOR Reduct:	0	0	0	0	0	0	0	0	93	0	0	0
RTOR Vol:	101	319	0	0	1005	276	112	0	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	101	319	0	0	1005	276	112	0	0	0	0	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	1.00
Lanes:	1.00	3.00	0.00	0.00	2.35	0.65	1.00	0.00	2.00	0.00	0.00	0.00
Final Sat.:	1720	5160	0	0	4048	1112	1720	0	3127	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.06	0.06	0.00	0.00	0.25	0.25	0.07	0.00	0.00	0.00	0.00	0.00
Crit Volume:	101					427	112				0	
Crit Moves:	****					****	****					

San Ramon General Plan Update
Existing Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2037 San Ramon Valley Blvd / Alcosta Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.723
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	82	Level Of Service:	C

Street Name:	San Ramon Valley Blvd						Alcosta Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	2 0	1	2 0	1 1	0	1 0	1 1	0	2 0	1 0	1
Volume Module:												
Base Vol:	49	200	618	305	385	15	21	229	39	537	96	849
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	49	200	618	305	385	15	21	229	39	537	96	849
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	49	200	618	305	385	15	21	229	39	537	96	849
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	49	200	618	305	385	15	21	229	39	537	96	849
RTOR Reduct:	0	0	295	0	0	0	0	0	0	0	0	168
RTOR Vol:	49	200	323	305	385	15	21	229	39	537	96	681
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	49	200	323	305	385	15	21	229	39	537	96	681
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00
Lanes:	1.00	2.00	1.00	2.00	1.92	0.08	1.00	1.71	0.29	2.00	1.00	1.00
Final Sat.:	1650	3300	1650	3000	3176	124	1650	2820	480	3000	1650	1650
Capacity Analysis Module:												
Vol/Sat:	0.03	0.06	0.20	0.10	0.12	0.12	0.01	0.08	0.08	0.18	0.06	0.41
Crit Volume:			323	153			21					681
Crit Moves:			****	****			****					****

San Ramon General Plan Update
Existing Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2038 I-680 NB Ramps / Alcosta Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.736
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	70	Level Of Service:	C

Street Name:	I-680 NB Ramps						Alcosta Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	0 1	0	0 1	0	0	0 0 0	1	0	2 0 0	0	0	2 0 1
Volume Module:												
Base Vol:	233	0	112	0	0	0	383	445	0	0	1300	150
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	233	0	112	0	0	0	383	445	0	0	1300	150
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	233	0	112	0	0	0	383	445	0	0	1300	150
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	233	0	112	0	0	0	383	445	0	0	1300	150
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	233	0	112	0	0	0	383	445	0	0	1300	150
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	233	0	112	0	0	0	383	445	0	0	1300	150
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	1720	0	1720	0	0	0	1720	3440	0	0	3440	1720
Capacity Analysis Module:												
Vol/Sat:	0.14	0.00	0.07	0.00	0.00	0.00	0.22	0.13	0.00	0.00	0.38	0.09
Crit Volume:	233				0		383				650	
Crit Moves:	****						****				****	

San Ramon General Plan Update
Existing Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2039 Alcosta Blvd / Davona Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.704
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	63	Level Of Service:	C

Street Name:	Davona Dr						Alcosta Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	1 0	1	0	1 0	1	0
Volume Module:												
Base Vol:	273	6	20	56	16	179	62	438	120	26	1217	33
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	273	6	20	56	16	179	62	438	120	26	1217	33
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	273	6	20	56	16	179	62	438	120	26	1217	33
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	273	6	20	56	16	179	62	438	120	26	1217	33
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	273	6	20	56	16	179	62	438	120	26	1217	33
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	273	6	20	56	16	179	62	438	120	26	1217	33
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.91	0.02	0.07	0.22	0.06	0.72	1.00	1.57	0.43	1.00	1.95	0.05
Final Sat.:	1570	35	115	384	110	1227	1720	2700	740	1720	3349	91
Capacity Analysis Module:												
Vol/Sat:	0.17	0.17	0.17	0.15	0.15	0.15	0.04	0.16	0.16	0.02	0.36	0.36
Crit Volume:	273			251			62			625		
Crit Moves:	****			****			****			****		

San Ramon General Plan Update
Existing Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2040 Alcosta Blvd / Kimball Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.461
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	34	Level Of Service:	A

Street Name:	Kimball Ave						Alcosta Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	0 0	1	0 0	0 0	0	0 0	1 1	0	1 0	2 0	0
Volume Module:												
Base Vol:	278	0	24	0	0	0	0	476	123	35	964	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	278	0	24	0	0	0	0	476	123	35	964	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	278	0	24	0	0	0	0	476	123	35	964	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	278	0	24	0	0	0	0	476	123	35	964	0
RTOR Reduct:	0	0	24	0	0	0	0	0	0	0	0	0
RTOR Vol:	278	0	0	0	0	0	0	476	123	35	964	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	278	0	0	0	0	0	0	476	123	35	964	0
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	1.59	0.41	1.00	2.00	0.00
Final Sat.:	1650	0	1650	0	0	0	0	2622	678	1650	3300	0
Capacity Analysis Module:												
Vol/Sat:	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.18	0.02	0.29	0.00
Crit Volume:	278			0			0				482	
Crit Moves:	****						****				****	

San Ramon General Plan Update
Existing Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2041 Alcosta Blvd / Belle Meade Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.385
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	30	Level Of Service:	A

Street Name:	Belle Meade Dr						Alcosta Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	0 1	0	0 1	0 1	0	0 1	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	33	23	3	113	13	156	66	381	5	1	825	31
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	33	23	3	113	13	156	66	381	5	1	825	31
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	33	23	3	113	13	156	66	381	5	1	825	31
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	33	23	3	113	13	156	66	381	5	1	825	31
RTOR Reduct:	0	0	1	0	0	66	0	0	0	0	0	0
RTOR Vol:	33	23	2	113	13	90	66	381	5	1	825	31
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	33	23	2	113	13	90	66	381	5	1	825	31
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.59	0.41	1.00	0.90	0.10	1.00	1.00	1.97	0.03	1.00	1.93	0.07
Final Sat.:	1014	706	1720	1543	177	1720	1720	3395	45	1720	3315	125
Capacity Analysis Module:												
Vol/Sat:	0.03	0.03	0.00	0.07	0.07	0.05	0.04	0.11	0.11	0.00	0.25	0.25
Crit Volume:		56		113			66				428	
Crit Moves:		****		****			****				****	

San Ramon General Plan Update
Existing Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2042 Alcosta Blvd / Village Pkwy

Cycle (sec):	100	Critical Vol./Cap.(X):	0.267
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	25	Level Of Service:	A

Street Name:	Village Pkwy						Alcosta Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	2 0	0 0	1	0 0	0 0	0	0 0	1 1	0	1 0	2 0	0
Volume Module:												
Base Vol:	176	0	96	0	0	0	0	386	94	122	640	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	176	0	96	0	0	0	0	386	94	122	640	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	176	0	96	0	0	0	0	386	94	122	640	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	176	0	96	0	0	0	0	386	94	122	640	0
RTOR Reduct:	0	0	96	0	0	0	0	0	0	0	0	0
RTOR Vol:	176	0	0	0	0	0	0	386	94	122	640	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	176	0	0	0	0	0	0	386	94	122	640	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	1.61	0.39	1.00	2.00	0.00
Final Sat.:	3127	0	1720	0	0	0	0	2766	674	1720	3440	0
Capacity Analysis Module:												
Vol/Sat:	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.14	0.07	0.19	0.00
Crit Volume:	88				0			240		122		
Crit Moves:	****							****		****		

Existing PM Peak Hour Intersection Traffic Capacity Analysis

San Ramon General Plan Update
Existing Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2001 Fostoria Way / San Ramon Valley Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.658
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	67	Level Of Service:	B

Street Name:	San Ramon Valley Blvd						Fostoria Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	1 0	2 0	1
Volume Module:												
Base Vol:	218	812	147	135	480	144	398	264	210	100	146	135
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	218	812	147	135	480	144	398	264	210	100	146	135
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	218	812	147	135	480	144	398	264	210	100	146	135
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	218	812	147	135	480	144	398	264	210	100	146	135
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	135
RTOR Vol:	218	812	147	135	480	144	398	264	210	100	146	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	218	812	147	135	480	144	398	264	210	100	146	0
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.69	0.31	1.00	1.54	0.46	1.00	1.11	0.89	1.00	2.00	1.00
Final Sat.:	1650	2794	506	1650	2538	762	1650	1838	1462	1650	3300	1650
Capacity Analysis Module:												
Vol/Sat:	0.13	0.29	0.29	0.08	0.19	0.19	0.24	0.14	0.14	0.06	0.04	0.00
Crit Volume:		480		135			398				73	
Crit Moves:		****		****			****				****	

San Ramon General Plan Update
Existing Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2002 Fostoria Way/Crow Canyon Pl

Cycle (sec):	100	Critical Vol./Cap.(X):	0.471
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	43	Level Of Service:	A

Street Name:	Crow Canyon Pl						Fostoria Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	1 0	1	1 0	0 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	66	396	178	55	213	70	99	247	89	158	245	124
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	66	396	178	55	213	70	99	247	89	158	245	124
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	66	396	178	55	213	70	99	247	89	158	245	124
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	66	396	178	55	213	70	99	247	89	158	245	124
RTOR Reduct:	0	0	158	0	0	0	0	0	0	0	0	0
RTOR Vol:	66	396	20	55	213	70	99	247	89	158	245	124
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	66	396	20	55	213	70	99	247	89	158	245	124
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.75	0.25	1.00	1.47	0.53	1.00	1.33	0.67
Final Sat.:	1650	1650	1650	1650	1242	408	1650	2426	874	1650	2191	1109
Capacity Analysis Module:												
Vol/Sat:	0.04	0.24	0.01	0.03	0.17	0.17	0.06	0.10	0.10	0.10	0.11	0.11
Crit Volume:		396		55					168	158		
Crit Moves:		****		****					****	****		

San Ramon General Plan Update
Existing Conditions - PM Peak Hour LOS

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #2003 Fostoria Way / Camino Ramon / Costco DW

Cycle (sec):	100	Critical Vol./Cap.(X):	0.708
Loss Time (sec):	0	Average Delay (sec/veh):	18.6
Optimal Cycle:	0	Level Of Service:	C

Street Name:	Camino Ramon / Costco DW						Fostoria Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0 1	0 1		0 0 1!	0 0		1 0 1	0 1		0 0 1!	0 0	
Volume Module:												
Base Vol:	353	292	32	7	233	33	10	72	335	44	57	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	353	292	32	7	233	33	10	72	335	44	57	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	353	292	32	7	233	33	10	72	335	44	57	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	353	292	32	7	233	33	10	72	335	44	57	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	353	292	32	7	233	33	10	72	335	44	57	1
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	0.03	0.85	0.12	1.00	1.00	1.00	0.43	0.56	0.01
Final Sat.:	498	534	590	13	424	60	452	483	535	180	234	4
Capacity Analysis Module:												
Vol/Sat:	0.71	0.55	0.05	0.55	0.55	0.55	0.02	0.15	0.63	0.24	0.24	0.24
Crit Moves:	****				****				****		****	
Delay/Veh:	24.8	16.8	9.0	17.7	17.7	17.7	10.6	11.1	18.7	13.2	13.2	13.2
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	24.8	16.8	9.0	17.7	17.7	17.7	10.6	11.1	18.7	13.2	13.2	13.2
LOS by Move:	C	C	A	C	C	C	B	B	C	B	B	B
ApproachDel:	20.6			17.7			17.2			13.2		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	20.6			17.7			17.2			13.2		
LOS by Appr:	C			C			C			B		
AllWayAvgQ:	2.1	1.1	0.1	1.1	1.1	1.1	0.0	0.2	1.4	0.3	0.3	0.3

Note: Queue reported is the number of cars per lane.

San Ramon General Plan Update
Existing Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2004 Crow Canyon Rd / Bollinger Canyon Rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.384
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	37	Level Of Service:	A

Street Name:	Bollinger Canyon Rd						Crow Canyon Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	1 0	1	1 0	0 1	0	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	97	43	89	26	41	17	17	746	123	105	757	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	97	43	89	26	41	17	17	746	123	105	757	30
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	97	43	89	26	41	17	17	746	123	105	757	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	97	43	89	26	41	17	17	746	123	105	757	30
RTOR Reduct:	0	0	89	0	0	0	0	0	97	0	0	26
RTOR Vol:	97	43	0	26	41	17	17	746	26	105	757	4
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	97	43	0	26	41	17	17	746	26	105	757	4
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.71	0.29	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1650	1650	1650	1650	1166	484	1650	3300	1650	1650	3300	1650
Capacity Analysis Module:												
Vol/Sat:	0.06	0.03	0.00	0.02	0.04	0.04	0.01	0.23	0.02	0.06	0.23	0.00
Crit Volume:	97				58			373		105		
Crit Moves:	****				****			****		****		

San Ramon General Plan Update
Existing Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2005 Crow Canyon Rd / Twin Creeks Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.695
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	61	Level Of Service:	B

Street Name:	Twin Creeks Dr						Crow Canyon Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	0 1	0	0 1	0	0	1! 0	0	1 0	2 1 0	1 0	2 1	0
Volume Module:												
Base Vol:	237	3	193	12	2	4	2	1630	169	341	1277	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	237	3	193	12	2	4	2	1630	169	341	1277	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	237	3	193	12	2	4	2	1630	169	341	1277	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	237	3	193	12	2	4	2	1630	169	341	1277	0
RTOR Reduct:	0	0	193	0	0	0	0	0	0	0	0	0
RTOR Vol:	237	3	0	12	2	4	2	1630	169	341	1277	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	237	3	0	12	2	4	2	1630	169	341	1277	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.99	0.01	1.00	0.67	0.11	0.22	1.00	2.72	0.28	1.00	3.00	0.00
Final Sat.:	1699	22	1720	1147	191	382	1720	4675	485	1720	5160	0
Capacity Analysis Module:												
Vol/Sat:	0.14	0.14	0.00	0.01	0.01	0.01	0.00	0.35	0.35	0.20	0.25	0.00
Crit Volume:	237				18				600	341		
Crit Moves:	****				****				****	****		

San Ramon General Plan Update
Existing Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2006 Crow Canyon Rd. / San Ramon Valley Blvd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.710
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	79	Level Of Service:	C

Street Name:	San Ramon Valley Blvd.						Crow Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	2 0	2 0	1	2 0	2 0	1	2 0	3 0	1	2 0	3 0	1
Volume Module:												
Base Vol:	201	449	554	492	318	103	249	1031	106	605	1321	373
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	201	449	554	492	318	103	249	1031	106	605	1321	373
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	201	449	554	492	318	103	249	1031	106	605	1321	373
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	201	449	554	492	318	103	249	1031	106	605	1321	373
RTOR Reduct:	0	0	333	0	0	103	0	0	106	0	0	271
RTOR Vol:	201	449	221	492	318	0	249	1031	0	605	1321	102
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	201	449	221	492	318	0	249	1031	0	605	1321	102
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	0.91	1.00	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.91	1.00	1.00
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	3000	3300	1650	3000	3300	1650	3000	4950	1650	3000	4950	1650
Capacity Analysis Module:												
Vol/Sat:	0.07	0.14	0.13	0.16	0.10	0.00	0.08	0.21	0.00	0.20	0.27	0.06
Crit Volume:		224		246				344		303		
Crit Moves:		****		****				****		****		

San Ramon General Plan Update
Existing Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2007 Crow Canyon Rd. / I-680 SB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.585
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	45	Level Of Service:	A

Street Name:	I-680 SB Ramps						Crow Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Ignore			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	0 0	0	0	2 0	0	2	0 0	3	0 1	0 0	3	0 1
Volume Module:												
Base Vol:	0	0	0	732	0	1039	0	1366	718	0	1446	933
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	732	0	1039	0	1366	718	0	1446	933
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	732	0	1039	0	1366	718	0	1446	933
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	732	0	1039	0	1366	718	0	1446	933
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	0	0	0	732	0	1039	0	1366	718	0	1446	933
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	732	0	1039	0	1366	718	0	1446	933
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	1.00	1.00	1.00	0.91	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	2.00	0.00	3.00	1.00	0.00	3.00	1.00
Final Sat.:	0	0	0	3272	0	3272	0	5400	1800	0	5400	1800
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.22	0.00	0.32	0.00	0.25	0.40	0.00	0.27	0.52
Crit Volume:	0					520	0				482	
Crit Moves:						****	****				****	

San Ramon General Plan Update
Existing Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2008 Crow Canyon Rd. / I-680 NB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.765
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	97	Level Of Service:	C

Street Name:	I-680 NB Ramps						Crow Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ignore			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	1! 0	1	0 0	0 0	0	0 0	3 0	1	0 0	3 1	1
Volume Module:												
Base Vol:	953	0	1038	0	0	0	0	1756	326	0	1426	807
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	953	0	1038	0	0	0	0	1756	326	0	1426	807
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	953	0	1038	0	0	0	0	1756	326	0	1426	807
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	953	0	1038	0	0	0	0	1756	326	0	1426	807
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	953	0	1038	0	0	0	0	1756	326	0	1426	807
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	953	0	1038	0	0	0	0	1756	326	0	1426	807
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	0.91	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91
Lanes:	1.44	xxxx	1.56	0.00	0.00	0.00	0.00	3.00	1.00	0.00	3.19	1.81
Final Sat.:	2245	0	2445	0	0	0	0	5160	1720	0	5492	2825
Capacity Analysis Module:												
Vol/Sat:	0.42	0.00	0.42	0.00	0.00	0.00	0.00	0.34	0.19	0.00	0.26	0.29
Crit Volume:			664	0				585		0		
Crit Moves:			****					****		****		

San Ramon General Plan Update
Existing Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2009 Crow Canyon Rd. / Crow Canyon Pl.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.783
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	C

Street Name:	Crow Canyon Pl.						Crow Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Ovl			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	2 0	1 1	0	1 0	1 0	1	2 0	4 0	1	1 0	4 1	0
Volume Module:												
Base Vol:	572	168	181	213	146	496	674	1654	705	86	1854	112
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	572	168	181	213	146	496	674	1654	705	86	1854	112
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	572	168	181	213	146	496	674	1654	705	86	1854	112
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	572	168	181	213	146	496	674	1654	705	86	1854	112
RTOR Reduct:	0	0	0	0	0	371	0	0	315	0	0	0
RTOR Vol:	572	168	181	213	146	125	674	1654	390	86	1854	112
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	572	168	181	213	146	125	674	1654	390	86	1854	112
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	0.91	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.00	1.00	1.00	1.00	1.00	2.00	4.00	1.00	1.00	4.72	0.28
Final Sat.:	3000	1650	1650	1650	1650	1650	3000	6600	1650	1650	7780	470
Capacity Analysis Module:												
Vol/Sat:	0.19	0.10	0.11	0.13	0.09	0.08	0.22	0.25	0.24	0.05	0.24	0.24
Crit Volume:	286			213			337				393	
Crit Moves:	****			****			****				****	

San Ramon General Plan Update
Existing Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2010 Crow Canyon Rd. / Camino Ramon

Cycle (sec):	100	Critical Vol./Cap.(X):	0.594
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	56	Level Of Service:	A

Street Name:	Camino Ramon						Crow Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	2 0	1 0	1	2 0	1 1	0	2 0	4 0	1	2 0	3 1	0
Volume Module:												
Base Vol:	524	357	88	300	221	123	125	1522	248	125	1229	299
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	524	357	88	300	221	123	125	1522	248	125	1229	299
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	524	357	88	300	221	123	125	1522	248	125	1229	299
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	524	357	88	300	221	123	125	1522	248	125	1229	299
RTOR Reduct:	0	0	69	0	0	0	0	0	248	0	0	0
RTOR Vol:	524	357	19	300	221	123	125	1522	0	125	1229	299
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	524	357	19	300	221	123	125	1522	0	125	1229	299
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	0.91	1.00	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.91	1.00	1.00
Lanes:	2.00	1.00	1.00	2.00	1.28	0.72	2.00	4.00	1.00	2.00	3.22	0.78
Final Sat.:	3000	1650	1650	3000	2120	1180	3000	6600	1650	3000	5309	1291
Capacity Analysis Module:												
Vol/Sat:	0.17	0.22	0.01	0.10	0.10	0.10	0.04	0.23	0.00	0.04	0.23	0.23
Crit Volume:		357				172	63				382	
Crit Moves:		****				****	****				****	

San Ramon General Plan Update
Existing Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2011 Crow Canyon Rd. / Alcosta Blvd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.618
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Alcosta Blvd.						Crow Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	2 0	0 0	2	0 0	0 0	0	0 0	3 0	1	2 0	3 0	0
Volume Module:												
Base Vol:	579	0	506	0	0	0	0	1598	435	385	843	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	579	0	506	0	0	0	0	1598	435	385	843	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	579	0	506	0	0	0	0	1598	435	385	843	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	579	0	506	0	0	0	0	1598	435	385	843	0
RTOR Reduct:	0	0	212	0	0	0	0	0	318	0	0	0
RTOR Vol:	579	0	294	0	0	0	0	1598	117	385	843	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	579	0	294	0	0	0	0	1598	117	385	843	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	0.91	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00
Lanes:	2.00	0.00	2.00	0.00	0.00	0.00	0.00	3.00	1.00	2.00	3.00	0.00
Final Sat.:	3127	0	3127	0	0	0	0	5160	1720	3127	5160	0
Capacity Analysis Module:												
Vol/Sat:	0.19	0.00	0.09	0.00	0.00	0.00	0.00	0.31	0.07	0.12	0.16	0.00
Crit Volume:	290				0			533		193		
Crit Moves:	****							****		****		

San Ramon General Plan Update
Existing Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2012 Crow Canyon Rd / El Capitan-Tahiti Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.569
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	43	Level Of Service:	A

Street Name:	El Capitan-Tahiti Dr						Crow Canyon Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Ignore			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	0 0	1! 0	0	1 0	1 0	1	2 0	2 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	29	7	8	96	4	207	467	1665	43	6	673	101
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	29	7	8	96	4	207	467	1665	43	6	673	101
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	29	7	8	96	4	207	467	1665	43	6	673	101
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	29	7	8	96	4	207	467	1665	43	6	673	101
RTOR Reduct:	0	0	0	0	0	0	0	0	29	0	0	0
RTOR Vol:	29	7	8	96	4	207	467	1665	14	6	673	101
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	29	7	8	96	4	207	467	1665	14	6	673	101
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00
Lanes:	0.66	0.16	0.18	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.74	0.26
Final Sat.:	1134	274	313	1720	1720	1720	3127	3440	1720	1720	2991	449
Capacity Analysis Module:												
Vol/Sat:	0.03	0.03	0.03	0.06	0.00	0.12	0.15	0.48	0.01	0.00	0.23	0.22
Crit Volume:		44		96				832		6		
Crit Moves:		****		****				****		****		

San Ramon General Plan Update
Existing Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2013 Crow Canyon Rd / Dougherty Rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.638
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	63	Level Of Service:	B

Street Name:	Dougherty Rd						Crow Canyon Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	2 0	0 0	2	0 0	0 0	0	0 0	1 1	0	2 0	2 0	0
Volume Module:												
Base Vol:	172	0	761	0	0	0	0	958	208	386	483	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	172	0	761	0	0	0	0	958	208	386	483	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	172	0	761	0	0	0	0	958	208	386	483	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	172	0	761	0	0	0	0	958	208	386	483	0
RTOR Reduct:	0	0	212	0	0	0	0	0	0	0	0	0
RTOR Vol:	172	0	549	0	0	0	0	958	208	386	483	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	172	0	549	0	0	0	0	958	208	386	483	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	0.91	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00
Lanes:	2.00	0.00	2.00	0.00	0.00	0.00	0.00	1.64	0.36	2.00	2.00	0.00
Final Sat.:	3127	0	3127	0	0	0	0	2826	614	3127	3440	0
Capacity Analysis Module:												
Vol/Sat:	0.06	0.00	0.18	0.00	0.00	0.00	0.00	0.34	0.34	0.12	0.14	0.00
Crit Volume:			274	0				583		193		
Crit Moves:			****					****		****		

San Ramon General Plan Update
Existing Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2014 Norris Canyon Rd. / San Ramon Valley Blvd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.428
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	40	Level Of Service:	A

Street Name:	San Ramon Valley Blvd.						Norris Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	1 1	0	2 0	1 1	0	1 0	1 1	0	1 0	1 0	1
Volume Module:												
Base Vol:	58	340	77	206	360	63	56	155	47	283	275	423
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	58	340	77	206	360	63	56	155	47	283	275	423
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	58	340	77	206	360	63	56	155	47	283	275	423
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	58	340	77	206	360	63	56	155	47	283	275	423
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	113
RTOR Vol:	58	340	77	206	360	63	56	155	47	283	275	310
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	58	340	77	206	360	63	56	155	47	283	275	310
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.63	0.37	2.00	1.70	0.30	1.00	1.53	0.47	1.00	1.00	1.00
Final Sat.:	1650	2691	609	3000	2809	491	1650	2532	768	1650	1650	1650
Capacity Analysis Module:												
Vol/Sat:	0.04	0.13	0.13	0.07	0.13	0.13	0.03	0.06	0.06	0.17	0.17	0.19
Crit Volume:		209		103					101	283		
Crit Moves:		****		****					****	****		

San Ramon General Plan Update
Existing Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2015 Norris Canyon Rd. / Bishop Dr.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.547
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	41	Level Of Service:	A

Street Name:	Bishop Dr.						Norris Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	0 1	0 1	0	0 0	1! 0	0	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	430	5	88	35	10	90	7	425	107	35	737	19
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	430	5	88	35	10	90	7	425	107	35	737	19
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	430	5	88	35	10	90	7	425	107	35	737	19
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	430	5	88	35	10	90	7	425	107	35	737	19
RTOR Reduct:	0	0	0	0	0	0	0	0	107	0	0	19
RTOR Vol:	430	5	88	35	10	90	7	425	0	35	737	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	430	5	88	35	10	90	7	425	0	35	737	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.66	0.34	0.26	0.07	0.67	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1720	1141	579	446	127	1147	1720	3440	1720	1720	3440	1720
Capacity Analysis Module:												
Vol/Sat:	0.25	0.00	0.15	0.08	0.08	0.08	0.00	0.12	0.00	0.02	0.21	0.00
Crit Volume:	430					135	7				369	
Crit Moves:	****					****	****				****	

San Ramon General Plan Update
Existing Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2016 Norris Canyon Rd. / Camino Ramon

Cycle (sec):	100	Critical Vol./Cap.(X):	0.526
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	48	Level Of Service:	A

Street Name:	Camino Ramon						Norris Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	2 0	1	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	179	559	178	115	263	145	97	344	46	31	400	175
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	179	559	178	115	263	145	97	344	46	31	400	175
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	179	559	178	115	263	145	97	344	46	31	400	175
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	179	559	178	115	263	145	97	344	46	31	400	175
RTOR Reduct:	0	0	31	0	0	0	0	0	0	0	0	0
RTOR Vol:	179	559	147	115	263	145	97	344	46	31	400	175
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	179	559	147	115	263	145	97	344	46	31	400	175
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.29	0.71	1.00	1.76	0.24	1.00	1.39	0.61
Final Sat.:	1650	3300	1650	1650	2127	1173	1650	2911	389	1650	2296	1004
Capacity Analysis Module:												
Vol/Sat:	0.11	0.17	0.09	0.07	0.12	0.12	0.06	0.12	0.12	0.02	0.17	0.17
Crit Volume:		280			204		97				288	
Crit Moves:		****			****		****				****	

San Ramon General Plan Update
Existing Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2017 Norris Canyon Rd. / Alcosta Blvd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.403
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	38	Level Of Service:	A

Street Name:	Alcosta Blvd.						Norris Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	1 1	0	1 0	2 0	1	2 0	1 0	1	1 0	1 0	1
Volume Module:												
Base Vol:	188	379	11	55	363	146	334	37	255	69	104	166
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	188	379	11	55	363	146	334	37	255	69	104	166
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	188	379	11	55	363	146	334	37	255	69	104	166
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	188	379	11	55	363	146	334	37	255	69	104	166
RTOR Reduct:	0	0	0	0	0	146	0	0	188	0	0	55
RTOR Vol:	188	379	11	55	363	0	334	37	67	69	104	111
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	188	379	11	55	363	0	334	37	67	69	104	111
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.94	0.06	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1650	3207	93	1650	3300	1650	3000	1650	1650	1650	1650	1650
Capacity Analysis Module:												
Vol/Sat:	0.11	0.12	0.12	0.03	0.11	0.00	0.11	0.02	0.04	0.04	0.06	0.07
Crit Volume:	188				182		167					111
Crit Moves:	****				****		****					****

San Ramon General Plan Update
Existing Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2018 Executive Pkwy. / Camino Ramon

Cycle (sec):	100	Critical Vol./Cap.(X):	0.362
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	29	Level Of Service:	A

Street Name:	Camino Ramon						Executive Pkwy.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	1 1	0	1 0	1 1	0	0 1	0 0	1	0 1	0 0	1
Volume Module:												
Base Vol:	25	482	21	9	392	42	198	18	177	146	11	93
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	25	482	21	9	392	42	198	18	177	146	11	93
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	25	482	21	9	392	42	198	18	177	146	11	93
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	25	482	21	9	392	42	198	18	177	146	11	93
RTOR Reduct:	0	0	0	0	0	0	0	0	25	0	0	9
RTOR Vol:	25	482	21	9	392	42	198	18	152	146	11	84
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	25	482	21	9	392	42	198	18	152	146	11	84
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.92	0.08	1.00	1.81	0.19	0.92	0.08	1.00	0.93	0.07	1.00
Final Sat.:	1720	3296	144	1720	3107	333	1577	143	1720	1599	121	1720
Capacity Analysis Module:												
Vol/Sat:	0.01	0.15	0.15	0.01	0.13	0.13	0.13	0.13	0.09	0.09	0.09	0.05
Crit Volume:			252	9				216		146		
Crit Moves:			****	****				****		****		

San Ramon General Plan Update
Existing Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2019 Alcosta Blvd / Woodland Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.278
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	26	Level Of Service:	A

Street Name:	Alcosta Blvd						Woodland Dr					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	1	1 0	1 0	1	1 0	0 1	0	0 1	0 0	1!	0 0
Volume Module:												
Base Vol:	23	441	16	29	816	6	11	0	2	16	0	18
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	23	441	16	29	816	6	11	0	2	16	0	18
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	23	441	16	29	816	6	11	0	2	16	0	18
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	23	441	16	29	816	6	11	0	2	16	0	18
RTOR Reduct:	0	0	0	0	0	0	0	0	2	0	0	0
RTOR Vol:	23	441	16	29	816	6	11	0	0	16	0	18
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	23	441	16	29	816	6	11	0	0	16	0	18
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.93	0.07	1.00	1.99	0.01	1.00	0.00	1.00	0.47	0.00	0.53
Final Sat.:	1720	3320	120	1720	3415	25	1720	0	1720	809	0	911
Capacity Analysis Module:												
Vol/Sat:	0.01	0.13	0.13	0.02	0.24	0.24	0.01	0.00	0.00	0.02	0.00	0.02
Crit Volume:	23				411		11					34
Crit Moves:	****				****		****					****

San Ramon General Plan Update
Existing Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2020 Bishop Dr. / Camino Ramon

Cycle (sec):	100	Critical Vol./Cap.(X):	0.447
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	34	Level Of Service:	A

Street Name:	Camino Ramon						Bishop Dr.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	0 1	0	1 0	0 1	0
Volume Module:												
Base Vol:	31	260	5	2	945	111	117	1	97	111	16	11
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	31	260	5	2	945	111	117	1	97	111	16	11
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	31	260	5	2	945	111	117	1	97	111	16	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	31	260	5	2	945	111	117	1	97	111	16	11
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	31	260	5	2	945	111	117	1	97	111	16	11
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	31	260	5	2	945	111	117	1	97	111	16	11
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.96	0.04	1.00	1.79	0.21	1.00	0.01	0.99	1.00	0.59	0.41
Final Sat.:	1720	3375	65	1720	3078	362	1720	18	1702	1720	1019	701
Capacity Analysis Module:												
Vol/Sat:	0.02	0.08	0.08	0.00	0.31	0.31	0.07	0.06	0.06	0.06	0.02	0.02
Crit Volume:	31				528			98		111		
Crit Moves:	****				****			****		****		

San Ramon General Plan Update
Existing Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2021 Alcosta Blvd / Overlook Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.254
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	25	Level Of Service:	A

Street Name:	Alcosta Blvd						Overlook Dr					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	1 1	0	1 0	1 1	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	38	463	14	19	730	7	6	0	11	13	0	11
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	38	463	14	19	730	7	6	0	11	13	0	11
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	38	463	14	19	730	7	6	0	11	13	0	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	38	463	14	19	730	7	6	0	11	13	0	11
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	38	463	14	19	730	7	6	0	11	13	0	11
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	38	463	14	19	730	7	6	0	11	13	0	11
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.94	0.06	1.00	1.98	0.02	0.35	0.00	0.65	0.54	0.00	0.46
Final Sat.:	1720	3339	101	1720	3407	33	607	0	1113	932	0	788
Capacity Analysis Module:												
Vol/Sat:	0.02	0.14	0.14	0.01	0.21	0.21	0.01	0.00	0.01	0.01	0.00	0.01
Crit Volume:	38				369				17	13		
Crit Moves:	****				****				****	****		

San Ramon General Plan Update
Existing Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2022 Bollinger Canyon Rd / San Ramon Valley Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.601
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	57	Level Of Service:	B

Street Name:	San Ramon Valley Blvd						Bollinger Canyon Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	2 0	1 1	0	2 0	1 1	0	1 0	1 1	0	2 0	2 0	1
Volume Module:												
Base Vol:	195	320	231	389	377	64	114	292	125	535	632	204
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	195	320	231	389	377	64	114	292	125	535	632	204
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	195	320	231	389	377	64	114	292	125	535	632	204
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	195	320	231	389	377	64	114	292	125	535	632	204
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	204
RTOR Vol:	195	320	231	389	377	64	114	292	125	535	632	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	195	320	231	389	377	64	114	292	125	535	632	0
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00
Lanes:	2.00	1.16	0.84	2.00	1.71	0.29	1.00	1.40	0.60	2.00	2.00	1.00
Final Sat.:	3000	1917	1383	3000	2821	479	1650	2311	989	3000	3300	1650
Capacity Analysis Module:												
Vol/Sat:	0.07	0.17	0.17	0.13	0.13	0.13	0.07	0.13	0.13	0.18	0.19	0.00
Crit Volume:			276	195					209	268		
Crit Moves:			****	****					****	****		

San Ramon General Plan Update
Existing Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2023 Bollinger Canyon Rd. / I-680 SB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.627
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	61	Level Of Service:	B

Street Name:	I-680 SB Ramps						Bollinger Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	0 0	1! 0	0	1 1	0 0	2	0 0	3 1	0	0 0	3 0	1
Volume Module:												
Base Vol:	2	0	114	940	33	312	0	854	196	0	1150	1418
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	2	0	114	940	33	312	0	854	196	0	1150	1418
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	2	0	114	940	33	312	0	854	196	0	1150	1418
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	0	114	940	33	312	0	854	196	0	1150	1418
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	2	0	114	940	33	312	0	854	196	0	1150	1418
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	2	0	114	940	33	312	0	854	196	0	1150	1418
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	0.91	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.02	0.00	0.98	1.93	0.07	2.00	0.00	3.25	0.75	0.00	3.00	1.00
Final Sat.:	28	0	1622	2898	112	3000	0	5368	1232	0	4950	1650
Capacity Analysis Module:												
Vol/Sat:	0.07	0.00	0.07	0.32	0.29	0.10	0.00	0.16	0.16	0.00	0.23	0.86
Crit Volume:			116	487			0				383	
Crit Moves:			****	****			****				****	

San Ramon General Plan Update
Existing Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2024 Bollinger Canyon Rd. / I-680 NB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.774
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	82	Level Of Service:	C

Street Name:	I-680 NB Ramps						Bollinger Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Ignore			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	0 0	2	0 0	0 0	0	0 0	3 0	1	0 0	2 1	1
Volume Module:												
Base Vol:	708	0	1366	0	0	0	0	1361	437	0	1913	651
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	708	0	1366	0	0	0	0	1361	437	0	1913	651
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	708	0	1366	0	0	0	0	1361	437	0	1913	651
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	708	0	1366	0	0	0	0	1361	437	0	1913	651
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	708	0	1366	0	0	0	0	1361	437	0	1913	651
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	708	0	1366	0	0	0	0	1361	437	0	1913	651
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91
Lanes:	1.00	0.00	2.00	0.00	0.00	0.00	0.00	3.00	1.00	0.00	2.98	1.02
Final Sat.:	1800	0	3272	0	0	0	0	5400	1800	0	5372	1662
Capacity Analysis Module:												
Vol/Sat:	0.39	0.00	0.42	0.00	0.00	0.00	0.00	0.25	0.24	0.00	0.36	0.39
Crit Volume:			683	0			0				641	
Crit Moves:			****				****				****	

San Ramon General Plan Update
Existing Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2025 Bollinger Canyon Rd / Sunset Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.820
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	D

Street Name:	Sunset Dr						Bollinger Canyon Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 1	0	0 1	0 1	0	0 2	2 0	3	0 1	1 0	4	0 1
Volume Module:												
Base Vol:	552	31	196	333	14	663	407	1603	28	32	1849	111
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	552	31	196	333	14	663	407	1603	28	32	1849	111
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	552	31	196	333	14	663	407	1603	28	32	1849	111
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	552	31	196	333	14	663	407	1603	28	32	1849	111
RTOR Reduct:	0	0	32	0	0	224	0	0	28	0	0	111
RTOR Vol:	552	31	164	333	14	439	407	1603	0	32	1849	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	552	31	164	333	14	439	407	1603	0	32	1849	0
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	0.91	1.00	1.00	1.00	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00
Lanes:	1.89	0.11	1.00	0.96	0.04	2.00	2.00	3.00	1.00	1.00	4.00	1.00
Final Sat.:	2840	175	1650	1583	67	3000	3000	4950	1650	1650	6600	1650
Capacity Analysis Module:												
Vol/Sat:	0.19	0.18	0.10	0.21	0.21	0.15	0.14	0.32	0.00	0.02	0.28	0.00
Crit Volume:	291				347		204				462	
Crit Moves:	****				****		****				****	

San Ramon General Plan Update
Existing Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2026 Bollinger Canyon Rd. / Camino Ramon

Cycle (sec):	100	Critical Vol./Cap.(X):	0.805
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	D

Street Name:	Camino Ramon						Bollinger Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	1 0	1	2 0	0 1	1	2 0	3 0	1	1 0	3 1	0
Volume Module:												
Base Vol:	340	77	120	621	51	590	120	1819	27	66	1087	242
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	340	77	120	621	51	590	120	1819	27	66	1087	242
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	340	77	120	621	51	590	120	1819	27	66	1087	242
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	340	77	120	621	51	590	120	1819	27	66	1087	242
RTOR Reduct:	0	0	66	0	0	66	0	0	27	0	0	0
RTOR Vol:	340	77	54	621	51	524	120	1819	0	66	1087	242
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	340	77	54	621	51	524	120	1819	0	66	1087	242
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	0.91	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	2.00	0.18	1.82	2.00	3.00	1.00	1.00	3.27	0.73
Final Sat.:	1650	1650	1650	3000	293	2734	3000	4950	1650	1650	5398	1202
Capacity Analysis Module:												
Vol/Sat:	0.21	0.05	0.03	0.21	0.17	0.19	0.04	0.37	0.00	0.04	0.20	0.20
Crit Volume:	340					288		606		66		
Crit Moves:	****					****		****		****		

San Ramon General Plan Update
Existing Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2027 Bollinger Canyon Rd / Market Place

Cycle (sec):	100	Critical Vol./Cap.(X):	0.527
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	48	Level Of Service:	A

Street Name:	Market Place						Bollinger Canyon Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 1	0	0 1	1 0	0 1	0	1 0	3 0	1	2 0	2 1	0
Volume Module:												
Base Vol:	333	3	112	7	2	0	10	1914	529	73	797	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	333	3	112	7	2	0	10	1914	529	73	797	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	333	3	112	7	2	0	10	1914	529	73	797	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	333	3	112	7	2	0	10	1914	529	73	797	1
RTOR Reduct:	0	0	40	0	0	0	0	0	183	0	0	0
RTOR Vol:	333	3	72	7	2	0	10	1914	346	73	797	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	333	3	72	7	2	0	10	1914	346	73	797	1
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00
Lanes:	1.98	0.02	1.00	1.00	1.00	0.00	1.00	3.00	1.00	2.00	2.99	0.01
Final Sat.:	2973	29	1650	1650	1650	0	1650	4950	1650	3000	4944	6
Capacity Analysis Module:												
Vol/Sat:	0.11	0.10	0.04	0.00	0.00	0.00	0.01	0.39	0.21	0.02	0.16	0.16
Crit Volume:	168			7				638		37		
Crit Moves:	****			****				****		****		

San Ramon General Plan Update
Existing Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2028 Bollinger Canyon Rd. / Alcosta Blvd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.680
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	71	Level Of Service:	B

Street Name:	Alcosta Blvd.						Bollinger Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	2 0	1 1	0	2 0	2 0	1	1 0	3 0	1	1 0	3 0	1
Volume Module:												
Base Vol:	149	234	211	309	373	155	126	1479	333	237	558	147
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	149	234	211	309	373	155	126	1479	333	237	558	147
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	149	234	211	309	373	155	126	1479	333	237	558	147
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	149	234	211	309	373	155	126	1479	333	237	558	147
RTOR Reduct:	0	0	0	0	0	126	0	0	82	0	0	147
RTOR Vol:	149	234	211	309	373	29	126	1479	251	237	558	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	149	234	211	309	373	29	126	1479	251	237	558	0
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.05	0.95	2.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	3000	1735	1565	3000	3300	1650	1650	4950	1650	1650	4950	1650
Capacity Analysis Module:												
Vol/Sat:	0.05	0.13	0.13	0.10	0.11	0.02	0.08	0.30	0.15	0.14	0.11	0.00
Crit Volume:			223	155				493		237		
Crit Moves:			****	****				****		****		

San Ramon General Plan Update
Existing Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2029 Bollinger Canyon Rd / Canyon Lakes Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.559
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	42	Level Of Service:	A

Street Name:	Canyon Lanes Dr						Bollinger Canyon Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	0 1	0	0 1	0	0 1	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	74	4	18	173	5	214	324	1871	157	34	867	84
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	74	4	18	173	5	214	324	1871	157	34	867	84
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	74	4	18	173	5	214	324	1871	157	34	867	84
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	74	4	18	173	5	214	324	1871	157	34	867	84
RTOR Reduct:	0	0	0	0	0	214	0	0	0	0	0	0
RTOR Vol:	74	4	18	173	5	0	324	1871	157	34	867	84
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	74	4	18	173	5	0	324	1871	157	34	867	84
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.18	0.82	0.97	0.03	1.00	1.00	2.77	0.23	1.00	2.74	0.26
Final Sat.:	1720	313	1407	1672	48	1720	1720	4761	399	1720	4704	456
Capacity Analysis Module:												
Vol/Sat:	0.04	0.01	0.01	0.10	0.10	0.00	0.19	0.39	0.39	0.02	0.18	0.18
Crit Volume:	74				178			676		34		
Crit Moves:	****				****			****		****		

San Ramon General Plan Update
Existing Conditions - PM Peak Hour LOS

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #2030 Alcosta Blvd / Vera Cruz Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.513
Loss Time (sec):	0	Average Delay (sec/veh):	11.7
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Vera Cruz Dr						Alcosta Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0 1	1 0		1 0 1	1 0		0 0 1!	0 0		0 0 1!	0 0	
Volume Module:												
Base Vol:	10	359	5	43	599	109	12	2	83	7	3	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	10	359	5	43	599	109	12	2	83	7	3	20
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	10	359	5	43	599	109	12	2	83	7	3	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	10	359	5	43	599	109	12	2	83	7	3	20
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	10	359	5	43	599	109	12	2	83	7	3	20
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.97	0.03	1.00	1.69	0.31	0.12	0.02	0.86	0.23	0.10	0.67
Final Sat.:	571	1232	17	617	1167	218	75	12	518	132	56	376
Capacity Analysis Module:												
Vol/Sat:	0.02	0.29	0.29	0.07	0.51	0.50	0.16	0.16	0.16	0.05	0.05	0.05
Crit Moves:		****			****				****	****		
Delay/Veh:	8.9	10.5	10.5	8.9	13.1	12.6	9.5	9.5	9.5	9.1	9.1	9.1
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	8.9	10.5	10.5	8.9	13.1	12.6	9.5	9.5	9.5	9.1	9.1	9.1
LOS by Move:	A	B	B	A	B	B	A	A	A	A	A	A
ApproachDel:		10.5			12.8			9.5			9.1	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		10.5			12.8			9.5			9.1	
LOS by Appr:		B			B			A			A	
AllWayAvgQ:	0.0	0.4	0.4	0.1	1.0	0.9	0.2	0.2	0.2	0.0	0.0	0.0

Note: Queue reported is the number of cars per lane.

San Ramon General Plan Update
Existing Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2031 San Ramon Valley Blvd / Montevideo Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.529
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	48	Level Of Service:	A

Street Name:	San Ramon Valley Blvd						Montevideo Dr					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	0 0	1 1	0	1 0	2 0	0	0 0	0 0	0	1 0	0 0	1
Volume Module:												
Base Vol:	0	425	235	484	570	0	0	0	0	96	0	262
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	425	235	484	570	0	0	0	0	96	0	262
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	425	235	484	570	0	0	0	0	96	0	262
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	425	235	484	570	0	0	0	0	96	0	262
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	262
RTOR Vol:	0	425	235	484	570	0	0	0	0	96	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	425	235	484	570	0	0	0	0	96	0	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.29	0.71	1.00	2.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	2215	1225	1720	3440	0	0	0	0	1720	0	1720
Capacity Analysis Module:												
Vol/Sat:	0.00	0.19	0.19	0.28	0.17	0.00	0.00	0.00	0.00	0.06	0.00	0.00
Crit Volume:			330	484				0		96		
Crit Moves:			****	****						****		

San Ramon General Plan Update
Existing Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2032 Montevideo Dr / Alcosta Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.215
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	29	Level Of Service:	A

Street Name:	Alcosta Blvd						Montevideo Dr					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	2 0	0	0 0	2 0	1	1 0	0 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	12	88	0	0	430	161	143	0	40	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	12	88	0	0	430	161	143	0	40	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	12	88	0	0	430	161	143	0	40	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	12	88	0	0	430	161	143	0	40	0	0	0
RTOR Reduct:	0	0	0	0	0	143	0	0	12	0	0	0
RTOR Vol:	12	88	0	0	430	18	143	0	28	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	12	88	0	0	430	18	143	0	28	0	0	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1720	3440	0	0	3440	1720	1720	0	1720	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.01	0.03	0.00	0.00	0.13	0.01	0.08	0.00	0.02	0.00	0.00	0.00
Crit Volume:	12				215		143				0	
Crit Moves:	****				****		****					

San Ramon General Plan Update
Existing Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2033 San Ramon Valley Blvd / Pine Valley Rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.522
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	48	Level Of Service:	A

Street Name:	San Ramon Valley Blvd						Pine Valley Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	0 1	0	1 0	0 1	0
Volume Module:												
Base Vol:	40	503	290	209	362	32	24	16	24	215	15	117
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	40	503	290	209	362	32	24	16	24	215	15	117
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	40	503	290	209	362	32	24	16	24	215	15	117
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	40	503	290	209	362	32	24	16	24	215	15	117
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	40	503	290	209	362	32	24	16	24	215	15	117
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	40	503	290	209	362	32	24	16	24	215	15	117
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.27	0.73	1.00	1.84	0.16	1.00	0.40	0.60	1.00	0.11	0.89
Final Sat.:	1650	2093	1207	1650	3032	268	1650	660	990	1650	188	1463
Capacity Analysis Module:												
Vol/Sat:	0.02	0.24	0.24	0.13	0.12	0.12	0.01	0.02	0.02	0.13	0.08	0.08
Crit Volume:			397	209				40		215		
Crit Moves:			****	****				****		****		

San Ramon General Plan Update
Existing Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2034 I-680 SB Ramps / San Ramon Valley Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.549
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	51	Level Of Service:	A

Street Name:	San Ramon Valley Blvd						I-680 SB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Ignore			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	0 1	0	1 0	1! 0	0
Volume Module:												
Base Vol:	38	475	168	214	184	44	94	24	11	578	57	21
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	38	475	168	214	184	44	94	24	11	578	57	21
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	38	475	168	214	184	44	94	24	11	578	57	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	38	475	168	214	184	44	94	24	11	578	57	21
RTOR Reduct:	0	0	0	0	0	44	0	0	0	0	0	0
RTOR Vol:	38	475	168	214	184	0	94	24	11	578	57	21
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	38	475	168	214	184	0	94	24	11	578	57	21
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	0.69	0.31	1.77	0.17	0.06
Final Sat.:	1650	3300	1650	1650	3300	1650	1650	1131	519	2643	287	106
Capacity Analysis Module:												
Vol/Sat:	0.02	0.14	0.10	0.13	0.06	0.00	0.06	0.02	0.02	0.22	0.20	0.20
Crit Volume:		238		214			94			328		
Crit Moves:		****		****			****			****		

San Ramon General Plan Update
Existing Conditions - PM Peak Hour LOS

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #2035 Alcosta Blvd / Old Ranch Rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.514
Loss Time (sec):	0	Average Delay (sec/veh):	12.9
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Alcosta Blvd						Old Ranch Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 1	0 1	0	1	0 1	1 0	0	0 1!	0 0	1	0 1!	0 1
Volume Module:												
Base Vol:	10	204	283	247	211	0	0	0	0	160	1	246
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	10	204	283	247	211	0	0	0	0	160	1	246
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	10	204	283	247	211	0	0	0	0	160	1	246
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	10	204	283	247	211	0	0	0	0	160	1	246
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	10	204	283	247	211	0	0	0	0	160	1	246
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.04	0.96	1.00	1.00	2.00	0.00	0.00	1.00	0.00	1.18	0.01	1.81
Final Sat.:	22	528	619	481	1020	0	0	434	0	1134	xxxx	1577
Capacity Analysis Module:												
Vol/Sat:	0.45	0.39	0.46	0.51	0.21	xxxx	xxxx	0.00	xxxx	0.14	-0.00	0.16
Crit Moves:			****	****				****				****
Delay/Veh:	12.9	12.9	12.8	17.2	11.2	0.0	0.0	0.0	0.0	11.6	10.7	10.7
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	12.9	12.9	12.8	17.2	11.2	0.0	0.0	0.0	0.0	11.6	10.7	10.7
LOS by Move:	B	B	B	C	B	*	*	*	*	B	B	B
ApproachDel:	12.8			14.4			xxxxxx			11.4		
Delay Adj:	1.00			1.00			xxxxx			1.00		
ApprAdjDel:	12.8			14.4			xxxxxx			11.4		
LOS by Appr:	B			B			*			B		
AllWayAvgQ:	0.6	0.8	0.8	1.0	0.2	0.2	0.0	0.0	0.0	0.3	0.3	0.3

Note: Queue reported is the number of cars per lane.

San Ramon General Plan Update
Existing Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2036 Dougherty Rd / Old Ranch Rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.329
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	34	Level Of Service:	A

Street Name:	Dougherty Rd						Old Ranch Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	3 0	0	0 0	2 1	0	1 0	0 0	2	0 0	0 0	0
Volume Module:												
Base Vol:	282	1060	0	0	515	150	63	0	56	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	282	1060	0	0	515	150	63	0	56	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	282	1060	0	0	515	150	63	0	56	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	282	1060	0	0	515	150	63	0	56	0	0	0
RTOR Reduct:	0	0	0	0	0	0	0	0	56	0	0	0
RTOR Vol:	282	1060	0	0	515	150	63	0	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	282	1060	0	0	515	150	63	0	0	0	0	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	1.00
Lanes:	1.00	3.00	0.00	0.00	2.32	0.68	1.00	0.00	2.00	0.00	0.00	0.00
Final Sat.:	1720	5160	0	0	3996	1164	1720	0	3127	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.16	0.21	0.00	0.00	0.13	0.13	0.04	0.00	0.00	0.00	0.00	0.00
Crit Volume:	282					222	63				0	
Crit Moves:	****					****	****					

San Ramon General Plan Update
Existing Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2037 San Ramon Valley Blvd / Alcosta Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.647
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	65	Level Of Service:	B

Street Name:	San Ramon Valley Blvd						Alcosta Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	2 0	1	2 0	1 1	0	1 0	1 1	0	2 0	1 0	1
Volume Module:												
Base Vol:	153	447	510	756	555	51	20	215	48	305	290	643
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	153	447	510	756	555	51	20	215	48	305	290	643
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	153	447	510	756	555	51	20	215	48	305	290	643
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	153	447	510	756	555	51	20	215	48	305	290	643
RTOR Reduct:	0	0	168	0	0	0	0	0	0	0	0	416
RTOR Vol:	153	447	342	756	555	51	20	215	48	305	290	227
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	153	447	342	756	555	51	20	215	48	305	290	227
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00
Lanes:	1.00	2.00	1.00	2.00	1.83	0.17	1.00	1.63	0.37	2.00	1.00	1.00
Final Sat.:	1650	3300	1650	3000	3022	278	1650	2698	602	3000	1650	1650
Capacity Analysis Module:												
Vol/Sat:	0.09	0.14	0.21	0.25	0.18	0.18	0.01	0.08	0.08	0.10	0.18	0.14
Crit Volume:			342	378			20				290	
Crit Moves:			****	****			****				****	

San Ramon General Plan Update
Existing Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2038 I-680 NB Ramps / Alcosta Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.928
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	E

Street Name:	I-680 NB Ramps						Alcosta Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	0 1	0	0 1	0	0	0 0 0	1	0	2 0 0	0	0	2 0 1
Volume Module:												
Base Vol:	922	1	691	0	0	0	365	768	0	0	620	245
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	922	1	691	0	0	0	365	768	0	0	620	245
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	922	1	691	0	0	0	365	768	0	0	620	245
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	922	1	691	0	0	0	365	768	0	0	620	245
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	922	1	691	0	0	0	365	768	0	0	620	245
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	922	1	691	0	0	0	365	768	0	0	620	245
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.99	0.01	1.00	0.00	0.00	0.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	1718	2	1720	0	0	0	1720	3440	0	0	3440	1720
Capacity Analysis Module:												
Vol/Sat:	0.54	0.54	0.40	0.00	0.00	0.00	0.21	0.22	0.00	0.00	0.18	0.14
Crit Volume:	922					0	365				310	
Crit Moves:	****						****				****	

San Ramon General Plan Update
Existing Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2039 Alcosta Blvd / Davona Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.562
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	42	Level Of Service:	A

Street Name:	Davona Dr						Alcosta Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	0	0	1! 0	0	0	1! 0	0	1	0 1	1	0	1 0 1 1 0
Volume Module:												
Base Vol:	113	6	11	31	5	77	197	1269	188	12	616	34
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	113	6	11	31	5	77	197	1269	188	12	616	34
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	113	6	11	31	5	77	197	1269	188	12	616	34
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	113	6	11	31	5	77	197	1269	188	12	616	34
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	113	6	11	31	5	77	197	1269	188	12	616	34
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	113	6	11	31	5	77	197	1269	188	12	616	34
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.87	0.05	0.08	0.27	0.04	0.69	1.00	1.74	0.26	1.00	1.90	0.10
Final Sat.:	1495	79	146	472	76	1172	1720	2996	444	1720	3260	180
Capacity Analysis Module:												
Vol/Sat:	0.08	0.08	0.08	0.07	0.07	0.07	0.11	0.42	0.42	0.01	0.19	0.19
Crit Volume:	113			113			729			12		
Crit Moves:	****			****			****			****		

San Ramon General Plan Update
Existing Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2040 Alcosta Blvd / Kimball Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.489
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	36	Level Of Service:	A

Street Name:	Kimball Ave						Alcosta Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	0 0	1	0 0	0 0	0	0 0	1 1	0	1 0	2 0	0
Volume Module:												
Base Vol:	154	0	16	0	0	0	0	975	268	31	581	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	154	0	16	0	0	0	0	975	268	31	581	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	154	0	16	0	0	0	0	975	268	31	581	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	154	0	16	0	0	0	0	975	268	31	581	0
RTOR Reduct:	0	0	16	0	0	0	0	0	0	0	0	0
RTOR Vol:	154	0	0	0	0	0	0	975	268	31	581	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	154	0	0	0	0	0	0	975	268	31	581	0
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	1.57	0.43	1.00	2.00	0.00
Final Sat.:	1650	0	1650	0	0	0	0	2588	712	1650	3300	0
Capacity Analysis Module:												
Vol/Sat:	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.38	0.38	0.02	0.18	0.00
Crit Volume:	154			0					622	31		
Crit Moves:	****								****	****		

San Ramon General Plan Update
Existing Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2041 Alcosta Blvd / Belle Meade Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.294
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	26	Level Of Service:	A

Street Name:	Belle Meade Dr						Alcosta Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	0 1	0	0 1	0 1	0	0 1	1	0 1	1 0	1	0 1	1 0
Volume Module:												
Base Vol:	8	2	1	55	0	76	179	682	25	7	454	69
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	8	2	1	55	0	76	179	682	25	7	454	69
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	8	2	1	55	0	76	179	682	25	7	454	69
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	8	2	1	55	0	76	179	682	25	7	454	69
RTOR Reduct:	0	0	1	0	0	76	0	0	0	0	0	0
RTOR Vol:	8	2	0	55	0	0	179	682	25	7	454	69
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	8	2	0	55	0	0	179	682	25	7	454	69
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.80	0.20	1.00	1.00	0.00	1.00	1.00	1.93	0.07	1.00	1.74	0.26
Final Sat.:	1376	344	1720	1720	0	1720	1720	3318	122	1720	2986	454
Capacity Analysis Module:												
Vol/Sat:	0.01	0.01	0.00	0.03	0.00	0.00	0.10	0.21	0.21	0.00	0.15	0.15
Crit Volume:		10		55			179					262
Crit Moves:		****		****			****					****

San Ramon General Plan Update
Existing Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2042 Alcosta Blvd / Village Pkwy

Cycle (sec):	100	Critical Vol./Cap.(X):	0.398
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	31	Level Of Service:	A

Street Name:	Village Pkwy						Alcosta Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	2 0	0 0	1	0 0	0 0	0	0 0	1 1	0	1 0	2 0	0
Volume Module:												
Base Vol:	202	0	177	0	0	0	0	658	152	168	331	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	202	0	177	0	0	0	0	658	152	168	331	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	202	0	177	0	0	0	0	658	152	168	331	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	202	0	177	0	0	0	0	658	152	168	331	0
RTOR Reduct:	0	0	168	0	0	0	0	0	0	0	0	0
RTOR Vol:	202	0	9	0	0	0	0	658	152	168	331	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	202	0	9	0	0	0	0	658	152	168	331	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	1.62	0.38	1.00	2.00	0.00
Final Sat.:	3127	0	1720	0	0	0	0	2794	646	1720	3440	0
Capacity Analysis Module:												
Vol/Sat:	0.06	0.00	0.01	0.00	0.00	0.00	0.00	0.24	0.24	0.10	0.10	0.00
Crit Volume:	101				0				405	168		
Crit Moves:	****								****	****		

Cumulative (2030) AM Peak Hour Intersection Traffic Capacity Analysis

San Ramon General Plan Update
Cumulative (2030) Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2001 Fostoria Way / San Ramon Valley Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.610
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	59	Level Of Service:	B

Street Name:	San Ramon Valley Blvd						Fostoria Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	1 0	2 0	1
Volume Module:												
Base Vol:	145	1088	84	163	783	280	142	130	158	63	232	196
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	145	1088	84	163	783	280	142	130	158	63	232	196
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	145	1088	84	163	783	280	142	130	158	63	232	196
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	145	1088	84	163	783	280	142	130	158	63	232	196
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	163
RTOR Vol:	145	1088	84	163	783	280	142	130	158	63	232	33
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	145	1088	84	163	783	280	142	130	158	63	232	33
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.86	0.14	1.00	1.47	0.53	1.00	1.00	1.00	1.00	2.00	1.00
Final Sat.:	1650	3063	237	1650	2431	869	1650	1650	1650	1650	3300	1650
Capacity Analysis Module:												
Vol/Sat:	0.09	0.36	0.36	0.10	0.32	0.32	0.09	0.08	0.10	0.04	0.07	0.02
Crit Volume:			586	163			142				116	
Crit Moves:			****	****			****				****	

San Ramon General Plan Update
Cumulative (2030) Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2002 Fostoria Way/Crow Canyon Pl

Cycle (sec):	100	Critical Vol./Cap.(X):	0.670
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	69	Level Of Service:	B

Street Name:	Crow Canyon Pl						Fostoria Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	1 0	1	1 0	0 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	100	233	80	125	570	77	55	303	243	86	238	114
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	100	233	80	125	570	77	55	303	243	86	238	114
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	100	233	80	125	570	77	55	303	243	86	238	114
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	100	233	80	125	570	77	55	303	243	86	238	114
RTOR Reduct:	0	0	80	0	0	0	0	0	0	0	0	0
RTOR Vol:	100	233	0	125	570	77	55	303	243	86	238	114
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	100	233	0	125	570	77	55	303	243	86	238	114
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.88	0.12	1.00	1.11	0.89	1.00	1.35	0.65
Final Sat.:	1650	1650	1650	1650	1454	196	1650	1831	1469	1650	2231	1069
Capacity Analysis Module:												
Vol/Sat:	0.06	0.14	0.00	0.08	0.39	0.39	0.03	0.17	0.17	0.05	0.11	0.11
Crit Volume:	100					647		273		86		
Crit Moves:	****					****		****		****		

San Ramon General Plan Update
Cumulative (2030) Conditions - AM Peak Hour LOS

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #2003 Fostoria Way / Camino Ramon / Costco DW

Cycle (sec):	100	Critical Vol./Cap.(X):	0.863
Loss Time (sec):	0	Average Delay (sec/veh):	21.4
Optimal Cycle:	0	Level Of Service:	C

Street Name:	Camino Ramon / Costco DW						Fostoria Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0 1	0 1		0 0 1!	0 0		1 0 1	0 1		0 1	0 1	0
Volume Module:												
Base Vol:	201	17	48	5	8	1	11	463	165	76	387	7
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	201	17	48	5	8	1	11	463	165	76	387	7
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	201	17	48	5	8	1	11	463	165	76	387	7
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	201	17	48	5	8	1	11	463	165	76	387	7
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	201	17	48	5	8	1	11	463	165	76	387	7
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	0.36	0.57	0.07	1.00	1.00	1.00	0.32	1.65	0.03
Final Sat.:	452	480	530	151	242	30	488	536	588	173	897	16
Capacity Analysis Module:												
Vol/Sat:	0.44	0.04	0.09	0.03	0.03	0.03	0.02	0.86	0.28	0.44	0.43	0.43
Crit Moves:	****				****			****		****		
Delay/Veh:	16.0	10.1	9.8	11.1	11.1	11.1	10.0	37.3	10.9	14.0	13.7	13.5
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	16.0	10.1	9.8	11.1	11.1	11.1	10.0	37.3	10.9	14.0	13.7	13.5
LOS by Move:	C	B	A	B	B	B	B	E	B	B	B	B
ApproachDel:	14.5			11.1			30.0			13.8		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	14.5			11.1			30.0			13.8		
LOS by Appr:	B			B			D			B		
AllWayAvgQ:	0.7	0.0	0.1	0.0	0.0	0.0	0.0	4.2	0.4	0.7	0.7	0.7

Note: Queue reported is the number of cars per lane.

San Ramon General Plan Update
Cumulative (2030) Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2004 Crow Canyon Rd / Bollinger Canyon Rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.514
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	47	Level Of Service:	A

Street Name:	Bollinger Canyon Rd						Crow Canyon Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	1 0	1	1 0	0 1	0	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	157	69	160	23	73	13	17	1047	91	82	618	29
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	157	69	160	23	73	13	17	1047	91	82	618	29
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	157	69	160	23	73	13	17	1047	91	82	618	29
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	157	69	160	23	73	13	17	1047	91	82	618	29
RTOR Reduct:	0	0	82	0	0	0	0	0	91	0	0	23
RTOR Vol:	157	69	78	23	73	13	17	1047	0	82	618	6
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	157	69	78	23	73	13	17	1047	0	82	618	6
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.85	0.15	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1650	1650	1650	1650	1401	249	1650	3300	1650	1650	3300	1650
Capacity Analysis Module:												
Vol/Sat:	0.10	0.04	0.05	0.01	0.05	0.05	0.01	0.32	0.00	0.05	0.19	0.00
Crit Volume:	157					86		524		82		
Crit Moves:	****					****		****		****		

San Ramon General Plan Update
Cumulative (2030) Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2005 Crow Canyon Rd / Twin Creeks Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.531
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	40	Level Of Service:	A

Street Name:	Twin Creeks Dr						Crow Canyon Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	0 1	0	0 1	0 1	0	0 1	1 0	2	1 0	1 0	2	1 0
Volume Module:												
Base Vol:	194	5	295	17	4	4	3	1245	133	238	1517	8
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	194	5	295	17	4	4	3	1245	133	238	1517	8
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	194	5	295	17	4	4	3	1245	133	238	1517	8
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	194	5	295	17	4	4	3	1245	133	238	1517	8
RTOR Reduct:	0	0	238	0	0	3	0	0	0	0	0	0
RTOR Vol:	194	5	57	17	4	1	3	1245	133	238	1517	8
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	194	5	57	17	4	1	3	1245	133	238	1517	8
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.97	0.03	1.00	0.81	0.19	1.00	1.00	2.71	0.29	1.00	2.98	0.02
Final Sat.:	1677	43	1720	1392	328	1720	1720	4662	498	1720	5133	27
Capacity Analysis Module:												
Vol/Sat:	0.12	0.12	0.03	0.01	0.01	0.00	0.00	0.27	0.27	0.14	0.30	0.30
Crit Volume:		199		17					459	238		
Crit Moves:		****		****					****	****		

San Ramon General Plan Update
Cumulative (2030) Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2006 Crow Canyon Rd. / San Ramon Valley Blvd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.688
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	73	Level Of Service:	B

Street Name:	San Ramon Valley Blvd.						Crow Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	2 0	2 0	1	2 0	2 0	1	2 0	3 0	1	2 0	3 0	1
Volume Module:												
Base Vol:	142	207	400	599	231	69	224	1171	162	566	1552	224
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	142	207	400	599	231	69	224	1171	162	566	1552	224
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	142	207	400	599	231	69	224	1171	162	566	1552	224
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	142	207	400	599	231	69	224	1171	162	566	1552	224
RTOR Reduct:	0	0	311	0	0	69	0	0	78	0	0	224
RTOR Vol:	142	207	89	599	231	0	224	1171	84	566	1552	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	142	207	89	599	231	0	224	1171	84	566	1552	0
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	0.91	1.00	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.91	1.00	1.00
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	3000	3300	1650	3000	3300	1650	3000	4950	1650	3000	4950	1650
Capacity Analysis Module:												
Vol/Sat:	0.05	0.06	0.05	0.20	0.07	0.00	0.07	0.24	0.05	0.19	0.31	0.00
Crit Volume:		104		300				390		283		
Crit Moves:		****		****				****		****		

San Ramon General Plan Update
Cumulative (2030) Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2007 Crow Canyon Rd. / I-680 SB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.551
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	41	Level Of Service:	A

Street Name:	I-680 SB Ramps						Crow Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Ignore			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	0 0	0 0	0	3 0	0 0	2	0 0	3 0	1	0 0	3 0	1
Volume Module:												
Base Vol:	0	0	0	1125	0	939	0	1425	745	0	1403	1007
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	1125	0	939	0	1425	745	0	1403	1007
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	1125	0	939	0	1425	745	0	1403	1007
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	1125	0	939	0	1425	745	0	1403	1007
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	0	0	0	1125	0	939	0	1425	745	0	1403	1007
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	1125	0	939	0	1425	745	0	1403	1007
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	1.00	1.00	1.00	0.87	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	3.00	0.00	2.00	0.00	3.00	1.00	0.00	3.00	1.00
Final Sat.:	0	0	0	4698	0	3272	0	5400	1800	0	5400	1800
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.24	0.00	0.29	0.00	0.26	0.41	0.00	0.26	0.56
Crit Volume:	0					470		475		0		
Crit Moves:						****		****		****		

San Ramon General Plan Update
Cumulative (2030) Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2008 Crow Canyon Rd. / I-680 NB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.742
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	88	Level Of Service:	C

Street Name:	I-680 NB Ramps						Crow Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ignore			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	2 0	0 0	2	0 0	0 0	0	0 0	3 0	1	0 0	3 1	1
Volume Module:												
Base Vol:	596	0	1218	0	0	0	0	1819	731	0	1814	834
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	596	0	1218	0	0	0	0	1819	731	0	1814	834
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	596	0	1218	0	0	0	0	1819	731	0	1814	834
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	596	0	1218	0	0	0	0	1819	731	0	1814	834
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	596	0	1218	0	0	0	0	1819	731	0	1814	834
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	596	0	1218	0	0	0	0	1819	731	0	1814	834
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	0.91	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91
Lanes:	2.00	0.00	2.00	0.00	0.00	0.00	0.00	3.00	1.00	0.00	3.43	1.57
Final Sat.:	3127	0	3127	0	0	0	0	5160	1720	0	5891	2462
Capacity Analysis Module:												
Vol/Sat:	0.19	0.00	0.39	0.00	0.00	0.00	0.00	0.35	0.43	0.00	0.31	0.34
Crit Volume:			609	0				606		0		
Crit Moves:			****					****		****		

San Ramon General Plan Update
Cumulative (2030) Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2009 Crow Canyon Rd. / Crow Canyon Pl.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.741
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	88	Level Of Service:	C

Street Name:	Crow Canyon Pl.						Crow Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Ovl			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	2 0	1 1	0	1 0	1 0	1	2 0	4 0	1	1 0	4 1	0
Volume Module:												
Base Vol:	181	56	50	249	171	520	452	2046	788	164	1947	146
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	181	56	50	249	171	520	452	2046	788	164	1947	146
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	181	56	50	249	171	520	452	2046	788	164	1947	146
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	181	56	50	249	171	520	452	2046	788	164	1947	146
RTOR Reduct:	0	0	0	0	0	249	0	0	100	0	0	0
RTOR Vol:	181	56	50	249	171	271	452	2046	688	164	1947	146
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	181	56	50	249	171	271	452	2046	688	164	1947	146
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	0.91	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.06	0.94	1.00	1.00	1.00	2.00	4.00	1.00	1.00	4.65	0.35
Final Sat.:	3000	1743	1557	1650	1650	1650	3000	6600	1650	1650	7675	575
Capacity Analysis Module:												
Vol/Sat:	0.06	0.03	0.03	0.15	0.10	0.16	0.15	0.31	0.42	0.10	0.25	0.25
Crit Volume:	91					271			688	164		
Crit Moves:	****					****			****	****		

San Ramon General Plan Update
Cumulative (2030) Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2010 Crow Canyon Rd. / Camino Ramon

Cycle (sec):	100	Critical Vol./Cap.(X):	0.585
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	55	Level Of Service:	A

Street Name:	Camino Ramon						Crow Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	2 0	1 0	1	2 0	1 1	0	2 0	4 0	1	2 0	3 1	0
Volume Module:												
Base Vol:	140	73	40	104	126	52	214	1441	690	339	2065	250
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	140	73	40	104	126	52	214	1441	690	339	2065	250
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	140	73	40	104	126	52	214	1441	690	339	2065	250
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	140	73	40	104	126	52	214	1441	690	339	2065	250
RTOR Reduct:	0	0	40	0	0	0	0	0	77	0	0	0
RTOR Vol:	140	73	0	104	126	52	214	1441	613	339	2065	250
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	140	73	0	104	126	52	214	1441	613	339	2065	250
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	0.91	1.00	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.91	1.00	1.00
Lanes:	2.00	1.00	1.00	2.00	1.42	0.58	2.00	4.00	1.00	2.00	3.57	0.43
Final Sat.:	3000	1650	1650	3000	2336	964	3000	6600	1650	3000	5887	713
Capacity Analysis Module:												
Vol/Sat:	0.05	0.04	0.00	0.03	0.05	0.05	0.07	0.22	0.37	0.11	0.35	0.35
Crit Volume:	70					89			613	170		
Crit Moves:	****					****			****	****		

San Ramon General Plan Update
Cumulative (2030) Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2011 Crow Canyon Rd. / Alcosta Blvd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.801
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	D

Street Name:	Alcosta Blvd.						Crow Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	2 0	1 0	1	2 0	1 1	0	1 0	3 0	1	2 0	2 1	0
Volume Module:												
Base Vol:	250	225	222	184	358	20	20	751	634	908	2184	225
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	250	225	222	184	358	20	20	751	634	908	2184	225
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	250	225	222	184	358	20	20	751	634	908	2184	225
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	250	225	222	184	358	20	20	751	634	908	2184	225
RTOR Reduct:	0	0	222	0	0	0	0	0	138	0	0	0
RTOR Vol:	250	225	0	184	358	20	20	751	497	908	2184	225
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	250	225	0	184	358	20	20	751	497	908	2184	225
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00
Lanes:	2.00	1.00	1.00	2.00	1.89	0.11	1.00	3.00	1.00	2.00	2.72	0.28
Final Sat.:	3000	1650	1650	3000	3125	175	1650	4950	1650	3000	4488	462
Capacity Analysis Module:												
Vol/Sat:	0.08	0.14	0.00	0.06	0.11	0.11	0.01	0.15	0.30	0.30	0.49	0.49
Crit Volume:		225		92					497	454		
Crit Moves:		****		****					****	****		

San Ramon General Plan Update
Cumulative (2030) Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2012 Crow Canyon Rd / El Capitan-Tahiti Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.701
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	62	Level Of Service:	C

Street Name:	El Capitan-Tahiti Dr						Crow Canyon Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Ignore			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	0 0	1! 0	0	1 0	1 0	1	2 0	3 0	1	1 0	2 1	0
Volume Module:												
Base Vol:	67	3	9	65	1	512	267	857	33	10	2595	147
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	67	3	9	65	1	512	267	857	33	10	2595	147
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	67	3	9	65	1	512	267	857	33	10	2595	147
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	67	3	9	65	1	512	267	857	33	10	2595	147
RTOR Reduct:	0	0	0	0	0	0	0	0	33	0	0	0
RTOR Vol:	67	3	9	65	1	512	267	857	0	10	2595	147
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	67	3	9	65	1	512	267	857	0	10	2595	147
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00
Lanes:	0.85	0.04	0.11	1.00	1.00	1.00	2.00	3.00	1.00	1.00	2.84	0.16
Final Sat.:	1459	65	196	1720	1720	1720	3127	5160	1720	1720	4883	277
Capacity Analysis Module:												
Vol/Sat:	0.05	0.05	0.05	0.04	0.00	0.30	0.09	0.17	0.00	0.01	0.53	0.53
Crit Volume:			79	65			134				914	
Crit Moves:			****	****			****				****	

San Ramon General Plan Update
Cumulative (2030) Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2013 Crow Canyon Rd / Dougherty Rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.611
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	59	Level Of Service:	B

Street Name:	Dougherty Rd						Crow Canyon Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	2 0	0 0	2	0 0	0 0	0	0 0	3 0	1	2 0	3 0	0
Volume Module:												
Base Vol:	576	0	656	0	0	0	0	569	178	989	1432	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	576	0	656	0	0	0	0	569	178	989	1432	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	576	0	656	0	0	0	0	569	178	989	1432	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	576	0	656	0	0	0	0	569	178	989	1432	0
RTOR Reduct:	0	0	544	0	0	0	0	0	178	0	0	0
RTOR Vol:	576	0	112	0	0	0	0	569	0	989	1432	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	576	0	112	0	0	0	0	569	0	989	1432	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	0.91	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00
Lanes:	2.00	0.00	2.00	0.00	0.00	0.00	0.00	3.00	1.00	2.00	3.00	0.00
Final Sat.:	3127	0	3127	0	0	0	0	5160	1720	3127	5160	0
Capacity Analysis Module:												
Vol/Sat:	0.18	0.00	0.04	0.00	0.00	0.00	0.00	0.11	0.00	0.32	0.28	0.00
Crit Volume:	288				0			190		495		
Crit Moves:	****							****		****		

San Ramon General Plan Update
Cumulative (2030) Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2014 Norris Canyon Rd. / San Ramon Valley Blvd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.570
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	53	Level Of Service:	A

Street Name:	San Ramon Valley Blvd.						Norris Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	2 0	1	2 0	1 1	0	1 0	1 1	0	1 0	1 0	1
Volume Module:												
Base Vol:	76	420	362	469	205	35	75	524	81	170	194	306
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	76	420	362	469	205	35	75	524	81	170	194	306
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	76	420	362	469	205	35	75	524	81	170	194	306
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	76	420	362	469	205	35	75	524	81	170	194	306
RTOR Reduct:	0	0	170	0	0	0	0	0	0	0	0	258
RTOR Vol:	76	420	192	469	205	35	75	524	81	170	194	48
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	76	420	192	469	205	35	75	524	81	170	194	48
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	2.00	1.71	0.29	1.00	1.73	0.27	1.00	1.00	1.00
Final Sat.:	1650	3300	1650	3000	2819	481	1650	2858	442	1650	1650	1650
Capacity Analysis Module:												
Vol/Sat:	0.05	0.13	0.12	0.16	0.07	0.07	0.05	0.18	0.18	0.10	0.12	0.03
Crit Volume:		210		235					303	170		
Crit Moves:		****		****					****	****		

San Ramon General Plan Update
Cumulative (2030) Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2015 Norris Canyon Rd. / Bishop Dr.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.391
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	31	Level Of Service:	A

Street Name:	Bishop Dr.						Norris Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	0 1	0 1	0	0 0	1! 0	0	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	57	9	23	18	21	13	72	791	551	69	542	43
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	57	9	23	18	21	13	72	791	551	69	542	43
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	57	9	23	18	21	13	72	791	551	69	542	43
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	57	9	23	18	21	13	72	791	551	69	542	43
RTOR Reduct:	0	0	0	0	0	0	0	0	57	0	0	18
RTOR Vol:	57	9	23	18	21	13	72	791	494	69	542	25
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	57	9	23	18	21	13	72	791	494	69	542	25
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.48	0.52	0.35	0.40	0.25	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1720	831	889	595	695	430	1720	3440	1720	1720	3440	1720
Capacity Analysis Module:												
Vol/Sat:	0.03	0.01	0.03	0.03	0.03	0.03	0.04	0.23	0.29	0.04	0.16	0.01
Crit Volume:	57				52				494	69		
Crit Moves:	****				****				****	****		

San Ramon General Plan Update
Cumulative (2030) Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2016 Norris Canyon Rd. / Camino Ramon

Cycle (sec):	100	Critical Vol./Cap.(X):	0.649
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	65	Level Of Service:	B

Street Name:	Camino Ramon						Norris Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	2 0	1	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	93	125	49	299	825	157	124	486	207	140	346	116
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	93	125	49	299	825	157	124	486	207	140	346	116
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	93	125	49	299	825	157	124	486	207	140	346	116
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	93	125	49	299	825	157	124	486	207	140	346	116
RTOR Reduct:	0	0	49	0	0	0	0	0	0	0	0	0
RTOR Vol:	93	125	0	299	825	157	124	486	207	140	346	116
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	93	125	0	299	825	157	124	486	207	140	346	116
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.68	0.32	1.00	1.40	0.60	1.00	1.50	0.50
Final Sat.:	1650	3300	1650	1650	2772	528	1650	2314	986	1650	2471	829
Capacity Analysis Module:												
Vol/Sat:	0.06	0.04	0.00	0.18	0.30	0.30	0.08	0.21	0.21	0.08	0.14	0.14
Crit Volume:	93					491		347		140		
Crit Moves:	****					****		****		****		

San Ramon General Plan Update
Cumulative (2030) Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2017 Norris Canyon Rd. / Alcosta Blvd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.485
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	44	Level Of Service:	A

Street Name:	Alcosta Blvd.						Norris Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	1 1	0	1 0	2 0	1	2 0	1 0	1	1 0	1 0	1
Volume Module:												
Base Vol:	407	390	70	297	399	307	111	119	300	16	29	58
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	407	390	70	297	399	307	111	119	300	16	29	58
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	407	390	70	297	399	307	111	119	300	16	29	58
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	407	390	70	297	399	307	111	119	300	16	29	58
RTOR Reduct:	0	0	0	0	0	61	0	0	300	0	0	58
RTOR Vol:	407	390	70	297	399	246	111	119	0	16	29	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	407	390	70	297	399	246	111	119	0	16	29	0
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.70	0.30	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1650	2798	502	1650	3300	1650	3000	1650	1650	1650	1650	1650
Capacity Analysis Module:												
Vol/Sat:	0.25	0.14	0.14	0.18	0.12	0.15	0.04	0.07	0.00	0.01	0.02	0.00
Crit Volume:	407					246		119			29	
Crit Moves:	****					****		****			****	

San Ramon General Plan Update
Cumulative (2030) Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2018 Executive Pkwy. / Camino Ramon

Cycle (sec):	100	Critical Vol./Cap.(X):	0.451
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	34	Level Of Service:	A

Street Name:	Camino Ramon						Executive Pkwy.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	1 1	0	1 0	1 1	0	0 1	0 0	1	0 1	0 0	1
Volume Module:												
Base Vol:	228	212	163	92	467	211	20	73	20	115	70	124
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	228	212	163	92	467	211	20	73	20	115	70	124
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	228	212	163	92	467	211	20	73	20	115	70	124
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	228	212	163	92	467	211	20	73	20	115	70	124
RTOR Reduct:	0	0	0	0	0	0	0	0	20	0	0	92
RTOR Vol:	228	212	163	92	467	211	20	73	0	115	70	32
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	228	212	163	92	467	211	20	73	0	115	70	32
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.13	0.87	1.00	1.38	0.62	0.22	0.78	1.00	0.62	0.38	1.00
Final Sat.:	1720	1945	1495	1720	2369	1071	370	1350	1720	1069	651	1720
Capacity Analysis Module:												
Vol/Sat:	0.13	0.11	0.11	0.05	0.20	0.20	0.05	0.05	0.00	0.11	0.11	0.02
Crit Volume:	228					339		93		115		
Crit Moves:	****					****		****		****		

San Ramon General Plan Update
Cumulative (2030) Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2019 Alcosta Blvd / Woodland Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.509
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	38	Level Of Service:	A

Street Name:	Alcosta Blvd						Woodland Dr					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	1	1 0	1 0	1	1 0	0 1	0	0 1	0 0	1!	0 0
Volume Module:												
Base Vol:	283	919	20	72	762	21	123	2	184	33	4	41
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	283	919	20	72	762	21	123	2	184	33	4	41
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	283	919	20	72	762	21	123	2	184	33	4	41
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	283	919	20	72	762	21	123	2	184	33	4	41
RTOR Reduct:	0	0	0	0	0	0	0	0	184	0	0	0
RTOR Vol:	283	919	20	72	762	21	123	2	0	33	4	41
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	283	919	20	72	762	21	123	2	0	33	4	41
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.96	0.04	1.00	1.95	0.05	0.98	0.02	1.00	0.42	0.05	0.53
Final Sat.:	1720	3367	73	1720	3348	92	1692	28	1720	728	88	904
Capacity Analysis Module:												
Vol/Sat:	0.16	0.27	0.27	0.04	0.23	0.23	0.07	0.07	0.00	0.05	0.05	0.05
Crit Volume:	283				392		123					78
Crit Moves:	****				****		****					****

San Ramon General Plan Update
Cumulative (2030) Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2020 Bishop Dr. / Camino Ramon

Cycle (sec):	100	Critical Vol./Cap.(X):	0.563
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	43	Level Of Service:	A

Street Name:	Camino Ramon						Bishop Dr.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	0 1	0	1 0	0 1	0
Volume Module:												
Base Vol:	42	695	229	98	230	97	89	29	40	61	13	307
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	42	695	229	98	230	97	89	29	40	61	13	307
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	42	695	229	98	230	97	89	29	40	61	13	307
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	42	695	229	98	230	97	89	29	40	61	13	307
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	42	695	229	98	230	97	89	29	40	61	13	307
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	42	695	229	98	230	97	89	29	40	61	13	307
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.50	0.50	1.00	1.41	0.59	1.00	0.42	0.58	1.00	0.04	0.96
Final Sat.:	1720	2587	853	1720	2420	1020	1720	723	997	1720	70	1650
Capacity Analysis Module:												
Vol/Sat:	0.02	0.27	0.27	0.06	0.10	0.10	0.05	0.04	0.04	0.04	0.19	0.19
Crit Volume:			462	98			89				320	
Crit Moves:			****	****			****				****	

San Ramon General Plan Update
Cumulative (2030) Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2021 Alcosta Blvd / Overlook Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.370
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	30	Level Of Service:	A

Street Name:	Alcosta Blvd						Overlook Dr					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	1 1	0	1 0	1 1	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	53	1133	12	14	801	35	8	2	3	37	0	9
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	53	1133	12	14	801	35	8	2	3	37	0	9
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	53	1133	12	14	801	35	8	2	3	37	0	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	53	1133	12	14	801	35	8	2	3	37	0	9
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	53	1133	12	14	801	35	8	2	3	37	0	9
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	53	1133	12	14	801	35	8	2	3	37	0	9
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.98	0.02	1.00	1.92	0.08	0.62	0.15	0.23	0.80	0.00	0.20
Final Sat.:	1720	3404	36	1720	3296	144	1058	265	397	1383	0	337
Capacity Analysis Module:												
Vol/Sat:	0.03	0.33	0.33	0.01	0.24	0.24	0.01	0.01	0.01	0.03	0.00	0.03
Crit Volume:			573	14					13	37		
Crit Moves:			****	****					****	****		

San Ramon General Plan Update
Cumulative (2030) Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2022 Bollinger Canyon Rd / San Ramon Valley Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.893
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	D

Street Name:	San Ramon Valley Blvd						Bollinger Canyon Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	2 0	2 0	1	2 0	1 1	0	1 0	1 1	0	2 0	2 0	1
Volume Module:												
Base Vol:	293	700	649	440	448	42	54	871	286	551	422	259
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	293	700	649	440	448	42	54	871	286	551	422	259
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	293	700	649	440	448	42	54	871	286	551	422	259
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	293	700	649	440	448	42	54	871	286	551	422	259
RTOR Reduct:	0	0	303	0	0	0	0	0	0	0	0	242
RTOR Vol:	293	700	346	440	448	42	54	871	286	551	422	17
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	293	700	346	440	448	42	54	871	286	551	422	17
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00
Lanes:	2.00	2.00	1.00	2.00	1.83	0.17	1.00	1.51	0.49	2.00	2.00	1.00
Final Sat.:	3000	3300	1650	3000	3017	283	1650	2484	816	3000	3300	1650
Capacity Analysis Module:												
Vol/Sat:	0.10	0.21	0.21	0.15	0.15	0.15	0.03	0.35	0.35	0.18	0.13	0.01
Crit Volume:		350		220				579		276		
Crit Moves:		****		****				****		****		

San Ramon General Plan Update
Cumulative (2030) Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2023 Bollinger Canyon Rd. / I-680 SB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.780
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	85	Level Of Service:	C

Street Name:	I-680 SB Ramps						Bollinger Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Protected		
Rights:	Include			Include			Ignore			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	0 0	1! 0	0	1 1	0 0	2	0 0	3 1	0	0 0	3 0	1
Volume Module:												
Base Vol:	3	0	101	1240	21	435	0	1550	410	0	794	1080
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	3	0	101	1240	21	435	0	1550	410	0	794	1080
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	3	0	101	1240	21	435	0	1550	410	0	794	1080
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	3	0	101	1240	21	435	0	1550	410	0	794	1080
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	3	0	101	1240	21	435	0	1550	410	0	794	1080
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	3	0	101	1240	21	435	0	1550	410	0	794	1080
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	0.91	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.03	0.00	0.97	1.97	0.03	2.00	0.00	3.16	0.84	0.00	3.00	1.00
Final Sat.:	48	0	1602	2950	55	3000	0	5219	1381	0	4950	1650
Capacity Analysis Module:												
Vol/Sat:	0.06	0.00	0.06	0.42	0.38	0.15	0.00	0.30	0.30	0.00	0.16	0.65
Crit Volume:			104	630				490		0		
Crit Moves:			****	****				****		****		

San Ramon General Plan Update
Cumulative (2030) Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2024 Bollinger Canyon Rd. / I-680 NB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.828
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	D

Street Name:	I-680 NB Ramps						Bollinger Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Ignore			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	0 0	3	0 0	0 0	0	0 0	3 0	1	0 0	3 0	1
Volume Module:												
Base Vol:	332	0	2099	0	0	0	0	2060	831	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	332	0	2099	0	0	0	0	2060	831	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	332	0	2099	0	0	0	0	2060	831	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	332	0	2099	0	0	0	0	2060	831	0	0	0
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	332	0	2099	0	0	0	0	2060	831	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	332	0	2099	0	0	0	0	2060	831	0	0	0
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	1.00	1.00	0.87	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	3.00	0.00	0.00	0.00	0.00	3.00	1.00	0.00	3.00	1.00
Final Sat.:	1800	0	4698	0	0	0	0	5400	1800	0	5400	1800
Capacity Analysis Module:												
Vol/Sat:	0.18	0.00	0.45	0.00	0.00	0.00	0.00	0.38	0.46	0.00	0.00	0.00
Crit Volume:			700	0				687		0		
Crit Moves:			****					****				

Note: The ultimate configuration at this intersections, as shown in the Bollinger Canyon Road Plan Line Study concepts, allows the vehicles approaching this intersection in the WB direction to continue through the intersection without control from the traffic signal. However, this analysis software is not able to model all approach movements as "free". For this reason, the WB volume is coded as zero. Actual volume are presented in the peak hour intersection turning movement volume figures in the report.

San Ramon General Plan Update
Cumulative (2030) Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2025 Bollinger Canyon Rd / Sunset Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.783
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	C

Street Name:	Sunset Dr						Bollinger Canyon Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 1	0 0	1	1 1	0 0	1	2 0	4 0	1	2 0	4 0	1
Volume Module:												
Base Vol:	56	10	36	109	42	110	1223	2216	720	266	2001	147
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	56	10	36	109	42	110	1223	2216	720	266	2001	147
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	56	10	36	109	42	110	1223	2216	720	266	2001	147
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	56	10	36	109	42	110	1223	2216	720	266	2001	147
RTOR Reduct:	0	0	36	0	0	110	0	0	31	0	0	60
RTOR Vol:	56	10	0	109	42	0	1223	2216	689	266	2001	87
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	56	10	0	109	42	0	1223	2216	689	266	2001	87
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	0.91	1.00	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.91	1.00	1.00
Lanes:	1.70	0.30	1.00	1.44	0.56	1.00	2.00	4.00	1.00	2.00	4.00	1.00
Final Sat.:	2545	500	1650	2165	918	1650	3000	6600	1650	3000	6600	1650
Capacity Analysis Module:												
Vol/Sat:	0.02	0.02	0.00	0.05	0.05	0.00	0.41	0.34	0.42	0.09	0.30	0.05
Crit Volume:	33			75			612				500	
Crit Moves:	****			****			****				****	

Note: For analysis purposes, it was assumed that 60% of the vehicles making a SB right turn use the free right turn lane to I-680 (see Bollinger Canyon Plan Line Study concepts for reference). The remaining 40% of the SB right turning vehicles were used in the above capacity calculations.

San Ramon General Plan Update
Cumulative (2030) Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2026 Bollinger Canyon Rd. / Camino Ramon

Cycle (sec):	100	Critical Vol./Cap.(X):	0.717
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	81	Level Of Service:	C

Street Name:	Camino Ramon						Bollinger Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	2 0	1 0	1	1 0	0 1	1	2 0	4 0	1	2 0	4 0	1
Volume Module:												
Base Vol:	36	29	9	79	116	94	866	1040	481	99	2284	125
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	36	29	9	79	116	94	866	1040	481	99	2284	125
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	36	29	9	79	116	94	866	1040	481	99	2284	125
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	36	29	9	79	116	94	866	1040	481	99	2284	125
RTOR Reduct:	0	0	9	0	0	94	0	0	20	0	0	79
RTOR Vol:	36	29	0	79	116	0	866	1040	461	99	2284	46
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	36	29	0	79	116	0	866	1040	461	99	2284	46
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	0.91	1.00	1.00	1.00	1.00	0.91	0.91	1.00	1.00	0.91	1.00	1.00
Lanes:	2.00	1.00	1.00	1.00	1.00	1.00	2.00	4.00	1.00	2.00	4.00	1.00
Final Sat.:	3000	1650	1650	1650	1650	1500	3000	6600	1650	3000	6600	1650
Capacity Analysis Module:												
Vol/Sat:	0.01	0.02	0.00	0.05	0.07	0.00	0.29	0.16	0.28	0.03	0.35	0.03
Crit Volume:	18				116		433				571	
Crit Moves:	****				****		****				****	

San Ramon General Plan Update
Cumulative (2030) Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2027 Bollinger Canyon Rd / Market Place

Cycle (sec):	100	Critical Vol./Cap.(X):	0.493
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	45	Level Of Service:	A

Street Name:	Market Place						Bollinger Canyon Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 1	0	0 1	1	0 0	1 0	1	0 4	0 1	1	0 3	1 0
Volume Module:												
Base Vol:	270	1	35	2	1	10	14	1148	187	51	2549	7
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	270	1	35	2	1	10	14	1148	187	51	2549	7
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	270	1	35	2	1	10	14	1148	187	51	2549	7
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	270	1	35	2	1	10	14	1148	187	51	2549	7
RTOR Reduct:	0	0	35	0	0	0	0	0	149	0	0	0
RTOR Vol:	270	1	0	2	1	10	14	1148	39	51	2549	7
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	270	1	0	2	1	10	14	1148	39	51	2549	7
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.99	0.01	1.00	1.00	0.09	0.91	1.00	4.00	1.00	1.00	3.99	0.01
Final Sat.:	2989	12	1650	1650	150	1500	1650	6600	1650	1650	6582	18
Capacity Analysis Module:												
Vol/Sat:	0.09	0.08	0.00	0.00	0.01	0.01	0.01	0.17	0.02	0.03	0.39	0.39
Crit Volume:	135				11		14				639	
Crit Moves:	****				****		****				****	

San Ramon General Plan Update
Cumulative (2030) Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2028 Bollinger Canyon Rd. / Alcosta Blvd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.778
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	C

Street Name:	Alcosta Blvd.						Bollinger Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	2 0	1 1	0	2 0	2 0	1	2 0	3 0	1	2 0	3 0	1
Volume Module:												
Base Vol:	760	611	243	220	396	343	301	696	188	432	1504	508
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	760	611	243	220	396	343	301	696	188	432	1504	508
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	760	611	243	220	396	343	301	696	188	432	1504	508
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	760	611	243	220	396	343	301	696	188	432	1504	508
RTOR Reduct:	0	0	0	0	0	166	0	0	188	0	0	121
RTOR Vol:	760	611	243	220	396	177	301	696	0	432	1504	387
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	760	611	243	220	396	177	301	696	0	432	1504	387
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	0.91	1.00	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.91	1.00	1.00
Lanes:	2.00	1.43	0.57	2.00	2.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	3000	2361	939	3000	3300	1650	3000	4950	1650	3000	4950	1650
Capacity Analysis Module:												
Vol/Sat:	0.25	0.26	0.26	0.07	0.12	0.11	0.10	0.14	0.00	0.14	0.30	0.23
Crit Volume:	380				198		151				501	
Crit Moves:	****				****		****				****	

San Ramon General Plan Update
Cumulative (2030) Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2029 Bollinger Canyon Rd / Canyon Lakes Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.655
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	54	Level Of Service:	B

Street Name:	Canyon Lanes Dr						Bollinger Canyon Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	0 1	0	0 1	0	0 1	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	133	4	12	39	1	286	216	927	16	41	2025	98
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	133	4	12	39	1	286	216	927	16	41	2025	98
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	133	4	12	39	1	286	216	927	16	41	2025	98
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	133	4	12	39	1	286	216	927	16	41	2025	98
RTOR Reduct:	0	0	0	0	0	216	0	0	0	0	0	0
RTOR Vol:	133	4	12	39	1	70	216	927	16	41	2025	98
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	133	4	12	39	1	70	216	927	16	41	2025	98
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.25	0.75	0.97	0.03	1.00	1.00	2.95	0.05	1.00	2.86	0.14
Final Sat.:	1720	430	1290	1677	43	1720	1720	5072	88	1720	4922	238
Capacity Analysis Module:												
Vol/Sat:	0.08	0.01	0.01	0.02	0.02	0.04	0.13	0.18	0.18	0.02	0.41	0.41
Crit Volume:	133					70	216				708	
Crit Moves:	****					****	****				****	

San Ramon General Plan Update
Cumulative (2030) Conditions - AM Peak Hour LOS

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #2030 Alcosta Blvd / Vera Cruz Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	1.078
Loss Time (sec):	0	Average Delay (sec/veh):	57.9
Optimal Cycle:	0	Level Of Service:	F

Street Name:	Vera Cruz Dr						Alcosta Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0 1	1 0		1 0 1	1 0		0 0 1!	0 0		0 0 1!	0 0	
Volume Module:												
Base Vol:	5	897	14	23	782	380	177	3	10	18	13	38
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	5	897	14	23	782	380	177	3	10	18	13	38
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	5	897	14	23	782	380	177	3	10	18	13	38
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	5	897	14	23	782	380	177	3	10	18	13	38
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	5	897	14	23	782	380	177	3	10	18	13	38
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.97	0.03	1.00	1.35	0.65	0.93	0.02	0.05	0.26	0.19	0.55
Final Sat.:	481	1016	16	487	725	371	454	8	26	122	88	258
Capacity Analysis Module:												
Vol/Sat:	0.01	0.88	0.88	0.05	1.08	1.02	0.39	0.39	0.39	0.15	0.15	0.15
Crit Moves:		****			****				****		****	
Delay/Veh:	10.3	42.2	42.0	10.4	87.2	68.8	14.8	14.8	14.8	11.7	11.7	11.7
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.3	42.2	42.0	10.4	87.2	68.8	14.8	14.8	14.8	11.7	11.7	11.7
LOS by Move:	B	E	E	B	F	F	B	B	B	B	B	B
ApproachDel:		42.1			79.8			14.8			11.7	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		42.1			79.8			14.8			11.7	
LOS by Appr:		E			F			B			B	
AllWayAvgQ:	0.0	4.7	4.6	0.0	12.4	9.4	0.6	0.6	0.6	0.2	0.2	0.2

Note: Queue reported is the number of cars per lane.

San Ramon General Plan Update
Cumulative (2030) Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2031 San Ramon Valley Blvd / Montevideo Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.704
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	77	Level Of Service:	C

Street Name:	San Ramon Valley Blvd						Montevideo Dr					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	0 0	1 1	0	1 0	2 0	0	0 0	0 0	0	1 0	0 0	1
Volume Module:												
Base Vol:	0	864	117	463	1051	0	0	0	0	257	0	556
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	864	117	463	1051	0	0	0	0	257	0	556
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	864	117	463	1051	0	0	0	0	257	0	556
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	864	117	463	1051	0	0	0	0	257	0	556
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	463
RTOR Vol:	0	864	117	463	1051	0	0	0	0	257	0	93
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	864	117	463	1051	0	0	0	0	257	0	93
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.76	0.24	1.00	2.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	3030	410	1720	3440	0	0	0	0	1720	0	1720
Capacity Analysis Module:												
Vol/Sat:	0.00	0.29	0.29	0.27	0.31	0.00	0.00	0.00	0.00	0.15	0.00	0.05
Crit Volume:		491		463				0		257		
Crit Moves:		****		****						****		

San Ramon General Plan Update
Cumulative (2030) Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2032 Montevideo Dr / Alcosta Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.345
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	35	Level Of Service:	A

Street Name:	Alcosta Blvd						Montevideo Dr					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	2 0	0	0 0	2 0	1	1 0	0 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	77	602	0	0	507	460	263	0	46	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	77	602	0	0	507	460	263	0	46	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	77	602	0	0	507	460	263	0	46	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	77	602	0	0	507	460	263	0	46	0	0	0
RTOR Reduct:	0	0	0	0	0	263	0	0	46	0	0	0
RTOR Vol:	77	602	0	0	507	197	263	0	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	77	602	0	0	507	197	263	0	0	0	0	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1720	3440	0	0	3440	1720	1720	0	1720	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.04	0.17	0.00	0.00	0.15	0.11	0.15	0.00	0.00	0.00	0.00	0.00
Crit Volume:	77				254		263				0	
Crit Moves:	****				****		****					

San Ramon General Plan Update
Cumulative (2030) Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2033 San Ramon Valley Blvd / Pine Valley Rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.797
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	C

Street Name:	San Ramon Valley Blvd						Pine Valley Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	0 1	0	1 0	0 1	0
Volume Module:												
Base Vol:	38	474	204	342	1211	24	27	124	45	465	72	161
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	38	474	204	342	1211	24	27	124	45	465	72	161
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	38	474	204	342	1211	24	27	124	45	465	72	161
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	38	474	204	342	1211	24	27	124	45	465	72	161
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	38	474	204	342	1211	24	27	124	45	465	72	161
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	38	474	204	342	1211	24	27	124	45	465	72	161
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.40	0.60	1.00	1.96	0.04	1.00	0.73	0.27	1.00	0.31	0.69
Final Sat.:	1650	2307	993	1650	3236	64	1650	1211	439	1650	510	1140
Capacity Analysis Module:												
Vol/Sat:	0.02	0.21	0.21	0.21	0.37	0.37	0.02	0.10	0.10	0.28	0.14	0.14
Crit Volume:			339	342					169	465		
Crit Moves:			****	****					****	****		

San Ramon General Plan Update
Cumulative (2030) Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2034 I-680 SB Ramps / San Ramon Valley Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.877
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	D

Street Name:	San Ramon Valley Blvd						I-680 SB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Ignore			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	0 1	0	1 0	1! 0	0
Volume Module:												
Base Vol:	45	449	654	950	729	50	14	25	12	346	53	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	45	449	654	950	729	50	14	25	12	346	53	30
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	45	449	654	950	729	50	14	25	12	346	53	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	45	449	654	950	729	50	14	25	12	346	53	30
RTOR Reduct:	0	0	0	0	0	14	0	0	0	0	0	0
RTOR Vol:	45	449	654	950	729	36	14	25	12	346	53	30
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	45	449	654	950	729	36	14	25	12	346	53	30
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	0.68	0.32	1.61	0.25	0.14
Final Sat.:	1650	3300	1650	1650	3300	1650	1650	1115	535	2419	408	231
Capacity Analysis Module:												
Vol/Sat:	0.03	0.14	0.40	0.58	0.22	0.02	0.01	0.02	0.02	0.14	0.13	0.13
Crit Volume:		224		950				37		215		
Crit Moves:		****		****				****		****		

San Ramon General Plan Update
Cumulative (2030) Conditions - AM Peak Hour LOS

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #2035 Alcosta Blvd / Old Ranch Rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.961
Loss Time (sec):	0	Average Delay (sec/veh):	28.3
Optimal Cycle:	0	Level Of Service:	D

Street Name:	Alcosta Blvd						Old Ranch Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 1	0 1	0	1	0 1	1 0	1	0 0	0 0	1	0 1!	0 1
Volume Module:												
Base Vol:	8	224	152	398	455	0	3	0	0	477	5	394
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	8	224	152	398	455	0	3	0	0	477	5	394
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	8	224	152	398	455	0	3	0	0	477	5	394
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	8	224	152	398	455	0	3	0	0	477	5	394
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	8	224	152	398	455	0	3	0	0	477	5	394
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.04	1.17	0.79	1.00	2.00	0.00	1.00	0.00	0.00	1.63	0.02	1.35
Final Sat.:	18	503	361	414	867	0	382	0	0	1204	-933	1144
Capacity Analysis Module:												
Vol/Sat:	0.45	0.45	0.42	0.96	0.52	xxxx	0.01	xxxx	xxxx	0.40	-0.01	0.34
Crit Moves:	****			****			****			****		
Delay/Veh:	17.4	17.1	15.7	64.2	19.3	0.0	12.1	0.0	0.0	23.0	21.5	20.2
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	17.4	17.1	15.7	64.2	19.3	0.0	12.1	0.0	0.0	23.0	21.5	20.2
LOS by Move:	C	C	C	F	C	*	B	*	*	C	C	C
ApproachDel:	16.5			40.3			12.1			21.8		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	16.5			40.3			12.1			21.8		
LOS by Appr:	C			E			B			C		
AllWayAvgQ:	0.8	0.7	0.7	6.1	1.0	1.0	0.0	0.0	0.0	1.5	1.5	1.5

Note: Queue reported is the number of cars per lane.

San Ramon General Plan Update
Cumulative (2030) Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2036 Dougherty Rd / Old Ranch Rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.741
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	88	Level Of Service:	C

Street Name:	Dougherty Rd						Old Ranch Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	3 0	0	0 0	2 1	0	1 0	0 0	2	0 0	0 0	0
Volume Module:												
Base Vol:	200	631	0	0	2067	568	197	0	163	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	200	631	0	0	2067	568	197	0	163	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	200	631	0	0	2067	568	197	0	163	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	200	631	0	0	2067	568	197	0	163	0	0	0
RTOR Reduct:	0	0	0	0	0	0	0	0	163	0	0	0
RTOR Vol:	200	631	0	0	2067	568	197	0	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	200	631	0	0	2067	568	197	0	0	0	0	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	1.00
Lanes:	1.00	3.00	0.00	0.00	2.35	0.65	1.00	0.00	2.00	0.00	0.00	0.00
Final Sat.:	1720	5160	0	0	4048	1112	1720	0	3127	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.12	0.12	0.00	0.00	0.51	0.51	0.11	0.00	0.00	0.00	0.00	0.00
Crit Volume:	200				878		197				0	
Crit Moves:	****				****		****					

San Ramon General Plan Update
Cumulative (2030) Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2037 San Ramon Valley Blvd / Alcosta Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.874
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	D

Street Name:	San Ramon Valley Blvd						Alcosta Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	5	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	2 0	1	2 0	1 1	0	1 0	1 1	0	2 0	1 0	1
Volume Module:												
Base Vol:	56	481	950	575	780	22	26	263	45	453	81	715
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	56	481	950	575	780	22	26	263	45	453	81	715
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	56	481	950	575	780	22	26	263	45	453	81	715
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	56	481	950	575	780	22	26	263	45	453	81	715
RTOR Reduct:	0	0	249	0	0	0	0	0	0	0	0	316
RTOR Vol:	56	481	701	575	780	22	26	263	45	453	81	399
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	56	481	701	575	780	22	26	263	45	453	81	399
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00
Lanes:	1.00	2.00	1.00	2.00	1.95	0.05	1.00	1.71	0.29	2.00	1.00	1.00
Final Sat.:	1650	3300	1650	3000	3209	91	1650	2818	482	3000	1650	1650
Capacity Analysis Module:												
Vol/Sat:	0.03	0.15	0.42	0.19	0.24	0.24	0.02	0.09	0.09	0.15	0.05	0.24
Crit Volume:			701	288			26					399
Crit Moves:			****	****			****					****

San Ramon General Plan Update
Cumulative (2030) Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2038 I-680 NB Ramps / Alcosta Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.906
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	E

Street Name:	I-680 NB Ramps						Alcosta Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	0 1	0	0 1	0	0	0 0 0	1	0 2	0 0	0	0 2	0 1
Volume Module:												
Base Vol:	265	0	127	0	0	0	515	598	0	0	1558	180
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	265	0	127	0	0	0	515	598	0	0	1558	180
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	265	0	127	0	0	0	515	598	0	0	1558	180
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	265	0	127	0	0	0	515	598	0	0	1558	180
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	265	0	127	0	0	0	515	598	0	0	1558	180
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	265	0	127	0	0	0	515	598	0	0	1558	180
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	1720	0	1720	0	0	0	1720	3440	0	0	3440	1720
Capacity Analysis Module:												
Vol/Sat:	0.15	0.00	0.07	0.00	0.00	0.00	0.30	0.17	0.00	0.00	0.45	0.10
Crit Volume:	265				0		515				779	
Crit Moves:	****						****				****	

San Ramon General Plan Update
Cumulative (2030) Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2039 Alcosta Blvd / Davona Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.806
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	96	Level Of Service:	D

Street Name:	Davona Dr						Alcosta Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	0 0	1!	0	0 0	1!	0	0	1 0	1	1 0	1 0	1
Volume Module:												
Base Vol:	273	6	20	56	16	179	62	438	120	33	1560	42
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	273	6	20	56	16	179	62	438	120	33	1560	42
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	273	6	20	56	16	179	62	438	120	33	1560	42
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	273	6	20	56	16	179	62	438	120	33	1560	42
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	273	6	20	56	16	179	62	438	120	33	1560	42
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	273	6	20	56	16	179	62	438	120	33	1560	42
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.91	0.02	0.07	0.22	0.06	0.72	1.00	1.57	0.43	1.00	1.95	0.05
Final Sat.:	1570	35	115	384	110	1227	1720	2700	740	1720	3350	90
Capacity Analysis Module:												
Vol/Sat:	0.17	0.17	0.17	0.15	0.15	0.15	0.04	0.16	0.16	0.02	0.47	0.47
Crit Volume:	273			251			62			801		
Crit Moves:	****			****			****			****		

San Ramon General Plan Update
Cumulative (2030) Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2040 Alcosta Blvd / Kimball Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.589
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	45	Level Of Service:	A

Street Name:	Kimball Ave						Alcosta Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	0 0	1	0 0	0 0	0	0 0	1 1	0	1 0	2 0	0
Volume Module:												
Base Vol:	356	0	31	0	0	0	0	484	125	45	1231	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	356	0	31	0	0	0	0	484	125	45	1231	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	356	0	31	0	0	0	0	484	125	45	1231	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	356	0	31	0	0	0	0	484	125	45	1231	0
RTOR Reduct:	0	0	31	0	0	0	0	0	0	0	0	0
RTOR Vol:	356	0	0	0	0	0	0	484	125	45	1231	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	356	0	0	0	0	0	0	484	125	45	1231	0
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	1.59	0.41	1.00	2.00	0.00
Final Sat.:	1650	0	1650	0	0	0	0	2623	677	1650	3300	0
Capacity Analysis Module:												
Vol/Sat:	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.18	0.03	0.37	0.00
Crit Volume:	356			0			0				616	
Crit Moves:	****						****				****	

San Ramon General Plan Update
Cumulative (2030) Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2041 Alcosta Blvd / Belle Meade Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.469
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	35	Level Of Service:	A

Street Name:	Belle Meade Dr						Alcosta Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	0 1	0	0 1	0 1	0	0 1	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	33	23	3	113	13	156	72	415	5	1	1091	41
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	33	23	3	113	13	156	72	415	5	1	1091	41
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	33	23	3	113	13	156	72	415	5	1	1091	41
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	33	23	3	113	13	156	72	415	5	1	1091	41
RTOR Reduct:	0	0	1	0	0	72	0	0	0	0	0	0
RTOR Vol:	33	23	2	113	13	84	72	415	5	1	1091	41
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	33	23	2	113	13	84	72	415	5	1	1091	41
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.59	0.41	1.00	0.90	0.10	1.00	1.00	1.98	0.02	1.00	1.93	0.07
Final Sat.:	1014	706	1720	1543	177	1720	1720	3399	41	1720	3315	125
Capacity Analysis Module:												
Vol/Sat:	0.03	0.03	0.00	0.07	0.07	0.05	0.04	0.12	0.12	0.00	0.33	0.33
Crit Volume:		56		113			72				566	
Crit Moves:		****		****			****				****	

San Ramon General Plan Update
Cumulative (2030) Conditions - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2042 Alcosta Blvd / Village Pkwy

Cycle (sec):	100	Critical Vol./Cap.(X):	0.372
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	30	Level Of Service:	A

Street Name:	Village Pkwy						Alcosta Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	2 0	0 0	1	0 0	0 0	0	0 0	1 1	0	1 0	2 0	0
Volume Module:												
Base Vol:	204	0	112	0	0	0	0	418	102	201	1056	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	204	0	112	0	0	0	0	418	102	201	1056	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	204	0	112	0	0	0	0	418	102	201	1056	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	204	0	112	0	0	0	0	418	102	201	1056	0
RTOR Reduct:	0	0	112	0	0	0	0	0	0	0	0	0
RTOR Vol:	204	0	0	0	0	0	0	418	102	201	1056	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	204	0	0	0	0	0	0	418	102	201	1056	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	1.61	0.39	1.00	2.00	0.00
Final Sat.:	3127	0	1720	0	0	0	0	2765	675	1720	3440	0
Capacity Analysis Module:												
Vol/Sat:	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.15	0.12	0.31	0.00
Crit Volume:	102				0		0				528	
Crit Moves:	****						****				****	

Cumulative (2030) AM Peak Hour Intersection Traffic Capacity Analysis (with Mitigation)

San Ramon General Plan Update
Cumulative (2030) Conditions (Mitigated) - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2003 Fostoria Way / Camino Ramon / Costco DW

Cycle (sec):	100	Critical Vol./Cap.(X):	0.457
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	42	Level Of Service:	A

Street Name:	Camino Ramon / Costco DW						Fostoria Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	1 0	1	0 0	1! 0	0	1 0	1 0	1	1 0	0 1	0
Volume Module:												
Base Vol:	201	17	48	5	8	1	11	463	165	76	387	7
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	201	17	48	5	8	1	11	463	165	76	387	7
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	201	17	48	5	8	1	11	463	165	76	387	7
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	201	17	48	5	8	1	11	463	165	76	387	7
RTOR Reduct:	0	0	48	0	0	0	0	0	165	0	0	0
RTOR Vol:	201	17	0	5	8	1	11	463	0	76	387	7
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	201	17	0	5	8	1	11	463	0	76	387	7
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	0.36	0.57	0.07	1.00	1.00	1.00	1.00	0.98	0.02
Final Sat.:	1650	1650	1650	589	943	118	1650	1650	1650	1650	1621	29
Capacity Analysis Module:												
Vol/Sat:	0.12	0.01	0.00	0.01	0.01	0.01	0.01	0.28	0.00	0.05	0.24	0.24
Crit Volume:	201					14		463		76		
Crit Moves:	****					****		****		****		

San Ramon General Plan Update
Cumulative (2030) Conditions (Mitigated) - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2030 Alcosta Blvd / Vera Cruz Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.484
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	36	Level Of Service:	A

Street Name:	Vera Cruz Dr						Alcosta Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	1	1 0	1 0	1	1 0	0 0	1!	0 0	0 0	1!	0 0
Volume Module:												
Base Vol:	5	897	14	23	782	380	177	3	10	18	13	38
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	5	897	14	23	782	380	177	3	10	18	13	38
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	5	897	14	23	782	380	177	3	10	18	13	38
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	5	897	14	23	782	380	177	3	10	18	13	38
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	5	897	14	23	782	380	177	3	10	18	13	38
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	5	897	14	23	782	380	177	3	10	18	13	38
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.97	0.03	1.00	1.35	0.65	0.93	0.02	0.05	0.26	0.19	0.55
Final Sat.:	1720	3387	53	1720	2315	1125	1602	27	91	449	324	947
Capacity Analysis Module:												
Vol/Sat:	0.00	0.26	0.26	0.01	0.34	0.34	0.11	0.11	0.11	0.04	0.04	0.04
Crit Volume:	5					581	177				69	
Crit Moves:	****					****	****				****	

San Ramon General Plan Update
Cumulative (2030) Conditions (Mitigated) - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2035 Alcosta Blvd / Old Ranch Rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.520
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	39	Level Of Service:	A

Street Name:	Alcosta Blvd						Old Ranch Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	0 1	0 1	0	1	0 1	1 0	1	0 0	0 0	1	0 1!	0 1
Volume Module:												
Base Vol:	8	224	152	398	455	0	3	0	0	477	5	394
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	8	224	152	398	455	0	3	0	0	477	5	394
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	8	224	152	398	455	0	3	0	0	477	5	394
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	8	224	152	398	455	0	3	0	0	477	5	394
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	394
RTOR Vol:	8	224	152	398	455	0	3	0	0	477	5	0
PCE Adj:	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	16	224	152	398	455	0	3	0	0	477	5	0
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	0.91
Lanes:	0.04	1.17	0.79	1.00	2.00	0.00	1.00	0.00	0.00	1.98	0.02	1.00
Final Sat.:	69	1925	1306	1650	3300	0	1650	0	0	2969	34	1500
Capacity Analysis Module:												
Vol/Sat:	0.12	0.12	0.12	0.24	0.14	0.00	0.00	0.00	0.00	0.16	0.15	0.00
Crit Volume:		192		398			3			241		
Crit Moves:		****		****			****			****		

San Ramon General Plan Update
Cumulative (2030) Conditions (Mitigated) - AM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2038 I-680 NB Ramps / Alcosta Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.834
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	D

Street Name:	I-680 NB Ramps						Alcosta Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	1! 0	1	0 0	0 0	0	1 0	2 0	0	0 0	2 0	1
Volume Module:												
Base Vol:	265	0	127	0	0	0	515	598	0	0	1558	180
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	265	0	127	0	0	0	515	598	0	0	1558	180
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	265	0	127	0	0	0	515	598	0	0	1558	180
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	265	0	127	0	0	0	515	598	0	0	1558	180
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	265	0	127	0	0	0	515	598	0	0	1558	180
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	265	0	127	0	0	0	515	598	0	0	1558	180
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	0.91	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	3127	0	1563	0	0	0	1720	3440	0	0	3440	1720
Capacity Analysis Module:												
Vol/Sat:	0.08	0.00	0.08	0.00	0.00	0.00	0.30	0.17	0.00	0.00	0.45	0.10
Crit Volume:			127	0			515				779	
Crit Moves:			****				****				****	

Cumulative (2030) PM Peak Hour Intersection Traffic Capacity Analysis

San Ramon General Plan Update
Cumulative (2030) Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2001 Fostoria Way / San Ramon Valley Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.844
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	D

Street Name:	San Ramon Valley Blvd						Fostoria Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0	1 0	2	0 1
Volume Module:												
Base Vol:	234	872	158	239	850	255	456	302	241	206	301	279
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	234	872	158	239	850	255	456	302	241	206	301	279
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	234	872	158	239	850	255	456	302	241	206	301	279
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	234	872	158	239	850	255	456	302	241	206	301	279
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	239
RTOR Vol:	234	872	158	239	850	255	456	302	241	206	301	40
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	234	872	158	239	850	255	456	302	241	206	301	40
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.69	0.31	1.00	1.54	0.46	1.00	1.11	0.89	1.00	2.00	1.00
Final Sat.:	1650	2794	506	1650	2538	762	1650	1835	1465	1650	3300	1650
Capacity Analysis Module:												
Vol/Sat:	0.14	0.31	0.31	0.14	0.33	0.33	0.28	0.16	0.16	0.12	0.09	0.02
Crit Volume:	234					553	456				151	
Crit Moves:	****					****	****				****	

San Ramon General Plan Update
Cumulative (2030) Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2002 Fostoria Way/Crow Canyon Pl

Cycle (sec):	100	Critical Vol./Cap.(X):	0.826
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	D

Street Name:	Crow Canyon Pl						Fostoria Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	1 0	1	1 0	0 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	107	641	288	109	423	139	212	529	191	253	392	198
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	107	641	288	109	423	139	212	529	191	253	392	198
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	107	641	288	109	423	139	212	529	191	253	392	198
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	107	641	288	109	423	139	212	529	191	253	392	198
RTOR Reduct:	0	0	253	0	0	0	0	0	0	0	0	0
RTOR Vol:	107	641	35	109	423	139	212	529	191	253	392	198
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	107	641	35	109	423	139	212	529	191	253	392	198
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.75	0.25	1.00	1.47	0.53	1.00	1.33	0.67
Final Sat.:	1650	1650	1650	1650	1242	408	1650	2425	875	1650	2193	1107
Capacity Analysis Module:												
Vol/Sat:	0.06	0.39	0.02	0.07	0.34	0.34	0.13	0.22	0.22	0.15	0.18	0.18
Crit Volume:		641		109				360		253		
Crit Moves:		****		****				****		****		

San Ramon General Plan Update
Cumulative (2030) Conditions - PM Peak Hour LOS

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #2003 Fostoria Way / Camino Ramon / Costco DW

Cycle (sec):	100	Critical Vol./Cap.(X):	1.522
Loss Time (sec):	0	Average Delay (sec/veh):	94.6
Optimal Cycle:	0	Level Of Service:	F

Street Name:	Camino Ramon / Costco DW						Fostoria Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0 1	0 1		0 0 1!	0 0		1 0 1	0 1		0 1	0 1	0
Volume Module:												
Base Vol:	261	307	34	107	133	33	21	606	235	120	265	3
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	261	307	34	107	133	33	21	606	235	120	265	3
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	261	307	34	107	133	33	21	606	235	120	265	3
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	261	307	34	107	133	33	21	606	235	120	265	3
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	261	307	34	107	133	33	21	606	235	120	265	3
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	0.39	0.49	0.12	1.00	1.00	1.00	0.62	1.37	0.01
Final Sat.:	400	424	458	156	194	48	369	398	429	241	545	6
Capacity Analysis Module:												
Vol/Sat:	0.65	0.72	0.07	0.69	0.69	0.69	0.06	1.52	0.55	0.50	0.49	0.48
Crit Moves:		****				****		****		****		
Delay/Veh:	26.6	29.9	11.0	28.8	28.8	28.8	12.8	271	20.6	20.2	19.4	19.1
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	26.6	29.9	11.0	28.8	28.8	28.8	12.8	271	20.6	20.2	19.4	19.1
LOS by Move:	D	D	B	D	D	D	B	F	C	C	C	C
ApproachDel:		27.4			28.8			196.1			19.6	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		27.4			28.8			196.1			19.6	
LOS by Appr:		D			D			F			C	
AllWayAvgQ:	1.7	2.2	0.1	1.9	1.9	1.9	0.1	28.6	1.1	0.9	0.9	0.9

Note: Queue reported is the number of cars per lane.

San Ramon General Plan Update
Cumulative (2030) Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2004 Crow Canyon Rd / Bollinger Canyon Rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.462
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	42	Level Of Service:	A

Street Name:	Bollinger Canyon Rd						Crow Canyon Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	1 0	1	1 0	0 1	0	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	226	59	136	19	45	19	15	767	191	89	757	15
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	226	59	136	19	45	19	15	767	191	89	757	15
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	226	59	136	19	45	19	15	767	191	89	757	15
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	226	59	136	19	45	19	15	767	191	89	757	15
RTOR Reduct:	0	0	89	0	0	0	0	0	191	0	0	15
RTOR Vol:	226	59	47	19	45	19	15	767	0	89	757	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	226	59	47	19	45	19	15	767	0	89	757	0
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.70	0.30	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1650	1650	1650	1650	1160	490	1650	3300	1650	1650	3300	1650
Capacity Analysis Module:												
Vol/Sat:	0.14	0.04	0.03	0.01	0.04	0.04	0.01	0.23	0.00	0.05	0.23	0.00
Crit Volume:	226				64			384		89		
Crit Moves:	****				****			****		****		

San Ramon General Plan Update
Cumulative (2030) Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2005 Crow Canyon Rd / Twin Creeks Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.797
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	92	Level Of Service:	C

Street Name:	Twin Creeks Dr						Crow Canyon Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	0 1	0	0 1	0 1	0	0 1	1	0	2 1 0	1	0	2 1 0
Volume Module:												
Base Vol:	287	4	234	47	8	16	25	1888	175	341	1558	25
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	287	4	234	47	8	16	25	1888	175	341	1558	25
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	287	4	234	47	8	16	25	1888	175	341	1558	25
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	287	4	234	47	8	16	25	1888	175	341	1558	25
RTOR Reduct:	0	0	234	0	0	16	0	0	0	0	0	0
RTOR Vol:	287	4	0	47	8	0	25	1888	175	341	1558	25
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	287	4	0	47	8	0	25	1888	175	341	1558	25
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.99	0.01	1.00	0.85	0.15	1.00	1.00	2.75	0.25	1.00	2.95	0.05
Final Sat.:	1696	24	1720	1470	250	1720	1720	4722	438	1720	5079	81
Capacity Analysis Module:												
Vol/Sat:	0.17	0.17	0.00	0.03	0.03	0.00	0.01	0.40	0.40	0.20	0.31	0.31
Crit Volume:	287				55			688		341		
Crit Moves:	****				****			****		****		

San Ramon General Plan Update
Cumulative (2030) Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2006 Crow Canyon Rd. / San Ramon Valley Blvd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.898
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	D

Street Name:	San Ramon Valley Blvd.						Crow Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	2 0	2 0	1	2 0	2 0	1	2 0	3 0	1	2 0	3 0	1
Volume Module:												
Base Vol:	255	571	704	519	494	127	373	1479	167	657	1542	605
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	255	571	704	519	494	127	373	1479	167	657	1542	605
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	255	571	704	519	494	127	373	1479	167	657	1542	605
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	255	571	704	519	494	127	373	1479	167	657	1542	605
RTOR Reduct:	0	0	361	0	0	127	0	0	140	0	0	285
RTOR Vol:	255	571	343	519	494	0	373	1479	27	657	1542	320
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	255	571	343	519	494	0	373	1479	27	657	1542	320
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	0.91	1.00	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.91	1.00	1.00
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	3000	3300	1650	3000	3300	1650	3000	4950	1650	3000	4950	1650
Capacity Analysis Module:												
Vol/Sat:	0.09	0.17	0.21	0.17	0.15	0.00	0.12	0.30	0.02	0.22	0.31	0.19
Crit Volume:			343	260				493		329		
Crit Moves:			****	****				****		****		

San Ramon General Plan Update
Cumulative (2030) Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2007 Crow Canyon Rd. / I-680 SB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.722
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	67	Level Of Service:	C

Street Name:	I-680 SB Ramps						Crow Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Ignore			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	0 0	0 0	0	3 0	0 0	2	0 0	3 0	1	0 0	3 0	1
Volume Module:												
Base Vol:	0	0	0	903	0	1175	0	1958	744	0	1629	983
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	903	0	1175	0	1958	744	0	1629	983
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	903	0	1175	0	1958	744	0	1629	983
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	903	0	1175	0	1958	744	0	1629	983
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	0	0	0	903	0	1175	0	1958	744	0	1629	983
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	903	0	1175	0	1958	744	0	1629	983
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	1.00	1.00	1.00	0.87	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	3.00	0.00	2.00	0.00	3.00	1.00	0.00	3.00	1.00
Final Sat.:	0	0	0	4698	0	3272	0	5400	1800	0	5400	1800
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.19	0.00	0.36	0.00	0.36	0.41	0.00	0.30	0.55
Crit Volume:	0					588		653		0		
Crit Moves:						****		****		****		

San Ramon General Plan Update
Cumulative (2030) Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2008 Crow Canyon Rd. / I-680 NB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.798
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	C

Street Name:	I-680 NB Ramps						Crow Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ignore			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	2 0	0 0	2	0 0	0 0	0	0 0	3 0	1	0 0	3 1	1
Volume Module:												
Base Vol:	1001	0	1288	0	0	0	0	1991	870	0	1611	1431
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1001	0	1288	0	0	0	0	1991	870	0	1611	1431
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1001	0	1288	0	0	0	0	1991	870	0	1611	1431
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1001	0	1288	0	0	0	0	1991	870	0	1611	1431
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	1001	0	1288	0	0	0	0	1991	870	0	1611	1431
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	1001	0	1288	0	0	0	0	1991	870	0	1611	1431
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	0.91	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91
Lanes:	2.00	0.00	2.00	0.00	0.00	0.00	0.00	3.00	1.00	0.00	3.00	2.00
Final Sat.:	3127	0	3127	0	0	0	0	5160	1720	0	5160	3127
Capacity Analysis Module:												
Vol/Sat:	0.32	0.00	0.41	0.00	0.00	0.00	0.00	0.39	0.51	0.00	0.31	0.46
Crit Volume:			644	0				664		0		
Crit Moves:			****					****		****		

San Ramon General Plan Update
Cumulative (2030) Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2009 Crow Canyon Rd. / Crow Canyon Pl.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.855
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	D

Street Name:	Crow Canyon Pl.						Crow Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Ovl			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	2 0	1 1	0	1 0	1 0	1	2 0	4 0	1	1 0	4 1	0
Volume Module:												
Base Vol:	572	168	181	270	185	540	748	1718	813	116	1930	143
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	572	168	181	270	185	540	748	1718	813	116	1930	143
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	572	168	181	270	185	540	748	1718	813	116	1930	143
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	572	168	181	270	185	540	748	1718	813	116	1930	143
RTOR Reduct:	0	0	0	0	0	411	0	0	315	0	0	0
RTOR Vol:	572	168	181	270	185	129	748	1718	498	116	1930	143
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	572	168	181	270	185	129	748	1718	498	116	1930	143
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	0.91	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.00	1.00	1.00	1.00	1.00	2.00	4.00	1.00	1.00	4.66	0.34
Final Sat.:	3000	1650	1650	1650	1650	1650	3000	6600	1650	1650	7681	569
Capacity Analysis Module:												
Vol/Sat:	0.19	0.10	0.11	0.16	0.11	0.08	0.25	0.26	0.30	0.07	0.25	0.25
Crit Volume:	286			270			374				415	
Crit Moves:	****			****			****				****	

San Ramon General Plan Update
Cumulative (2030) Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2010 Crow Canyon Rd. / Camino Ramon

Cycle (sec):	100	Critical Vol./Cap.(X):	0.691
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	74	Level Of Service:	B

Street Name:	Camino Ramon						Crow Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	2 0	1 0	1	2 0	1 1	0	2 0	4 0	1	2 0	3 1	0
Volume Module:												
Base Vol:	449	306	275	428	315	175	136	1764	269	268	1565	402
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	449	306	275	428	315	175	136	1764	269	268	1565	402
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	449	306	275	428	315	175	136	1764	269	268	1565	402
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	449	306	275	428	315	175	136	1764	269	268	1565	402
RTOR Reduct:	0	0	147	0	0	0	0	0	247	0	0	0
RTOR Vol:	449	306	128	428	315	175	136	1764	22	268	1565	402
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	449	306	128	428	315	175	136	1764	22	268	1565	402
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	0.91	1.00	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.91	1.00	1.00
Lanes:	2.00	1.00	1.00	2.00	1.29	0.71	2.00	4.00	1.00	2.00	3.18	0.82
Final Sat.:	3000	1650	1650	3000	2121	1179	3000	6600	1650	3000	5251	1349
Capacity Analysis Module:												
Vol/Sat:	0.15	0.19	0.08	0.14	0.15	0.15	0.05	0.27	0.01	0.09	0.30	0.30
Crit Volume:		306			245			441		134		
Crit Moves:		****			****			****		****		

San Ramon General Plan Update
Cumulative (2030) Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2011 Crow Canyon Rd. / Alcosta Blvd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.871
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	D

Street Name:	Alcosta Blvd.						Crow Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	2 0	1 0	1	2 0	1 1	0	1 0	3 0	1	2 0	2 1	0
Volume Module:												
Base Vol:	479	179	575	395	395	40	30	1937	555	491	1447	179
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	479	179	575	395	395	40	30	1937	555	491	1447	179
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	479	179	575	395	395	40	30	1937	555	491	1447	179
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	479	179	575	395	395	40	30	1937	555	491	1447	179
RTOR Reduct:	0	0	270	0	0	0	0	0	263	0	0	0
RTOR Vol:	479	179	305	395	395	40	30	1937	292	491	1447	179
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	479	179	305	395	395	40	30	1937	292	491	1447	179
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00
Lanes:	2.00	1.00	1.00	2.00	1.82	0.18	1.00	3.00	1.00	2.00	2.67	0.33
Final Sat.:	3000	1650	1650	3000	2997	303	1650	4950	1650	3000	4405	545
Capacity Analysis Module:												
Vol/Sat:	0.16	0.11	0.18	0.13	0.13	0.13	0.02	0.39	0.18	0.16	0.33	0.33
Crit Volume:			305	198				646		246		
Crit Moves:			****	****				****		****		

San Ramon General Plan Update
Cumulative (2030) Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2012 Crow Canyon Rd / El Capitan-Tahiti Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.637
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	51	Level Of Service:	B

Street Name:	El Capitan-Tahiti Dr						Crow Canyon Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Ignore			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	0 0	1! 0	0	1 0	1 0	1	2 0	3 0	1	1 0	2 1	0
Volume Module:												
Base Vol:	29	7	8	158	7	341	657	2344	61	11	1414	182
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	29	7	8	158	7	341	657	2344	61	11	1414	182
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	29	7	8	158	7	341	657	2344	61	11	1414	182
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	29	7	8	158	7	341	657	2344	61	11	1414	182
RTOR Reduct:	0	0	0	0	0	0	0	0	29	0	0	0
RTOR Vol:	29	7	8	158	7	341	657	2344	32	11	1414	182
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	29	7	8	158	7	341	657	2344	32	11	1414	182
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00
Lanes:	0.66	0.16	0.18	1.00	1.00	1.00	2.00	3.00	1.00	1.00	2.66	0.34
Final Sat.:	1134	274	313	1720	1720	1720	3127	5160	1720	1720	4572	588
Capacity Analysis Module:												
Vol/Sat:	0.03	0.03	0.03	0.09	0.00	0.20	0.21	0.45	0.02	0.01	0.31	0.31
Crit Volume:		44		158			329					532
Crit Moves:		****		****			****					****

San Ramon General Plan Update
Cumulative (2030) Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2013 Crow Canyon Rd / Dougherty Rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.845
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	D

Street Name:	Dougherty Rd						Crow Canyon Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	2 0	0 0	2	0 0	0 0	0	0 0	3 0	1	2 0	3 0	0
Volume Module:												
Base Vol:	315	0	1393	0	0	0	0	1485	322	777	972	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	315	0	1393	0	0	0	0	1485	322	777	972	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	315	0	1393	0	0	0	0	1485	322	777	972	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	315	0	1393	0	0	0	0	1485	322	777	972	0
RTOR Reduct:	0	0	427	0	0	0	0	0	173	0	0	0
RTOR Vol:	315	0	966	0	0	0	0	1485	149	777	972	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	315	0	966	0	0	0	0	1485	149	777	972	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	0.91	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00
Lanes:	2.00	0.00	2.00	0.00	0.00	0.00	0.00	3.00	1.00	2.00	3.00	0.00
Final Sat.:	3127	0	3127	0	0	0	0	5160	1720	3127	5160	0
Capacity Analysis Module:												
Vol/Sat:	0.10	0.00	0.31	0.00	0.00	0.00	0.00	0.29	0.09	0.25	0.19	0.00
Crit Volume:			483	0				495		389		
Crit Moves:			****					****		****		

San Ramon General Plan Update
Cumulative (2030) Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2014 Norris Canyon Rd. / San Ramon Valley Blvd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.576
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	54	Level Of Service:	A

Street Name:	San Ramon Valley Blvd.						Norris Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	2 0	1	2 0	1 1	0	1 0	1 1	0	1 0	1 0	1
Volume Module:												
Base Vol:	103	606	137	291	509	89	84	233	71	335	326	501
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	103	606	137	291	509	89	84	233	71	335	326	501
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	103	606	137	291	509	89	84	233	71	335	326	501
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	103	606	137	291	509	89	84	233	71	335	326	501
RTOR Reduct:	0	0	137	0	0	0	0	0	0	0	0	160
RTOR Vol:	103	606	0	291	509	89	84	233	71	335	326	341
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	103	606	0	291	509	89	84	233	71	335	326	341
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	2.00	1.70	0.30	1.00	1.53	0.47	1.00	1.00	1.00
Final Sat.:	1650	3300	1650	3000	2809	491	1650	2529	771	1650	1650	1650
Capacity Analysis Module:												
Vol/Sat:	0.06	0.18	0.00	0.10	0.18	0.18	0.05	0.09	0.09	0.20	0.20	0.21
Crit Volume:		303		146					152	335		
Crit Moves:		****		****					****	****		

San Ramon General Plan Update
Cumulative (2030) Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2015 Norris Canyon Rd. / Bishop Dr.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.656
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	54	Level Of Service:	B

Street Name:	Bishop Dr.						Norris Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	0 1	0 1	0	0 0	1! 0	0	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	452	5	93	52	15	134	11	666	168	44	928	24
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	452	5	93	52	15	134	11	666	168	44	928	24
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	452	5	93	52	15	134	11	666	168	44	928	24
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	452	5	93	52	15	134	11	666	168	44	928	24
RTOR Reduct:	0	0	0	0	0	0	0	0	168	0	0	24
RTOR Vol:	452	5	93	52	15	134	11	666	0	44	928	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	452	5	93	52	15	134	11	666	0	44	928	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.66	0.34	0.26	0.07	0.67	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1720	1138	582	445	128	1147	1720	3440	1720	1720	3440	1720
Capacity Analysis Module:												
Vol/Sat:	0.26	0.00	0.16	0.12	0.12	0.12	0.01	0.19	0.00	0.03	0.27	0.00
Crit Volume:	452					201	11				464	
Crit Moves:	****					****	****				****	

San Ramon General Plan Update
Cumulative (2030) Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2016 Norris Canyon Rd. / Camino Ramon

Cycle (sec):	100	Critical Vol./Cap.(X):	0.801
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	D

Street Name:	Camino Ramon						Norris Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	2 0	1	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	190	594	189	231	529	291	162	573	77	49	630	276
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	190	594	189	231	529	291	162	573	77	49	630	276
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	190	594	189	231	529	291	162	573	77	49	630	276
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	190	594	189	231	529	291	162	573	77	49	630	276
RTOR Reduct:	0	0	49	0	0	0	0	0	0	0	0	0
RTOR Vol:	190	594	140	231	529	291	162	573	77	49	630	276
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	190	594	140	231	529	291	162	573	77	49	630	276
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.29	0.71	1.00	1.76	0.24	1.00	1.39	0.61
Final Sat.:	1650	3300	1650	1650	2129	1171	1650	2909	391	1650	2295	1005
Capacity Analysis Module:												
Vol/Sat:	0.12	0.18	0.08	0.14	0.25	0.25	0.10	0.20	0.20	0.03	0.27	0.27
Crit Volume:		297				410	162					453
Crit Moves:		****				****	****					****

San Ramon General Plan Update
Cumulative (2030) Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2017 Norris Canyon Rd. / Alcosta Blvd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.574
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	53	Level Of Service:	A

Street Name:	Alcosta Blvd.						Norris Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	1 1	0	1 0	2 0	1	2 0	1 0	1	1 0	1 0	1
Volume Module:												
Base Vol:	366	738	21	60	395	159	504	56	385	69	104	166
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	366	738	21	60	395	159	504	56	385	69	104	166
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	366	738	21	60	395	159	504	56	385	69	104	166
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	366	738	21	60	395	159	504	56	385	69	104	166
RTOR Reduct:	0	0	0	0	0	159	0	0	366	0	0	60
RTOR Vol:	366	738	21	60	395	0	504	56	19	69	104	106
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	366	738	21	60	395	0	504	56	19	69	104	106
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.94	0.06	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1650	3209	91	1650	3300	1650	3000	1650	1650	1650	1650	1650
Capacity Analysis Module:												
Vol/Sat:	0.22	0.23	0.23	0.04	0.12	0.00	0.17	0.03	0.01	0.04	0.06	0.06
Crit Volume:	366				198		252					106
Crit Moves:	****				****		****					****

San Ramon General Plan Update
Cumulative (2030) Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2018 Executive Pkwy. / Camino Ramon

Cycle (sec):	100	Critical Vol./Cap.(X):	0.513
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	38	Level Of Service:	A

Street Name:	Camino Ramon						Executive Pkwy.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	1	1 0	1 0	1	1 0	0 1	0	0 1	0 1	0	0 1
Volume Module:												
Base Vol:	14	264	11	16	685	73	303	28	271	158	12	101
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	14	264	11	16	685	73	303	28	271	158	12	101
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	14	264	11	16	685	73	303	28	271	158	12	101
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	14	264	11	16	685	73	303	28	271	158	12	101
RTOR Reduct:	0	0	0	0	0	0	0	0	14	0	0	16
RTOR Vol:	14	264	11	16	685	73	303	28	257	158	12	85
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	14	264	11	16	685	73	303	28	257	158	12	85
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.92	0.08	1.00	1.81	0.19	0.92	0.08	1.00	0.93	0.07	1.00
Final Sat.:	1720	3302	138	1720	3109	331	1575	145	1720	1599	121	1720
Capacity Analysis Module:												
Vol/Sat:	0.01	0.08	0.08	0.01	0.22	0.22	0.19	0.19	0.15	0.10	0.10	0.05
Crit Volume:	14				379			331		158		
Crit Moves:	****				****			****		****		

San Ramon General Plan Update
Cumulative (2030) Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2019 Alcosta Blvd / Woodland Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.417
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	32	Level Of Service:	A

Street Name:	Alcosta Blvd						Woodland Dr					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	1	1 0	1 0	1	1 0	0 1	0	0 1	0 0	1!	0 0
Volume Module:												
Base Vol:	48	927	34	44	1228	9	11	0	2	19	0	21
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	48	927	34	44	1228	9	11	0	2	19	0	21
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	48	927	34	44	1228	9	11	0	2	19	0	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	48	927	34	44	1228	9	11	0	2	19	0	21
RTOR Reduct:	0	0	0	0	0	0	0	0	2	0	0	0
RTOR Vol:	48	927	34	44	1228	9	11	0	0	19	0	21
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	48	927	34	44	1228	9	11	0	0	19	0	21
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.93	0.07	1.00	1.99	0.01	1.00	0.00	1.00	0.48	0.00	0.52
Final Sat.:	1720	3318	122	1720	3415	25	1720	0	1720	817	0	903
Capacity Analysis Module:												
Vol/Sat:	0.03	0.28	0.28	0.03	0.36	0.36	0.01	0.00	0.00	0.02	0.00	0.02
Crit Volume:	48					619	11					40
Crit Moves:	****					****	****					****

San Ramon General Plan Update
Cumulative (2030) Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2020 Bishop Dr. / Camino Ramon

Cycle (sec):	100	Critical Vol./Cap.(X):	0.712
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	65	Level Of Service:	C

Street Name:	Camino Ramon						Bishop Dr.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	0 1	0	1 0	0 1	0
Volume Module:												
Base Vol:	181	355	141	429	357	426	193	71	162	283	140	214
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	181	355	141	429	357	426	193	71	162	283	140	214
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	181	355	141	429	357	426	193	71	162	283	140	214
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	181	355	141	429	357	426	193	71	162	283	140	214
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	181	355	141	429	357	426	193	71	162	283	140	214
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	181	355	141	429	357	426	193	71	162	283	140	214
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.43	0.57	1.00	1.00	1.00	1.00	0.30	0.70	1.00	0.40	0.60
Final Sat.:	1720	2462	978	1720	1720	1720	1720	524	1196	1720	680	1040
Capacity Analysis Module:												
Vol/Sat:	0.11	0.14	0.14	0.25	0.21	0.25	0.11	0.14	0.14	0.16	0.21	0.21
Crit Volume:		248		429			193					354
Crit Moves:		****		****			****					****

San Ramon General Plan Update
Cumulative (2030) Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2021 Alcosta Blvd / Overlook Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.415
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	32	Level Of Service:	A

Street Name:	Alcosta Blvd						Overlook Dr					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	1	1 0	1 0	1	1 0	0 0	1!	0 0	0 0	1!	0 0
Volume Module:												
Base Vol:	79	966	29	31	1191	11	6	0	11	17	0	15
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	79	966	29	31	1191	11	6	0	11	17	0	15
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	79	966	29	31	1191	11	6	0	11	17	0	15
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	79	966	29	31	1191	11	6	0	11	17	0	15
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	79	966	29	31	1191	11	6	0	11	17	0	15
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	79	966	29	31	1191	11	6	0	11	17	0	15
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.94	0.06	1.00	1.98	0.02	0.35	0.00	0.65	0.53	0.00	0.47
Final Sat.:	1720	3340	100	1720	3409	31	607	0	1113	914	0	806
Capacity Analysis Module:												
Vol/Sat:	0.05	0.29	0.29	0.02	0.35	0.35	0.01	0.00	0.01	0.02	0.00	0.02
Crit Volume:	79				601				17	17		
Crit Moves:	****				****				****	****		

San Ramon General Plan Update
Cumulative (2030) Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2022 Bollinger Canyon Rd / San Ramon Valley Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.897
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	D

Street Name:	San Ramon Valley Blvd						Bollinger Canyon Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	2 0	2 0	1	2 0	1 1	0	1 0	1 1	0	2 0	2 0	1
Volume Module:												
Base Vol:	143	696	574	428	604	57	21	505	214	977	692	331
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	143	696	574	428	604	57	21	505	214	977	692	331
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	143	696	574	428	604	57	21	505	214	977	692	331
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	143	696	574	428	604	57	21	505	214	977	692	331
RTOR Reduct:	0	0	537	0	0	0	0	0	0	0	0	235
RTOR Vol:	143	696	37	428	604	57	21	505	214	977	692	96
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	143	696	37	428	604	57	21	505	214	977	692	96
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00
Lanes:	2.00	2.00	1.00	2.00	1.83	0.17	1.00	1.40	0.60	2.00	2.00	1.00
Final Sat.:	3000	3300	1650	3000	3015	285	1650	2318	982	3000	3300	1650
Capacity Analysis Module:												
Vol/Sat:	0.05	0.21	0.02	0.14	0.20	0.20	0.01	0.22	0.22	0.33	0.21	0.06
Crit Volume:		348		214				360		489		
Crit Moves:		****		****				****		****		

San Ramon General Plan Update
Cumulative (2030) Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2023 Bollinger Canyon Rd. / I-680 SB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.779
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	C

Street Name:	I-680 SB Ramps						Bollinger Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Protected		
Rights:	Include			Include			Ignore			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	0 0	1! 0	0	1 1	0 0	2	0 0	3 1	0	0 0	3 0	1
Volume Module:												
Base Vol:	5	0	101	1175	32	450	0	1254	253	0	1545	1990
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	5	0	101	1175	32	450	0	1254	253	0	1545	1990
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	5	0	101	1175	32	450	0	1254	253	0	1545	1990
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	5	0	101	1175	32	450	0	1254	253	0	1545	1990
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	5	0	101	1175	32	450	0	1254	253	0	1545	1990
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	5	0	101	1175	32	450	0	1254	253	0	1545	1990
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	0.91	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.05	0.00	0.95	1.95	0.05	2.00	0.00	3.33	0.67	0.00	3.00	1.00
Final Sat.:	78	0	1572	2920	87	3000	0	5492	1108	0	4950	1650
Capacity Analysis Module:												
Vol/Sat:	0.06	0.00	0.06	0.40	0.37	0.15	0.00	0.23	0.23	0.00	0.31	1.21
Crit Volume:			106	604				377			515	
Crit Moves:			****	****							****	

San Ramon General Plan Update
Cumulative (2030) Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2024 Bollinger Canyon Rd. / I-680 NB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.677
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	58	Level Of Service:	B

Street Name:	I-680 NB Ramps						Bollinger Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Ignore			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	0 0	3	0 0	0 0	0	0 0	3 0	1	0 0	3 0	1
Volume Module:												
Base Vol:	528	0	1357	0	0	0	0	2071	458	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	528	0	1357	0	0	0	0	2071	458	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	528	0	1357	0	0	0	0	2071	458	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	528	0	1357	0	0	0	0	2071	458	0	0	0
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	528	0	1357	0	0	0	0	2071	458	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	528	0	1357	0	0	0	0	2071	458	0	0	0
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	1.00	1.00	0.87	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	3.00	0.00	0.00	0.00	0.00	3.00	1.00	0.00	3.00	1.00
Final Sat.:	1800	0	4698	0	0	0	0	5400	1800	0	5400	1800
Capacity Analysis Module:												
Vol/Sat:	0.29	0.00	0.29	0.00	0.00	0.00	0.00	0.38	0.25	0.00	0.00	0.00
Crit Volume:	528				0			690		0		
Crit Moves:	****							****				

Note: The ultimate configuration at this intersections, as shown in the Bollinger Canyon Road Plan Line Study concepts, allows the vehicles approaching this intersection in the WB direction to continue through the intersection without control from the traffic signal. However, this analysis software is not able to model all approach movements as "free". For this reason, the WB volume is coded as zero. Actual volume are presented in the peak hour intersection turning movement volume figures in the report.

San Ramon General Plan Update
Cumulative (2030) Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2025 Bollinger Canyon Rd / Sunset Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.875
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	D

Street Name:	Sunset Dr						Bollinger Canyon Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 1	0	0 1	1 1	0	0 1	2	0 4	0 1	2	0 4	0 1
Volume Module:												
Base Vol:	495	38	108	205	14	543	678	2698	53	35	2430	310
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	495	38	108	205	14	543	678	2698	53	35	2430	310
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	495	38	108	205	14	543	678	2698	53	35	2430	310
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	495	38	108	205	14	543	678	2698	53	35	2430	310
RTOR Reduct:	0	0	19	0	0	373	0	0	53	0	0	113
RTOR Vol:	495	38	89	205	14	170	678	2698	0	35	2430	197
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	495	38	89	205	14	170	678	2698	0	35	2430	197
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	0.91	1.00	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.91	1.00	1.00
Lanes:	1.86	0.14	1.00	1.87	0.13	1.00	2.00	4.00	1.00	2.00	4.00	1.00
Final Sat.:	2786	235	1650	2808	211	1650	3000	6600	1650	3000	6600	1650
Capacity Analysis Module:												
Vol/Sat:	0.18	0.16	0.05	0.07	0.07	0.10	0.23	0.41	0.00	0.01	0.37	0.12
Crit Volume:	267					170	339				608	
Crit Moves:	****					****	****				****	

Note: For analysis purposes, it was assumed that 60% of the vehicles making a SB right turn use the free right turn lane to I-680 (see Bollinger Canyon Plan Line Study concepts for reference). The remaining 40% of the SB right turning vehicles were used in the above capacity calculations.

San Ramon General Plan Update
Cumulative (2030) Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2026 Bollinger Canyon Rd. / Camino Ramon

Cycle (sec):	100	Critical Vol./Cap.(X):	0.747
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	90	Level Of Service:	C

Street Name:	Camino Ramon						Bollinger Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	2 0	1 0	1	1 0	0 1	1	2 0	4 0	1	2 0	4 0	1
Volume Module:												
Base Vol:	522	107	107	380	43	410	517	2413	81	39	1843	94
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	522	107	107	380	43	410	517	2413	81	39	1843	94
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	522	107	107	380	43	410	517	2413	81	39	1843	94
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	522	107	107	380	43	410	517	2413	81	39	1843	94
RTOR Reduct:	0	0	21	0	0	284	0	0	81	0	0	94
RTOR Vol:	522	107	86	380	43	126	517	2413	0	39	1843	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	522	107	86	380	43	126	517	2413	0	39	1843	0
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	0.91	1.00	1.00	1.00	1.00	0.91	0.91	1.00	1.00	0.91	1.00	1.00
Lanes:	2.00	1.00	1.00	1.00	0.51	1.49	2.00	4.00	1.00	2.00	4.00	1.00
Final Sat.:	3000	1650	1650	1650	841	2235	3000	6600	1650	3000	6600	1650
Capacity Analysis Module:												
Vol/Sat:	0.17	0.06	0.05	0.23	0.05	0.06	0.17	0.37	0.00	0.01	0.28	0.00
Crit Volume:		107		380			259				461	
Crit Moves:		****		****			****				****	

San Ramon General Plan Update
Cumulative (2030) Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2027 Bollinger Canyon Rd / Market Place

Cycle (sec):	100	Critical Vol./Cap.(X):	0.685
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	72	Level Of Service:	B

Street Name:	Market Place						Bollinger Canyon Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 1	0	0 1	1	0	0 1 0	1	0	4 0 1	1	0	3 1 0
Volume Module:												
Base Vol:	445	2	148	14	5	13	46	3258	587	52	1724	10
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	445	2	148	14	5	13	46	3258	587	52	1724	10
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	445	2	148	14	5	13	46	3258	587	52	1724	10
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	445	2	148	14	5	13	46	3258	587	52	1724	10
RTOR Reduct:	0	0	52	0	0	0	0	0	245	0	0	0
RTOR Vol:	445	2	96	14	5	13	46	3258	342	52	1724	10
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	445	2	96	14	5	13	46	3258	342	52	1724	10
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.99	0.01	1.00	1.00	0.28	0.72	1.00	4.00	1.00	1.00	3.98	0.02
Final Sat.:	2986	15	1650	1650	458	1192	1650	6600	1650	1650	6562	38
Capacity Analysis Module:												
Vol/Sat:	0.15	0.14	0.06	0.01	0.01	0.01	0.03	0.49	0.21	0.03	0.26	0.26
Crit Volume:	224				18			815		52		
Crit Moves:	****				****			****		****		

San Ramon General Plan Update
Cumulative (2030) Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2028 Bollinger Canyon Rd. / Alcosta Blvd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.898
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	D

Street Name:	Alcosta Blvd.						Bollinger Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	2 0	1 1	0	2 0	2 0	1	2 0	3 0	1	2 0	3 0	1
Volume Module:												
Base Vol:	362	505	188	356	601	289	418	2315	687	305	1135	227
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	362	505	188	356	601	289	418	2315	687	305	1135	227
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	362	505	188	356	601	289	418	2315	687	305	1135	227
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	362	505	188	356	601	289	418	2315	687	305	1135	227
RTOR Reduct:	0	0	0	0	0	230	0	0	199	0	0	196
RTOR Vol:	362	505	188	356	601	59	418	2315	488	305	1135	31
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	362	505	188	356	601	59	418	2315	488	305	1135	31
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	0.91	1.00	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.91	1.00	1.00
Lanes:	2.00	1.46	0.54	2.00	2.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	3000	2405	895	3000	3300	1650	3000	4950	1650	3000	4950	1650
Capacity Analysis Module:												
Vol/Sat:	0.12	0.21	0.21	0.12	0.18	0.04	0.14	0.47	0.30	0.10	0.23	0.02
Crit Volume:		347		178				772		153		
Crit Moves:		****		****				****		****		

San Ramon General Plan Update
Cumulative (2030) Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2029 Bollinger Canyon Rd / Canyon Lakes Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.618
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	49	Level Of Service:	B

Street Name:	Canyon Lanes Dr						Bollinger Canyon Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	0 1	0	0 1	0	0 1	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	57	7	7	98	8	207	395	2332	132	30	1403	110
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	57	7	7	98	8	207	395	2332	132	30	1403	110
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	57	7	7	98	8	207	395	2332	132	30	1403	110
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	57	7	7	98	8	207	395	2332	132	30	1403	110
RTOR Reduct:	0	0	0	0	0	207	0	0	0	0	0	0
RTOR Vol:	57	7	7	98	8	0	395	2332	132	30	1403	110
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	57	7	7	98	8	0	395	2332	132	30	1403	110
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.50	0.50	0.92	0.08	1.00	1.00	2.84	0.16	1.00	2.78	0.22
Final Sat.:	1720	860	860	1590	130	1720	1720	4884	276	1720	4785	375
Capacity Analysis Module:												
Vol/Sat:	0.03	0.01	0.01	0.06	0.06	0.00	0.23	0.48	0.48	0.02	0.29	0.29
Crit Volume:	57				106		395					504
Crit Moves:	****				****		****					****

San Ramon General Plan Update
Cumulative (2030) Conditions - PM Peak Hour LOS

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #2030 Alcosta Blvd / Vera Cruz Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.985
Loss Time (sec):	0	Average Delay (sec/veh):	44.3
Optimal Cycle:	0	Level Of Service:	E

Street Name:	Vera Cruz Dr						Alcosta Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0 1	1 0		1 0 1	1 0		0 0 1!	0 0		0 0 1!	0 0	
Volume Module:												
Base Vol:	26	918	13	68	953	174	16	3	112	7	3	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	26	918	13	68	953	174	16	3	112	7	3	20
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	26	918	13	68	953	174	16	3	112	7	3	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	26	918	13	68	953	174	16	3	112	7	3	20
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	26	918	13	68	953	174	16	3	112	7	3	20
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.97	0.03	1.00	1.69	0.31	0.12	0.02	0.86	0.23	0.10	0.67
Final Sat.:	502	1070	15	518	967	180	67	13	471	116	50	333
Capacity Analysis Module:												
Vol/Sat:	0.05	0.86	0.86	0.13	0.99	0.97	0.24	0.24	0.24	0.06	0.06	0.06
Crit Moves:		****			****				****	****		
Delay/Veh:	10.2	36.9	36.7	10.6	58.7	53.3	11.5	11.5	11.5	10.4	10.4	10.4
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.2	36.9	36.7	10.6	58.7	53.3	11.5	11.5	11.5	10.4	10.4	10.4
LOS by Move:	B	E	E	B	F	F	B	B	B	B	B	B
ApproachDel:		36.2			55.2			11.5			10.4	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		36.2			55.2			11.5			10.4	
LOS by Appr:		E			F			B			B	
AllWayAvgQ:	0.1	4.2	4.1	0.1	8.4	7.2	0.3	0.3	0.3	0.1	0.1	0.1

Note: Queue reported is the number of cars per lane.

San Ramon General Plan Update
Cumulative (2030) Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2031 San Ramon Valley Blvd / Montevideo Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.799
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	C

Street Name:	San Ramon Valley Blvd						Montevideo Dr					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	0 0	1 1	0	1 0	2 0	0	0 0	0 0	0	1 0	0 0	1
Volume Module:												
Base Vol:	0	1160	270	557	1055	0	0	0	0	102	0	277
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1160	270	557	1055	0	0	0	0	102	0	277
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1160	270	557	1055	0	0	0	0	102	0	277
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1160	270	557	1055	0	0	0	0	102	0	277
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	277
RTOR Vol:	0	1160	270	557	1055	0	0	0	0	102	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1160	270	557	1055	0	0	0	0	102	0	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.62	0.38	1.00	2.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	2790	650	1720	3440	0	0	0	0	1720	0	1720
Capacity Analysis Module:												
Vol/Sat:	0.00	0.42	0.42	0.32	0.31	0.00	0.00	0.00	0.00	0.06	0.00	0.00
Crit Volume:		715		557				0		102		
Crit Moves:		****		****						****		

San Ramon General Plan Update
Cumulative (2030) Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2032 Montevideo Dr / Alcosta Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.400
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	38	Level Of Service:	A

Street Name:	Alcosta Blvd						Montevideo Dr					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	2 0	0	0 0	2 0	1	1 0	0 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	73	538	0	0	769	288	231	0	65	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	73	538	0	0	769	288	231	0	65	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	73	538	0	0	769	288	231	0	65	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	73	538	0	0	769	288	231	0	65	0	0	0
RTOR Reduct:	0	0	0	0	0	231	0	0	65	0	0	0
RTOR Vol:	73	538	0	0	769	57	231	0	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	73	538	0	0	769	57	231	0	0	0	0	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1720	3440	0	0	3440	1720	1720	0	1720	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.04	0.16	0.00	0.00	0.22	0.03	0.13	0.00	0.00	0.00	0.00	0.00
Crit Volume:	73				385		231				0	
Crit Moves:	****				****		****					

San Ramon General Plan Update
Cumulative (2030) Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2033 San Ramon Valley Blvd / Pine Valley Rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.890
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	D

Street Name:	San Ramon Valley Blvd						Pine Valley Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	0 1	0	1 0	0 1	0
Volume Module:												
Base Vol:	78	978	564	409	708	63	24	16	24	248	17	135
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	78	978	564	409	708	63	24	16	24	248	17	135
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	78	978	564	409	708	63	24	16	24	248	17	135
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	78	978	564	409	708	63	24	16	24	248	17	135
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	78	978	564	409	708	63	24	16	24	248	17	135
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	78	978	564	409	708	63	24	16	24	248	17	135
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.27	0.73	1.00	1.84	0.16	1.00	0.40	0.60	1.00	0.11	0.89
Final Sat.:	1650	2093	1207	1650	3030	270	1650	660	990	1650	185	1465
Capacity Analysis Module:												
Vol/Sat:	0.05	0.47	0.47	0.25	0.23	0.23	0.01	0.02	0.02	0.15	0.09	0.09
Crit Volume:			771	409				40		248		
Crit Moves:			****	****				****		****		

San Ramon General Plan Update
Cumulative (2030) Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2034 I-680 SB Ramps / San Ramon Valley Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.897
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	D

Street Name:	San Ramon Valley Blvd						I-680 SB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Ignore			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	0 1	0	1 0	1! 0	0
Volume Module:												
Base Vol:	45	1037	367	475	533	50	94	24	11	630	62	23
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	45	1037	367	475	533	50	94	24	11	630	62	23
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	45	1037	367	475	533	50	94	24	11	630	62	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	45	1037	367	475	533	50	94	24	11	630	62	23
RTOR Reduct:	0	0	0	0	0	50	0	0	0	0	0	0
RTOR Vol:	45	1037	367	475	533	0	94	24	11	630	62	23
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	45	1037	367	475	533	0	94	24	11	630	62	23
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	0.69	0.31	1.77	0.17	0.06
Final Sat.:	1650	3300	1650	1650	3300	1650	1650	1131	519	2643	286	106
Capacity Analysis Module:												
Vol/Sat:	0.03	0.31	0.22	0.29	0.16	0.00	0.06	0.02	0.02	0.24	0.22	0.22
Crit Volume:		518		475			94			357		
Crit Moves:		****		****			****			****		

San Ramon General Plan Update
Cumulative (2030) Conditions - PM Peak Hour LOS

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #2035 Alcosta Blvd / Old Ranch Rd

Cycle (sec):	100	Critical Vol./Cap.(X):	1.245
Loss Time (sec):	0	Average Delay (sec/veh):	65.0
Optimal Cycle:	0	Level Of Service:	F

Street Name:	Alcosta Blvd						Old Ranch Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 1 0	1 0	1	1 0 1	1 0		0 0 1!	0 0	1	1 0 1!	0 1	
Volume Module:												
Base Vol:	18	364	505	435	372	0	1	1	1	349	2	537
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	18	364	505	435	372	0	1	1	1	349	2	537
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	18	364	505	435	372	0	1	1	1	349	2	537
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	364	505	435	372	0	1	1	1	349	2	537
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	18	364	505	435	372	0	1	1	1	349	2	537
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.04	0.96	1.00	1.00	2.00	0.00	0.34	0.33	0.33	1.18	0.01	1.81
Final Sat.:	17	409	467	350	722	0	125	125	125	941	-914	1292
Capacity Analysis Module:												
Vol/Sat:	1.04	0.89	1.08	1.24	0.52	xxxx	0.01	0.01	0.01	0.37	-0.00	0.42
Crit Moves:			****	****			****					****
Delay/Veh:	50.1	50.1	92.3	161.8	22.1	0.0	12.6	12.6	12.6	27.8	23.4	23.3
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	50.1	50.1	92.3	161.8	22.1	0.0	12.6	12.6	12.6	27.8	23.4	23.3
LOS by Move:	F	F	F	F	C	*	B	B	B	D	C	C
ApproachDel:	74.1			97.4			12.6			26.5		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	74.1			97.4			12.6			26.5		
LOS by Appr:	F			F			B			D		
AllWayAvgQ:	4.6	10.6	10.6	14.4	1.0	1.0	0.0	0.0	0.0	1.6	1.6	1.6

Note: Queue reported is the number of cars per lane.

San Ramon General Plan Update
Cumulative (2030) Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2036 Dougherty Rd / Old Ranch Rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.777
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	C

Street Name:	Dougherty Rd						Old Ranch Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	3 0	0	0 0	2 1	0	1 0	0 0	2	0 0	0 0	0
Volume Module:												
Base Vol:	525	1975	0	0	1153	336	315	0	280	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	525	1975	0	0	1153	336	315	0	280	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	525	1975	0	0	1153	336	315	0	280	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	525	1975	0	0	1153	336	315	0	280	0	0	0
RTOR Reduct:	0	0	0	0	0	0	0	0	280	0	0	0
RTOR Vol:	525	1975	0	0	1153	336	315	0	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	525	1975	0	0	1153	336	315	0	0	0	0	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	1.00
Lanes:	1.00	3.00	0.00	0.00	2.32	0.68	1.00	0.00	2.00	0.00	0.00	0.00
Final Sat.:	1720	5160	0	0	3996	1164	1720	0	3127	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.31	0.38	0.00	0.00	0.29	0.29	0.18	0.00	0.00	0.00	0.00	0.00
Crit Volume:	525				496		315				0	
Crit Moves:	****				****		****					

San Ramon General Plan Update
Cumulative (2030) Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2037 San Ramon Valley Blvd / Alcosta Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.896
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	D

Street Name:	San Ramon Valley Blvd						Alcosta Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	5	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	2 0	1	2 0	1 1	0	1 0	1 1	0	2 0	1 0	1
Volume Module:												
Base Vol:	175	858	878	925	889	71	25	230	50	164	156	347
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	175	858	878	925	889	71	25	230	50	164	156	347
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	175	858	878	925	889	71	25	230	50	164	156	347
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	175	858	878	925	889	71	25	230	50	164	156	347
RTOR Reduct:	0	0	90	0	0	0	0	0	0	0	0	347
RTOR Vol:	175	858	788	925	889	71	25	230	50	164	156	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	175	858	788	925	889	71	25	230	50	164	156	0
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00
Lanes:	1.00	2.00	1.00	2.00	1.85	0.15	1.00	1.64	0.36	2.00	1.00	1.00
Final Sat.:	1650	3300	1650	3000	3056	244	1650	2711	589	3000	1650	1650
Capacity Analysis Module:												
Vol/Sat:	0.11	0.26	0.48	0.31	0.29	0.29	0.02	0.08	0.08	0.05	0.09	0.00
Crit Volume:			788	463			25				156	
Crit Moves:			****	****			****				****	

San Ramon General Plan Update
Cumulative (2030) Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2038 I-680 NB Ramps / Alcosta Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	1.070
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	F

Street Name:	I-680 NB Ramps						Alcosta Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	0 1	0	0 1	0	0	0 0 0	1	0	2 0 0	0	0	2 0 1
Volume Module:												
Base Vol:	992	0	743	0	0	0	381	802	0	0	936	370
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	992	0	743	0	0	0	381	802	0	0	936	370
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	992	0	743	0	0	0	381	802	0	0	936	370
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	992	0	743	0	0	0	381	802	0	0	936	370
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	992	0	743	0	0	0	381	802	0	0	936	370
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	992	0	743	0	0	0	381	802	0	0	936	370
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	1720	0	1720	0	0	0	1720	3440	0	0	3440	1720
Capacity Analysis Module:												
Vol/Sat:	0.58	0.00	0.43	0.00	0.00	0.00	0.22	0.23	0.00	0.00	0.27	0.22
Crit Volume:	992				0		381				468	
Crit Moves:	****						****				****	

San Ramon General Plan Update
Cumulative (2030) Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2039 Alcosta Blvd / Davona Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.633
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	51	Level Of Service:	B

Street Name:	Davona Dr						Alcosta Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	1 0	1	0	1 0	1	0
Volume Module:												
Base Vol:	210	11	20	31	5	77	203	1304	193	18	923	51
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	210	11	20	31	5	77	203	1304	193	18	923	51
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	210	11	20	31	5	77	203	1304	193	18	923	51
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	210	11	20	31	5	77	203	1304	193	18	923	51
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	210	11	20	31	5	77	203	1304	193	18	923	51
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	210	11	20	31	5	77	203	1304	193	18	923	51
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.87	0.05	0.08	0.27	0.04	0.69	1.00	1.74	0.26	1.00	1.90	0.10
Final Sat.:	1499	79	143	472	76	1172	1720	2996	444	1720	3260	180
Capacity Analysis Module:												
Vol/Sat:	0.14	0.14	0.14	0.07	0.07	0.07	0.12	0.44	0.44	0.01	0.28	0.28
Crit Volume:	210				113				749	18		
Crit Moves:	****				****				****	****		

San Ramon General Plan Update
Cumulative (2030) Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2040 Alcosta Blvd / Kimball Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.631
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	50	Level Of Service:	B

Street Name:	Kimball Ave						Alcosta Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	0 0	1	0 0	0 0	0	0 0	1 1	0	1 0	2 0	0
Volume Module:												
Base Vol:	321	0	33	0	0	0	0	1070	294	38	720	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	321	0	33	0	0	0	0	1070	294	38	720	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	321	0	33	0	0	0	0	1070	294	38	720	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	321	0	33	0	0	0	0	1070	294	38	720	0
RTOR Reduct:	0	0	33	0	0	0	0	0	0	0	0	0
RTOR Vol:	321	0	0	0	0	0	0	1070	294	38	720	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	321	0	0	0	0	0	0	1070	294	38	720	0
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	1.57	0.43	1.00	2.00	0.00
Final Sat.:	1650	0	1650	0	0	0	0	2589	711	1650	3300	0
Capacity Analysis Module:												
Vol/Sat:	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.41	0.41	0.02	0.22	0.00
Crit Volume:	321			0					682	38		
Crit Moves:	****								****	****		

San Ramon General Plan Update
Cumulative (2030) Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2041 Alcosta Blvd / Belle Meade Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.353
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	29	Level Of Service:	A

Street Name:	Belle Meade Dr						Alcosta Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	0 1	0	0 1	0 1	0	0 1	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	8	2	1	55	0	76	208	791	29	9	580	88
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	8	2	1	55	0	76	208	791	29	9	580	88
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	8	2	1	55	0	76	208	791	29	9	580	88
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	8	2	1	55	0	76	208	791	29	9	580	88
RTOR Reduct:	0	0	1	0	0	76	0	0	0	0	0	0
RTOR Vol:	8	2	0	55	0	0	208	791	29	9	580	88
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	8	2	0	55	0	0	208	791	29	9	580	88
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.80	0.20	1.00	1.00	0.00	1.00	1.00	1.93	0.07	1.00	1.74	0.26
Final Sat.:	1376	344	1720	1720	0	1720	1720	3318	122	1720	2987	453
Capacity Analysis Module:												
Vol/Sat:	0.01	0.01	0.00	0.03	0.00	0.00	0.12	0.24	0.24	0.01	0.19	0.19
Crit Volume:		10		55			208					334
Crit Moves:		****		****			****					****

San Ramon General Plan Update
Cumulative (2030) Conditions - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2042 Alcosta Blvd / Village Pkwy

Cycle (sec):	100	Critical Vol./Cap.(X):	0.531
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	40	Level Of Service:	A

Street Name:	Village Pkwy						Alcosta Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	2 0	0 0	1	0 0	0 0	0	0 0	1 1	0	1 0	2 0	0
Volume Module:												
Base Vol:	348	0	305	0	0	0	0	773	179	246	484	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	348	0	305	0	0	0	0	773	179	246	484	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	348	0	305	0	0	0	0	773	179	246	484	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	348	0	305	0	0	0	0	773	179	246	484	0
RTOR Reduct:	0	0	246	0	0	0	0	0	0	0	0	0
RTOR Vol:	348	0	59	0	0	0	0	773	179	246	484	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	348	0	59	0	0	0	0	773	179	246	484	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	1.62	0.38	1.00	2.00	0.00
Final Sat.:	3127	0	1720	0	0	0	0	2793	647	1720	3440	0
Capacity Analysis Module:												
Vol/Sat:	0.11	0.00	0.03	0.00	0.00	0.00	0.00	0.28	0.28	0.14	0.14	0.00
Crit Volume:	174				0				476	246		
Crit Moves:	****								****	****		

Cumulative (2030) PM Peak Hour Intersection Traffic Capacity Analysis (with Mitigation)

San Ramon General Plan Update
Cumulative (2030) Conditions (Mitigated) - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2003 Fostoria Way / Camino Ramon / Costco DW

Cycle (sec):	100	Critical Vol./Cap.(X):	0.792
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	C

Street Name:	Camino Ramon / Costco DW						Fostoria Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	1 0	1	0 0	1! 0	0	1 0	1 0	1	1 0	0 1	0
Volume Module:												
Base Vol:	261	307	34	107	133	33	21	606	235	120	265	3
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	261	307	34	107	133	33	21	606	235	120	265	3
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	261	307	34	107	133	33	21	606	235	120	265	3
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	261	307	34	107	133	33	21	606	235	120	265	3
RTOR Reduct:	0	0	34	0	0	0	0	0	235	0	0	0
RTOR Vol:	261	307	0	107	133	33	21	606	0	120	265	3
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	261	307	0	107	133	33	21	606	0	120	265	3
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	0.39	0.49	0.12	1.00	1.00	1.00	1.00	0.99	0.01
Final Sat.:	1650	1650	1650	647	804	199	1650	1650	1650	1650	1632	18
Capacity Analysis Module:												
Vol/Sat:	0.16	0.19	0.00	0.17	0.17	0.17	0.01	0.37	0.00	0.07	0.16	0.16
Crit Volume:		307			273			606		120		
Crit Moves:		****			****			****		****		

San Ramon General Plan Update
Cumulative (2030) Conditions (Mitigated) - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2030 Alcosta Blvd / Vera Cruz Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.423
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	32	Level Of Service:	A

Street Name:	Vera Cruz Dr						Alcosta Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	1 1	0	1 0	1 1	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	26	918	13	68	953	174	16	3	112	7	3	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	26	918	13	68	953	174	16	3	112	7	3	20
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	26	918	13	68	953	174	16	3	112	7	3	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	26	918	13	68	953	174	16	3	112	7	3	20
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	26	918	13	68	953	174	16	3	112	7	3	20
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	26	918	13	68	953	174	16	3	112	7	3	20
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.97	0.03	1.00	1.69	0.31	0.12	0.02	0.86	0.23	0.10	0.67
Final Sat.:	1720	3392	48	1720	2909	531	210	39	1471	401	172	1147
Capacity Analysis Module:												
Vol/Sat:	0.02	0.27	0.27	0.04	0.33	0.33	0.08	0.08	0.08	0.02	0.02	0.02
Crit Volume:	26				564			131		7		
Crit Moves:	****				****			****		****		

San Ramon General Plan Update
Cumulative (2030) Conditions (Mitigated) - PM Peak Hour LOS

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2035 Alcosta Blvd / Old Ranch Rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.663
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	55	Level Of Service:	B

Street Name:	Alcosta Blvd						Old Ranch Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	0 1	0 1	0	1	0 1	1 0	0	0 1!	0 0	1	0 1!	0 1
Volume Module:												
Base Vol:	18	364	505	435	372	0	1	1	1	349	2	537
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	18	364	505	435	372	0	1	1	1	349	2	537
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	18	364	505	435	372	0	1	1	1	349	2	537
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	364	505	435	372	0	1	1	1	349	2	537
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	435
RTOR Vol:	18	364	505	435	372	0	1	1	1	349	2	102
PCE Adj:	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	36	364	505	435	372	0	1	1	1	349	2	102
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	0.91
Lanes:	0.04	0.96	1.00	1.00	2.00	0.00	0.34	0.33	0.33	1.99	0.01	1.00
Final Sat.:	70	1650	1720	1720	3440	0	573	573	573	3111	17	1563
Capacity Analysis Module:												
Vol/Sat:	0.26	0.22	0.29	0.25	0.11	0.00	0.00	0.00	0.00	0.11	0.12	0.07
Crit Volume:			505	435			1				200	
Crit Moves:			****	****			****				****	

San Ramon General Plan Update
Cumulative (2030) Conditions (Mitigated) - PM Peak Hour LOS

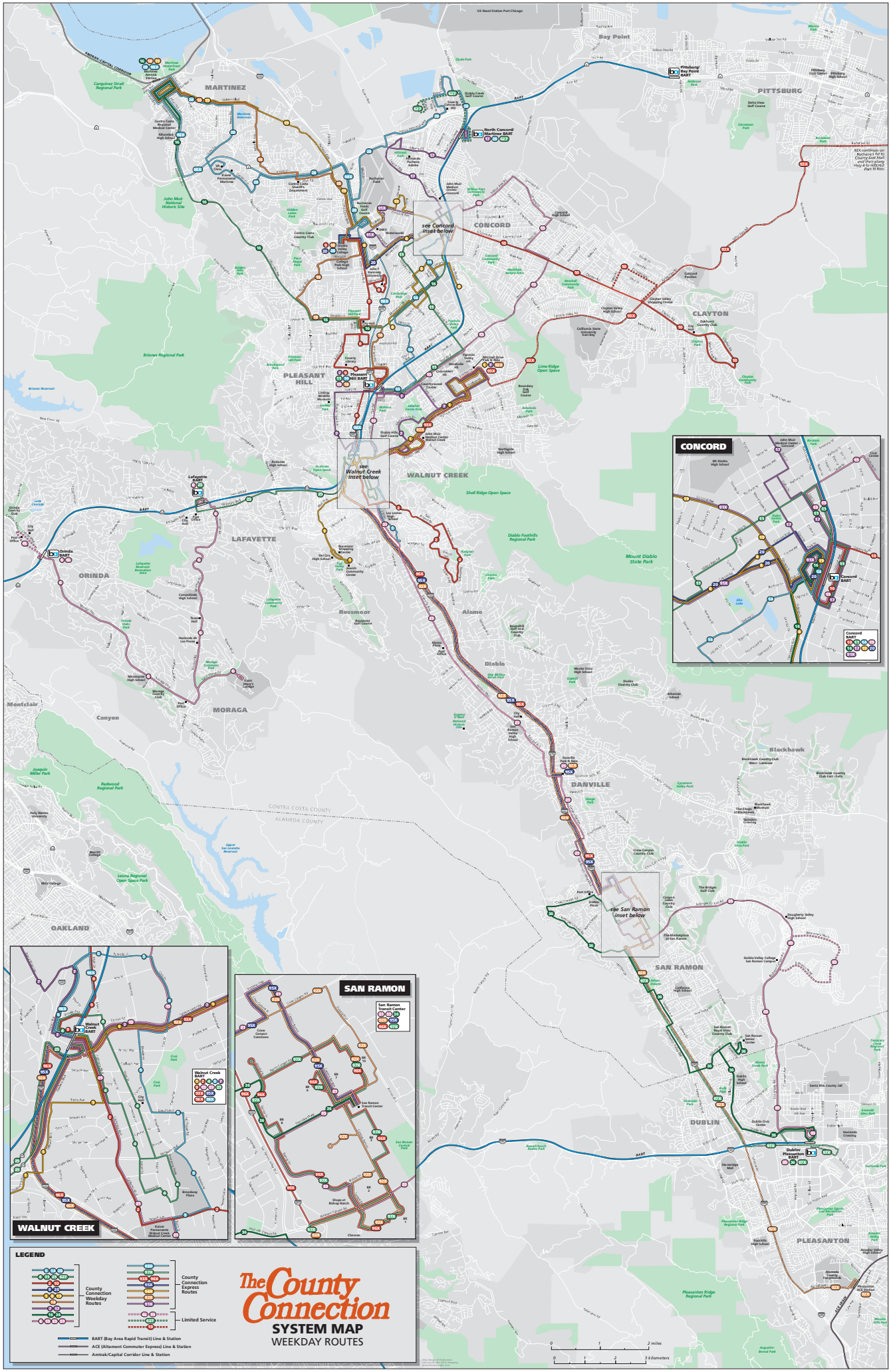
Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #2038 I-680 NB Ramps / Alcosta Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.864
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	D

Street Name:	I-680 NB Ramps						Alcosta Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lanes:	1 0	1! 0	1	0 0	0 0	0	1 0	2 0	0	0 0	2 0	1
Volume Module:												
Base Vol:	992	0	743	0	0	0	381	802	0	0	936	370
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	992	0	743	0	0	0	381	802	0	0	936	370
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	992	0	743	0	0	0	381	802	0	0	936	370
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	992	0	743	0	0	0	381	802	0	0	936	370
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	992	0	743	0	0	0	381	802	0	0	936	370
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	992	0	743	0	0	0	381	802	0	0	936	370
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	0.91	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.71	0.01	1.28	0.00	0.00	0.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	2682	0	2009	0	0	0	1720	3440	0	0	3440	1720
Capacity Analysis Module:												
Vol/Sat:	0.37	0.00	0.37	0.00	0.00	0.00	0.22	0.23	0.00	0.00	0.27	0.22
Crit Volume:			578	0			381				468	
Crit Moves:			****				****				****	

Central Contra Costa County Transit Authority (CCCTA) County Connection Bus System Map


The County Connection
SYSTEM MAP
WEEKDAY ROUTES
LEGEND
County Connection Weekday Routes
County Connection Express Routes
Limited Service
BART (Bay Area Rapid Transit) Line & Station
ACE (Altamont Commuter Express) Line & Station
Amtrak/Capital Corridor Line & Station
MARTINEZ
PITTSBURG
Bay Point
CONCORD
CLAYTON
PLEASANT HILL
WALNUT CREEK
LAFAYETTE
ORINDA
MORAGA
Rossmoor
Alamo
Diablo
DANVILLE
Blackhawk
SAN RAMON
DUBLIN
PLEASANTON
OAKLAND
Montclair
Canyon
CONTRA COSTA COUNTY
ALAMEDA COUNTY
see Concord inset below
see Walnut Creek inset below
see San Ramon inset below
CONCORD
SAN RAMON
WALNUT CREEK