

**Kaiser Permanente  
1650 Los Gamos Drive**

**Medical Office Building Project**



**Prepared by  
LAK Associates, LLC**

**for**

**The City of San Rafael  
Community Development Department**

**March 2018**

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# ACRONYMS AND ABBREVIATIONS

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$\mu\text{g}/\text{m}^3$	micrograms per cubic meter
°F	degrees Fahrenheit
AB	Assembly Bill
ABAG	Association of Bay Area Governments
ASCE	American Society of Civil Engineers
AWSC	All-Way Stop-Controlled intersection
BAAQMD	Bay Area Air Quality Management District
BCDC	San Francisco Bay Conservation and Development Commission
BGM	Bay Area Greenhouse Gas Model
bgs	below ground surface
BMP	Best Management Practice
CAAQS	California Ambient Air Quality Standards
<b>CalEMA</b>	<b>California Emergency Management Agency</b>
Cal EPA	California Environmental Protection Agency
CalTrans	California Department of Transportation
CCAP	Climate Clean Air Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CAT	Climate Action Team
CBC	California Building Code
CCR	California Code of Regulations
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CFCs	Chlorofluorocarbons
CFS	cubic feet per second
CH <sub>4</sub>	methane
CHP	California Highway Patrol
CLSM	controlled low-strength material
CMA	Congestion Management Agency
CMP	County of Marin Congestion Management Program
CNEL	Community Noise Equivalent Level

CO	carbon monoxide
CO <sub>2</sub>	carbon dioxide
CO <sub>2</sub> e	carbon dioxide equivalents
Corps	U.S. Army Corps of Engineers
CWA	Clean Water Act
CY	cubic yards
dB	decibel
dBA	A-weighted decibel
dbh	diameter at breast height
DNL	day/night average sound level
DOT	U.S. Department of Transportation
DPFs	diesel particulate filters
DPM	diesel particulate matter
DPS	Distinct Population Segment
DTSC	Department of Toxic Substances Control
DWR	Department of Water Resources
EIR	Environmental Impact Report
EPA	Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FINDS	Facilities Index Systems Database
FTE	full-time equivalent (employee)
FTIA	Final Traffic Impact Analysis
GGT	Golden Gate Transit
GHG	greenhouse gas
gpm	gallons per minute
GWP	global warming potential
HCM	<b>Highway Capacity Manual, Special Report 209</b> (TRB, 2000)
HCFCs	hydrofluorocarbons
HEPA filter	high efficiency particulate air filter
HOV	high-occupancy vehicle
I-580	Interstate 580

IAQ	indoor air quality
IPCC	International Panel on Climate Change
IT	Information Technology
ITE	Institute of Transportation Engineers
JPA	Marin County Hazardous and Solid Waste Management Joint Powers Authority
kW-h	kilowatt hours
L <sub>01</sub>	the A-weighted noise levels that are exceeded 1-percent of the time during the measurement period
L <sub>10</sub>	the A-weighted noise levels that are exceeded 10-percent of the time during the measurement period
L <sub>50</sub>	the A-weighted noise levels that are exceeded 50-percent of the time during the measurement period
L <sub>90</sub>	the A-weighted noise levels that are exceeded 90-percent of the time during the measurement period
LAFCO	Local Agency Formation Commissions
LCFS	Low Carbon Fuel Standards
Ldn	day/night average sound level, also expressed as DNL
LEED®	Leadership in Energy and Environmental Design
L <sub>eq</sub>	Equivalent Noise Level; the average A-weighted noise level during the measurement period
L <sub>max</sub>	the maximum A-weighted noise level during the measurement period
L <sub>min</sub>	the minimum A-weighted noise level during the measurement period
LGVSD	Las Gallinas Valley Sanitary District
LID	Low Impact Design
LOS	Level of Service
LOS A	Level of Service A, free flow or insignificant delays
LOS B	Level of Service B, stable operation or minimal delays
LOS C	Level of Service C, stable operation or acceptable delays
LOS D	Level of Service D, approaching unstable or tolerable delays
LOS E	Level of Service E, unstable operation or significant delays
LOS F	Level of Service F, forced flow or excessive delays
LT	Long-Term (noise measurement)
MCDA	Marin County Community Development Agency
MCFD	Marin County Fire Department

MCSTOPP	Marin County Stormwater Pollution Prevention Program
MEI	Maximum Exposed Individual
mgd	million gallon(s) per day
MMRP	Mitigation Monitoring and Reporting Program
MMT	million metric tons
MMTCO <sub>2</sub> e	million metric tons carbon dioxide equivalent
MMWD	Marin Municipal Water District
MOB	Medical Office Building
mpg	miles per gallon
MT	Marin County Transit District
MTC	Metropolitan Transportation Commission
MUTCD	<b>California Manual on Uniform Traffic Control Devices</b> (Caltrans, 2010)
N <sub>2</sub> O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NB	northbound
NO <sub>2</sub>	nitrogen dioxide
NO <sub>x</sub>	nitrogen oxide(s)
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
O <sub>3</sub>	ozone
OES	Office of Emergency Services
OPR	Office of Planning and Research
pc/h/ln	passenger cars per hour per travel lane
PD	Planned Development District (San Rafael Zoning designation)
PG&E	Pacific Gas and Electric Company
PM	particulate matter
PM <sub>2.5</sub>	fine particulate matter
PM <sub>10</sub>	respirable particulate matter
ppmw	part(s) per million by weight
PRC	Public Resources Code
psi	pounds per square inch
PSR/PDS	<b>Project Study Report (Project Development Support)</b>
ROG	reactive organic gases
RWQCB	Regional Water Quality Control Board

SB	Senate Bill
SB	southbound
SF <sub>6</sub>	sulfur hexafluoride
SFBRWQCB	San Francisco Bay Regional Water Quality Control Board
SIP	State Implementation Plan
SO <sub>2</sub>	sulphur dioxide
SSSC	Side-Street Stop-Controlled intersection
ST	Short-Term (noise measurement)
SU	significant and unavoidable
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	Toxic Air Contaminant
TAM	Transportation Authority of Marin
TAZ	Transportation Analysis Zone
TCM	transportation control measure
TDM	transportation demand management
TRB	Transportation Research Board
TWLTL	two-way-left-turn-lane
UNFCCC	United Nations Framework Convention on Climate Change
URBEMIS2007	Urban Emission 2007 modeling software
U.S. 101	U.S. Highway 101
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
USPS	U.S. Postal Service
V/C	volume-to-capacity ratios
VMT	vehicle miles traveled

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# CHAPTER 1

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## Introduction

### 1.1 Overview

In compliance with the California Environmental Quality Act of 1970 (CEQA), as amended, the City of San Rafael Community Development Department has prepared this Draft Environmental Impact Report (DEIR) for the Kaiser Permanente 1650 Los Gamos Drive Medical Office Building (“proposed Project” or “Project”), located at 1650 Los Gamos San Rafael Marin County, California, APNs: 165-220-12 and 165-220-13.

The City of San Rafael is the Lead Agency primarily responsible for preparing this DEIR (pursuant to State and local guidelines for implementing CEQA) and has determined that the Project is subject to CEQA (Public Resources Code Section 21000, et seq. and Section 15080, et seq.) and the State *CEQA Guidelines* (California Code of Regulations) promulgated thereunder.

### 1.2 Property Description

The subject property is approximately 11.1-acres in size and located in north San Rafael. The eastern 4.09-acre (178,373 square feet) portion of the subject property is previously developed with an existing approximately 148,000 square foot office building and associated surface parking. Across Los Gamos Drive, to the west, is an additional 7.02-acre (305,947 square feet) parcel developed with an approximately 80,000 square foot terraced surface parking lot and landscaping.

The Project site is located in the North San Rafael Commercial Center district just west of Highway 101 and south of the intersection of Lucas Valley Road and Los Gamos Drive. The existing building is surrounded by several existing surface parking lots, and a Marin County-owned building to the south, at 1600 Los Gamos Drive. The Project site is located in a mixed-use office/commercial area and is separated from the nearest residential neighborhood by an open space hillside to the west (the closest residential structure is approximately 215 feet west and uphill from the southwest corner of the existing surface parking lot).

The Project site includes three corresponding parcels, two of which are owned by Kaiser Permanente and the third (1600 Los Gamos Drive), which is owned by Marin County, as described more fully below:

- An existing building at 1650 Los Gamos Drive (Assessor Parcel Number’s [APN] 165-220-13), includes a three-story, approximately 148,000 square foot office building and associated surface parking on approximately 4.09 acres.

- An approximately 7.02-acre parcel located to the west of 1650 Los Gamos Drive, on the west side of Los Gamos Drive (APN 165-220-12). The parcel currently consists of a surface parking lot and vegetative hillside, and abuts an undeveloped hillside slope, with a single-family subdivision above. There is also an existing sanitary sewer line running through the parcel.
- The surface parking site at 1600 Los Gamos Drive (APN: 165-220-11), a portion of which Kaiser Permanente holds a parking easement to allow the use of 42 parking spaces for 1650 Los Gamos Drive.

Together, these parcels comprise the “Project site.”

### **1.3 Use of this EIR**

Pursuant to CEQA, this EIR is a public information document prepared for use by governmental agencies and the public to identify and evaluate potential environmental consequences of the Project, to evaluate and recommend mitigation measures that would substantially lessen or eliminate significant environmental adverse impacts, and to examine a range of feasible alternatives to the Project. The information contained in this EIR is subject to review and consideration by the City of San Rafael, and any other responsible agency, prior to its decision to approve, reject or modify the Project. This EIR is a Project EIR pursuant to CEQA Guidelines 15161, which covers all actions of the Project, including planning, construction and operation of the Project.

### **1.4 EIR Scoping**

The City of San Rafael, as Lead Agency, elected to prepare an Initial Study Checklist to reduce the scope and focus of the EIR, as permitted by *CEQA Guidelines* §15063(c)(3) and 15126. As such, several areas of environmental factors have been determined to have less than significant impacts or less than significant impacts with mitigation incorporation. The environmental factors that were determined to be less than significant include:

*Agriculture, Biological Resources, Cultural Resources, Geology /Soils, Hazards & Hazardous Materials, Hydrology / Water Quality, Mineral Resources, Population / Housing, Public Services, Recreation, Tribal Cultural Resources, and Utilities / Service Systems*

On June 9, 2017, the City of San Rafael circulated an Initial Study and Notice of Preparation (NOP) for 30 calendar days that included a list of environmental effects that could result from the proposed Project. The NOP was published and distributed to governmental agencies, organizations, and persons interested in the Project. The City of San Rafael sent the NOP to agencies with statutory responsibilities in connection with the Project and requested their input on the scope and content of the environmental information that should be addressed in the EIR. The City of San Rafael held a Public Scoping Meeting on June 27, 2017 to accept comments



regarding the scope of the EIR in response to the NOP. The NOP review period ended on July 10, 2017. The NOP, the written comments received in response to the NOP (including those received after the 30-day comment period), and the Initial Study are included as Appendix A and B to this DEIR.

On June 27, 2017 the Planning, Commission conducted a Scoping Session Public Hearing. Members of the public and Planning Commission were invited to comment on the potential environmental impacts of the Project that should be examined in the EIR. Based on commentary from Commissioner Belletto and comments received from the public regarding views of the proposed parking structure's solar infrastructure, environmental issues related to Aesthetics are also be included as part of the EIR discussion.

The City of San Rafael has prepared this EIR to analyze the potential environmental effects of the Project under CEQA and addresses the environmental topics identified in the Initial Study and NOP and comments received on the NOP. Therefore, in accordance with CEQA, this EIR is limited to the effects on the environment that are specific to this Project. The following environmental topics are addressed in this EIR:

1. Land Use
2. Aesthetics
3. Air Quality
4. Greenhouse Gas Emissions
5. Noise
6. Transportation and Circulation

### 1.4.1 Public Review

This DEIR is available for public review and comment for the period identified on the notice accompanying this document (45 calendar days). During the public review and comment period, written comments on the DEIR may be submitted to the City of San Rafael at the address indicated on the notice or to:

Mr. Sean Kennings, Contract Planner

**Mailing address:** City of San Rafael Community Development Department  
1400 5th Street, 3<sup>rd</sup> floor  
City of San Rafael, CA 94901

**Email address:** [sean@lakassociates.com](mailto:sean@lakassociates.com)

Verbal comments may be stated at the public hearing on the DEIR, which will be held on April 24, 2018. A notice regarding the public hearing will be mailed to all neighboring properties within 300 feet of the Project site as well as relevant public agencies and interested parties and stakeholders.

Following the public review and comment period for the DEIR, the City of San Rafael will prepare responses that address all substantive written and verbal comments on the DEIR's environmental analyses and that are received within the specified review period. The responses and any other revisions to the DEIR will be prepared as a Responses to Comments document (commonly referred to as the Final EIR or FEIR). The DEIR and its appendices, together with the Responses to Comments document actually constitute the Final EIR for the Project.

Prior to approval of the Project and a Mitigation Monitoring and Reporting Program for all mitigation measures identified in the FEIR, the City of San Rafael must review and certify the FEIR.

### **1.4.2 Project Review and Approval**

The City of San Rafael must ultimately certify that it has reviewed and considered the information in the EIR and that the EIR has been completed in conformity with the requirements of CEQA. This determination must be made before any decision can be made regarding the proposed Project. This EIR identifies significant effects that would result from the proposed Project. Therefore, pursuant to CEQA *Guidelines* Section 15091, no public agency shall approve or carry out a project for which an EIR has been certified which identifies one of more significant effects of the project, unless the public agency makes one or more of the following findings:

1. Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the FEIR.
2. Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such agency.
3. Specified economic, legal, social, technological, or other considerations, including provisions of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the FEIR.

The City of San Rafael will prepare the appropriate findings prior to taking action on the Project.

## **1.5 Organization of the EIR**

Following this Chapter 1, **Introduction**, this EIR is organized as follows:

**Chapter 2, Summary**, contains a brief summary of the Project and is an easy reference to the analysis presented in the DEIR. It is prepared for use as a stand-alone summary of the EIR. A Summary of Impacts, Mitigation Measures, and Residual Impacts table is provided at the end of Chapter 2 as a reader-friendly reference to each of the environmental impacts, proposed

mitigation measures and residual environmental impacts after mitigation is implemented. Chapter 2 also summarizes the analysis of potential alternatives to the Project.

**Chapter 3, Project Description**, describes in detail the Project and surroundings, the background of the Project; Project objectives, and Project characteristics (including phasing and construction activities). Chapter 3 also identifies other agencies that must consider or approve aspects of the Project.

**Chapter 4, Environmental Setting, Impacts and Mitigation Measures**, discusses for each environmental topic the environmental setting (existing physical conditions and regulatory framework), significance criteria, the potential environmental impacts of the Project and cumulative conditions, mitigation measures that, in most cases, would reduce or eliminate significant impacts. The preface of Chapter 4 outlines the scope of the analysis, organization, the methods and nomenclature for determining significance used in the EIR, as well as the baseline and cumulative analysis approach applied.

**Chapter 5, Alternatives**, evaluates a reasonable range of alternatives to the Project and identifies an environmentally superior alternative.

**Chapter 6, Impact Overview**, summarizes the potentially significant and unavoidable impacts and cumulative impacts that could result from the Project, as they are identified throughout Chapter 4. Chapter 6 also describes the Project's potential for inducing growth, as well as the Project's significant, irreversible effects and less-than-significant effects.

**Chapter 7, Report Preparation**, identifies the authors of the EIR, including CEQA and other consultants to the City of San Rafael, who provided technical resources for the Project description and EIR analysis. All reference documents used to prepare the EIR analyses are listed in this chapter.

**Appendices** to the EIR are provided at the end of the document and include the NOP and scoping comments received, as well as certain technical background detail supporting certain analyses presented throughout the document. The appendices to the DEIR are available for review by the public at The City of San Rafael offices (address indicated on the notice provided at the front of this document).

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# CHAPTER 2

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## Summary

This DEIR has been prepared to evaluate the environmental impacts of the proposed Kaiser Permanente Medical Office Building Project at 1650 Los Gamos Drive, San Rafael, CA. This section briefly describes the Project and also summarizes the Project-specific impacts and mitigation measures identified in the DEIR (**Table 2-1**). Project-specific impacts and mitigation measures identified in the Initial Study are included in **Table 2-2**. Alternatives to the Project that have been considered are also summarized.

### 2.1 Project Overview

Kaiser Permanente is proposing a project with three components:

- The addition of medical office as an allowable use in the Planned Development (PD) Zoning District for an existing, approximately 148,000-gross square foot office building located at 1650 Los Gamos Drive in San Rafael, to be utilized as a medical office building (MOB).
- The construction of an up to 476-space, three-level plus upper ramp, parking structure on the existing surface parking lot located to the west of 1650 Los Gamos Drive that will primarily serve Kaiser Permanente employees working at the MOB.
- Continued use of the existing 42 parking spaces located adjacent to 1650 Los Gamos Drive, on the 1600 Los Gamos Drive property. Kaiser Permanente has legal access to the use of those parking spaces through an easement and is not proposing any changes to the parking spaces.

Both 1650 and 1600 Los Gamos Drive were originally constructed pursuant to a single Planned Development (PD) District, which permits 1650 Los Gamos Drive to be constructed with up to 150,000 square feet of general or administrative office uses and 1600 Los Gamos Drive to be constructed with up to 340,000 square feet of general or administrative office uses or a computer center.

Discretionary approvals or permits needed to construct the Project will include: 1) an amendment to the existing PD District for the site to allow medical office uses in addition to the existing office uses, and to separate the PD District from 1600 Los Gamos Drive. As discussed above, the Project would convert the entire office building into approximately 148,000 square feet of medical office space. Two existing tenants are anticipated to remain (as interim uses) during the remainder of their leases.

At full buildout, the MOB would contain approximately 70 provider offices anticipated to provide the following services:

Member Services, Health Education, Internal Medicine, Pediatrics, OB/GYN, Endocrinology, Rheumatology, Dermatology, Eye Services, Physical Therapy, Imaging, Pharmacy, and Laboratory (the composition of services may be subject to change by the time the MOB is operational).

There would be approximately 315 employees working at 1650 Los Gamos Drive at full buildout. Many of these employees, about 78%, or 245, would be relocated from existing Kaiser Permanente facilities in Marin County. Approximately 70%, or 170, of these relocated Marin employees would be relocated from the existing Kaiser Permanente Medical Center at 99 Monticello Road, San Rafael.

The Project will not increase the footprint, height or massing of the existing building. The medical office uses will be contained within the existing building and no substantial exterior changes are proposed to the MOB. The only proposed exterior changes to the existing building at 1650 Los Gamos Drive are minor improvements to the landscaping and new signage to identify the facility and provide a brand identity.

For purposes of the environmental review, the Project was assumed to have up to 150,000 square feet of medical office space, which is the maximum amount allowed for development under the existing zoning.

While not proposed as part of the Project, the potential environmental impacts of off-site roadway improvements resulting from Project mitigation measures are also analyzed as part of this DEIR.

## **2.2 Areas of Controversy and Scoping Comments**

### ***Areas of Potential Controversy***

The comments on the NOP and at the Project scoping meeting focused on the following topics:

- Increased traffic.
- Visual impacts of a larger proposed parking structure.
- Construction noise and air quality impacts.
- Pedestrian and bicycle connections and safety.

### ***Impacts and Mitigation Measures***

Under CEQA, a significant effect on the environment is defined as a substantial or potentially substantial adverse change in any of the physical conditions within the area affected by a project, including effects on land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. The criteria of significance used to determine whether or not effects are

significant are included in the "Impacts and Mitigation Measures" section for each topic discussion in this DEIR.

This DEIR identifies significant and unavoidable Project-level impacts associated with the mitigation requirement to signalize and improve the intersections at Los Gamos Drive and Lucas Valley Road as well as mitigations to improve the intersection at Las Gallinas Drive and Lucas Valley Road. All other identified impacts can be mitigated to a less than significant level with the implementation of the recommended mitigation measures. This DEIR also addresses less than significant impacts for which mitigation measures are not needed.

Prior to approval of the Project, written findings regarding each of the identified environmental impacts must be prepared. Also, a monitoring program for each mitigation measure must be adopted. This monitoring program will be prepared as part of the FEIR for this Project.

## 2.3 Alternatives

Four potential alternatives to the proposed Project are evaluated in Chapter 5, Alternatives. They are:

- Alternative 1: No Project/No Medical Office Uses
- Alternative 2: Reduced Medical Office Use
- Alternative 3: Alternate Parking Structure Location
- Alternative 4: Applicant-Implemented Traffic Improvements

The environmental impacts of each alternative are compared. The ability of each alternative to meet Project objectives is also evaluated. Alternatives 1 and 2 do not meet the primary objectives of Kaiser Permanente. Alternative 4 is the identified Environmentally-Superior alternative.

## 2.4 Environmental Impacts and Mitigation Measures

**Table 2-1** summarizes project impacts and mitigation measures. The table identifies the level of impact both before and after mitigation. Proposed mitigation measures identified in the Initial Study are included in **Table 2-2** and are referenced accordingly. The Initial Study is included as **Appendix B** to this DEIR.

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**Table 2-1: Summary of Potentially Significant Impacts and Mitigation Measures - 1650 Los Gamos: Kaiser Medical Office Building**

<i>Environmental Impacts</i>	<i>Level of Significance Without Mitigation</i>	<i>Mitigation Measures</i>	<i>Level of Significance with Mitigation</i>
<i>Significant and Unavoidable</i>	(SU)		(SU)
<i>Potentially Significant:</i>	(PS)		(PS)
<i>Less than Significant:</i>	(LTS)		(LTS)
<b>III. Air Quality</b>			
<b>Impact AIR-1: The Project would result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable State or federal ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors). The incorporation of construction best management practices as Project conditions of approval would result in a less-than-significant temporary criteria air pollutant impact.</b>	PS	<p><b>MM AIR-1. Include basic measures to control dust and exhaust during construction.</b> During any construction period ground disturbance, Kaiser Permanente shall ensure that the Project contractor implement measures to control dust and exhaust. Implementation of the measures recommended by BAAQMD and listed below would reduce the air quality impacts associated with grading and new construction to a less than significant level. The contractor shall implement the following best management practices that are required of all projects:</p> <ol style="list-style-type: none"> <li>All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.</li> </ol>	LTS

**Table 2-1: Summary of Potentially Significant Impacts and Mitigation Measures - 1650 Los Gamos: Kaiser Medical Office Building**

<i>Environmental Impacts</i>	<i>Level of Significance Without Mitigation</i>	<i>Mitigation Measures</i>	<i>Level of Significance with Mitigation</i>
		<p>2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.</p> <p>3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.</p> <p>4. All vehicle speeds on unpaved roads shall be limited to 15 miles per hour (mph).</p> <p>5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.</p> <p>6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]).</p>	

**Table 2-1: Summary of Potentially Significant Impacts and Mitigation Measures - 1650 Los Gamos: Kaiser Medical Office Building**

<i>Environmental Impacts</i>	<i>Level of Significance Without Mitigation</i>	<i>Mitigation Measures</i>	<i>Level of Significance with Mitigation</i>
		<p>Clear signage shall be provided for construction workers at all access points.</p> <p>7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.</p> <p>8. Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.</p>	
<b>Impact AIR-3: The Project would expose sensitive receptors to substantial pollutant concentrations. The incorporation of construction best management practices as Project conditions of approval would result in</b>	PS	<b>Implementation of MM AIR-1.</b> Include basic measures to control dust and exhaust during construction.	LTS

**Table 2-1: Summary of Potentially Significant Impacts and Mitigation Measures - 1650 Los Gamos: Kaiser Medical Office Building**

<i>Environmental Impacts</i>	<i>Level of Significance Without Mitigation</i>	<i>Mitigation Measures</i>	<i>Level of Significance with Mitigation</i>
a less than significant temporary impact to sensitive receptors.			
<b>Impact AIR-4:</b> The Project would contribute to cumulative air quality degradation and to regional air quality cumulative impacts. The incorporation of construction best management practices as Project conditions of approval would result in a less than significant cumulative air quality impact.	PS	<b>Implementation of MM AIR-1.</b> Include basic measures to control dust and exhaust during construction.	LTS
<b>XII. Noise</b>			
<b>Impact NOISE-4:</b> Existing noise-sensitive land uses would be exposed to a temporary increase in ambient noise levels due to Project construction activities. The incorporation of construction best management practices as Project conditions of approval would result in a less than significant temporary noise impact.	PS	<b>MM NOISE-1. Incorporate best management practices during Project construction activities.</b> Reasonable regulation of the hours of construction, as well as regulation of the arrival and operation of heavy equipment and the delivery of construction material, are necessary to protect the health and safety of persons, promote the general welfare of the community, and maintain the quality of life. In compliance with the City's Municipal Code, the Project shall adhere to the allowable construction hours of 7:00 a.m. to 6:00 p.m. on weekdays and 9:00 a.m. to 6:00 p.m. on Saturdays. Construction activities are prohibited on	LTS

**Table 2-1: Summary of Potentially Significant Impacts and Mitigation Measures - 1650 Los Gamos: Kaiser Medical Office Building**

<i>Environmental Impacts</i>	<i>Level of Significance Without Mitigation</i>	<i>Mitigation Measures</i>	<i>Level of Significance with Mitigation</i>
		<p>Sundays and national holidays. Additionally, the construction crew shall adhere to the following construction best management practices to reduce construction noise levels emanating from the site and minimize disruption and annoyance at existing noise-sensitive receptors in the Project vicinity.</p> <p>Construction Best Management Practices</p> <p>In order to reduce potential significant impacts from temporary construction activities, Kaiser Permanente shall be required to develop a construction noise control plan, including, but not limited to, the following available controls:</p> <ul style="list-style-type: none"> <li>• Construct temporary noise barriers, where feasible, to screen stationary noise-generating equipment. Temporary noise barrier fences would provide a 5 dBA noise reduction if the noise barrier interrupts the line-of-sight between the noise source and receptor and if the barrier is constructed in a manner that eliminates any cracks or gaps.</li> </ul>	

**Table 2-1: Summary of Potentially Significant Impacts and Mitigation Measures - 1650 Los Gamos: Kaiser Medical Office Building**

<i>Environmental Impacts</i>	<i>Level of Significance Without Mitigation</i>	<i>Mitigation Measures</i>	<i>Level of Significance with Mitigation</i>
		<ul style="list-style-type: none"> <li>• Equip all internal combustion engine-driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.</li> <li>• Unnecessary idling of internal combustion engines should be strictly prohibited.</li> <li>• Locate stationary noise-generating equipment, such as air compressors or portable power generators, as far as possible from sensitive receptors as feasible. If they must be located near receptors, adequate muffling (with enclosures where feasible and appropriate) shall be used to reduce noise levels at the adjacent sensitive receptors. Any enclosure openings or venting shall face away from sensitive receptors.</li> <li>• Utilize "quiet" air compressors and other stationary noise sources where technology exists.</li> <li>• Construction staging areas shall be established at locations that will create the greatest distance between the construction-related noise sources and noise-sensitive receptors nearest the Project site during all Project construction.</li> </ul>	

**Table 2-1: Summary of Potentially Significant Impacts and Mitigation Measures - 1650 Los Gamos: Kaiser Medical Office Building**

<i>Environmental Impacts</i>	<i>Level of Significance Without Mitigation</i>	<i>Mitigation Measures</i>	<i>Level of Significance with Mitigation</i>
		<ul style="list-style-type: none"> <li>• Locate material stockpiles, as well as maintenance/equipment staging and parking areas, as far as feasible from residential receptors.</li> <li>• Route construction-related traffic along major roadways and as far as feasible from sensitive receptors.</li> <li>• Control noise from construction workers' radios to a point where they are not audible at existing residences bordering the Project site.</li> <li>• The contractor shall prepare a detailed construction schedule for major noise-generating construction activities. The construction plan shall identify a procedure for coordination with adjacent residential land uses so that construction activities can be scheduled to minimize noise disturbance.</li> <li>• Designate a "disturbance coordinator" who would be responsible for responding to any complaints about construction noise. The disturbance coordinator will determine the cause of the noise complaint (e.g., bad muffler, etc.) and will require that reasonable measures be implemented to correct the problem. Conspicuously post a telephone number for the disturbance coordinator at the construction site and</li> </ul>	

**Table 2-1: Summary of Potentially Significant Impacts and Mitigation Measures - 1650 Los Gamos: Kaiser Medical Office Building**

<i>Environmental Impacts</i>	<i>Level of Significance Without Mitigation</i>	<i>Mitigation Measures</i>	<i>Level of Significance with Mitigation</i>
		<p>include in it the notice sent to neighbors regarding the construction schedule.</p> <p>The implementation of the reasonable and feasible controls outlined above would reduce construction noise levels emanating from the site by 5 to 10 dBA in order to minimize disruption. With the implementation of these controls, as well as the Municipal Code limits on allowable construction hours, and considering that construction is temporary, the impact would be reduced to a less-than-significant level.</p>	
<b>XVI. Traffic and Circulation</b>			
<p><b>Impact TRAF-1: Implementation of the Project would increase traffic volumes on area roadways and affect levels of service at the local intersections and freeways under Existing plus Project Conditions.</b></p>	<p>PS</p>	<p><b>MM TRAF-1. Signalize Lucas Valley Road / Los Gamos Drive.</b> In coordination with the City of San Rafael, the County of Marin Department of Public Works, and Caltrans, Kaiser Permanente shall pay the fair share cost to signalize the Lucas Valley Road / Los Gamos Drive intersection to mitigate poor operating conditions. Signalizing the intersection is consistent with improvements identified in the San Rafael General Plan 2020. Due to its close proximity to the US-101</p>	<p>SU</p>



**Table 2-1: Summary of Potentially Significant Impacts and Mitigation Measures - 1650 Los Gamos: Kaiser Medical Office Building**

<i>Environmental Impacts</i>	<i>Level of Significance Without Mitigation</i>	<i>Mitigation Measures</i>	<i>Level of Significance with Mitigation</i>
		<p>Ramp terminal intersections, the new signal should include traffic signal interconnect and be coordinated with the adjacent interchange signals. Additionally, interagency coordination will be required during design, construction and maintenance of the new signal. Therefore, a memorandum of understanding (MOU) will be required between the City of San Rafael and the County of Marin to document the management and maintenance of the new signal, since the US 101/Lucas Valley interchange signals and the new Lucas Valley Road / Los Gamos Drive signal would need to be operated and maintained by one or multiple agencies.</p> <p>Signalizing the intersection would mitigate the project impact to a <b>less than significant</b> impact. However, implementation of the mitigation measure requires the intersection improvements to be fully funded and constructed. Therefore, until and unless the MOU and fair-share contributions are finalized, and the design and construction of the intersection is permitted and approved, the Project will result in a <b>significant and unavoidable</b> impact.</p>	

**Table 2-1: Summary of Potentially Significant Impacts and Mitigation Measures - 1650 Los Gamos: Kaiser Medical Office Building**

<i>Environmental Impacts</i>	<i>Level of Significance Without Mitigation</i>	<i>Mitigation Measures</i>	<i>Level of Significance with Mitigation</i>
<p><b>Impact TRAF-2:</b> Implementation of the Project would increase traffic volumes on freeway segments and affect levels of the regional network under Existing plus Project Conditions.</p>	PS	<p><b>MM TRAF-2. Kaiser Permanente shall implement additional TDM measures.</b> Kaiser Permanente shall implement a TDM program, as described in Chapter 3: <i>Project Description</i> and Section 4.6.4.2: <i>Transportation Demand Management Considerations</i> of this traffic impact chapter (Section 3.1.1 of the 1650 Los Gamos Drive FTIA). Implementation of these TDM strategies would go beyond what is required as part of the PD District, with the goal of reducing employee vehicle trips, thereby reducing the Project's impact on the regional network.</p> <p>Based on a quantitative assessment of the TDM measures proposed in the <i>1650 Los Gamos Drive FTIA</i>, the TDM strategies may yield a Project vehicle trip generation reduction of up to 12-percent between the Miller Creek Off-Ramp and Miller Creek On-Ramp. If maximally effective, implementation of the Project's TDM strategies would result in a project trip reduction of up to 10-15 AM peak hour trips along this segment, which would result in a project contribution of less than a 0.01 increase in volume to capacity ratio. As presented</p>	LTS

**Table 2-1: Summary of Potentially Significant Impacts and Mitigation Measures - 1650 Los Gamos: Kaiser Medical Office Building**

<i>Environmental Impacts</i>	<i>Level of Significance Without Mitigation</i>	<i>Mitigation Measures</i>	<i>Level of Significance with Mitigation</i>
		<p>in the 1650 Los Gamos Drive FTIA, implementation of the Project's TDM measures will achieve this reduction, however, Kaiser will annually quantitatively analyze and monitor employee vehicle trip generation data via comprehensive employee surveys and make adjustments to its TDM measures as needed to achieve the stated reduction.</p> <p>As described in the 4.6.4.2: <i>Transportation Demand Management Considerations</i> and the Fehr &amp; Peers 1650 Los Gamos Drive FTIA, Kaiser Permanente shall conduct an annual employee survey and prepare a monitoring report that evaluates the effectiveness of the Project's TDM Plan. The TDM program will be submitted to the City of San Rafael for comment and review. Kaiser Permanente will coordinate with the City of San Rafael, as necessary. The annual survey shall demonstrate how the TDM measures reduce the Project's impact to peak-hour volume to capacity ratio for the Miller Creek On and Off Ramp.</p>	
<b>Impact TRAF-3: The Project would contribute to deficient operations of the</b>	PS	<b>MM TRAF-3. Improve Intersection Operations at Lucas Valley Road/Las Gallinas Avenue.</b>	SU

**Table 2-1: Summary of Potentially Significant Impacts and Mitigation Measures - 1650 Los Gamos: Kaiser Medical Office Building**

<i>Environmental Impacts</i>	<i>Level of Significance Without Mitigation</i>	<i>Mitigation Measures</i>	<i>Level of Significance with Mitigation</i>
<p><b>Lucas Valley Road/Las Gallinas Avenue intersection by increasing the average delay by more than five seconds under Baseline plus Project conditions.</b></p>		<p>Improvements at the Lucas Valley Road/Las Gallinas Avenue intersection have yet to be identified through the City of San Rafael's <i>General Plan 2020</i>; however, several vehicle capacity improvements (such as reconfiguring the intersection to remove channelized turn islands or replacing the existing signal with a roundabout) may be considered by the City of San Rafael to mitigate poor operating conditions at the intersection. Capacity increasing improvements include various trade-offs, however. For example, adding capacity could facilitate more vehicular traffic but this could also have an adverse impact to pedestrians and bicyclists and result in the diversion of more pass-through traffic along Las Gallinas Avenue and an increase in VMT. Although mitigation is possible at this intersection to address Project impacts, the intersection is outside of the City's jurisdiction and specific improvements have yet to be identified by either the City of San Rafael or the County of Marin. As such, the feasibility of potential mitigations will require further study and coordination with local neighborhood groups, the City of San Rafael, and the County of Marin,</p>	

**Table 2-1: Summary of Potentially Significant Impacts and Mitigation Measures - 1650 Los Gamos: Kaiser Medical Office Building**

<i>Environmental Impacts</i>	<i>Level of Significance Without Mitigation</i>	<i>Mitigation Measures</i>	<i>Level of Significance with Mitigation</i>
		<p>who operates and maintains the existing traffic signal. Since the City cannot legally implement mitigation measures outside of its jurisdiction, this potential mitigation is infeasible from both a legal and public policy standpoint. Ultimately, the City of San Rafael, in coordination with the County of Marin, would be responsible for implementing improvements, of which Kaiser Permanente would pay its fair share; however, as discussed above, since the intersection is not part of a traffic fee program and intersection improvements have yet to be identified, the Project would result in a <b>significant and unavoidable</b>.</p>	
<p><b>Impact TRAF-4:</b> The proposed Project would contribute to deficient operations of the Lucas Valley Road/Las Gamos Drive intersection by increasing the average delay by more than five seconds under Baseline plus Project conditions.</p>	PS	<p><b>MM TRAF-4. Signalize and Reconfigure the Lucas Valley Road/Los Gamos Drive Intersection.</b> In coordination with the City of San Rafael Department of Public Works, the County of Marin Department of Public Works, and Caltrans, Kaiser Permanente shall pay a fair share contribution to the reconfiguring and signalization of the Lucas Valley Road/Los Gamos Drive Intersection. The San Rafael <i>General Plan 2020</i> (Exhibit 21 #2 ) identifies improvements at this intersection, including signalizing the intersection, adding dual</p>	SU

**Table 2-1: Summary of Potentially Significant Impacts and Mitigation Measures - 1650 Los Gamos: Kaiser Medical Office Building**

<i>Environmental Impacts</i>	<i>Level of Significance Without Mitigation</i>	<i>Mitigation Measures</i>	<i>Level of Significance with Mitigation</i>
		<p>westbound left turn lanes, reconfiguring the northbound approach, and removing existing striped channelized islands, as illustrated in <b>Figure 4.6-13</b>. Due to its close proximity to the US-101 Ramp terminal intersections, the new signal should include traffic signal interconnect and be coordinated with the adjacent interchange signals. Additionally, since the majority of the intersection is located within the County of Marin jurisdiction, interagency coordination will be required during design, construction and maintenance of the new signal. Furthermore, a memorandum of understanding (MOU) will be required between the City of San Rafael and the County of Marin to document the management and maintenance of the intersection and signals since the US 101/Lucas Valley interchange signals and the new Lucas Valley Road / Los Gamos Drive signal would be operated and maintained by one or multiple agencies.</p> <p>Implementing these improvements would mitigate the Project's impact to <b>less than significant</b>. However, until the intersection is fully funded, approved by the</p>	

**Table 2-1: Summary of Potentially Significant Impacts and Mitigation Measures - 1650 Los Gamos: Kaiser Medical Office Building**

<i>Environmental Impacts</i>	<i>Level of Significance Without Mitigation</i>	<i>Mitigation Measures</i>	<i>Level of Significance with Mitigation</i>
		referenced public agencies, and constructed, the impact to the level of service would remain. Therefore, until and unless the MOU and fair-share contributions are finalized, the design and construction of the intersection is permitted and approved by all parties, the Project will result in a <b>significant and unavoidable</b> impact.	
<b>Impact TRAF-5. The addition of the Project-related traffic would exacerbate the Cumulative No Project condition and contribute more than 5 seconds of delay at the Lucas Valley Road/Las Gallinas Avenue intersection.</b>	PS	<b>Implementation of Mitigation Measure MM TRAF-3 would work towards reducing the Project's impact upon the local circulation network.</b> However, since the intersection is not part of a traffic fee program and intersection improvements have yet to be identified, the Project would result in a <b>significant and unavoidable</b> impact.	SU

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**Table 2-2: Summary of Impacts and Mitigation Measures - 1650 Los Gamos: Kaiser Medical Office Building Initial Study**

<b>Environmental Impacts</b>	<b>Level of Significance Without Mitigation</b>	<b>Mitigation Measures</b>	<b>Level of Significance with Mitigation</b>
Significant and Unavoidable Potentially Significant: Less Than Significant Without Mitigation: Less than Significant:	(SU) (PS) (LTSWM) (LTS)		(SU) (PS) (LTSWM) (LTS)
<b>I. Aesthetics</b>			
<b>I (d).</b> Would the project:  Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	PS	<b>MM AES-1:</b> Prior to the issuance of any building permits, the Project applicant shall submit to the satisfaction of the Community Development Department Director, Project building plans that include a photometric lighting study demonstrating that outdoor lighting fixtures meet the requirements of the California Energy Code (known as Part 6, Title 24 of the California Code of Regulations).	LTS
<b>IV. Biological Resources</b>			
<b>IV (d):</b> Would the project:  Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	PS	<b>MM BIO-1:</b> Prior to issuance of a grading or building permit, the Project sponsor shall conduct a preconstruction nesting bird and bat survey. Preconstruction surveys shall include the following:  1) Perform any vegetation trimming and/or removal outside of the bird nesting season (Sept. 1 – Feb. 14);	LTS

**Table 2-2: Summary of Impacts and Mitigation Measures - 1650 Los Gamos: Kaiser Medical Office Building Initial Study**

<b>Environmental Impacts</b>	<b>Level of Significance Without Mitigation</b>	<b>Mitigation Measures</b>	<b>Level of Significance with Mitigation</b>
		<p>2) Provide a worker environmental awareness training for construction personnel;</p> <p>3) Perform preconstruction surveys for nesting migratory birds by a qualified biologist no more than 72 hours prior to the start of construction for activities occurring during the breeding season (February 15 to August 31); and</p> <p>4) If work is to occur within 300 feet of active raptor nests or 50 feet of active passerine nests, non-disturbance buffers will be established at a distance sufficient to minimize disturbance.</p>	
<b>V. Cultural Resources</b>			
<p><b>V (b):</b> Would the project:  Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?</p>	<p>PS</p>	<p><b>MM CULT-1: Protect Archaeological Resources Identified during Construction:</b> The Project sponsor shall ensure that construction crews stop all work within 100 feet of the discovery until a qualified archaeologist can assess the previously unrecorded discovery and provide recommendations. Resources could include subsurface historic features such as artifact-filled privies, wells, and refuse pits, and artifact deposits, along with concentrations of adobe, stone, or concrete walls or foundations, and concentrations of ceramic, glass, or metal materials. Native American archaeological materials could include obsidian and chert flaked stone</p>	<p>LTS</p>

**Table 2-2: Summary of Impacts and Mitigation Measures - 1650 Los Gamos: Kaiser Medical Office Building Initial Study**

<i>Environmental Impacts</i>	<i>Level of Significance Without Mitigation</i>	<i>Mitigation Measures</i>	<i>Level of Significance with Mitigation</i>
		tools (such as projectile and dart points), midden (culturally derived darkened soil containing heat-affected rock, artifacts, animal bones, and/or shellfish remains), and/or groundstone implements (such as mortars and pestles).	
<p><b>V (d):</b> Would the project:  Disturb any human remains, including those interred outside of dedicated cemeteries?</p>	PS	<p><b>MM CULT-2: Protect Human Remains Identified During Construction:</b> The Project proponent shall treat any human remains and associated or unassociated funerary objects discovered during soil-disturbing activities according to applicable State laws. Such treatment includes work stoppage and immediate notification of the Marin County Coroner and qualified archaeologist, and in the event that the Coroner's determination that the human remains are Native American, notification of NAHC according to the requirements in PRC Section 5097.98. NAHC would appoint a Most Likely Descendant (MLD). A qualified archaeologist, Project proponent, County of Marin, and MLD shall make all reasonable efforts to develop an agreement for the treatment, with appropriate dignity, of any human remains and associated or unassociated funerary objects (CEQA Guidelines Section 15064.5[d]). The agreement would take into consideration the appropriate excavation, removal, recordation, analysis, custodianship, and final disposition of the human remains</p>	LTS

**Table 2-2: Summary of Impacts and Mitigation Measures - 1650 Los Gamos: Kaiser Medical Office Building Initial Study**

<i>Environmental Impacts</i>	<i>Level of Significance Without Mitigation</i>	<i>Mitigation Measures</i>	<i>Level of Significance with Mitigation</i>
		<i>and associated or unassociated funerary objects. The PRC allows 48 hours to reach agreement on these matters.</i>	
<b>IX. HYDROLOGY AND WATER QUALITY</b>			
<p><b>IX (a):</b> <i>Would the project:</i></p> <p><i>Violate any water quality standards or waste discharge requirements?</i></p>	<p>PS</p>	<p><b>MM HYDRO-1:</b> <i>Prior to grading activities, the Project applicant shall prepare a Stormwater Pollution Prevention Plan (SWPPP) in accordance with the requirements of the statewide Construction General Permit. The SWPPP shall be prepared by a Qualified SWPPP Developer (QSD). The SWPPP shall include the minimum Best Management Practices (BMPs) required for the identified risk level. The SWPPP shall be designed to address the following objectives:</i></p> <p><i>(1) All pollutants and their sources, including sources of sediment associated with construction, construction site erosion, and all other activities associated with construction activity are controlled;</i></p> <p><i>(2) Where not otherwise required to be under a Regional Water Quality Control Board permit, all non-stormwater discharges are identified and either eliminated, controlled, or treated;</i></p> <p><i>(3) Site BMPs are effective and result in the reduction or elimination of pollutants in stormwater discharges and</i></p>	<p>LTS</p>

**Table 2-2: Summary of Impacts and Mitigation Measures - 1650 Los Gamos: Kaiser Medical Office Building Initial Study**

<i>Environmental Impacts</i>	<i>Level of Significance Without Mitigation</i>	<i>Mitigation Measures</i>	<i>Level of Significance with Mitigation</i>
		<p><i>authorized non-stormwater discharges from construction activity; and</i></p> <p><i>(4) Stabilization BMPs installed to reduce or eliminate pollutants after construction are completed.</i></p> <p><i>(5) BMP implementation shall be consistent with the BMP requirements in the most recent version of the California Stormwater Quality Association Stormwater Best Management Handbook-Construction or the Caltrans Stormwater Quality Handbook Construction Site BMPs Manual.</i></p>	
<p><b>IX (a):</b> <i>Would the project: Violate any water quality standards or waste discharge requirements?</i></p>	<p>PS</p>	<p><b>MM HYDRO-2:</b> <i>Prior to a certificate of occupancy, the Project applicant shall verify that operational stormwater quality control measures that comply with the requirements of the current Phase II Small MS4 Permit have been implemented. Responsibilities include but are not limited to:</i></p> <p><i>1) Designing BMPs into Project features and operations to reduce potential impacts to surface water quality and to manage changes in the timing and quantity of runoff associated with operation of the Project. These features</i></p>	<p>LTS</p>

**Table 2-2: Summary of Impacts and Mitigation Measures - 1650 Los Gamos: Kaiser Medical Office Building Initial Study**

<b>Environmental Impacts</b>	<b>Level of Significance Without Mitigation</b>	<b>Mitigation Measures</b>	<b>Level of Significance with Mitigation</b>
		<p>shall be included in the design-level drainage plan and final development drawings.</p> <p>2) The proposed Project shall incorporate site design measures and Low Impact Development design standards, including minimizing disturbed areas and impervious surfaces, infiltration, harvesting, evapotranspiration, and/or bio-treatment of stormwater runoff.</p> <p>3) The project applicant shall establish an Operation and Maintenance Plan. This plan shall specify a regular inspection schedule of stormwater treatment facilities in accordance with the requirements of the Phase II Small MS4 Permit.</p> <p>4) Funding for long-term maintenance of all BMPs shall be specified.</p>	
<p><b>IX (b):</b> Would the project: Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on- or off- site?</p>	PS	<b>Implementation of MM HYDRO-1</b>	LTS
<p><b>IX (f):</b> Would the project: Otherwise substantially degrade water quality?</p>	PS	<b>Implementation of MM HYDRO-1</b>	LTS

**Table 2-2: Summary of Impacts and Mitigation Measures - 1650 Los Gamos: Kaiser Medical Office Building Initial Study**

<b>Environmental Impacts</b>	<b>Level of Significance Without Mitigation</b>	<b>Mitigation Measures</b>	<b>Level of Significance with Mitigation</b>
<b>XVII. Tribal Cultural Resources</b>			
<p>XVIII. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is Geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:</p> <p>(a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or</p> <p>(b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in Subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource</p>	PS	<p><b>MM TRIBAL-1:</b> Implementation of the unanticipated discovery measures outlined in Section V(b) and (d) above, address the potential discovery of previously unknown resources within the project area. If significant tribal cultural resources are identified onsite, all work would stop immediately within 50 feet of the resource(s) and the project applicant would comply with all relevant State and City policies and procedures prescribed under PRC Section 21074.</p>	LTS

**Table 2-2: Summary of Impacts and Mitigation Measures - 1650 Los Gamos: Kaiser Medical Office Building Initial Study**

<b><i>Environmental Impacts</i></b>	<b><i>Level of Significance Without Mitigation</i></b>	<b><i>Mitigation Measures</i></b>	<b><i>Level of Significance with Mitigation</i></b>
<i>Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.</i>			



# CHAPTER 3

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## Project Description

This chapter describes the Kaiser Permanente Medical Office Building (“proposed Project” or “Project”) proposed by Kaiser Permanente. Topics discussed in this chapter include Project objectives, geographic setting and location of the Project site, Project characteristics relevant to the environmental analysis, State of California regulatory context for the Project, and permits and approvals required for the Project. The design of the parking structure that is analyzed in this DEIR has been modified slightly since the Initial Study to reflect comments received from the Design Review Board and community, though the revised design did not change the original Initial Study conclusions. The exterior design of the parking structure may change as a result of the on-going Design Review Board process, but the overall massing is anticipated to stay the same.

### 3.1 Project Location and Surroundings

#### 3.1.1 Project Location

The Project site is located at 1650 Los Gamos San Rafael, Marin County, California, APNs: 165-220-12 and 165-220-13. The subject property is approximately 11.1 acres in size located in north San Rafael and consists of two separate parcels divided by Los Gamos Drive. The 4.09-acre (178,373 square feet) southeastern parcel is already developed with an existing three-story, approximately 148,000 square foot office building and associated surface parking. Across Los Gamos Drive, to the west, is a 7.02-acre (305,947 square feet) parcel developed with an approximately 80,000 square foot terraced surface parking lot and landscaping. The remainder of this parcel is characterized by oak woodland. (see **Figure 3-1, Project Location Map.**)

The Project site is located west of Highway 101 and south of Lucas Valley Road. The existing building is surrounded by several existing surface parking lots, with a Marin County-owned building to the south, at 1600 Los Gamos Drive. The Project site is located in a mixed-use office/commercial area and is separated from the nearest residential neighborhood by an open space hillside the closest residential structure is approximately 215 feet west and uphill from the southwest corner of the existing surface parking lot.

The Project site includes three corresponding parcels, two of which are owned by Kaiser Permanente and a third owned by the County of Marin:

- An existing building at 1650 Los Gamos Drive (Assessor Parcel Number’s [APN] 165-220-13), includes a three-story, approximately 148,000 square foot office building and associated surface parking on approximately 4.09-acres.
- An approximately 7.02 -acre parcel located to the west of 1650 Los Gamos Drive, on

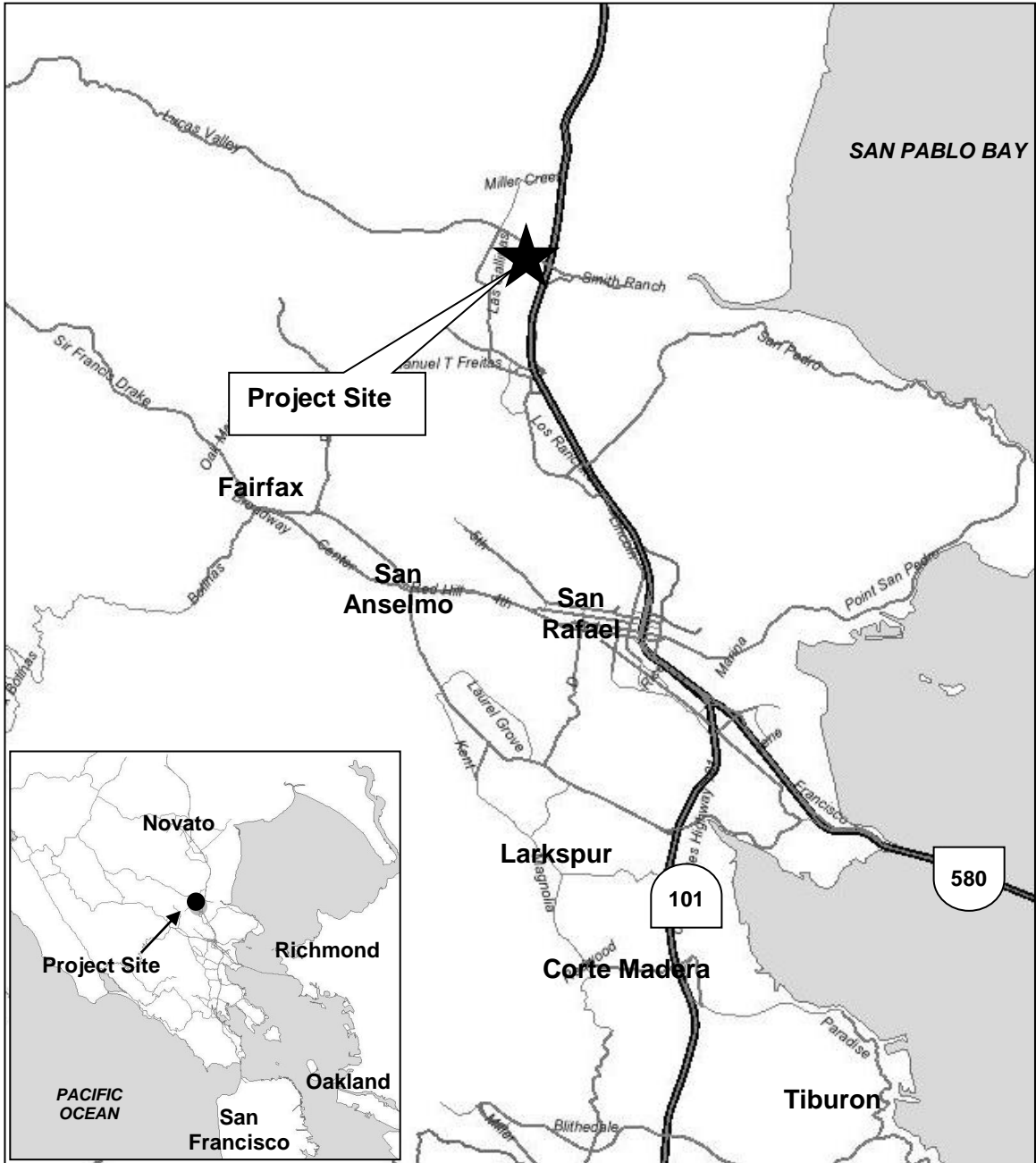


Figure 3.1: Project Location Map

the west side of Los Gamos Drive (APN 165-220-12). The parcel currently consists of a surface parking lot and vegetative hillside, and abuts an undeveloped hillside slope, with a single-family subdivision above. There is also an existing sanitary sewer line running through the parcel.

- The surface parking site at 1600 Los Gamos Drive (APN 165-220-11), a portion of which Kaiser holds a parking easement to allow the use of 42 parking spaces for 1650 Los Gamos Drive.

Together, these parcels are the “Project” site.

The Project site and surrounding areas is shown in **Figure 3-2, Aerial of Project Site and Surroundings**.

### 3.1.2 Existing General Plan and Zoning Designations

The City of San Rafael *General Plan 2020* Land Use designation for the Project site is “O – Office.” The City of San Rafael Zoning designation for the Project site is Planned Development (PD 1590). PD 1590 allows for general and administrative office uses and a computer center. The area west of Los Gamos Drive is limited to parking uses only. PD 1590 encompasses approximately 33 acres which also includes the existing building at 1600 Los Gamos Drive and associated surface parking lots. Currently, both the 1600 and 1650 Los Gamos Drive buildings constitute 490,000 square feet of office space with 1,296 total parking spaces and are referred to jointly as the “Marin Commons.”

### 3.1.3 Background and Existing Ownership

Kaiser Permanente owns the two parcels at 1650 Los Gamos Drive and is one of the nation’s leading health care providers and not-for-profit health plans providing integrated managed care with a focus on prevention. The Project site is located within the Kaiser Permanente San Rafael Medical Center Service Area that serves approximately 137,000 members in Marin and Southern Sonoma Counties.

The San Rafael Medical Center main campus is located at 99 Montecillo Road with a 116- bed hospital, emergency department, and on-site medical office buildings. The facility has functioned in its current configuration since 1977 with over half the buildings between 40 to 55 years old. At the same time, medicine has changed over the last 50 years, including the need for larger physical space to accommodate medical technology such as MRIs and CT scanners that were not part of the original campus design.

In addition to the main campus, other Kaiser Permanente facilities in the San Rafael Service Area are located at: downtown San Rafael; Smith Ranch Road in San Rafael; Petaluma; Novato; and Mill Valley. Kaiser Permanente members in Petaluma and the Town of Sonoma receive most of their care at the Petaluma Medical Offices.



**Figure 3-2: Aerial of Project Site and Surroundings**

Available space on the main Kaiser Permanente campus at 99 Montecillo Road is constrained with limited ability to enhance existing services or renovate clinical areas. To better serve the needs of the Kaiser Permanente members, as well as to make the existing medical center less crowded, Kaiser Permanente purchased 1650 Los Gamos Drive in the summer of 2015 for use as a new Medical Office Building (MOB). The Project proposes to add medical office uses as a permitted use (along with general office) within the existing internally renovated 1650 Los Gamos Drive office building.

### 3.1.4 Surrounding Uses

The Project site is set within the larger context of north central Marin County, a suburban area dominated by low to medium density residential development, shopping centers, and smaller commercial districts that include retail and/or office development. Parks and open space areas exist throughout the area, with the largest being regional open space preserves of Lucas Valley and Terra Linda about 1.5 miles west and southwest of the Project site, and McInnis Park, a local Marin County park of 72 acres approximately one mile east of the Project site. The local terrain is variable with large expanses of level topography interspersed with many low-lying hillsides. Mt. Tamalpais (elevation of 2,574 feet above mean sea level) forms the dominant visual feature from many locations in this portion of Marin County along the US Highway 101 corridor.

The existing 1650 Los Gamos Drive office building is located within a level area that is surrounded by surface parking areas on four sides. Los Gamos Drive borders the building site to the west with vegetated hillsides further west. On the west side of Los Gamos Drive is the existing surface parking lot that also serves 1650 Los Gamos Drive, and is characterized with small terraces stepping up the site towards the west. The nearest residence in the Mont Marin/San Rafael Park neighborhood is located approximately 215 feet west and above the proposed parking structure.

Los Gamos Drive, which divides the two parcels of the Project site, includes curbside parking and landscaped pedestrian sidewalks areas in the vicinity of the Project site. Mature street trees include live oak, ash, and sycamore that provide effective screening of the existing office building and surface parking area for north and southbound motorists on Los Gamos Drive. Immediately adjacent and east of the Project site is US Highway 101, a major eight lane north/south freeway. To the east of US 101 is the North San Rafael Commercial District which is characterized with low one and two-story office, commercial and light industrial buildings. To the north of the Project site is Lucas Valley Road, a major east-west arterial road connecting central Marin County with west Marin County. To the north of Lucas Valley Road is the undeveloped open spaces of the Oakview Master Plan property located in the boundaries of Marin County. Immediately south of the Project site is 1600 Los Gamos Drive, a three-story office building and surface parking lot currently occupied by the Marin County Sherriff's Office. The YMCA Club is located farther south of the site, near the end of Los Gamos Drive. Los Gamos Drive terminates at a parking lot for 1400 Los Gamos Drive, a two-story office building. There is no vehicle access beyond this parking area, however, emergency and bicycle access are allowed through to a southern portion of Los Gamos Drive that becomes Los Gamos Road.

## **3.2 Existing Site Conditions**

### **3.2.1 Existing Development**

The existing three-story building at 1650 Los Gamos Drive was opened in 1981 and the Project site consists of two fee title parcels and an adjacent access and parking easement area, as described above. Although substantial portions of the building have historically been occupied, approximately 7% of the building is currently leased to two office tenants, Tequila Partida (beverages) and 10,000 Degrees (a non-profit organization that assists low-income students to attend college), and the remaining of the building is vacant. Tequila Partida will be relocated to a space on the first floor (the same level where 10,000 Degrees is already located), and both businesses will continue to occupy space in the building per the terms of their existing leases, including potential renewal options. These two existing uses are allowed under the existing zoning and as part of the Project will be replaced with medical office uses at the end of their lease term.

The 1650 Los Gamos Drive building and the larger adjacent building at 1600 Los Gamos Drive are within the same PD District known as the “Marin Commons” development. The 1600 Los Gamos Drive building is currently owned by County of Marin and includes the Marin County Office of Emergency Services and Sheriff’s Department, the Marin County Department of Public Works Real Estate, and the Bright Horizons private preschool/day care and the private Fusion Academy school.

#### ***Existing Access and Circulation***

Vehicular access to the existing office building is provided from Los Gamos Drive. There are three existing driveways on the east side of Los Gamos Drive that provide primary access to the existing building. The surface parking lot on the west side of Los Gamos Drive has two existing access driveways at both the north and south ends of the lot.

Pedestrians access the Project site from the sidewalks on both sides of Los Gamos Drive, connecting to sidewalks along Lucas Valley Road, as well as informal walkways and paths to the bus pad/stop at the Highway 101 ramp interchange to the east of the Project site. Bicyclists access the Project site from the existing Class II bike lane on Lucas Valley Road.

### **3.2.2 Existing Parking**

The 1650 Los Gamos Drive property currently includes two surface parking lots on either side of Los Gamos Drive. There are currently a total of 455 existing parking spaces allocated to the Project site consisting of:

- 204 spaces surrounding the building at 1650 Los Gamos Drive
- 209 spaces on the existing surface parking lot on the west side of Los Gamos Drive

- 42 spaces located on the adjacent 1600 Los Gamos Drive property, (legally allocated to 1650 Los Gamos Drive through an easement)

The overall Project Site currently provides approximately 3 parking spaces to 1,000 square feet of office space (a parking ratio of 3:1,000), consistent with the City's municipal code provisions in place at the time the building was originally constructed. To meet current City parking requirements, Kaiser Permanente is required to provide additional parking, as discussed below. **Figure 3-3**, Parking Supply Site Plan, depicts all the parking spaces as currently allotted to the Project site.

### 3.2.3 Existing Landscaping and Vegetation

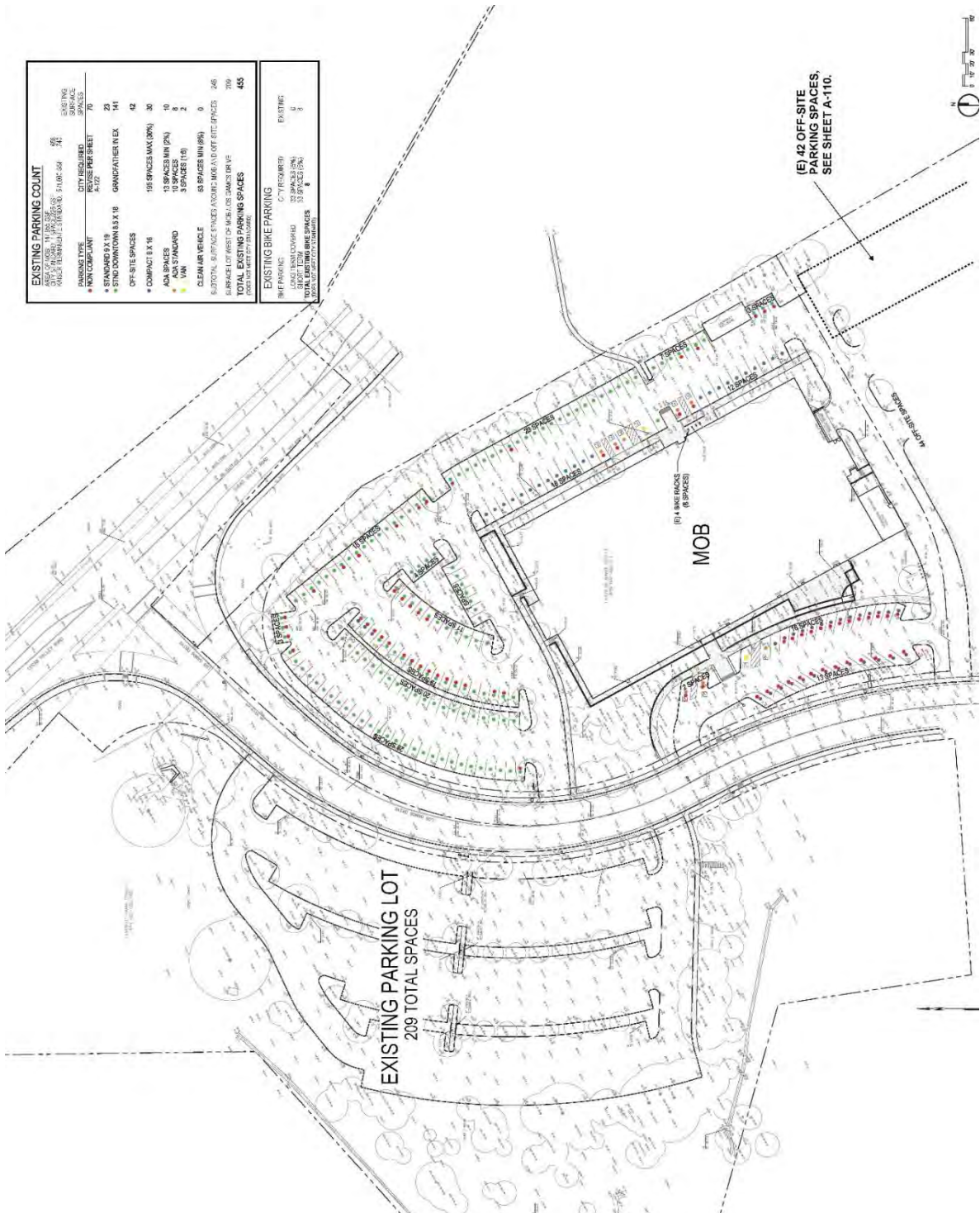
The Project site includes mature parking-lot landscaping and natural vegetation, including oak woodland consisting of coast live and valley oaks, and grasslands typical of Marin County. The surface parking lot area on the western parcel includes mature landscape trees planted throughout the various terraces, including southern magnolias, Chinese pistache, ash, redwoods, and other varieties. Several large redwood trees border the west and south edge of the western parcel surface parking lot.

## 3.3 Proposed Project

### 3.3.1 Project Description

This section describes the major building development components of the proposed Project, including the conversion of the existing office building for use as a medical office building (MOB) and the development of the proposed parking structure. No modifications are proposed for the exterior of the existing office building, with the exception of new minor exterior finishes, including paint schemes consistent with the Kaiser Permanente brand and landscaping upgrades. Solar panels may be added to the surface parking surrounding the medical office building in the future. Internal improvements would include remodeling existing spaces to accommodate the required medical office uses. In conjunction with the renovation to the office building, the Project includes the construction of a new three-level, plus upper ramp, parking structure on the parcel west of Los Gamos Drive. Buildout of the proposed parking structure is illustrated in **Figure 3-4, Proposed Site Plan, and Figure 3-5, Proposed Lot Coverage**.

Other relevant Project components, such as proposed landscaping and utility improvements required to accommodate the proposed building development, are discussed below.



Source: Kaiser Permanente, 2018

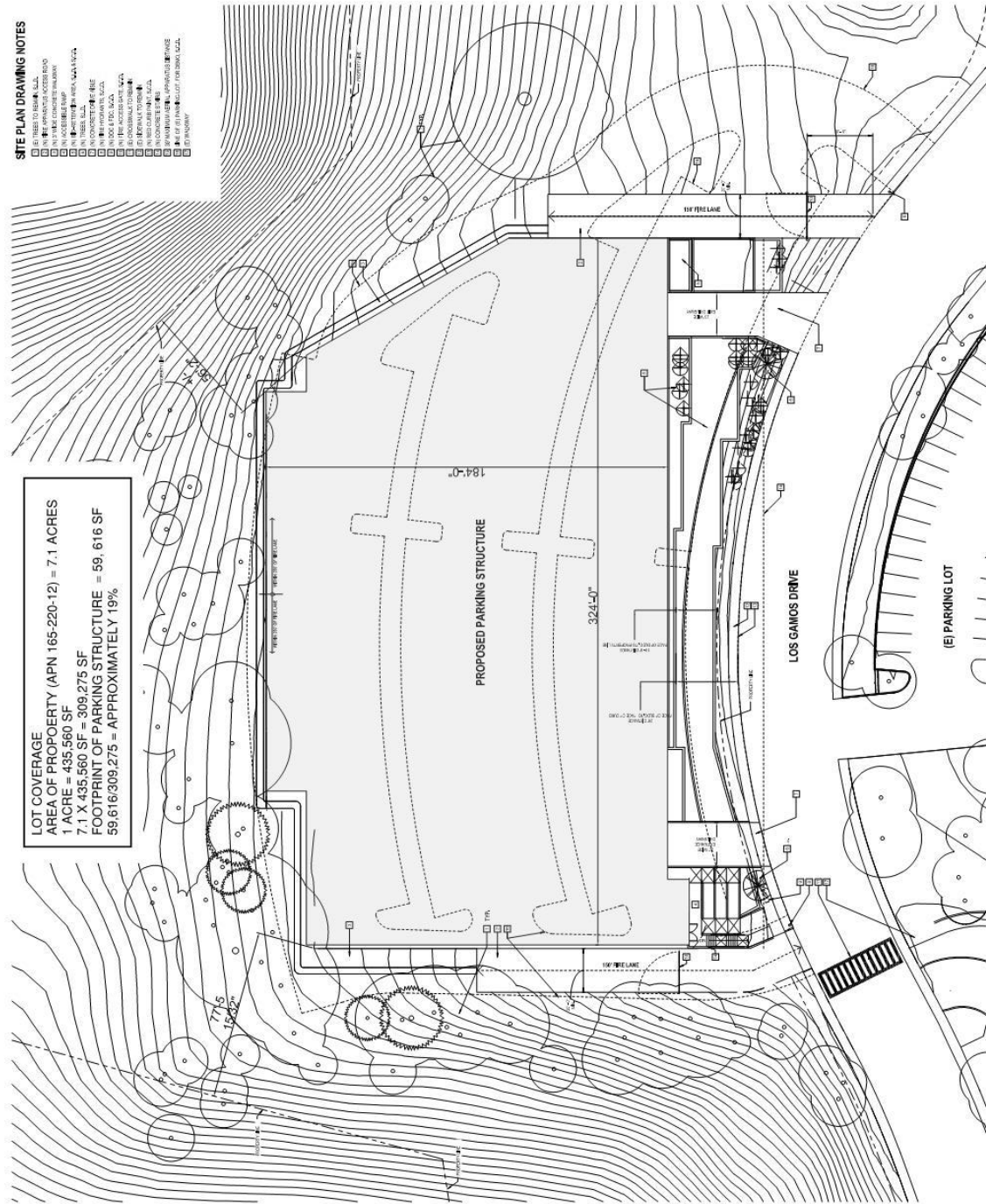
Figure 3.3: Existing Parking Supply





Source: Kaiser Permanente, 2018

Figure 3.4: Proposed Site Plan



Source: Kaiser Permanente, 2018

Figure 3.5: Proposed Lot Coverage

### 3.3.2 Project Objectives

The proposed Project will provide Kaiser Permanente with a central, modernized facility, supplemental to and supportive of existing facilities, large enough to house the necessary medical services for the central Marin County member base. As such, the following are the primary Project objectives as outlined by Kaiser Permanente:

1. Provide high quality, affordable health care in a new, approximately 150,000 square foot centralized outpatient facility for Kaiser Permanente members and the greater Marin County area by reusing an existing building and surface parking lot area in a practical and cost-effective manner.
2. Immediately supplement and support existing Kaiser Permanente medical offices and support services in the North Bay region in one consolidated location, allowing for the ability to:
  - i. right-size spaces to decompress existing services and providers,
  - ii. modernize clinical areas of the existing Kaiser Permanente San Rafael Medical Center, and
  - iii. provide enhanced medical services for local residents at a conveniently located facility.
3. Facilitate the logical, orderly development of an infill site in order to achieve a beneficial set of end uses at a site with good freeway access and proximity to public transportation.
4. Positively contribute to the local economy through new capital investment.
5. Design the new MOB in a manner so as to meet the evolving and varied health care demands of Kaiser Permanente members and the residents of San Rafael within the framework of Kaiser Permanente resources and changing health care industry practices.
6. Provide an environment that is easy to negotiate and access for pedestrians, bicyclists, and vehicles, including persons with disabilities. Create pedestrian circulation that is clear and safe.
7. Implement a MOB and parking structure that are aesthetically compatible with surrounding development and do not unduly impact existing views.

### 3.3.3 Parking Structure

The existing building is served by 455 existing parking spaces, which, as stated earlier, met prior City of San Rafael requirements in place at the time the building was originally constructed. The current City municipal code requires a parking ratio of 4.4 spaces per 1,000 square feet of development for medical uses, a shortfall of approximately 203 parking spaces once the entire building is converted to medical office. As a result, Kaiser Permanente needs to provide at least 203 additional parking spaces (or 651 spaces total) to meet the City's minimum requirements. In addition, based on its experience, Kaiser Permanente's preferred parking ratio is 5:1,000 (or about

285 additional parking spaces), since many of its members are unable to take public transit due to the health issues for which they are visiting the facility.

To provide adequate parking for the use of the MOB at 1650 Los Gamos Drive, Kaiser Permanente is proposing to construct a new, up-to 476-space, three-level plus upper ramp, parking structure on the surface parking lot to the west of the existing building. At 476 parking spaces, the new parking structure would provide a net increase of 267 parking spaces, which along with the 246 parking spaces that would remain around the MOB, would result in a total of 722 parking spaces, meeting the City's minimum parking requirement for the project.

The original parking structure design that Kaiser Permanente proposed in its initial design application would have provided adequate parking to meet the Kaiser Permanente preferred 5:1,000 ratio, for a total of 740 spaces. However, in response to comments provided by a few community members related to the number of parking spaces provided onsite, Kaiser revised the parking structure design to reduce the overall project parking ratio to approximately 4.85 parking spaces per 1,000 square feet of building, or 722 spaces total.

The respective parking count numbers and parking ratios discussed in this section are depicted in Table 3.1, below.

**Table 3.1: Parking ratio for 148,000 square feet office building**

	<b>Existing (general office)</b>	<b>Required (medical office)</b>	<b>Proposed (medical office)</b>
1650 Los Gamos Drive – eastern lot	204	n/a <sup>1</sup>	204
1650 Los Gamos Drive – Western lot	209	n/a	476 (parking structure)
1600 Los Gamos Drive – Parking easement	42	n/a	42
<b>Total</b>	<b>455</b>	<b>651</b>	<b>722<sup>2</sup></b>
<b>Ratio (space/1,000 sq ft)</b>	<b>3:1,000</b>	<b>4.4:1,000</b>	<b>4.85:1,000</b>

Notes: 1.) not applicable: the parking requirement would not be allocated by parking area but a total requirement for the entirety of the medical office uses.

2.) The final number will be determined after the Design Review process for the parking structure.

### ***Parking Structure Design***

The proposed parking structure is a simple reinforced concrete structural design with three levels of parking (ground level and two elevated parking decks), plus dedicated parking stalls on a third level ramp that is set back from the front façade along Los Gamos Drive. The height of the slab for the third parking level would be approximately 22 feet above grade, with an additional three to four feet of railing above the third level slab. The tallest portion of the parking structure would be at the top of the southern stair/elevator tower and would be approximately 36 feet tall (from finished grade). The highest point of the top of the upper parking ramp would not exceed the height of the elevator/stair tower. The final heights of the various elements of the parking

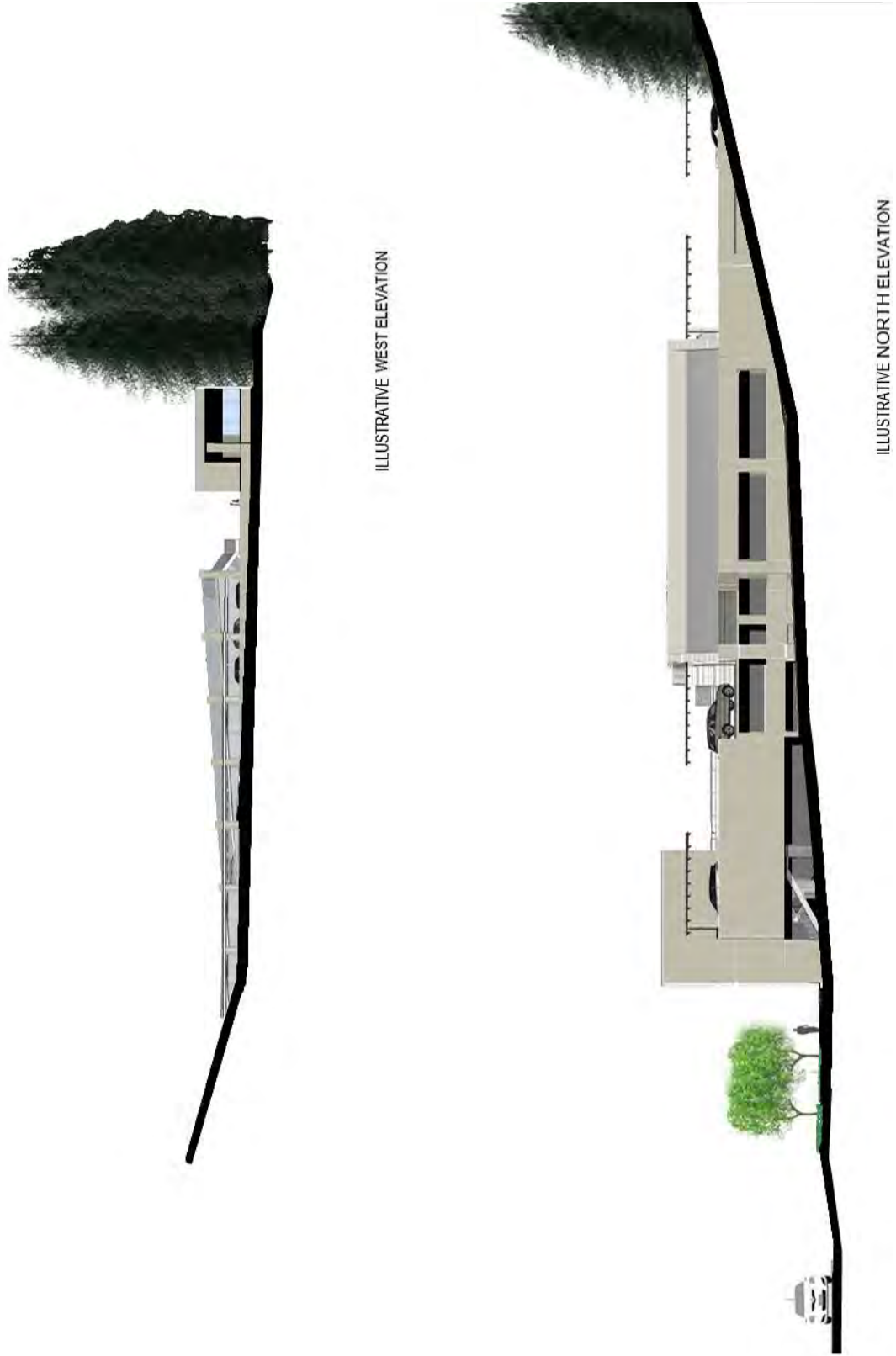
structure may change slightly through the design review process, but the parking structure will not exceed the maximum height allowed of 36 feet.

As proposed, the parking structure would not exceed 476 parking spaces, but at a minimum, would provide enough spaces to meet the City required parking shortfall of 203 parking spaces. The parking structure will have an enclosed elevator and stair element at the southeast corner adjacent to the existing cross walk and vehicular entry. The elevator/stair element will be clad in a material that will provide texture meant to be compatible with the concrete structure. Use of the same cladding at the upper portion of the northeast corner is intended to define the vehicular entry/exit and wraps the stairs at this end to relate to the elevator/stair element at the opposite end. The design shown in this DEIR may change slightly as the project moves through the City's Design Review Board process, but it is anticipated that changes would be related to the skin of the structure versus the overall massing. The parking structure will be fully sprinklered and outfitted with fire extinguishers/cabinets per current codes and ordinances. Fire access will also be provided by fire lanes on both the north and south side of the parking structure, and from Los Gamos Drive. The parking structure will have LED lighting throughout and will be fully accessible per ADA requirements. **Figures 3-6 (a) through (d)** below depict the new parking structure plan and sections. **Figure 3-7** depicts the exterior rendering and the site section. **Figure 3-8** depicts the proposed parking structure in a photo simulation with before and after views from Los Gamos Drive. The top level of the proposed parking structure is designed to accommodate a shade structure that could support photovoltaic arrays and serve to partially screen the parking deck. Based on initial studies, it is anticipated that the parking structure panels would provide most of the power necessary for the parking structure. Situated along either side of the drive aisles, the shade structures will be approximately 18 feet wide by 200 feet long. Panels will be oriented to maximize efficiency while mitigating the potential for glare to adjacent hillside properties. The shade structure would be constructed of light gauge steel framing and will feature a non-reflective coating on top.

### 3.3.4 Site Access and Circulation

#### *Vehicular Access*

Vehicular access to the new MOB would be provided from Los Gamos Drive. The three existing driveways on the east side of Los Gamos Drive will continue to provide primary access to the existing building. The north entrance would provide access to the surface parking lot to the north of the existing building, as well as provide access to the rear (east) entrance to the lower floor. The middle driveway access would serve as the main MOB access for patient drop-off and pick-up. Vehicles would continue south in front of the MOB and exit onto Los Gamos Drive at the southern driveway. There are 27 parking spaces located in the access loop, including 27 regular angled spaces for short-term and visitor serving and five Americans with Disabilities Act (ADA) accessible spaces to remain. Seven accessible spaces would also be located at the rear/eastern entrance to the MOB. The southern driveway access would also include access for deliveries and other non-patient vehicles needed to serve the Project.



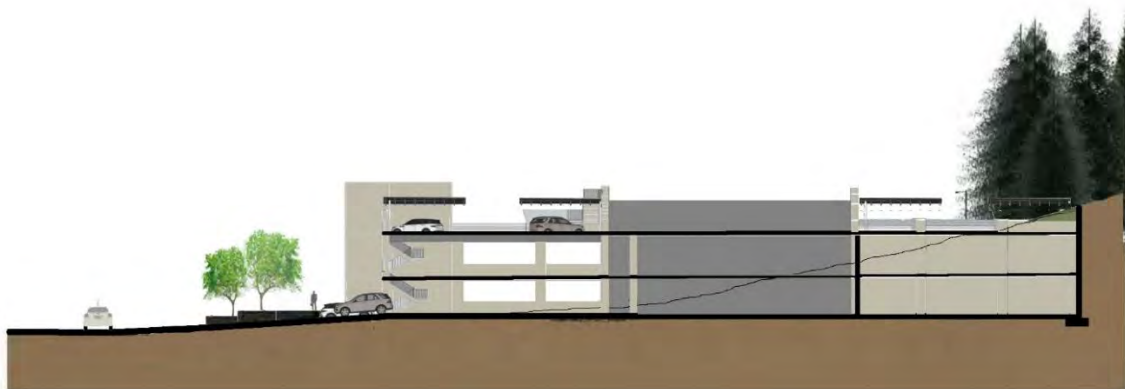
**Figure 3-6 (a) & (b): Proposed west and north elevations**



Figure 3-6 (c) & (d): Proposed east and south elevations



ILLUSTRATIVE EXTERIOR RENDERING- VIEW OF PARKING STRUCTURE FROM LOS GAMOS DRIVE HEADING SOUTH



ILLUSTRATIVE SITE/BUILDING SECTION

0 4 8 12 24

**Figure 3-7: Proposed Rendering and Site Section**





**Before View - from Los Gamos Drive – looking southwest**



Source: Kaiser Permanente, 2017

**After View - from Los Gamos Drive – looking southwest**

**Figure 3-8: Proposed Photo Simulations**

The proposed parking structure would be accessed by two driveways on the west side of Los Gamos Drive, with the one-way entrance driveway located on the southern end of the parking structure and the one-way exit driveway located on the northern end of the parking structure. Currently, there are two driveway access points for the surface lot. These existing driveways would be converted to emergency response/fire lanes located on both the north and south side of the new parking structure. Kaiser Permanente has requested “Keep Clear” lane markings in front of the parking structure driveway to permit vehicles turning in and out of the driveway when traffic along Los Gamos Drive is in queue. (see **Figure 3.4 above**).

### ***Emergency Response Access***

The Project would not include emergency services or overnight hospital related uses. As such, there would be no dedicated emergency response access area. In case of emergency, emergency response vehicles would access the site via the middle/northern driveway access and approach the patient drop-off/pick-up area located in front of the MOB.

### ***Pedestrian and Bicycle Access***

Pedestrians would be able to access the Project site from the sidewalks on both sides of Los Gamos Drive, connecting to sidewalks along Lucas Valley Road, as well as connect to the bus pad/stop at the Highway 101 ramp interchange.

The Project will include reusing existing pedestrian walkways throughout the Project site to provide continued connections between the parking structure and the new MOB. Pedestrian access improvements will include new wayfinding, landscape lighting, and ADA accessible ramps. The existing pedestrian crossings associated with the proposed parking structure on the west side of Los Gamos Drive would be upgraded with new high visibility striping to improve the pedestrian safety of people parking in the new parking structure and crossing to the MOB.

Bicyclists would be able to access the Project site from the existing Class II bike lane on Lucas Valley Road. The proposed Project will also meet all City requirements for bicycle parking to encourage bicycle usage. Bicycle racks for daytime storage would be located at the east/rear entrance to the new MOB.

### ***Transit Access***

The proposed Project will also include potential designs for access to the dedicated bus stop at the Lucas Valley Road / Highway 101 interchange. Kaiser Permanente, the City of San Rafael, and the County of Marin will coordinate with the Golden Gate Transit District to determine the appropriate and feasible improvements to better bus stop access near the Project site, such as upgrading the existing sidewalk from the proposed bus stop to the parking lot of the MOB.

### ***Delivery Access***

Delivery and service vehicles utilizing the delivery dock for the MOB are anticipated to primarily access the loading dock at the south/rear of the existing structure via the southern driveway

access. Kaiser will work with its suppliers to ensure delivery vehicles operate in a safe manner to avoid conflict with pedestrian, bicycle and other vehicular traffic on the site.

### ***Transportation Demand Management Program***

The San Rafael Medical Center operates an existing transportation demand management program (San Rafael Kaiser Permanente TDM) to increase the use of alternative modes of transportation by employees. Currently, the San Rafael Kaiser Permanente TDM includes the Kaiser Permanente facilities at: 99 Montecillo Road, 820 Las Gallinas, 111 Smith Ranch Road, 100 Smith Ranch Road, 7200 Redwood Blvd., 1033 3rd Street, 3900 Lakeville Hwy, and 97 San Marin Drive. The 1650 Los Gamos Drive MOB would be included into the existing program.

The San Rafael Kaiser Permanente TDM includes the following services for Kaiser Permanente employees working at the facilities listed above:

- A TDM manager who is responsible for but not limited to: developing and disseminating transportation information, aiding employees in the selection of transportation options, and communicating available transit alternatives
- An on-line transit information center, as part of the internal website that provides information on San Rafael Kaiser Permanente TDM, that describes current public transit, vanpools, carpools and shuttle services serving the area
- A carpool and vanpool matching program
- Commuter subsidy for bicycle, transit or car/vanpool use (current subsidy is \$60/month)
- Pre-tax commuter spending accounts
- Guaranteed Ride Home program
- Designated bicycle parking on-site
- Local Kaiser Shuttle: Shuttle employees to and from SMART Station and other Kaiser facilities in the City of San Rafael

The MOB will also provide on-site bicycle parking, as well as dedicated parking for carpool/vanpools and electric charging stations for electric vehicles, to comply with San Rafael regulatory requirements. The Project's proposed TDM program is discussed in further detail in Chapter 4.6: *Transportation and Circulation*.

### **3.3.5 Landscape Concept**

The proposed parking structure is to be located within the footprint of an existing surface parking lot to reduce disturbance to undeveloped portions of the project site and preserve as many non-ornamental trees as possible. As such, the majority of trees proposed for removal are the non-native, ornamental trees located within the boundaries of the existing western parcel surface parking lot. The parking structure has been designed expressly to retain as many of the larger

trees around the perimeter of the existing parking lot by keeping construction and grading outside the trees' critical root zones. However, due to the topography of the site and desire to also reduce the overall height of the parking structure to minimize its visual impact by sinking it into the hillside, several trees are anticipated to be removed as part of the excavation process and new trees will be planted around the perimeter of the parking structure. The existing and proposed perimeter trees will provide screening of the new parking structure and provide habitat for local species. The design also integrates terraced planter walls that collect and treat stormwater in native planting beds. The terraces help transition the grade change from street level to the parking structure. The proposed landscape design concept for the project is depicted in **Figure 3-9, Landscape Concept Plan**.

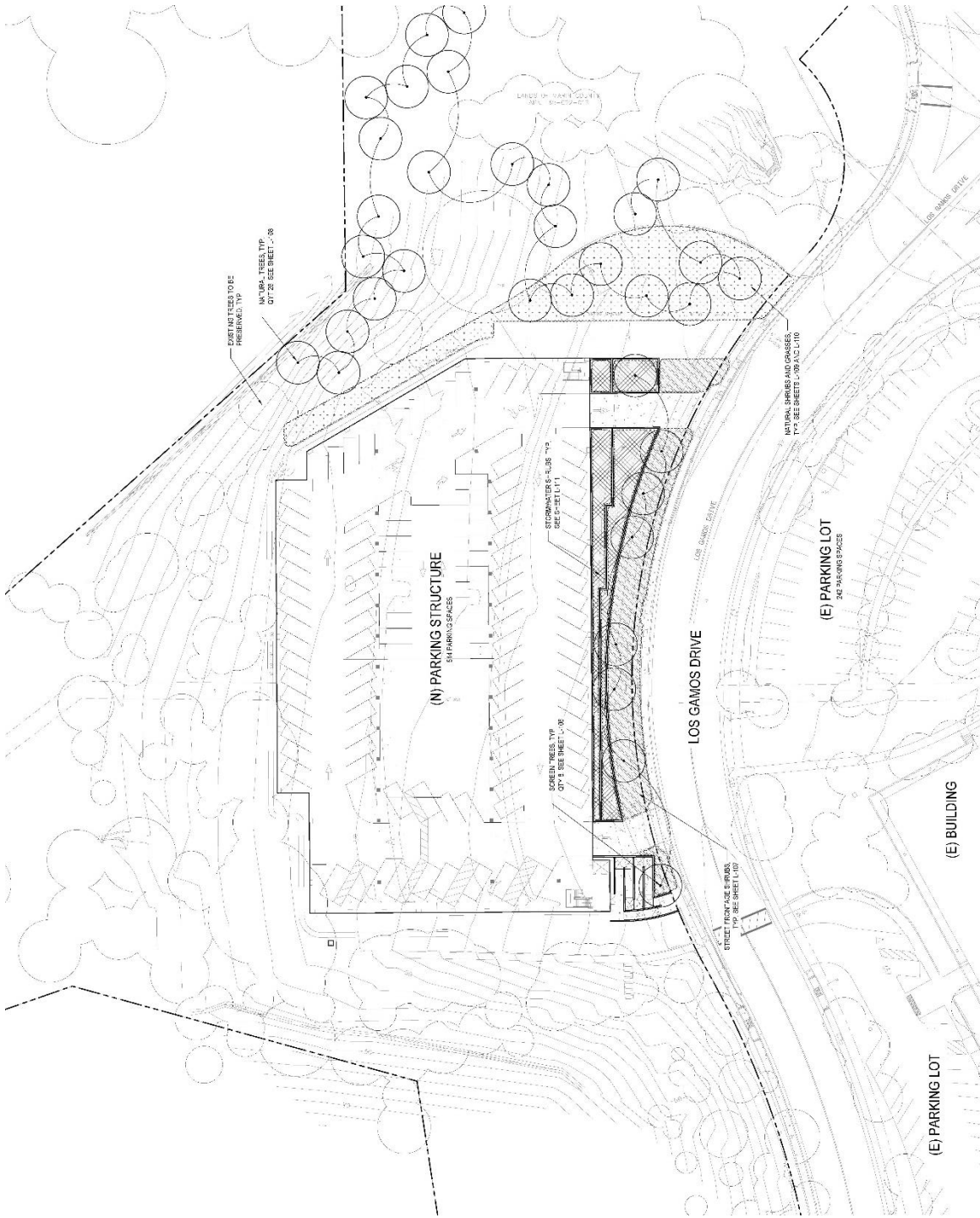
The landscape design is intended to reinforce the character of the surrounding natural environment while complementing the existing buildings and programs. The Project site is situated below a prominent woodland hill and within viewsheds that also encompass open area buffers to residential neighborhoods to the west of the Project site. The existing hillside located on the west and north side of the proposed parking structure will be maintained and supplemented with native oak trees and grasses to reinforce an oak woodland vegetation mix, while providing a visual and acoustic buffer to adjacent uses. The project site contains over 300 existing trees, including native oaks and redwoods, and other landscape varieties. As part of the Project evaluation, Urban Forestry Associates (UFA) conducted a tree survey in 2016 and identified 274 trees within the total Project site that could potentially be impacted by proposed improvements. Of the 274 trees surveyed by UFA, 61 have significance, due to size, and unique character in this locale. Overall, a total of approximately 63 trees are proposed to be removed and 34 new trees would be planted around the perimeter of the parking structure as replacement for development of the Project. The landscape concept plan indicates an additional 19 trees could be impacted due to their location, resulting in canopy reduction or root zone impacts. **Figure 3-10: Tree Inventory and Proposed Removal** depicts trees proposed for removal and trees to remain and protected during construction. (See the 1650 Los Gamos Initial Study – Appendix B, for a discussion of tree removal and plantings to occur with the project).

### 3.3.7 Signage

The proposed Project would include an updated signage program consistent with Kaiser Permanente's branding and color scheme. The existing PD has an approved signage program for the Marin Commons development that would be modified to include specific wayfinding and informational signage consistent with the Kaiser Permanente theme.

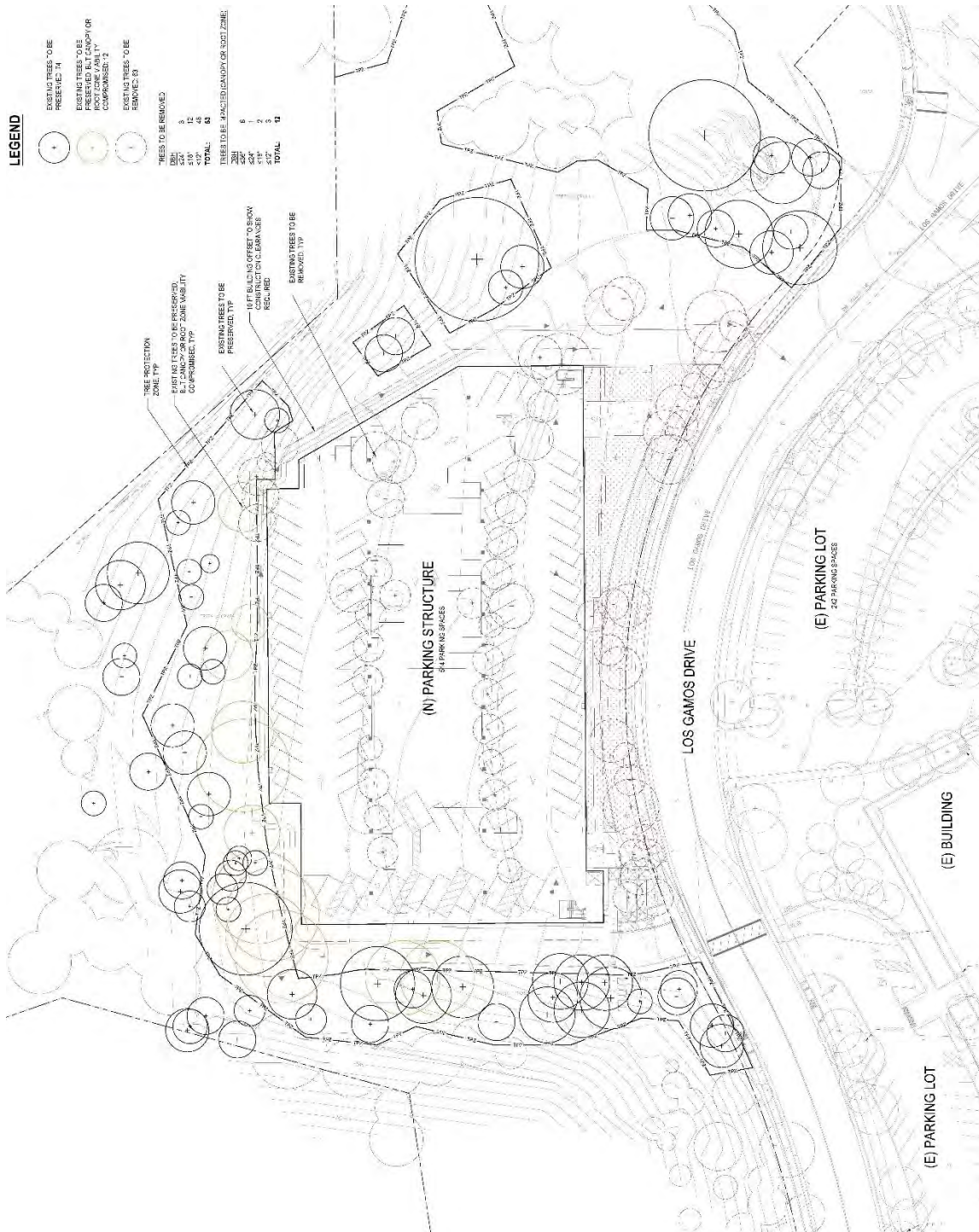
### 3.3.8 Lighting Concept

The proposed Project would include a lighting program that provides a variety of lighting types. New and enhanced lighting will include parking lot light poles in parking lots, as well as bollards and other lighting along other pedestrian paths of travel. Mounted lighting on buildings and landscape walls would be cast downwards and compliant with City of San Rafael requirements



Source: Kaiser Permanente / RHAA Landscape Architects 2018

Figure 3-9: Proposed Landscaping Plan



Source: Kaiser Permanente / RHAA Landscape Architects 2018

Figure 3-10: Tree Inventory and Removal Plan

for nighttime lighting. Parking lot pole lights would remain unchanged on the parcel surrounding the existing office building structure. Several existing street pole lights will remain along Los Gamos Drive.

### 3.3.9 Grading and Utilities

#### ***Excavation Volumes and Off-Haul of Soil***

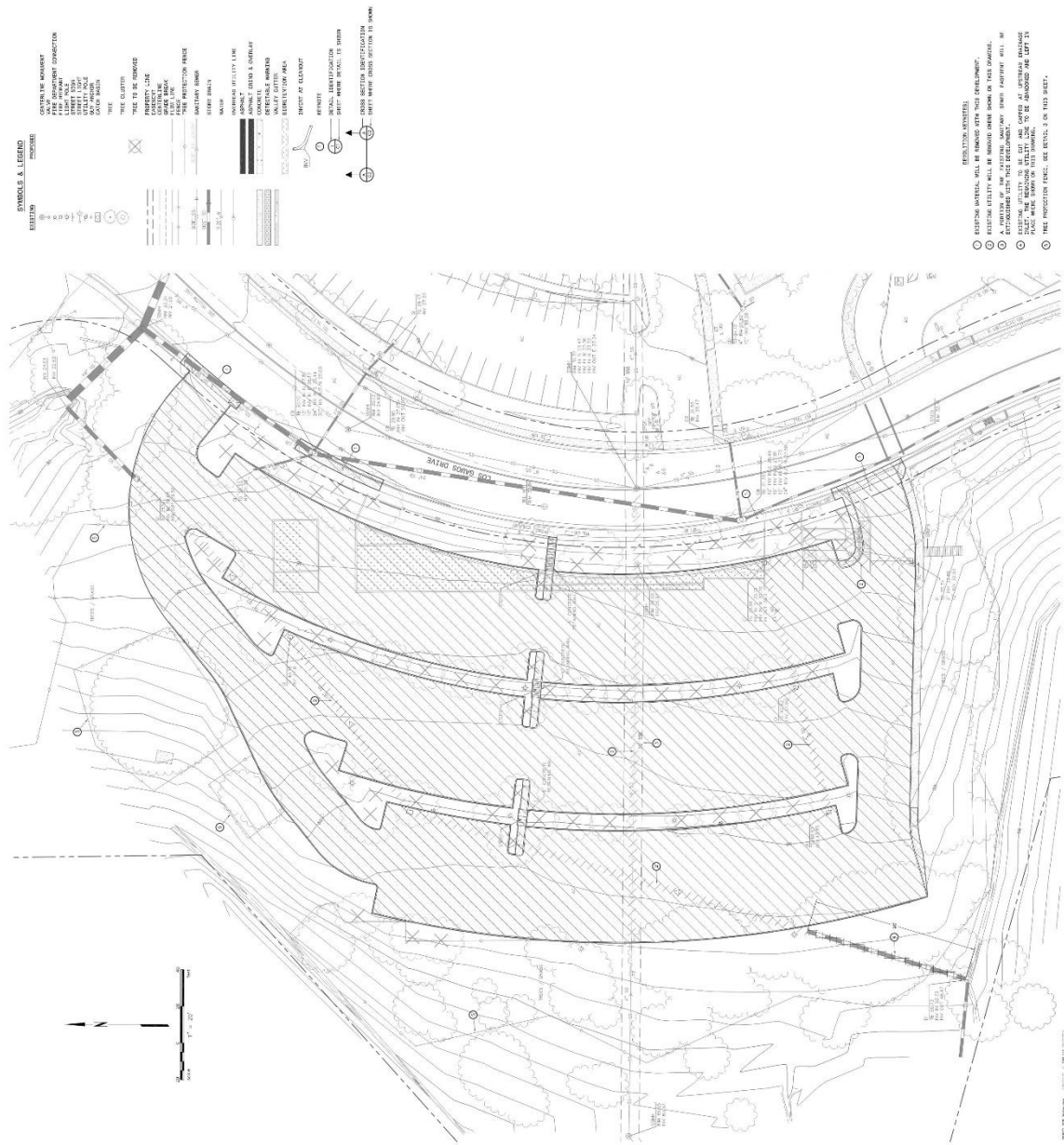
Excavation will be carried out with the goal of minimizing the impact to the existing trees. The proposed Project site is partly in cut and fill, but mostly cut. The parking structure will have a concrete retaining wall system integrated with the overall structural system. Retaining walls will be primarily on the south, west and north sides. The stormwater retention/planter area on the east side utilizes concrete retainage. Cuts of approximately up to 25 feet in depth may be required for the new construction. Approximately 30,000 cubic yards (CY) of excavation and off-haul is preliminarily estimated to be required for development of the proposed parking structure; all of the excavated materials is anticipated to be hauled offsite to an appropriate disposal site based on the test results of the soil.

#### ***Utilities***

A 6-inch public sanitary sewer main, operated and maintained by the Las Gallinas Valley Sanitary District (LGVSD), runs in a 10-foot easement through the site of the proposed parking structure. Upon completion and approval of the realigned sanitary sewer facilities, the existing line will be rerouted to the north of the proposed parking structure and connected to the Los Gamos right-of-way north of the existing connection per LGVSD standards. (see **Figure 3-11: Demolition Plan**).

#### ***Storm Drainage and Stormwater Control Concept***

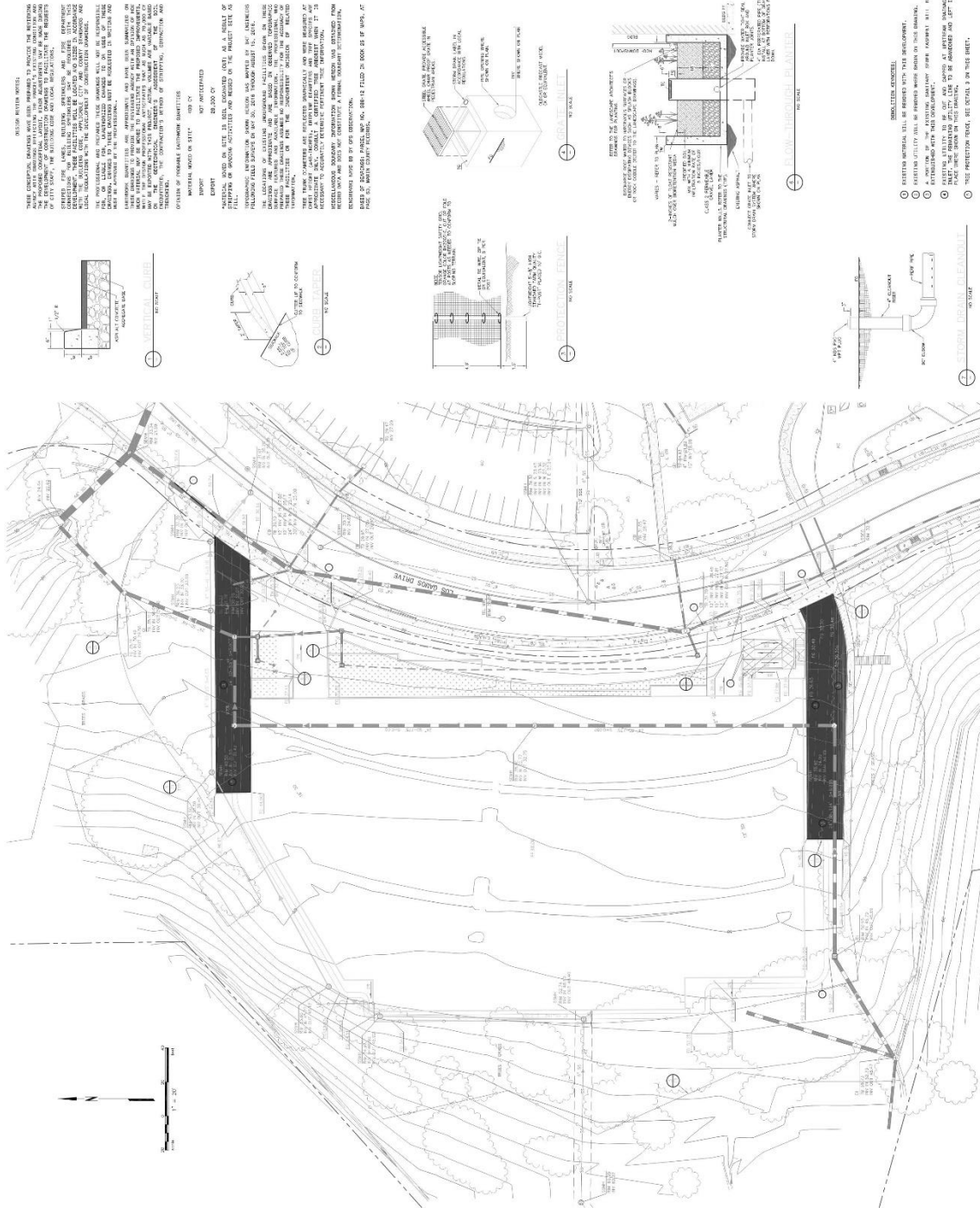
All areas of the Project site to be modified or disturbed would be required to incorporate stormwater quality Best Management Practices (BMPs). The proposed storm drainage scheme for the Project site includes directing all stormwater runoff from new or modified impervious areas of the parking structure Project site to landscape-based stormwater filtration areas. The proposed stormwater management facilities incorporate stormwater quality features such as stormwater infiltration swales, surface bioswales, and infiltration planters, reducing sources of polluted stormwater runoff from impervious surfaces. These features will be constructed within the terraced planter walls along the east side of the parking structure to capture and treat runoff from the uppermost level of the structure in compliance with C3 requirements. The work around the MOB and the offsite roadway mitigation measure improvements are not anticipated to trigger any stormwater requirements, but will comply with the Construction General Permit Order No. 2009-0009-DWQ, the Caltrans MS4 Program Order No. 2012-0011-DWQ, and the Phase II Small MS4 Permit Order No. 2013-0001-DWQ. (see **Figure 3-12: Grading and Utility Plan**)



Source: Kaiser Permanente, 2018

Figure 3-11: Demolition Plan





Source: Kaiser Permanente, 2018

Figure 3-12: Grading and Utilities Plan

### ***Erosion and Sediment Control***

The earthwork activities for the proposed improvements on the Project site are designed to minimize erosion and sedimentation onsite and offsite. As a part of the site improvements, adjacent to the parking structure, the overall drainage patterns will be directed by curbs, gutters, inlets, and/or catch basins to accommodate the new parking structure, driveways, walkways, and planting areas. Temporary and permanent erosion and sediment control measures during construction will be designed according to the State Regional Water Quality Control Board (RWQCB) and Marin County Standards, and consistent with an approved storm water pollution prevention plan (SWPPP) for the Project. (See Section 3.3.10: *Construction Activities*, and Section 3.4: *Project Entitlements and Approvals*).

### **3.3.9 Off-site Roadway Mitigation Measures**

As a result of the initial transportation analysis that was completed for the project, off-site roadway improvements were identified as potential mitigation. While not part of the Project due to their independent utility, they will be analyzed as part of this EIR as required by the California Environmental Quality Act (Pub. Resources Code § 21000 et seq., CEQA).

The 2018 Fehr & Peers *1650 Los Gamos Drive Final Traffic Impact Analysis (FTIA)* identified a potential mitigation measure requiring improvements to the Lucas Valley Road/Los Gamos Drive Intersection, including signaling the intersection, adding dual westbound left turn lanes, reconfiguring the northbound approach, removing existing striped channelized islands, and striping buffered bike lanes in both directions.

### **3.3.10 Construction Activities**

The proposed Project construction activities will mainly consist of site development for the parking structure and off-site mitigation measure improvements. As no major renovations are planned for the existing office building, construction related to creation of medical office space will generally consist of tenant improvements and upgrades required for internal infrastructure and facilities. Overall, initial construction activities for the Project would begin once the entitlements and construction permits are received, and the MOB is anticipated to be operational in 2020. Construction will take place during the hours mandated by the City of San Rafael and according to San Rafael guidelines for noise, lighting and dust control. A more detailed construction management plan will be provided as part of the construction permit documents phase. The detailed construction management plan will include specifics for a logistics plan for the site work areas, equipment to be used, refined estimate of volumes of debris being removed from the site, and measures required for public right of ways.

Major components of construction will involve excavation to support parking structure foundations, grading for the off-site mitigation measure improvements, constructing the parking structure frame, pouring concrete/asphalt, and completing the interior of the MOB (finish work) with architectural coatings for exteriors as needed (including new painting).

### **Construction Vehicles and Trips**

Most of the heavy traffic during construction will be during excavation and off haul days during the placement of concrete for the parking structure and laying of the roadway for the off-site mitigation measure improvements. This traffic will most likely be comprised of 10-wheel dump trucks and concrete trucks, plus delivery trucks for equipment and supplies. During the excavation and off haul of the excavated material the 10-wheel dump truck traffic would be fairly continuous and regular. Truck trips will also occur during the off haul of demolition debris from the site, but in substantially smaller numbers and not during periods that would overlap with the truck trips associated with construction and excavation.

A detailed construction management plan, including a 24-hour construction hotline, will be provided as part of the construction permit documents, including logistics plan for the site, equipment being used, volumes of debris being removed from the site, and impacts to public right of ways.

## **3.4 Project Entitlements and Approvals**

### **3.4.1 Lead Agency**

#### ***The City of San Rafael***

The City of San Rafael is the Lead Agency primarily responsible for preparing this DEIR (*CEQA Guidelines* § 15051). This DEIR is intended to provide CEQA clearance for all required discretionary actions for the proposed Project. The City of San Rafael will make decisions on the following discretionary actions (and other considerations and approvals) that have been identified, without limitation, at the time this DEIR was prepared:

- Certification of the FEIR
- Approval of the Mitigation Monitoring and Reporting Plan (MMRP)
- Project Approval, including project entitlements

### **3.4.2 Required Project Approvals and Permits**

The applicant proposes the renovation and conversion of an existing three-story office building to medical office uses and construction of a new three level, with upper ramp open-air parking structure at the northwest portion of the 11.1-acre Project site. Applications have been submitted for a Rezoning to revise the Planned Development (PD) zoning, an Environmental and Design Review Permit to allow the construction of the parking structure and associated site improvements, a Use Permit to allow medical office uses, and a Sign Program for new building and site signage. The Project would require additional approvals and permits from local, State and federal agencies. The Project would require the following zoning entitlements and land use approvals by the City of San Rafael:

- *Environmental and Design Review (ED17-001)* - The Project requires an Environmental and Design Review Permit because it is proposing a new three-level parking structure, with upper ramp. The Project is subject to the review criteria for Environmental and Design Review Permits pursuant to San Rafael Municipal Code Section 14.25.050, which provide guidelines for all aspects of project design, including site design, architecture, materials and colors, walls, fences and screening, exterior lighting, signs and landscape design.
- *Use Permit (UP17-005)* - The Project includes a request for approval of a use permit to allow medical office, pursuant to Section 14.07.020 of the San Rafael Municipal Code.
- *PD Rezoning (ZC17-001)* – The Project includes a request for PD amendment (defined as a zoning change under the City’s Municipal Code) to allow medical office uses in the PD ordinance, pursuant to Section 14.07.150 of the San Rafael Municipal Code. This action will create a new PD ordinance specific to 1650 Los Gamos Drive property and remove the Project site from the current PD 1590 that also includes the 1600 Los Gamos Drive building.
- *Sign Program (SP17-002)* - The Project includes a request for approval of a signage master plan for the site.

#### Existing PD and Amendment Consistency

As part of the Project permit approval process, the City of San Rafael will process an amendment to the existing PD 1590 district to create a clean version that separates 1600 Los Gamos Drive from 1650 Los Gamos Drive. This will ensure that prior references to 1650 Los Gamos Drive in the newly created PD district are separate and apart from the uses and standards attributed to the PD specific to the 1600 Los Gamos Drive property. This action will remove reference to 1650 Los Gamos Drive in PD 1590, and like the zoning change for the proposed Project, would therefore create a new PD for the 1600 Los Gamos Drive parcel.

Finally, the Project will require permits from the City of San Rafael to allow construction, including an Improvement Plan, Encroachment Permit, Grading Permit, and Building Permits for the parking structure and MOB renovations.

### **3.4.3 Inter-Agency Coordination**

As discussed above in Section 3.3.8: *Off-site Roadway Mitigation Measures* above, the proposed Project will require an off-site improvement to the intersection at Lucas Valley Road and Los Gamos Drive. This intersection is located within both County of Marin and City of San Rafael jurisdictions. The California Department of Transportation (Caltrans) owns and maintains the US Highway 101 interchange and signals at Lucas Valley Road adjacent to the Project site and would also require coordination for modifications or improvements to their infrastructure. As such, any

potential intersection improvements would require inter-agency coordination and review and approval of necessary permits. Therefore, while the Project will require specific project approvals and permits from the City of San Rafael outlined in Section 3.4.2: *Required Project Approvals and Permits* above, it is still yet to be determined what approvals and permits may be required from the County of Marin, Caltrans, or other potential permitting agencies.

### 3.4.4 Responsible and Trustee Agencies

“Responsible Agencies” include “all local and state public agencies other than the lead agency that have discretionary approval power over the Project (**CEQA Guidelines** § 15381). A “trustee agency” is a “state agency having jurisdiction by law over resources affected by the Project that are held in trust for the people of the State of California” (**CEQA Guidelines** § 15386). It is not anticipated that any federal agencies will have permit authority over aspects of the Project. These agencies may also consider this EIR in their review and decision-making processes. A list of these other agencies and their jurisdictional permits and approvals include, but are not limited to, the following:

#### ***County of Marin***

Marin County is a Responsible Agency pursuant to CEQA because it has the authority to grant other discretionary approvals required before the City of San Rafael can implement the proposed Project. (**CEQA Guidelines** § 15381). A portion of the Project site is located in unincorporated Marin County. The County will make decisions on the following actions (and other considerations and approvals) that have been identified at the time this EIR was prepared:

- Any work in the Lucas Valley Road Right of Way (County Public Works)

#### ***California Department of Transportation (Caltrans)***

Caltrans is a Responsible Agency pursuant to CEQA because it has the authority to grant other discretionary approvals required before the City of San Rafael can implement the proposed Project. (**CEQA Guidelines** § 15381). The Project site is located in unincorporated Marin County. Caltrans will make decisions on the following actions (and other considerations and approvals) that have been identified at the time this EIR was prepared:

- Any work in the Lucas Valley Road / Highway 101 Right of Way (Caltrans)

#### ***San Francisco Bay Regional Water Quality Control Board (RWQCB)***

The RWQCB administers the NPDES, authorized by the federal Clean Water Act, as well as State water laws to protect water quality. The Project will require compliance with NPDES through preparation and approval of a Stormwater Pollution Prevention Plan, which encompasses Standard Urban Stormwater Mitigation Plan requirements and a Stormwater Mitigation Plan. The Project will require Section 401 Water Quality Certification. The Project will also require RWQCB acceptance of a Notice of Intent (NOI) to obtain coverage under the General

Construction Activity Storm Water Permit (General Construction Permit), and Notice of Termination after construction is complete.

### ***Bay Area Air Quality Management District (BAAQMD)***

The BAAQMD has jurisdiction over regional air quality issues, including the operation of stationary equipment, such as emergency generators, that emit air pollutants. The BAAQMD could require a new or revised **Authority to Construct** and **Permission to Operate** (PTO) permits. The BAAQMD typically reissues PTOs annually.

### ***Other Local Utility and Service System Providers***

The Project will involve new and modified utility systems and potentially expanded services that will require review and/or approval by local agencies that include, but are not limited to, the following:

- Marin Municipal Water District (MMWD);
- Las Gallinas Valley Sanitation District (LGVSD);
- Pacific Gas and Electric (PG&E);
- AT&T

# CHAPTER 4.0

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## Environmental Setting, Impacts and Mitigation Measures

This chapter contains an analysis of the potentially significant environmental topics that were either identified in the Kaiser Permanente 1650 Los Gamos Drive Medical Office Building Project Initial Study or identified in comments received to the NOP.

### 4.0.1 Determination of Significance

Under CEQA, a significant effect is defined as a substantial, or potentially substantial, adverse change in the environment (Public Resources Code 21608). The *CEQA Guidelines* direct that this determination be based on scientific and factual data. Each impact and mitigation measure section is prefaced by a summary of the criteria for significance. These criteria have been developed using the *CEQA Guidelines* and applicable City policies, as well as the *San Rafael General Plan 2020* (General Plan).

### 4.0.2 Issues Addressed in the Draft EIR

This section addresses Project -related impacts within the following six topic categories:

- Land Use and Planning
- Aesthetics
- Air Quality
- Greenhouse Gas Emissions
- Noise
- Transportation and Circulation

This EIR is prepared pursuant to CEQA § 21080. Each of the six topic sections in this EIR presents information in three parts, as described below.

#### ***Environmental Setting / Existing Conditions***

This section briefly describes elements of the Project setting relevant to a discussion of impacts in the topic category. Existing conditions are the onsite conditions and regional environmental conditions in existence at the time of publication of the Notice of Preparation (NOP) and Initial Study (IS), pursuant to *CEQA Guidelines* § 15125.

### ***Regulatory Framework***

This section describes applicable federal, state, regional, and local regulations relevant to the topic category.

### ***Environmental Impacts and Mitigation Measures***

This subsection identifies potential impacts that would potentially result to the existing physical environment should the Project be approved, based on the identified significance criteria. Potentially significant impacts are numbered sequentially within each section and summarized in bolded text. For each impact, the summary is followed by text that describes the impact in more detail. Mitigation measures that can reduce such impacts follow the detailed discussion with a number that corresponds to the number of the impact. Impacts are also categorized by type of impact, as follows: Less than Significant, Potentially Significant, and Significant and Unavoidable. The following notations are provided after each identified potential significant impact. These notations indicate the level of impact before and after mitigation incorporation.

<b>NI:</b>	<b>No Impact</b>
<b>LTS:</b>	<b>Less than Significant</b>
<b>LTSWM:</b>	<b>Less Than Significant with Mitigation Incorporation</b>
<b>PS:</b>	<b>Potentially Significant</b>
<b>SU:</b>	<b>Significant and Unavoidable</b>

Pursuant to *CEQA Guidelines* § 15002, 15021, and 15126.4, mitigation measures are required (as feasible) when significant impacts are identified. Unless, otherwise noted, all mitigation measures contained herein are proposed by the lead agency.



## 4.1 Land Use, Plans, and Policies

This section addresses Project conflicts with adopted goals and policies of the City of San Rafael *General Plan 2020* intended to eliminate or reduce an environmental impact. The analysis in this chapter utilizes the City of San Rafael *General Plan 2020* and the City of San Rafael Municipal Code. This section also describes the applicable plans and policies that guide development in the Project area and evaluates the Project's consistency with these plans and policies and other existing land use regulations. The evaluation of potentially significant impacts or conflicts with applicable plans and policies are identified.

### 4.1.1 Setting

#### 4.1.1.1 Regional Setting

San Rafael is located in Marin County in the northwestern San Francisco Bay Area. Marin County contains eleven incorporated cities, of which San Rafael is the county seat. The nearest incorporated cities to San Rafael and the Project site are San Anselmo, approximately two-and-a-half miles to the southwest; Ross, approximately three-and-a-half miles to the south; and the city of Novato approximately five miles to the northwest. The Cities of Larkspur and Corte Madera are also nearby, located approximately four and four-and-a-half miles to the south, respectively.

The City of San Francisco is located approximately 18 miles to the south, across the Golden Gate Bridge, and the City of Richmond is located approximately 12 miles to the east, across the Richmond Bridge.

#### 4.1.1.2 Site Setting

The subject property is approximately 11.1 acres in size located in north San Rafael. The subject property consists of two separate parcels bisected by Los Gamos Drive. APN 165-220-13 is a 178,373-square foot parcel previously developed with an existing approximately 148,000 square foot office building and associated surface parking. Across Los Gamos to the west is APN 165-220-12, a 305,947-square foot parcel developed with an approximately 80,000 square foot terraced surface parking lot and landscaping. The remainder of this parcel is characterized by undisturbed oak woodland and grassland areas. The proposed Project also includes the continued use of 42 existing parking spaces located adjacent to 1650 Los Gamos Drive, on the neighboring 1600 Los Gamos Drive property. Kaiser Permanente has legal access to the use of those parking spaces through an easement and is not proposing any changes to the parking spaces. Together, the two parcels and the surface parking on 1600 Los Gamos Drive are referred to as the "Project site." An aerial photo identifying the Project site's surrounding land uses is provided in **Figure 4-1**.



Figure 4-1: Project Area Aerial

## **Surrounding Uses**

Immediately adjacent to and east of the Project site is US Highway 101, a major eight lane north/south freeway. To the east of US Highway 101 is the North San Rafael Commercial District, which is characterized with low one and two-story office, commercial and light industrial buildings. To the north of the Project site is Lucas Valley Road, a major east-west arterial road connecting central Marin County with west Marin County. Further north of Lucas Valley Road is the undeveloped open spaces of the Oakview Master Plan property located in the jurisdiction of Marin County. West of the Project site is the Mont San Rafael residential subdivision. This residential neighborhood also includes areas of undeveloped open space buffers adjacent to the Project site. The nearest residential structure is approximately 215 feet west and uphill from the southwest corner of the existing surface parking lot on the western parcel. South of the Project site is 1600 Los Gamos Drive, a 340,000-square foot office building which is owned by Marin County and includes the County of Marin Office of Emergency Services. Further south of 1600 Los Gamos Drive is the YMCA.

## **4.1.2 Regulatory Setting**

### **4.1.2.1 City of San Rafael**

#### ***San Rafael General Plan 2020***

The *General Plan 2020* is organized into four sections, which address the various *General Plan 2020* Elements: *Our Use of Our Land* (Land Use, Housing, Neighborhoods, and Community Design); *Our Foundation* (Economic Vitality, Circulation, Infrastructure, Governance, and Sustainability); *Our Quality of Life* (Culture and the Arts, Parks and Recreation, Safety, and Noise); and *Our Natural Resources* (Open Space, Conservation, and Air and Water Quality).

The Neighborhoods Element of the *General Plan 2020* addresses neighborhood-specific issues, while Citywide concerns relating to traffic, and parking, design, and air quality and noise impacts are addressed elsewhere in the *General Plan 2020* in the appropriate element. The Neighborhoods Element contains the vision for the North San Rafael Commercial Center, which focuses on the design and identity of the North San Rafael Town Center located in the Northgate commercial area. However, the policies included in this area of San Rafael are also aimed at maintaining a high quality of design for the Project site.

Aside from the Land Use Element policies, there are other applicable policies contained in the Safety, Noise, and Air and Water Quality Elements of the *General Plan 2020* that are adopted for the purpose of avoiding or mitigating an environmental effect (references to exhibits in the following section pertain to the numbering organization contained in the *General Plan 2020*).

The General Plan land use designation for the Project site is Office (O). Overall land use goals and policies applicable to the proposed Project are as follows:

### **Land Use Element**

#### **LU-2. Development Timing.**

For health, safety and general welfare reasons, new development should only occur when adequate infrastructure is available consistent with the following findings:

- a. Project-related traffic will not cause the level of service established in the Circulation Element to be exceeded;
- b. Any circulation improvements needed to maintain the level of service standard established in the Circulation Element have been programmed and funding has been committed;
- c. Environmental review of needed circulation improvement projects has been completed;
- d. The time frame for completion of the needed circulation improvements will not cause the level of service in the Circulation Element to be exceeded, or the findings set forth in Policy C-5 have been made

#### **LU-9. Intensity of Nonresidential Development.**

Commercial and industrial areas have been assigned floor area ratios (FARs) to identify appropriate intensities (see Exhibits 4, 5 and 6). Maximum allowable FARs are not guaranteed, particularly in environmentally sensitive areas. Intensity of commercial and industrial development on any site shall respond to the following factors: site resources and constraints, traffic and access, potentially hazardous conditions, adequacy of infrastructure, and City design policies.

#### **LU-12. Building Heights.**

Citywide height limits in San Rafael are described in Exhibits 7 and 8. For Downtown height limits see Exhibit 9:

#### **LU-14. Land Use Compatibility.**

Design new development in mixed residential and commercial areas to minimize potential nuisance effects and to enhance their surroundings.

### **Neighborhood Element**

#### **NH-136. Design Excellence.**

Assure quality of design by supporting policies that encourage harmonious and aesthetically pleasing design for new and existing development.

#### **NH-162. Kaiser Permanente Medical Center.**

Retain uses at the Kaiser Permanente Medical Center and seek ways to improve traffic and parking.

### **Sustainability Element**

#### **SU-2. Promote Alternative Transportation.**

Decrease miles traveled in single-occupant vehicles.

#### **SU-6. Resource Efficiency in Site Development.**

Encourage site planning and development practices that reduce energy demand, support transportation alternatives and incorporate resource and energy-efficient infrastructure.

### ***San Rafael Development Code and Zoning***

Zoning designation for this site is a Planned Development (PD) District (PD 1590). The PD was created in 1979 as PD 1350 and subsequently amended in 1990 as PD 1590. Title 14 of the City's zoning code (Chapter 14.07.10) states that the specific purposes of a PD district are to:

- a) Promote and encourage cluster development on large sites to avoid sensitive areas of property;
- b) Encourage innovative design on large sites by allowing flexibility in property development standards;
- c) Encourage the establishment of open areas in land development;
- d) Encourage the assembly of properties that might otherwise be developed in unrelated increments to the detriment of surrounding neighborhoods;
- e) Establish a procedure for the development of large lots of land in order to reduce or eliminate the rigidity, delays and conflicts that otherwise would result from application of zoning standards and procedures designed primarily for small lots;
- f) Accommodate various types of large-scale, complex, mixed-use, phased developments; and
- g) Enable affected governmental bodies to receive information and provide an integrated response to both the immediate and long-range impacts of such proposed development (Or1625 § 1 (part), 1992).

The current PD District designation for the Project site allows for two office buildings totaling 490,000 square feet, a 340,000 square foot office/computer center at 1600 Los Gamos Drive, and a 150,000 square foot office building at 1650 Los Gamos Drive. The allowable uses as described in the PD 1590 Exhibit A are general office and computer office/center. The PD district also specifically cites a requirement for 1,296 parking spaces for both buildings, which, as mentioned previously, was based on former City parking requirements at that time. The current proposal for medical office uses in the existing 1650 Los Gamos Drive office building requires amendments to the PD District and Master Use Permit for the site.

## 4.1.3 Impacts and Mitigation Measures

### 4.1.3.1 Significance Criteria

Utilizing criteria from Appendix G of the State CEQA *Guidelines*, the project would have a significant impact on land use, plans, and policies if it would:

- a) Physically divide an established community;
- b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect; or
- c) Conflict with any applicable habitat conservation plan or natural community conservation plan.

In the context of land use and relevant planning, significant impacts occur when a conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project results in an adverse physical environmental impact. In relation to the second significance standard stated above, it should be noted that although the Project requires a PD rezone to allow medical office uses, it does not necessarily mean it would result in a significant environmental effect.

### 4.1.3.2 Approach to Analysis

The Project was evaluated for its compatibility with the applicable plans and policies identified above in the *Regulatory Setting* section in order to determine the potential for significant environmental impacts. The Project site and the Project's proposed uses were evaluated in terms of their compatibility with existing land uses surrounding and in close proximity to the Project site. This section addresses the potential impacts to the land use-related plans and policies identified above in *4.1.3 Regulatory Setting* above. Each environmental topic section in this Chapter 4 also identifies the plans and policies that apply to the specific environmental topic addressed, and identifies any conflicts with those applicable plans and policies.

## 4.1.4 Plan and Policy Conflicts Impacts and Mitigations

**Impact LU-1:** The Project would not conflict with any applicable land use plan, goal, policy, or regulation, including zoning, adopted for the purpose of avoiding or mitigating an environmental effect. (*Less than Significant*)

As described above, the *General Plan 2020* Land Use designation for the Project site is Office (O). This designation is intended to provide for specialized commercial environments and to promote appropriately located business and building intensities that generate revenue for the City while maintaining acceptable traffic operating standards. The San Rafael zoning designation for the Project site is PD District (PD 1590).

The proposal for medical office uses requires an amendment to the PD District and Master Use Permit for the 1650 Los Gamos Drive. Medical office uses are typical and allowed in Office (O) General Plan designations and the proposed MOB use and parking structure are consistent with the land use designation established by the City of San Rafael *General Plan 2020*. However, as explained above, medical office use is not consistent with the current PD District and Master Use Permit established for the Project site. Therefore, as part of the Project, Kaiser Permanente has submitted an application for development of the MOB, including applications for amendments to the PD District and Master Use Permit to establish appropriate standards and regulations for the new medical office uses.

The Project also requires a rezoning and amendment to the current PD District in order to separate the proposed Project and uses from the existing PD boundaries, which also includes 1600 Los Gamos Drive and the County Emergency Operations headquarters. A new PD designation would be created for the 1650 Los Gamos Project. The 1600 Los Gamos building, owned and operated by Marin County, would remain within the existing PD1590 designation, but the existing PD District would be amended to remove text and references to the uses at 1650 Los Gamos Drive. As a result, two separate PD Districts will be created for 1650 Los Gamos Drive and 1600 Los Gamos Drive.

The revisions to the PD District and Master Use Permit will be evaluated through the City's planning process. The merits of the proposed revisions will be reviewed and acted upon by the San Rafael City Council following the review and recommendation of the Planning Commission and Design Review Board.

The Project would result in a community benefit because the proposed MOB would provide needed medical office facilities for residents in the City of San Rafael, as well as residents throughout the County. The relocation of specific medical office services from the main Kaiser Permanente Medical Center in Terra Linda to the Project site would also potentially reduce traffic related impacts to areas within San Rafael, notably residential and commercial areas. Furthermore, the Project proposes colors and materials that are harmonious with the existing development on the site as well as the surrounding hills in the background. Lastly, given the reuse of the existing on-site building and developing a parking structure within existing footprints on-site, the proposed development would not significantly impact any threatened, endangered or special status species in the surrounding area. Therefore, impacts to this category would be *less than significant*.

**Mitigation:** None required

## 4.1.5 Cumulative Land Use Impacts

**Impact LU-2:** The Project, combined with past, present, and reasonably foreseeable projects in the area, would not result in a cumulative land use impact regarding land use, plans and policies. (*Less than Significant*)

### ***Geographic Context***

The cumulative geographic context of the Project for land use and planning consideration consists of North San Rafael and Marin County since cumulative effects must be considered in relationship to policies or regulations that apply within the region and countywide.

### ***Impacts***

As discussed in the impact analysis above, the Project would not result in significant impacts due to creating a conflict with surrounding land uses, physically dividing an existing community, or converting open space. Like past and present projects, including the Project, reasonably foreseeable future projects are anticipated to locate in areas considered suitable by area land use plans and zoning, as all applicable ordinances and regulations intended for the purpose of ensuring land use compatibility and avoiding nuisance effects of incompatible uses. The Project vicinity is well developed, and the nature of cumulative development anticipated, including proposed infrastructure projects (see Chapter 4.6: *Transportation and Circulation*) would not divide the existing community. Therefore, no cumulative land use impact is identified to which the Project could contribute. The impact is *less than significant*.

**Mitigation:** None required



## 4.2 Aesthetics

This section describes existing conditions visible in the vicinity of the Project site and documents visibility of the Project site from various key public viewing locations such as roadways and public open space areas. Applicable regulations and policies that pertain to scenic vistas, scenic resources, and the visual character of the area are briefly addressed. This section also discusses the visible changes that would occur at the Project site from the proposed new construction and identifies potential impacts and appropriate mitigation measures when necessary. Visual simulations are presented to provide “before” and “after” views of the Project from key public viewing locations.

### 4.2.1 Setting

#### 4.2.1.1 Regional Setting

The Project site is set within the larger context of north central Marin County, a suburban area dominated by low to medium density residential development, shopping centers, and smaller commercial districts that include retail and/or office development. Parks and open space areas exist throughout the area, with the largest being regional open space preserves of Lucas Valley and Terra Linda about 1.5 miles west and southwest of the Project site, and McInnis Park, a local Marin County park of 72 acres approximately one mile east of the Project site. The local terrain is variable with large expanses of level topography interspersed with many low-lying hillsides. Views from roadways that may be limited by hillsides in one area open up to long-distance vistas when the terrain becomes more level. Mt. Tamalpais (elevation of 2,574 feet above mean sea level) forms the dominant visual feature from many locations in this portion of Marin County along the US Highway 101 corridor.

#### 4.2.1.2 Local Setting / Visual Character Overview

The existing 1650 Los Gamos Drive office building is located within a level area that is surrounded by surface parking areas on four sides. Los Gamos Drive borders the building site to the west with vegetated hillsides further west. The existing surface parking lot, on the western portion of the Project site, on the west side of Los Gamos Drive includes small terraces stepping up the site towards the west. Vegetated hillsides on the western parcel’s northwest, west, and southwestern edges screen the proposed parking structure from the view of most of the residences that are located approximately 215 feet above and to the west in the Mont Marin / San Rafael Park neighborhood. View locations of the Project site are shown in **Figure 4.2-1**.

Los Gamos Drive, which divides the two parcels of the Project site, includes curbside parking and landscaped pedestrian sidewalks areas in the vicinity of the Project site. Mature street trees include live oak, ash, and sycamore that provide screening of the existing office building and surface parking area for north and southbound motorists on Los Gamos Drive. Surface parking landscaping trees on the Project site also screen some of the on-site development from view, as shown in **Figure**

**4.2-2(a).** Immediately adjacent and east of the Project site is US Highway 101, a major eight lane north/south freeway. To the east of US 101 is the North San Rafael Commercial District which is characterized with low one and two-story office, commercial and light industrial buildings. To the north of the Project site is Lucas Valley Road, a major east-west arterial road connecting central Marin County with west Marin County. To the north of Lucas Valley Road is the undeveloped open space of the Oakview Master Plan property located in the boundaries of Marin County.

Immediately south of 1650 Los Gamos Drive is the three-story 1600 Los Gamos Drive office building and associated surface parking. The YMCA Club is located farther south of the site, near the end of Los Gamos Drive. Los Gamos Drive terminates at a parking lot for 1400 Los Gamos Drive, a two-story office building. There is no vehicle access beyond this parking area, however, emergency and bicycle access is allowed through to a southern portion of Los Gamos Drive that becomes Los Gamos Road.

### **4.2.1.3 Views to and Across the Project Site from Surrounding Areas**

Views of the Project site are primarily available from Lucas Valley Road and Los Gamos Drive are shown in **Figures 4.2-2(a) and 4.2-2(b)**, and from the pedestrian pathways and surface parking lots located south of the Project site in **Figure 4.2-2(c) and (d)**. As seen in **Figure 4.2-2(a)**, the view of the Project site and the existing office building is largely screened by intervening trees. The on-site parking lot is the foreground of this view.

Views to the Project site from Lucas Valley Road, about 300 feet to the north, are shown in **Figures 4.2-3(a) and (b)**, which would require a vehicle passenger to turn and look about 60 to 90 degrees to the south from the direction of travel. From the corner of Lucas Valley Road and Los Gamos Drive, a view to the Project site is shown in **Figure 4.2-3(c)**. From this view, the office building and surface parking lots are partially screened from view by intervening tree cover. The hillsides west of the Project site form the backdrop to the existing buildings and prevent the existing buildings from visually breaking the ridgeline views, **see Figure 4.2-3(d)**.

The Mont Marin / San Rafael Park residential area is located at higher elevations in the vicinity of the Project site, and is located approximately 215 feet west and southwest of the surface parking lot. Views west are through wooded vegetation that frames the view towards the parking lot on the western parcel and the tree cover along Los Gamos Drive **see Figure 4.2-4(a)**. In this view corridor, tree cover forms the predominant image in the foreground, midground, and background of the image.

From Salvador Way, one looks northeast to a view corridor that takes in tree-covered hillsides in both the foreground and the background in **Figure 4.2-4(b)**. US Highway 101 cannot be seen from Salvador Way; however, it is a dominant view from the back yards of the homes on the east side of Salvador Way as shown in **Figure 4.2-4(c)**. The buildings of the Marin Commons



**Figure 4.2-1: View Locations of the Project Site**



**Figure 4.2-2(a): Looking North from south entrance to 1650 Los Gamos Drive**



**Figure 4.2-2(b): Looking south from Lucas Valley Road/Los Gamos Drive**



**Figure 4.2-2(c): Looking south from proposed parking structure entrance**



**Figure 4.2-2(d): Looking west from Lucas Valley Road/Los Gamos Drive**



**Figure 4.2-3(a): Looking northwest along Lucas Valley Road**



**Figure 4.2-3(b): Looking southeast on Lucas Valley Road towards Highway 101**



**Figure 4.2-3(c): Looking south from Lucas Valley Road toward project site**



**Figure 4.2-3(d): Looking west to the hills above the Project site**



**Figure 4.2-4(a): Looking west across Los Gamos Drive toward surface parking**



**Figure 4.2-4(b): Looking east from end of Salvatore Way**





**Figure 4.2-4(c): Looking northeast from rear yards of homes on Salvatore Way**



**Figure 4.2-4(d): Looking north from rear yards of homes on Salvatore Way**

development at 1600 and 1650 Los Gamos Drive are generally screened from view or appear less visually prominent due to nearby trees. The proposed parking structure, to be located on the surface parking lot of the western parcel, would be generally screened from view from the rear yards of residences along Salvador Way see **Figure 4.2-4(d)**.

#### **4.2.1.4 Scenic Vistas and Scenic Resources**

There are no significant public scenic vistas visible from public viewpoints in the vicinity as defined by the San Rafael *General Plan 2020 Exhibit 17*. There are existing hillside views through and adjacent to the Project site, but none defined as scenic resources. The proposed parking structure to be constructed on the western parcel would be screened by an existing stand of mature redwood trees that would remain intact after construction activities. (see **Figure 4.2-4(d)**).

#### **4.2.1.5 Light and Glare**

The existing office building is lit during nighttime hours and both the exterior and interior lighting can be seen from nearby residential areas and from nearby roadways, including US Highway 101. Sidewalk pathways and surface parking areas are lit during nighttime hours but include mature landscaping that softens nighttime light impacts. From Lucas Valley Road, the westbound motorist can clearly see the lit features of the existing office building as one approaches Los Gamos Drive. However, the lit office building would not be visible by the eastbound motorist due to existing topography and vegetation adjacent to Lucas Valley Road until the motorist is adjacent to the Lucas Valley Road / Los Gamos Drive intersection. At night, the existing landscaping and tree cover screens portions of these views, thus reducing the amount of light cast. Night lighting of the existing office building and parking structure site would also be visible from Los Gamos Drive, with some screening provided by existing street tree cover. From the Mont Marin / San Rafael Park residential areas at higher elevations the lit features of the existing office building would continue to be apparent, however, US 101 Highway further east of the Project site is the dominating visual element and source of light. Finally, the proposed Project is situated below residential neighborhoods and removed from large expanses of tree-covered hillsides where night lighting is not visible (to the north of Lucas Valley Road).

### **4.2.2 Regulatory Setting**

#### **4.2.2.1 Federal and State**

No federal regulations related to aesthetics would pertain to the Project. The California Scenic Highway Program, established in 1963, identifies and designates certain highways along which adjoining land uses and features require special conservation treatment. The responsibility for the management of a program is left to local cities and counties. Highways shown as “eligible” for listing are believed to have outstanding scenic values. Once a highway is shown in “Streets and Highways Code Section 263”, it may be nominated for official designation by the local governing body with jurisdiction over the lands adjacent to the proposed scenic highway. A visual assessment

is required, and a number of other steps must be followed. No highways in the vicinity of the Project site are included in Streets and Highways Code Section 263 or Section 263.6 or are designated a scenic highway (Caltrans, 2011).

#### **4.2.2.2 Local**

##### ***San Rafael General Plan 2020***

The San Rafael *General Plan 2020* is the City's long-range guide for use of land and protection of natural resources. The General Plan sets forth policies and programs to be used by the public, planning staff, and decision makers when reviewing and analyzing proposed development. The Plan provides specific policy direction for land in the City of San Rafael. The aesthetic policies applicable to the proposed Project are as follows (references to exhibits in the following section pertain to the numbering organization contained in the *General Plan 2020*):

##### **Land Use Element**

###### **LU-12. Building Heights.**

Citywide height limits in San Rafael are described in Exhibits 7 and 8. For North San Rafael height limits, see Exhibit 8 (maximum height 36').

###### **Policy LU-14. Land Use Compatibility.**

Design new development in mixed residential and commercial areas to minimize potential nuisance effects and to enhance their surroundings.

##### **Neighborhoods Element**

###### **NH-8. Parking**

Maintain well-landscaped parking lots and front setbacks in commercial and institutional properties that are located in or adjacent to residential neighborhoods. Promote ways to encourage parking opportunities that are consistent with the design guidelines.

##### **Community Design Element**

###### **CD-1. City Image.**

Reinforce the City's positive and distinctive image by recognizing the natural features of the City, protecting historic resources, and by strengthening the positive qualities of the City's focal points, gateways, corridors and neighborhoods.

###### **CD-5. Views.**

Respect and enhance to the greatest extent possible, views of the Bay and its islands, Bay wetlands, St. Raphael's church bell tower, Canalfront, marinas, Mt. Tamalpais, Marin Civic Center and hills and ridgelines from public streets, parks and publicly accessible pathways.

**CD-6. Hillsides and Bay.**

Protect the visual identity of the hillsides and Bay by controlling development within hillside areas, providing setbacks from the Bay, and providing public access along the Bay edge.

**CD-6a. Hillside Design Guidelines.** Continue to implement hillside design guidelines through the design review process. Update the guidelines as needed.

**CD-6b. Wetland Setbacks.** Continue to implement the wetland setbacks addressed in Policy CON-4 and in the zoning ordinance.

**CD-6c. Public Access Opportunities.** Continue to evaluate public access opportunities through the development review process.

***San Rafael Municipal Code and Zoning***

The San Rafael Municipal Code is one of the primary tools to carry out the goals, objectives, and policies of the Marin Countywide Plan and applicable community and specific plans, and is intended to maintain consistency with the San Rafael *General Plan 2020* policies. The San Rafael Municipal Code designates zoning districts applicable to all lands under the jurisdiction of San Rafael. The City Municipal Code Section 15.25.040 Environmental and Design Review Permits and Section 14.07.010 Planned Development District are applicable to the Project site. The PD development standards are specific to the District for which they are established.

## **4.2.3 Impacts and Mitigation Measures**

### **4.2.3.1 Significance Criteria**

Utilizing Appendix G of the CEQA Guidelines, the Project would have a significant impact on aesthetics if it would:

- a) Have a substantial adverse effect on a scenic vista;
- b) Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, hillsides, and historic buildings within a state scenic highway;
- c) Substantially degrade the existing visual character of the project site or quality of the site and its surroundings; or
- d) Create a new source of substantial light and glare which would adversely affect day or nighttime views in the area.

### 4.2.3.2 Impacts Not Further Evaluated

As discussed in Chapter 1, an Initial Study was prepared to identify potentially significant impacts as a result of the Project. Several topic areas of environmental concern were considered to have no impact or a less than significant impact, including the following topic areas concerning aesthetics:

- Would the project have a substantial adverse effect on a scenic vista?
- Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No scenic vistas have been identified in the General Plan at or in the immediate vicinity of this site. Furthermore, there are no state scenic highways within the Project area. The 1650 Los Gamos Drive MOB would be considered an urban infill development project located in the North San Rafael Commercial Center area and is generally consistent with existing zoning standards and General Plan land use designations. As an infill project, there are no potential scenic resources in the Project site that would be affected by the Project. These impact categories, listed in the significance criteria above as an impact topic to consider in a CEQA evaluation, are therefore not further examined as part of the DEIR.

### 4.2.3.3 Approach to Analysis

Aesthetics analysis relies on a subjective evaluation by the analyst. Therefore, tools are used here to illustrate how the Project may likely appear after it is constructed within the context of the visual setting of the Project site and surroundings. The main aesthetic related component of the proposed Project would be the construction of the new parking structure on the western parcel. The proposed parking structure will be a simple reinforced concrete structural design with three levels of parking (ground level and two elevated parking decks), plus a park-able ramp on the third level that is set back from the front façade along Los Gamos Drive. The height to the slab of the third parking level would be approximately 22 feet above grade, with an additional three to four feet of railing above the third level slab. The tallest portion of the parking structure would be at the top of the southern stair/elevator tower and would be approximately 36 feet tall (from finished grade). The highest point of the top of the upper parking ramp would not exceed the height of the elevator/stair tower. The final heights of the various elements of the parking structure may change slightly through the design review process, but the parking structure will not exceed the maximum height allowed of 36 feet. There are significant mature redwood trees that would remain to provide screening for the proposed parking structure.

Kaiser Permanente supplied photographic visual simulations to support the impact analysis discussion in the Initial Study. The resulting evaluation determined that no impacts would occur as a result of the proposed Project. However, comments received during the public comment period and at the June 27, 2017 scoping hearing at the City of San Rafael Planning Commission, determined a desire for further analysis of the potential visual impacts related to the addition of potential photovoltaic (PV) solar panels and private views. In response, Kaiser Permanente has supplied a simulation depicting the potential for photovoltaic arrays so that they could be included

as part of this environmental analysis but has not formally proposed them as part of the Project. Although comments were submitted regarding private views, the City of San Rafael does not have any policies or regulations relating to the protection of private views, nor are private views protected under CEQA. The resulting evaluation that follows takes these considerations into account. The following drawings also reflect changes to the overall massing of the proposed parking structure that resulted from the first Design Review Board meeting. The actual skin of the parking structure may be modified going forward to reflect additional comments from the Design Review Board, but the overall massing is not anticipated to change significantly from what is analyzed in this DEIR.

A visual simulation of the potential PV solar installation on the parking structure was prepared based on digital models of the proposed structure, site improvement and topography. See **Figure 4.2-6** (as compared to **Figure 3-9** in Chapter 3, *Project Description*). The revised simulation depicts the proposed conditions as seen from the Los Gamos Drive viewpoint (shown in blue on **Figure 4.2-1**).

Based on the descriptions in Section 4.2.1: *Setting* above, the approach to this analysis relies on local and state policies for defining the potential existing “scenic vista(s)”, “scenic resources” and “visual character” that could be “substantially” and adversely affected or degraded by the Project. These are described in the impact analysis.

## 4.2.5 Visual Character Impacts and Mitigations

**Impact AES-1:** The Project would not substantially degrade the existing visual character or quality of the site and its surroundings. (*Less than Significant*)

Based on the detailed description of the Project site surroundings in Section 4.2.1.2: *Local Setting* above, the most significant local visual character areas visible from public viewpoints in the vicinity include the resources that include (1) the views across the Project site to open areas above and beyond the Project site, and (2) views of distant hillsides and ridgelines to the north, south and east of the Project site. There are no established scenic vistas adjacent to the Project site as identified in the General Plan.

The Project would add a new structure within the existing Project site. The proposed parking structure would be compatible in height and bulk to existing buildings, as well as the range of existing colors and exterior materials. Existing landscaping along Los Gamos Drive and along the rear of the western parcel would provide significant screening from public views above the Project site. The overall site is contained by the existing topography that includes wooded hillsides on three sides of the site. As described in Section 4.2.3.2: *Impacts Not Further Evaluated* above, no significant visual resources would be disturbed as a result of the Project.



Source: Kaiser Permanente 2018

**Figure 4.2-6: Proposed Solar Arrays**

While detailed exterior building materials have not been specified, the new parking structure is proposed to be finished primarily with concrete elements, as described above in Section 4.2.4.2: *Approach to Analysis*. Further, the new parking structure is proposed to be simple, yet complementary to the existing office building across Los Gamos Drive. As also discussed in the *Approach to Analysis* section, the potential trellises with a photovoltaic (PV) solar installation may be incorporated along the central aisles of the top parking level pending Kaiser Permanente's final determination for incorporation into the Project. As seen in **Figure 4.2-6**, the trellis/PV system would be a parking structure appurtenance that would not adversely affect the visual character of the Project site or its surroundings. Finally, the preservation of the mature redwood trees that line the edge of the existing surface parking lot would provide significant visual screening to residents and the public above the Project site. As depicted in **Figure 4.2-4(d)**, the parking structure would remain virtually hidden by existing vegetation.

Overall, the nature of the Project would not degrade the existing visual character of the Project site or its surroundings, change the visual quality of the region, or eliminate significant visual resources. The impact is *less than significant*.

**Mitigation:** None required

## 4.2.6 Light and Glare Impacts and Mitigations

**Impact AES-2:** The Project would not create a significant increase in light and glare that would adversely affect nighttime views in the area. (*Less than Significant*)

As a general office building, lighting currently occurs during the entire night, including existing surface parking lot lighting. The new parking structure could increase light generated from the Project site during nighttime hours. The parking structure would be located where a lighted surface parking lot currently exists.

Those most potentially affected by the increase in light from the new parking structure would be the uphill residents to the west along Salvador Way. From these locations, the upper deck of the proposed parking structure would not be visible. Lighting fixtures inside the parking structure would be ceiling mounted and would not cast direct glare, however, upper level light standards would increase the overall light intensity of the site and increase the lit environment. Rooftop parking lighting would be provided for safety and to meet code requirements; it would be pole mounted lighting that is shielded and cast downwards. After the proposed landscaping matures, the garage side openings would be partially screened from view which would reduce overall lighting visibility. The potential PV system that may be incorporated on the top level of the parking structures, pending funding, would have panels with standard low-glare glass with anti-reflective coatings – much like standard commercial building windows. The potential panels would be sited and angled to minimize potential glare to nearby residences. (see **Figure 4.2-6**)



Lighting associated with the MOB would also be visible to uphill residents but would be similar to lighting currently visible from the existing office building. Although the existing office building is largely vacant, historical use patterns for the subject property is consistent with office building nighttime usage. The new MOB use may increase nighttime patterns, but as indicated in Section 4.2.1.5: *Light and Glare* above, existing views towards the subject property are minimal from public vantage points. Existing mature vegetation provides further screening of the existing office building. Furthermore, the dominant light emitting feature in the Project area is US Highway 101 immediately east of the subject property. Light emitted associated with vehicle headlights and taillights would outshine any light emissions from security lighting or internal light emissions for the proposed MOB. All new exterior lighting would be shielded and cast downwards to minimize glare and excess light pollution. In conclusion, the Project would not create a significant increase in light and glare which could adversely affect nighttime views in the area or cause potential “spillage” of lighting that may affect nearby residents. The impact is *less than significant*.

**Mitigation:** None required

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### ***Private Views***

Although the City of San Rafael does not have any policies or regulations relating to the protection of private views, nor are private views protected under CEQA, for discussion purposes the City has evaluated impacts to private views as part of this DEIR. The primary private view that is applicable to this Project is the easterly view towards McInnis Park and the hillside and ridgelines and potential bay views behind the park from the residential neighborhood to the west (Mont Marin / San Rafael Park). Although two photo simulations were prepared to illustrate the Project’s impacts on public views (see Exhibits 1 and 2, Initial Study, Appendix B) the Initial Study did not take into account the potential for solar arrays on the proposed Project, private views, or the additional partial ramp on the top level. As part of this DEIR, a third photo simulation was prepared to demonstrate what solar arrays may look like on the parking structure. Views from an area near the backyard of private residences between 56 and 52 Salvador Way are shown in **Figure 4.2-4(c) and 4.2-4(d)** above.<sup>1</sup> In regard to these views, the proposed Project would not block the view of the hills to the east and would not break or silhouette any of the hillside or ridgelines that are to the north or east. Additionally, the proposed parking structure materials, which are generally concrete and muted colors, would not significantly alter existing views of the natural setting that surround the parking structure and minimize the visibility of the structure. Furthermore, the building would be situated within an area of the site where existing trees would screen much of the view of the proposed parking structure. The impact is considered *less than significant*.

**Mitigation:** None required

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<sup>1</sup> These photos were taken from the open space parcel adjacent to the private rear yards of the residences along Salvatore Way.

## 4.2.7 Aesthetic Cumulative Impacts

**Impact AES-3:** The Project, combined with past, present and other reasonably foreseeable future development in the area, would not cause cumulative aesthetics impacts. (*Less than Significant*)

### ***Geographic Setting***

The geographic setting for the consideration of cumulative aesthetic impacts is the vicinity within one-quarter mile of the Project site as this area is generally within the important viewsheds that take in site. Past development at the Project site and the vicinity has greatly altered the visual quality of the area, placing new buildings and roadways in an area that was once dominated by grass-covered hills and woodlands. There are no proposed projects within the viewshed of the Kaiser MOB property at 1650 Los Gamos Drive. The nearest reasonably foreseeable project relevant to the aesthetics analysis, is The Oaks project located to the north of Lucas Valley Road. This development, a senior-assisted residential project, would be located over a small ridge and would be unseen by properties above or adjacent to the subject property.

### ***Impacts***

Like past projects, current and future projects, including the proposed Project, are subject to Design Review to ensure high-quality and compatible design with each project's setting, and as required, cumulative projects would also be subject to CEQA to address potential adverse visual impacts. Adherence to the City of San Rafael Design Guidelines, other mitigation measures recommended in this DEIR, as well as those that may be identified for other cumulative development, in addition to Design Review Board recommendations for all cumulative projects, would ensure that the visual effects of the Project and other nearby projects would be less than significant.

Therefore, a cumulative visual impact related to scenic vistas, overall visual quality, scenic resources, and light and glare would not occur. The impact would be *less than significant*.

**Mitigation:** None required

## 4.3 Air Quality

This section incorporates the setting information and analyses included in the 2018 Illingworth and Rodkin *Kaiser Medical Office Building Air Quality and Greenhouse Gas Emissions Assessment* conducted for the Project. This section describes existing air quality conditions in the vicinity of the Project site and presents applicable regulations that pertain to air quality. This section also discusses the air quality impacts that could result from construction and operation of the proposed Project and identifies appropriate mitigation measures when necessary.

### 4.3.1 Setting

#### 4.3.1.1 Existing Air Quality Conditions

The ambient air quality in a given area depends on the quantities of pollutants emitted within the area, transport of pollutants to and from surrounding areas, local and regional meteorological conditions, as well as the surrounding topography of the air basin. Air quality is described by the concentration of various pollutants in the atmosphere or the emissions of a pollutant or contaminant. Units of concentration are generally expressed in parts per million (ppm) or micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ). Emissions are typically expressed as grams per mile, pounds per day, or tons per year.

The proposed Project is located in Marin County, which is part of the nine county San Francisco Bay Air Basin. Air quality in the region is affected by natural factors such as proximity to the Bay and ocean, topography, and meteorology, as well as proximity to sources of air pollution. The Bay Area is characterized by its Mediterranean type climate with warm dry summers and cool wet winters.

The air pollution potential in Marin County is quite low due to the proximity to the San Francisco Bay and Pacific Ocean. The almost constant influence of marine air and lack of nearby or upwind air pollution sources results in low air pollution levels. Air pollutant levels can build up locally in Marin County under stable atmosphere conditions, since vertical and horizontal dispersion of air pollutants can be limited. However, the lack of upwind sources reduces the air pollution potential during these conditions.

#### 4.3.1.2 National and State Ambient Air Quality Standards

As required by the Federal Clean Air Act, National Ambient Air Quality Standards (NAAQS) have been established for six major air pollutants: carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), ozone (O<sub>3</sub>), particulate matter, including respirable particulate matter (PM<sub>10</sub>) and fine particulate matter (PM<sub>2.5</sub>), sulfur dioxide (SO<sub>2</sub>), and lead. Pursuant to the California Clean Air Act, the State of California has established the California Ambient Air Quality Standards (CAAQS). Both State and federal standards are summarized in **Table 4.3-1**. The “primary” standards have been established to protect the public health. The “secondary” standards are intended to protect the nation’s welfare and

account for air pollutant effects on soil, water, visibility, materials, vegetation, and other aspects of the general welfare. While the NAAQS have lower standards for NO<sub>2</sub> and SO<sub>2</sub>, they can be exceeded a certain number of times per year where the CAAQS are not to be exceeded. As a result, CAAQS are generally the same or more stringent than NAAQS. Thus, CAAQS are used as the comparative standard in this analysis.

Efforts to reduce air pollution began in the Bay Area started in 1955 with the formation of the Bay Area Air Pollution Control District, now known as the BAAQMD. State and national ambient air quality standards cover a wide variety of pollutants; however, only a few of these pollutants are problems in the Bay Area either due to the strength of the emission or the climate of the region. The BAAQMD has for many years operated a multi-pollutant monitoring site in San Rafael, allowing analysis of trends in air quality. Problem air pollutants in Marin County and the Bay Area include ozone, particulate matter (PM<sub>2.5</sub> and PM<sub>10</sub>), and toxic air contaminants (TACs).

### **4.3.1.3 Criteria Air Pollutants and Effects**

Air quality studies generally focus on five pollutants that are most commonly measured and regulated: CO, O<sub>3</sub>, NO<sub>2</sub>, SO<sub>2</sub>, and suspended particulate matter, i.e., PM<sub>10</sub> and PM<sub>2.5</sub>. These pollutants are listed in **Table 4.3-2** along with the health effects associated with each pollutant. In Marin County, ozone and particulate matter are the pollutants of greatest concern, as measured air pollutant levels exceed these concentrations at times.

#### ***Ozone***

High ozone levels are caused by the cumulative emissions of reactive organic gases (ROG) and nitrogen oxides (NO<sub>x</sub>). These precursor pollutants react under certain meteorological conditions to form high ozone levels. Controlling the emissions of these precursor pollutants is the focus of the Bay Area's attempts to reduce ozone levels. The highest ozone levels in the Bay Area occur in the eastern and southern inland valleys that are downwind of air pollutant sources. High ozone levels aggravate respiratory and cardiovascular diseases, reduced lung function, and increase coughing and chest discomfort.

#### ***Particulate Matter***

Particulate matter is another problematic air pollutant of the Bay Area. Particulate matter is assessed and measured in terms of respirable particulate matter or particles that have a diameter of 10 micrometers or less (PM<sub>10</sub>) and fine particulate matter where particles have a diameter of 2.5 micrometers or less (PM<sub>2.5</sub>). Elevated concentrations of PM<sub>10</sub> and PM<sub>2.5</sub> are the result of both region-wide (or cumulative) emissions and localized emissions. High particulate matter levels aggravate respiratory and cardiovascular diseases, reduce lung function, increase mortality (e.g., lung cancer), and result in reduced lung function growth in children. The greatest quantity of PM<sub>10</sub> emissions associated with motor vehicle uses is generated by re-suspended road dust. Reductions in motor vehicle miles traveled, rather than changes to motor vehicle technology, are necessary to reduce PM<sub>10</sub> emissions. Wood burning in fireplaces and stoves is another significant source of particulate matter, primarily PM<sub>2.5</sub>.

**TABLE 4.3-1: AMBIENT AIR QUALITY STANDARDS**

Pollutant	Averaging Time	California Standards <sup>a,b</sup>	National Standards <sup>a</sup>	
			Primary <sup>b,c</sup>	Secondary <sup>b,d</sup>
Ozone (O <sub>3</sub> )	1-hour	0.09 ppm (180 µg/m <sup>3</sup> )	— <sup>e</sup>	Same as primary
	8-hour	0.070 ppm (137 µg/m <sup>3</sup> )	0.075 ppm (147 µg/m <sup>3</sup> )	—
Carbon Monoxide (CO)	1-hour	20 ppm (23 mg/m <sup>3</sup> )	35 ppm (40 mg/m <sup>3</sup> )	—
	8-hour	9.0 ppm (10 mg/m <sup>3</sup> )	9 ppm (10 mg/m <sup>3</sup> )	—
Nitrogen Dioxide (NO <sub>2</sub> )	Annual	0.030 ppm (57 µg/m <sup>3</sup> )	0.053 ppm (100 µg/m <sup>3</sup> )	Same as primary
	1-hour	0.18 ppm (339 µg/m <sup>3</sup> )	0.100 ppm <sup>f</sup> (189 µg/m <sup>3</sup> )	—
Sulfur Dioxide (SO <sub>2</sub> )	Annual	—	— <sup>g</sup>	—
	24-hour	0.04 ppm (105 µg/m <sup>3</sup> )	— <sup>g</sup>	—
	3-hour	—	—	0.5 ppm (1300 µg/m <sup>3</sup> )
	1-hour	0.25 ppm (655 µg/m <sup>3</sup> )	0.075 ppm <sup>g</sup> (196 µg/m <sup>3</sup> )	—
Respirable Particulate Matter (PM <sub>10</sub> )	Annual	20 µg/m <sup>3</sup>	—	Same as primary
	24-hour	50 µg/m <sup>3</sup>	150 µg/m <sup>3</sup>	Same as primary
Fine Particulate Matter (PM <sub>2.5</sub> )	Annual	12 µg/m <sup>3</sup>	15 µg/m <sup>3</sup>	
	24-hour	No Separate State Standard	35 µg/m <sup>3</sup>	
Lead	Calendar quarter	—	1.5 µg/m <sup>3</sup>	Same as primary
	30-day average	1.5 µg/m <sup>3</sup>	—	—

NOTES: ppm = parts per million; µg/m<sup>3</sup> = micrograms per cubic meter; mg/m<sup>3</sup> = milligrams per cubic meter.

- <sup>a</sup> Standards, other than for ozone and those based on annual averages, are not to be exceeded more than once a year. The ozone standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above the standard is equal to or less than one.
- <sup>b</sup> Concentrations are expressed first in units in which they were promulgated. Equivalent units given in parentheses.
- <sup>c</sup> Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health. Each state must attain the primary standards no later than 3 years after that state's implementation plan is approved by the EPA.
- <sup>d</sup> Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
- <sup>e</sup> A national 8-hour primary and secondary standard was established on October 1, 2015.
- <sup>f</sup> The form of the 1-hour NO<sub>2</sub> standard is the 3-year average of the 98<sup>th</sup> percentile of the daily maximum 1-hour average concentration.
- <sup>g</sup> On June 2, 2010 the U.S. EPA established a new 1-hour SO<sub>2</sub> standard, which is based on the 3-year average of the annual 99<sup>th</sup> percentile of the 1-hour daily maximum. The EPA also revoked both the existing 24-hour and annual average SO<sub>2</sub> standards.

Source: CARB, 2016

Extensive research reviewed by the California Air Resources Board (CARB) indicates that exposure to outdoor PM<sub>10</sub> and PM<sub>2.5</sub> levels exceeding current ambient air quality standards is associated with increased risk of hospitalization for lung and heart-related respiratory illness, including emergency room visits for asthma. Exposure to particulate matter is also associated with increased risk of premature deaths, especially in the elderly and people with pre-existing cardiopulmonary disease. In children, studies have shown associations between PM exposure and reduced lung function and increased respiratory symptoms and illnesses.

**TABLE 4.3-2: CRITERIA POLLUTANTS**

Pollutant	Characteristics	Health Effects	Major Sources
Carbon Monoxide (CO)	Non-reactive, colorless and odorless gas that dissipates relatively quickly; ambient CO concentrations generally located near vehicular traffic.  Highest CO concentrations measured in the Bay Area are typically recorded during the winter.	Interferes with the transfer of oxygen to the brain; causes dizziness and fatigue; can impair central nervous system functions.	Automobile exhaust, residential wood burning in fireplaces and woodstoves.
Ozone (O <sub>3</sub> )	Colorless toxic gas and the chief component of urban smog.  Present in relatively high concentrations within portions of the Bay Area; highest concentrations occur during summer and early autumn on days with low wind speeds or stagnant air, warm temperatures, and cloudless skies.	Irritates eyes; impairs respiratory function; interferes with the transfer of oxygen, depriving sensitive tissues in the heart and brain of oxygen.	Although not directly emitted from a particular source, it forms in the atmosphere through a chemical reaction between reactive organic gas (ROG) and nitrogen oxides (NOX) under sunlight; ROG and NOX are primarily emitted from automobiles, and industrial sources.
Nitrogen Dioxide (NO <sub>2</sub> )	Reddish-brown gas that irritates the lungs; NO and NO <sub>2</sub> are collectively referred to as NO <sub>x</sub> and are major contributors to O <sub>3</sub> formation; NO <sub>2</sub> also contributes to the formation of PM <sub>10</sub> .  Levels of NO <sub>2</sub> in the Bay Area are relatively low.	Irritates lungs; can cause breathing difficulties at high concentrations.	Like O <sub>3</sub> , NO <sub>2</sub> is not directly emitted, but is formed through a reaction between nitric oxide (NO) and atmospheric oxygen; NO is primarily emitted from automobile and diesel truck exhaust, industrial processes, and fossil-fueled power plants.
Sulfur Oxides (SO <sub>x</sub> )	Primarily SO <sub>2</sub> , sulfur oxides are colorless gases with a pungent, irritating odor. Due to the lack of sources, levels of SO <sub>2</sub> in the Bay Area are relatively low.	Increases risk of acute and chronic respiratory disease; can cause diminished ventilator function in children.	Product of high-sulfur fuel combustion from coal and oil used in power stations, industries, and for domestic heating; industrial chemical manufacturing; diesel vehicle exhaust.
Suspended Particulate Matter (PM <sub>2.5</sub> / PM <sub>10</sub> )	Very small liquid and solid particles suspended in the air, which can include smoke, soot, dust, salts, acids, and metals; can produce haze and reduce regional visibility. PM <sub>10</sub> : Particulate matter less than 10 microns in diameter, about one-seventh the thickness of a human hair. PM <sub>2.5</sub> : Particulate matter 2.5 microns or less in diameter.	Damages respiratory tract; increases the number and severity of asthma attacks; causes or aggravates bronchitis and other lung diseases; reduces the body's ability to fight infections.	Directly and indirectly emitted. Motor vehicles; wood burning stoves and fireplaces; dust from construction, landfills, and agriculture; wildfires and brush/waste burning; industrial sources; windblown dust from open lands; atmospheric chemical reactions.

Source: CARB, 2016

Besides reducing visibility, the acidic portion of PM (e.g., nitrates and sulfates) can harm crops, forests, aquatic, and other ecosystems. In 2002, CARB adopted new ambient air quality standards for PM<sub>10</sub> and PM<sub>2.5</sub>, resulting from an extensive review of the health-based scientific literature. The U.S. Environmental Protection Agency (USEPA) adopted stricter standards for PM<sub>2.5</sub> in 2006. The Bay Area does not meet national and State PM<sub>2.5</sub> standards or State standards for PM<sub>10</sub>.

#### 4.3.1.4 Toxic Air Contaminants

Toxic air contaminants (TAC) are a broad class of compounds known to cause morbidity or mortality (usually because they cause cancer) and include, but are not limited to, the criteria air pollutants. TACs are found in ambient air, especially in urban areas, and are caused by industry,

agriculture, fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations, even near their source (e.g., diesel particulate matter [DPM] near a freeway). Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, State, and federal level.

Diesel exhaust is the predominant TAC in urban air and is estimated to represent about three-quarters of the cancer risk from TACs (based on the Bay Area average). According to the California Air Resources Board (CARB), diesel exhaust is a complex mixture of gases, vapors, and fine particles. This complexity makes the evaluation of health effects of diesel exhaust a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by the CARB, and are listed as carcinogens either under the State's Proposition 65 or under the Federal Hazardous Air Pollutants programs. USEPA has adopted low-sulfur diesel fuel standards that will reduce DPM substantially; these standards went into effect in late 2006. Other common TACs in urban environments include benzene present in gasoline vapors and vehicle exhaust, and 1,3 butadiene in vehicle exhaust.

In cooler weather, smoke from residential wood combustion can be a source of TACs. Localized high TAC concentrations can result when cold stagnant air traps smoke near the ground and, with no wind, the pollution can persist for many hours. This occurs in sheltered valleys during the winter. Wood smoke also contains a significant amount of PM<sub>10</sub> and PM<sub>2.5</sub>. Wood smoke is an irritant and is implicated in worsening asthma and other chronic lung problems.

#### **4.3.1.5 Air Pollution Potential**

The significance of a pollutant concentration is determined by comparing the concentration to an appropriate ambient air quality standard. The standards represent the allowable pollutant concentrations designed to ensure that the public health and welfare are protected, while including a reasonable margin of safety to protect the more sensitive individuals in the population. The San Francisco Bay Area is considered to be one of the cleanest metropolitan areas in the country with respect to air quality.

The air pollution potential in Marin County is low due to the proximity to the San Francisco Bay and Pacific Ocean. The constant influence of marine air and lack of nearby or upwind air pollution sources results in low air pollution levels. Air pollutant levels can build up under stable atmosphere conditions, since vertical and horizontal dispersion of air pollutants is limited. Due to the surrounding terrain and location of the Project site, neutral or stable conditions would be typical during night and early mornings.

BAAQMD monitors air pollutant levels continuously throughout the Bay Area. The San Rafael station is the closest to the Project site and the only station in Marin County. This station is about two miles from the Project site. Over the five-year period of 2012 to 2016, PM<sub>10</sub> levels measured in San Rafael have exceeded CAAQS on zero to one sample day per year. Since PM<sub>10</sub> is sampled once every six days, standards are exceeded on an estimated zero to six days annually. PM<sub>2.5</sub> monitoring

at San Rafael began in 2010. There were four days where levels were measured at or just above the NAAQS. No other exceedances of air quality standards have been measured at the San Rafael station. Summarized air pollutant data for this station is provided in Table 4.3-3. This table shows the highest air pollutant concentrations measured at the station over the five-year period of 2011 through 2016 (based on BAAQMD reported data).

### **Attainment Status for Ambient Air Quality Standards**

Measured levels of O<sub>3</sub> and particulate matter (i.e., PM<sub>10</sub> and PM<sub>2.5</sub>) exceed ambient air quality standards in the Bay Area. In San Rafael, O<sub>3</sub> standards have not been exceeded in the 2012 to 2016 period, while the Bay Area as a whole exceeds an O<sub>3</sub> standard on 8 to 15 days per year. PM<sub>10</sub> levels have not exceeded standards for any measurement day in San Rafael during the five-year period and one to six days in the Bay Area. PM<sub>2.5</sub> levels exceeded standards on zero to two days during the five-year period and exceeded standards on 3 to 13 days throughout the Bay Area but had no days exceeded standards in 2016. PM<sub>10</sub> and PM<sub>2.5</sub> are only measured once every six days, in accordance with a national sampling schedule set by USEPA.

Areas that do not violate ambient air quality standards are considered to have attained the standard. Violations of ambient air quality standards are based on air pollutant monitoring data and are judged for each air pollutant. The Bay Area was designated nonattainment for both the 1997 and the 2008 8-hour O<sub>3</sub> NAAQS, with area classifications of “marginal”. Updated design values based on the last three years of data (2014-2016) show that ozone concentrations are now in attainment of both these NAAQS; however, the Bay Area will continue to be designated as nonattainment until the Air District submits a redesignation request and a maintenance plan to the EPA and the EPA approves the redesignation and maintenance plan. No additional monitors are required in the State Implementation Plan (SIP) or Maintenance Plan for ozone.

**Table 4.3-3: Highest Measured Air Pollutant Concentrations in San Rafael**

Pollutant	Average Time	Measured Air Pollutant Levels				
		2012	2013	2014	2015	2016
Ozone (O <sub>3</sub> )	1-Hour	0.076 ppm	0.081 ppm	0.088 ppm	0.081 ppm	0.088 ppm
	8-Hour	0.057 ppm	0.069 ppm	0.068 ppm	0.070 ppm	0.067 ppm
Carbon Monoxide (CO)	1-Hour	2.3 ppm	2.2 ppm	1.9 ppm	1.4 ppm	1.4 ppm
	8-Hour	1.1 ppm	1.1 ppm	1.1 ppm	0.9 ppm	1.0 ppm
Nitrogen Dioxide (NO <sub>2</sub> )	1-Hour	0.052 ppm	0.050 ppm	0.062 ppm	0.044 ppm	0.046 ppm
	Annual	0.011 ppm	0.012 ppm	0.011 ppm	0.011 ppm	0.009 ppm
Respirable Particulate Matter (PM <sub>10</sub> )	24-Hour	37 ug/m <sup>3</sup>	<b>54 ug/m<sup>3</sup></b>	41 ug/m <sup>3</sup>	42 ug/m <sup>3</sup>	27ug/m <sup>3</sup>
	Annual	13.2 ug/m <sup>3</sup>	15.7 ug/m <sup>3</sup>	14.1 ug/m <sup>3</sup>	16.1 ug/m <sup>3</sup>	13.8 ug/m <sup>3</sup>
Fine Particulate Matter (PM <sub>2.5</sub> )	24-Hour	26.5 ug/m <sup>3</sup>	<b>44.9 ug/m<sup>3</sup></b>	<b>38.1 ug/m<sup>3</sup></b>	<b>36.3 ug/m<sup>3</sup></b>	15.6 ug/m <sup>3</sup>
	Annual	8.0 ug/m <sup>3</sup>	10.8 ug/m <sup>3</sup>	10.8 ug/m <sup>3</sup>	8.6 ug/m <sup>3</sup>	6.4 ug/m <sup>3</sup>

NOTE: ppm = parts per million and ug/m<sup>3</sup> = micrograms per cubic meter. Values reported in **bold** exceed the strictest ambient air quality standard (see Table 4.B-1).

In October 2015, the USEPA implemented a new 8-hour ozone standard of 70 ppb  
 Source: BAAQMD, 2017.



Under the federal Clean Air Act, the USEPA has designated the region as marginally non-attainment for the eight-hour O<sub>3</sub> standard. USEPA has proposed revisions to the O<sub>3</sub> eight-hour NAAQS rule; however, the Office of Information and Regulatory Affairs (OIRA) recently returned the draft rule to USEPA for reconsideration (OIRA, 2011).

The Bay Area does attain the annual NAAQS for PM<sub>2.5</sub>. USEPA designated the Bay Area Air Basin as “nonattainment” for the 2006 24-hour PM<sub>2.5</sub> standard, as monitoring data indicate levels slightly above the standard. Most PM<sub>2.5</sub> nonattainment areas have until 2015 to attain the standards, with some extensions to 2020 if necessary.

The Bay Area has met the CO NAAQS for over a decade and is classified as attainment by the USEPA. The USEPA grades the region as attainment or unclassified for all other air pollutants, which include PM<sub>10</sub>, NO<sub>2</sub>, SO<sub>2</sub>, and lead. An unclassified designation means that there is not enough data to designate an area as “nonattainment,” but the area likely is in attainment of the standard. There have not been any recorded violations of these standards.

At the state level, the region is considered serious non-attainment for ground level O<sub>3</sub>, because monitoring stations in the region exceeds the one-hour and eight-hour CAAQS. The BAAQMD is required to adopt plans on a triennial basis that show progress towards meeting the State O<sub>3</sub> standard (see *Air Quality Plans*, discussed below). The region is also designated non-attainment for PM<sub>10</sub> and PM<sub>2.5</sub> by the State. Although the region is designated nonattainment for PM<sub>2.5</sub> under the CAAQS, monitoring data indicate that the standard is met. Note that the CAAQS only address annual concentrations of PM<sub>2.5</sub>. Most monitoring stations in the region exceed the annual and 24-hour PM<sub>10</sub> CAAQS. The area is considered attainment or unclassified for all other pollutants regulated under the CAAQS.

### ***Sensitive Receptors***

There are groups of people more affected by air pollution than others. CARB has identified the following persons who are most likely to be affected by air pollution: children under 16, the elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive receptors. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, elementary schools, and parks. For cancer risk assessments, children are the most sensitive receptors, since they are more susceptible to cancer causing TACs. Residential locations are assumed to include infants and small children. The closest sensitive receptors to the Project site are residences approximately 215 feet to the west and southwest of the proposed parking structure. Additional sensitive receptors include children in the Bright Horizons school/daycare facilities at the 1600 Los Gamos Drive office building, located approximately 700 feet to the south of the proposed parking structure.

## 4.3.2 Regulatory Setting

### 4.3.2.1 Federal Regulations

The United States Environmental Protection Agency (USEPA) sets nationwide emission standards for mobile sources, which include on-road (highway) motor vehicles such trucks, buses, and automobiles, and non-road (off-road) vehicles and equipment used in construction, agricultural, industrial, and mining activities (such as bulldozers and loaders). The USEPA also sets nationwide fuel standards. California also has the ability to set motor vehicle emission standards and standards for fuel used in California, as long as they are the same or more stringent than the Federal standards.

In the past decade the USEPA has established a number of emission standards for on- and non-road heavy-duty diesel engines used in trucks and other equipment. This was done in part because diesel engines are a significant source of nitrogen oxides, or NO<sub>x</sub>, and particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>) and because the USEPA has identified diesel particulate matter as a probable carcinogen. Implementation of the heavy-duty diesel on-road vehicle standards and the non-road diesel engine standards are estimated to reduce PM and NO<sub>x</sub> emissions from diesel engines up to 95 percent in 2030 when the heavy-duty vehicle fleet is completely replaced with newer heavy-duty vehicles that comply with these emission standards.<sup>1</sup>

In concert with the diesel engine emission standards, the USEPA has also substantially reduced the amount of sulfur allowed in diesel fuels. The sulfur contained in diesel fuel is a significant contributor to the formation of particulate matter in diesel-fueled engine exhaust. The new standards reduced the amount of sulfur allowed by 97 percent for highway diesel fuel (from 500 parts per million by weight [ppmw] to 15 ppmw), and by 99 percent for off-highway diesel fuel (from about 3,000 ppmw to 15 ppmw). The low sulfur highway fuel (15 ppmw sulfur), also called ultra-low sulfur diesel (ULSD) is currently required for use by all vehicles in the U.S.

All of the above Federal diesel engine and diesel fuel requirements have been adopted by California, in some cases with modifications making the requirements more stringent or the implementation dates sooner.

### 4.3.2.2 State Regulations

To address the issue of diesel emissions in the state, CARB developed the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles.<sup>2</sup> In addition to requiring more stringent emission standards for new on-road and off-road mobile sources and

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<sup>1</sup> USEPA, 2000. Regulatory Announcement, Heavy-Duty Engine and Vehicle Standards and Highway Diesel Fuel Sulfur Control Requirements. EPA420-F-00-057. December 2000.

<sup>2</sup> California Air Resources Board. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*. October 2000.

stationary diesel-fueled engines to reduce particulate matter emissions by 90 percent, a significant component of the plan involves application of emission control strategies to existing diesel vehicles and equipment. Many of the measures of the Diesel Risk Reduction Plan have been approved and adopted, including the Federal on-road and non-road diesel engine emission standards for new engines, as well as adoption of regulations for low sulfur fuel in California.

CARB has adopted and implemented a number of regulations for stationary and mobile sources to reduce emissions of Diesel Particulate Matter (DPM). Several of these regulatory programs affect medium and heavy-duty diesel trucks that represent the bulk of DPM emissions from California highways. CARB regulations require on-road diesel trucks to be retrofitted with particulate matter controls or replaced to meet 2010 or later engine standards that have much lower DPM and PM<sub>2.5</sub> emissions. This regulation will substantially reduce these emissions between 2013 and 2023. While new trucks and buses will meet strict federal standards, this measure is intended to accelerate the rate at which the fleet either turns over so there are more cleaner vehicles on the road, or is retrofitted to meet similar standards. With this regulation, older, more polluting trucks would be removed from the roads sooner.

CARB has also adopted and implemented regulations to reduce DPM and NO<sub>x</sub> emissions from in-use (existing) and new off-road heavy-duty diesel vehicles (e.g., loaders, tractors, bulldozers, backhoes, off-highway trucks, etc.). The regulations apply to diesel-powered off-road vehicles with engines 25 horsepower (hp) or greater. The regulations are intended to reduce particulate matter and NO<sub>x</sub> exhaust emissions by requiring owners to turn over their fleet (replace older equipment with newer equipment) or retrofit existing equipment in order to achieve specified fleet-averaged emission rates. Implementation of this regulation, in conjunction with stringent Federal off-road equipment engine emission limits for new vehicles, will significantly reduce emissions of DPM and NO<sub>x</sub>.

### **4.3.2.3 BAAQMD Regulations**

BAAQMD has jurisdiction over an approximately 5,600-square mile area, commonly referred to as the San Francisco Bay Area (Bay Area). The District's boundary encompasses the nine San Francisco Bay Area counties, including Alameda County, Contra Costa County, Marin County, San Francisco County, San Mateo County, Santa Clara County, Napa County, southwestern Solano County and southern Sonoma County.

BAAQMD is the lead agency in developing plans to address attainment and maintenance of the National Ambient Air Quality Standards and California Ambient Air Quality Standards. The District also has permit authority over most types of stationary equipment utilized for the proposed Project. The BAAQMD is responsible for permitting and inspection of stationary sources; enforcement of regulations, including setting fees, levying fines, and enforcement actions; and ensuring that public nuisances are minimized.

The BAAQMD *CEQA Air Quality Guidelines*<sup>3</sup> were prepared to assist in the evaluation of air quality impacts of projects and plans proposed within the Bay Area. The guidelines provide recommended procedures for evaluating potential air impacts during the environmental review process consistent with CEQA requirements including thresholds of significance, mitigation measures, and background air quality information. They also include assessment methodologies for air toxics, odors, and greenhouse gas emissions. In June 2010, the BAAQMD's Board of Directors adopted CEQA thresholds of significance and an update of their *CEQA Guidelines*. In May 2011, the updated BAAQMD *CEQA Air Quality Guidelines* were amended to include a risk and hazards threshold for new receptors and modify procedures for assessing impacts related to risk and hazard impacts.

BAAQMD adopts and enforces rules to reduce particulate matter emissions and develops public outreach programs to educate the public to reduce PM<sub>10</sub> and PM<sub>2.5</sub> emissions (e.g., Spare the Air Program). California Senate Bill 656 (SB 656) requires further action by CARB and air districts to reduce public exposure to PM<sub>10</sub> and PM<sub>2.5</sub>. Efforts identified by BAAQMD in response to SB656 are primarily targeting reductions in wood smoke emissions and adoption of new rules to further reduce NO<sub>x</sub> and particulate matter from internal combustion engines and reduce particulate matter from commercial charbroiling activities. The Bay Area experiences the highest PM<sub>10</sub> and PM<sub>2.5</sub> concentrations in winter when wood smoke and ammonium nitrate contributions to particulate matter are highest. BAAQMD rules restrict operation of any indoor or outdoor fireplace, fire pit, wood or pellet stove, masonry heater, or fireplace insert on specific days during the winter when air quality conditions are forecasted to exceed the NAAQS for PM<sub>2.5</sub>. When meteorological conditions are conducive to high levels of O<sub>3</sub> or PM<sub>2.5</sub>, BAAQMD declares a Spare the Air day. Uncontrolled wood burning is prohibited in winter during Spare the Air days. The rule also limits excess visible emissions from wood burning devices and requires clean burning technology for wood burning devices sold (or resold) or installed in the Bay Area. NO<sub>x</sub> emissions contribute to ammonium nitrate formation that resides in the atmosphere as particulate matter, so a reduction in NO<sub>x</sub> emissions reduces wintertime PM<sub>2.5</sub> levels.

#### **4.3.2.4 Local**

##### ***City of San Rafael General Plan***

The Air and Water Quality Elements of the San Rafael *General Plan 2020* contain the following goal, policies, and implementation programs relevant to the air quality impacts of the proposed Project:

##### **AW-1. State and Federal Standards.**

Continue to comply and strive to exceed state and federal standards for air quality for the benefit of the Bay Area.

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<sup>3</sup> Bay Area Air Quality Management District, 2017. *CEQA Air Quality Guidelines*. May.

**AW-2. Land Use Compatibility.**

To ensure excellent air quality, promote land use compatibility for new development by using buffering techniques such as landscaping, setbacks, and screening in areas where different land uses abut one another.

**AW-3. Air Quality Planning with Other Processes.**

Integrate air quality considerations with the land use and transportation processes by mitigating air quality impacts through land use design measures, such as encouraging project design that will foster walking and biking.

**AW-4. Particulate Matter Pollution Reduction.**

Promote the reduction of particulate matter pollution from roads, parking lots, construction sites, agricultural lands and other activities.

**AW-5. Circulation Alternatives.**

Promote circulation alternatives that reduce air pollution.

### 4.3.3 Impacts and Mitigation Measures

#### 4.3.3.1 Significance Criteria

Utilizing Appendix G of the CEQA *Guidelines*, the Project would have a significant impact on air quality if it would:

- a) Conflict with or obstruct implementation of the applicable air quality plan;
- b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- c) Result in a cumulatively considerable net increase of any nonattainment pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);
- d) Expose sensitive receptors to substantial pollutant concentrations; or
- e) Create objectionable odors affecting a substantial number of people.

#### 4.3.3.2 Approach to Analysis

The following impact analysis focuses on potential impacts of the Project related to air quality. The analysis presented in this report uses the methodologies provided in the BAAQMD's *CEQA Air Quality Guidelines* (herein referred to as the BAAQMD Guidelines) (BAAQMD, 2017). Emission estimates for the Project presented in this section were prepared by Illingworth and Rodkin, Inc. (2018). For details of data, calculations, and assumptions used to determine project-

related emissions and associated public health risks that would be associated with the proposed Project, refer to Appendix C to this DEIR.

In June 2010, BAAQMD adopted thresholds of significance to assist in the review of projects under CEQA. These thresholds were designed to establish the level at which BAAQMD believed air pollution emissions would cause significant environmental impacts under CEQA and were included in the Air District's updated CEQA Guidelines (updated May 2017). The significance thresholds identified by BAAQMD and used in this analysis are summarized in **Table 4.3-4** below.

The BAAQMD's adoption of significance thresholds contained in the 2011 CEQA Air Quality Guidelines was called into question by an order issued March 5, 2012, in California Building Industry Association (CBIA) v. BAAQMD (Alameda Superior Court Case No. RGI0548693). In December 2015, the Supreme Court determined that an analysis of the impacts of the environment on a project – known as “CEQA-in-reverse” – is only required under two limited circumstances: (1) when a statute provides an express legislative directive to consider such impacts; and (2) when a proposed project risks exacerbating environmental hazards or conditions that already exist (Cal. Supreme Court Case No. S213478)<sup>4</sup>. As neither of these conditions apply as part of the proposed Project, Air Quality impacts to the Project are not considered further in this DEIR.

**Table 4.3-4: Air Quality Significance Thresholds**

Pollutant	Construction Thresholds	Operational Thresholds	
	Average Daily Emissions (lbs./day)	Average Daily Emissions (lbs./day)	Annual Average Emissions (tons/year)
<b>Criteria Air Pollutants</b>			
ROG	54	54	10
NO <sub>x</sub>	54	54	10
PM <sub>10</sub>	82 (Exhaust)	82	15
PM <sub>2.5</sub>	54 (Exhaust)	54	10
CO	Not Applicable	9.0 ppm (8-hour average) or 20.0 ppm (1-hour average)	
Fugitive Dust	Construction Dust Ordinance or other Best Management Practices	Not Applicable	
<b>Health Risks and Hazards for Single Sources</b>			

<sup>4</sup> The May 2017 version of the Guidelines includes revisions made to the Air District's 2010 Guidelines to address the California Supreme Court's 2015 opinion in Cal. Bldg. Indus. Ass'n vs. Bay Area Air Quality Mgmt. Dist., 62 Cal.4th 369. The May 2017 CEQA Guidelines update does not address outdated references, links, analytical methodologies or other technical information that may be in the Guidelines or Thresholds Justification Report. The Air District is currently working to update any outdated information in the Guidelines. Please see the CEQA webpage at <http://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa> for status updates on the Air District's CEQA Guidelines or contact Jaclyn Winkel at [jwinkel@baaqmd.gov](mailto:jwinkel@baaqmd.gov) for further information.

Excess Cancer Risk	>10 per one million
Hazard Index	>1.0
Incremental annual PM <sub>2.5</sub>	>0.3 µg/m <sup>3</sup>
<b>Health Risks and Hazards for Combined Sources (Cumulative from all sources within 1,000 foot zone of influence)</b>	
Excess Cancer Risk	>100 per one million
Hazard Index	>10.0
Annual Average PM <sub>2.5</sub>	>0.8 µg/m <sup>3</sup>
<b>Greenhouse Gas Emissions</b>	
GHG Annual Emissions	Compliance with a Qualified GHG Reduction Strategy OR 1,100 metric tons or 4.6 metric tons per capita
Note: ROG = reactive organic gases, NO <sub>x</sub> = nitrogen oxides, PM <sub>10</sub> = coarse particulate matter or particulates with an aerodynamic diameter of 10 micrometers (µm) or less, PM <sub>2.5</sub> = fine particulate matter or particulates with an aerodynamic diameter of 2.5µm or less; and GHG = greenhouse gas.	

Source: Illingworth & Rodkin 2018

### 4.3.4 Criteria Pollutants Impacts and Mitigation

**Impact AIR-1:** The Project would result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable State or federal ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors). The incorporation of construction best management practices as Project conditions of approval would result in a less-than-significant temporary criteria air pollutant impact. (*Less than Significant with Mitigation Incorporation*)

The Bay Area is considered a non-attainment area for ground-level ozone and PM<sub>2.5</sub> under both the Federal Clean Air Act (CAA) and the California Clean Air Act. The area is also considered non-attainment for PM<sub>10</sub> under the California Clean Air Act, but not the federal act. The area has attained both State and federal ambient air quality standards for carbon monoxide. As part of an effort to attain and maintain ambient air quality standards for ozone and PM<sub>10</sub>, the BAAQMD has established thresholds of significance for these air pollutants and their precursors. These thresholds are for ozone precursor pollutants (ROG and NO<sub>x</sub>), PM<sub>10</sub>, and PM<sub>2.5</sub> and apply to both construction period and operational period impacts.

The California Emissions Estimator Model (CalEEMod) Version 2016.3.2 was used to estimate emissions from construction and operation of the site assuming full build out of the Project. The Project land use types and size, and anticipated construction schedule were input to CalEEMod<sup>5</sup>.

<sup>5</sup> The CalEEMod emissions calculations can be found in Appendix C of the 2018 Illingworth & Rodkin Air Quality and Greenhouse Gases Emissions Report (see Appendix C to this DEIR for the full Illingworth & Rodkin report).

### Construction Period Emissions

CalEEMod provided annual emissions for construction. CalEEMod provides emission estimates for both on-site and off-site construction activities. On-site activities are primarily made up of construction equipment emissions, while off-site activity includes worker and vendor traffic. A construction build-out scenario, including equipment list and schedule, was based on CalEEMod defaults for a project of this type and size. The proposed Project land uses were input into CalEEMod, which included: 148,000 sf entered as “Medical Office Building,” and, up to 476 spaces entered as “Unenclosed Parking with Elevator.”

The CalEEMod default schedule for a project of this type and size assumes that the Project would be built out over a period of approximately one year beginning once the Project entitlements and construction permits are approved, or an estimated 269 construction workdays. In addition to construction of the Project, the San Rafael *General Plan 2020* and the identified mitigation measure MM TRAF-4 (4.6.7.1 *Baseline Plus Project Intersection Operations*) require improvements at Lucas Valley Road and Los Gamos Drive, including signalizing the intersection. These improvements and construction activity are assumed to have the potential to occur simultaneously with the Project construction. Average daily emissions were computed by dividing the total construction emissions by the number of construction days. **Table 4.3-5** shows the CalEEMod result for average daily construction emissions of ROG, NO<sub>x</sub>, PM<sub>10</sub> exhaust, and PM<sub>2.5</sub> exhaust during construction of the Project. As indicated in **Table 4.3-5**, estimated construction period emissions would not exceed the BAAQMD significance thresholds.

**Table 4.3-5: Construction Period Emissions**

Scenario	ROG	NO <sub>x</sub>	PM <sub>10</sub> Exhaust	PM <sub>2.5</sub> Exhaust
<b>Unmitigated</b>				
Total construction emissions (tons) (CalEEMod)	1.28 tons	3.57 tons	0.17 tons	0.16 tons
Average daily emissions (pounds) <sup>1</sup>	9.5 lbs.	26.5 lbs.	1.3 lbs.	1.2 lbs.
<i>BAAQMD Thresholds (pounds per day)</i>	54 lbs.	54 lbs.	82 lbs.	54 lbs.
<b>Exceed Threshold?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
Notes: <sup>1</sup> Assumes 269 workdays.				

Source: Illingworth & Rodkin 2018

### Operational Period Emissions

Operational air emissions from the Project would be generated primarily from autos driven by future employees and patients. Evaporative emissions from architectural coatings and maintenance products (classified as consumer products) are typical emissions from these types of uses. CalEEMod was used to predict emissions from operation of the proposed Project assuming full build-out.

### Land Uses

The Project land uses were input to CalEEMod, as described above. An additional CalEEMod run was set up to compute the emissions from the existing/approved land use. The land use



entered was 148,000 sf as “General Office.”

### Model Year

Emissions associated with vehicle travel depend on the year of analysis because emission control technology requirements are phased-in over time. Therefore, the earlier the year analyzed in the model, the higher the emission rates utilized by CalEEMod. The earliest full year the buildout Project could possibly be constructed and begin operating would be 2020. Emissions associated with build-out later than 2020 would be lower.

### Trip Generation Rates

CalEEMod allows the user to enter specific vehicle trip generation rates. However, the trip generation rates from the 2018 Fehr & Peers 1650 Los Gamos Drive FTIA report (36.13 trips per 1,000 sf for the Project and 11.03 trips per 1,000 sf for the existing/approved use) are the same as the default trip rates in CalEEMod and were, therefore, not modified. The default trip lengths and trip types specified by CalEEMod were used. Although the Project would shift some employees from other nearby Kaiser facilities to the proposed Project, a trip reduction credit was conservatively not taken for purposes of this analysis.

### Energy

CalEEMod defaults for energy use were used, which are assumed to include the latest 2016 Title 24 Building Standards.

### Project Generator

The only source of stationary air pollutants identified with build-out of the project is assumed to be an emergency back-up generator. The Project proposes use of a 600 kW (approximately 880 hp) generator. It is assumed for this assessment that the generator would be driven by a diesel-fueled engine.

The emergency back-up generator would be used for backup power in emergency conditions. The generator would be operated for testing and maintenance purposes, with a maximum of 50 hours each per year of non-emergency operation under normal conditions allowed by BAAQMD. During testing periods, the engine would typically be run for less than one hour. The engine would be required to meet CARB and EPA emission standards and consume commercially available California low-sulfur diesel fuel. The generator emissions were modeled using CalEEMod.

### Other Inputs

Default model assumptions for emissions associated with solid waste generation and water/wastewater use were applied to the Project.

Total Project Emissions

Table 4.3-6 reports the predicted emission in terms of annual emissions in tons and average daily operational emissions, assuming 365 days of operation per year. As shown in Table 4.3-6, average daily and annual emissions of ROG, NOx, PM<sub>10</sub>, or PM<sub>2.5</sub> emissions associated with operation would not exceed the BAAQMD significance thresholds.

**Table 4.3-6: Operational Emissions**

Scenario	ROG	NOx	PM <sub>10</sub>	PM <sub>2.5</sub>
Project Annual Operational Emissions (incl. Generator)	1.79 tons	3.83 tons	2.98 tons	0.83 tons
Existing Emissions	1.03 tons	1.36 tons	1.12 tons	0.32 tons
Net Project Emissions	0.76 tons	2.47 tons	1.86 tons	0.52 tons
BAAQMD Thresholds (tons /year)	10 tons	10 tons	15 tons	10 tons
<b>Exceed Threshold?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
Average Daily Project Operational Emissions (pounds) <sup>1</sup>	4.2 lbs.	13.5 lbs.	10.2 lbs.	2.8 lbs.
BAAQMD Thresholds (pounds/day)	54 lbs.	54 lbs.	82 lbs.	54 lbs.
<b>Exceed Threshold?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

<sup>1</sup> Assumes 365-day operation

Source: Illingworth & Rodkin 2018

**Project Emissions Impacts**

Although the Project would not exceed the temporary or operational period emissions BAAQMD significance thresholds, construction activities, particularly during site preparation and grading, would temporarily generate fugitive dust in the form of PM<sub>10</sub> and PM<sub>2.5</sub>. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site would deposit mud on local streets, which could be an additional source of airborne dust after it dries. The BAAQMD *CEQA Air Quality Guidelines* consider these impacts to be less than significant if best management practices are implemented to reduce these emissions. Implementation of Mitigation Measure AIR-1 would implement BAAQMD-recommended best management practices and reduce the impact to *less than significant*.

**Mitigation Measure: MM AIR-1. Include basic measures to control dust and exhaust during construction.**

During any construction period ground disturbance, Kaiser Permanente shall ensure that the Project contractor implement measures to control dust and exhaust. Implementation of the measures recommended by BAAQMD and listed below would reduce the air quality impacts associated with grading and new construction to a less than significant level. The contractor shall implement the following best management practices that are required of all projects:

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
4. All vehicle speeds on unpaved roads shall be limited to 15 miles per hour (mph).
5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
8. Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

### 4.3.5 Air Quality Standards Impacts and Mitigation

**Impact AIR-2:**        **The Project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation. (*Less than Significant*)**

As discussed under Impact AIR-1, the Project would have emissions less than the BAAQMD screening size for evaluating impacts related to ozone and particulate matter. Therefore, the Project would not contribute substantially to existing or projected violations of those standards. Carbon monoxide emissions from traffic generated by the Project would be the pollutant of greatest concern at the local level. Congested intersections with a large volume of traffic have the greatest potential to cause high-localized concentrations of carbon monoxide. Air pollutant

monitoring data indicate that carbon monoxide levels have been at healthy levels (i.e., below State and federal standards) in the Bay Area since the early 1990s. As a result, the region has been designated as attainment for the standard. “Attainment” status for a pollutant means that the Air District meets the standard set by the USEPA (federal) or California EPA (state). The highest measured level over any 8-hour averaging period during the last 3 years in the Bay Area is less than 3.0 parts per million (ppm), compared to the ambient air quality standard of 9.0 ppm. Intersections affected by the Project would have traffic volumes less than the BAAQMD screening criteria and, thus, would not cause a violation of an ambient air quality standard or have a considerable contribution to cumulative violations of these standards.<sup>6</sup> Therefore, the impact would be considered *less than significant*.

**Mitigation:** None Required.

### 4.3.6 Sensitive Receptors Impacts and Mitigation

**Impact AIR-3:** The Project would expose sensitive receptors to substantial pollutant concentrations. The incorporation of construction best management practices as Project conditions of approval would result in a less than significant temporary impact to sensitive receptors. (*Less than Significant with Mitigation Incorporation*)

Project impacts related to increased community risk can occur either by introducing a new sensitive receptor, such as a residential use, in proximity to an existing source of TACs or by introducing a new source of TACs with the potential to adversely affect existing sensitive receptors in the Project vicinity. The BAAQMD recommends using a 1,000-foot screening radius around a Project site for purposes of identifying community health risk from siting a new sensitive receptor or a new source of TACs. It is anticipated that the Project could include an emergency back-up generator that is powered by diesel fuel. This generator would only be operated for testing and emergency purposes. The Project would not introduce new sensitive receptors to the area. There are thresholds that address both the impact of single and cumulative TAC sources upon projects that include new sensitive receptors (see **Table 4.3-1**). Construction activity would generate dust and equipment exhaust on a temporary basis that could affect nearby sensitive receptors. **Attachment 1** in the Illingworth & Rodkin *Air Quality and Greenhouse Gas Emissions* report (see Appendix C to this DEIR) provides the detailed construction risk modeling methodology and parameters.

#### ***Operational Community Risk Impacts - Project Generator***

As previously described, the Project could include a 600 kW emergency generator. The generator would be operated for testing and maintenance purposes, with a maximum of 50 hours per year of

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<sup>6</sup> For a land-use project type, the BAAQMD CEQA Air Quality Guidelines state that a proposed project would result in a less than significant impact to localized carbon monoxide concentrations if the project would not increase traffic at affected intersections with more than 44,000 vehicles per hour.

non-emergency operation under normal conditions. During testing periods the engine would typically be run for less than one hour under light engine loads. The engines would be required to meet USEPA emission standards and consume commercially available California low sulfur diesel fuel. The emissions from the operation of the generator were calculated based on the manufacturer's full load emission factors (see **Attachment 2** in the Illingworth & Rodkin *Air Quality and Greenhouse Gas Emissions* report for Emission Data Sheet – Appendix C to this DEIR) and assuming each generator would operate for 50 hours.

Risk and PM<sub>2.5</sub> concentrations from a diesel generator of this size and average daily emissions were then calculated based on BAAQMD's *Risk and Hazards Emissions Screening Calculator (Beta Version)* and *Distance Adjustment Multiplier Tool for Diesel Internal Combustion Engines*. Results indicate that the Project generator would result in an excess cancer risk of 0.1 per million,<sup>7</sup> PM<sub>2.5</sub> concentration of <0.01µg/m<sup>3</sup> and HI of <0.01 at the nearest sensitive receptor (residence to the west), all of which would be below BAAQMD thresholds of significance, both on-site affecting Project users and at nearby sensitive receptors. Therefore, this impact would be considered *less than significant*. **Attachment 2** of the Illingworth & Rodkin *Air Quality and Greenhouse Gas Emissions* (see Appendix C to this DEIR) report includes emission factors and risk modeling calculations for the Project emergency back-up generator.

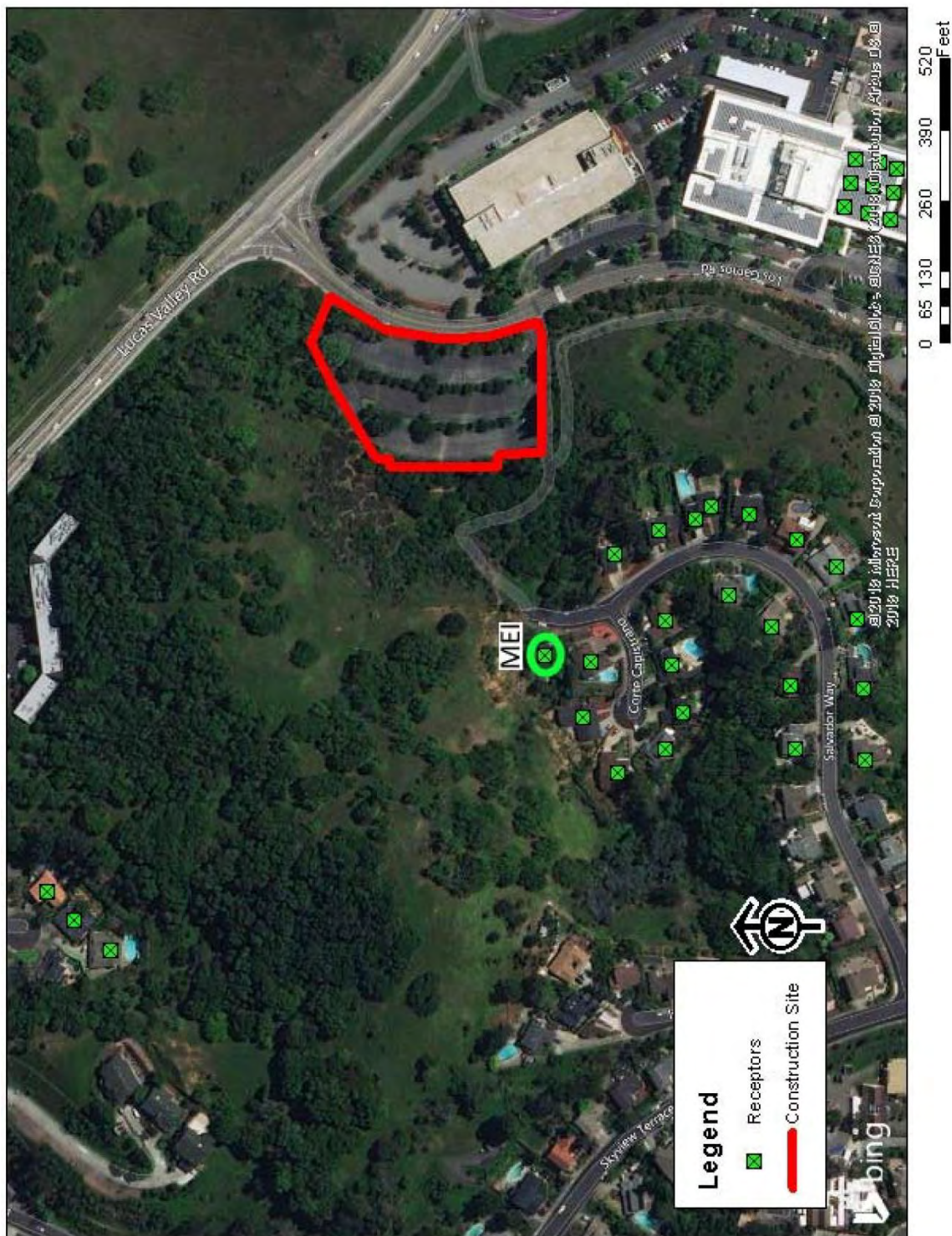
### **Project Construction Activity**

Construction equipment and associated heavy-duty truck traffic generates diesel exhaust, which is a known TAC. These exhaust air pollutant emissions would not be considered to contribute substantially to existing or projected air quality violations. Construction exhaust emissions may still pose community risks for sensitive receptors such as nearby residents. The primary community risk impact issues associated with construction emissions are cancer risk and exposure to PM<sub>2.5</sub>. Diesel exhaust poses both a potential health and nuisance impact to nearby receptors. A community risk assessment of the Project construction activities was conducted that evaluated potential health effects of sensitive receptors at these nearby residences from construction emissions of DPM and PM<sub>2.5</sub>.<sup>8</sup> The closest sensitive receptors to the Project site are residences approximately 215 feet to the west and southwest of the proposed parking structure. Additional sensitive receptors include children in the school/daycare facilities at the 1600 Los Gamos Drive office building, located approximately 700 feet to the south of the proposed parking structure (see **Figure 4.3-1**). Emissions and dispersion modeling was conducted to predict the off-site DPM concentrations resulting from Project construction, so that lifetime cancer risks and non-cancer health effects could be evaluated. In addition to construction of the Project, the San Rafael *General Plan 2020* and the identified mitigation measure MM TRAF-4 (4.6.7.1 *Baseline Plus Project Intersection Operations*) require improvements at Lucas Valley Road and Los Gamos Drive, including signaling the intersection. While these improvements and construction

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<sup>7</sup> Includes adjustment factor of 1.3744 to account for latest OEHHA methodology per correspondence with Alison Kirk, BAAQMD, November 23, 2015.

<sup>8</sup> DPM is identified by California as a toxic air contaminant due to the potential to cause cancer.



Source: Illingworth & Rodkin, 2018

**Figure 4.3-1. Project Construction Site and Locations of Off-Site Sensitive Receptors and Maximum TAC and PM2.5 Impacts**

activity have the potential to occur simultaneously with the Project construction, the majority of the intersection improvements would be 1,000 feet or greater from the project construction maximum exposed individual (MEI), which is beyond BAAQMD's screening distance for potentially significant community risk impacts. Therefore, the contribution to construction community risk from the intersection improvements would be negligible.

### On-Site Construction TAC Emissions

Construction period emissions were computed using CalEEMod along with projected construction activity, as described above. The CalEEMod model provided total annual PM<sub>10</sub> exhaust emissions (assumed to be DPM) for the off-road construction equipment used for construction of the Project and for the exhaust emissions from on-road vehicles (vendor trucks and worker vehicles) of 0.1631 tons (326 pounds) over the construction period. A trip length of one-half mile was used to represent vehicle travel while at or near the construction site. For modeling purposes, it was assumed that these emissions from on-road vehicles would occur at the construction site. Fugitive dust PM<sub>2.5</sub> emissions were also computed and included in this analysis. The model predicts emissions of 0.0128 tons (26 pounds) of fugitive PM<sub>2.5</sub> over the construction period.

### Dispersion Modeling

The U.S.EPA ISCST3 dispersion model was used to predict concentrations of DPM and PM<sub>2.5</sub> concentrations at sensitive receptors (residences) in the vicinity of the Project construction area. The ISCST3 dispersion model is a BAAQMD-recommended model for use in modeling analysis of these types of emission activities for CEQA projects.<sup>9</sup> The ISCST3 modeling utilized two area sources to represent the on-site construction emissions, one for exhaust emissions and one for fugitive dust emissions. To represent the construction equipment exhaust emissions, an emission release height of 6 meters (19.7 feet) was used for the area source. The elevated source height reflects the height of the equipment exhaust pipes plus an additional distance for the height of the exhaust plume above the exhaust pipes to account for plume rise of the exhaust gases. For modeling fugitive PM<sub>2.5</sub> emissions, a near-ground level release height of 2 meters (6.6 feet) was used for the area source. Emissions from the construction equipment and on-road vehicle travel were distributed throughout the modeled area sources. Construction emissions were modeled as occurring daily between 7 a.m. to 4 p.m., when the majority of construction activity would occur.

The modeling used a 5-year meteorological data set (2001 – 2005) from the Sonoma Baylands prepared for use with the AERMOD model by the BAAQMD. Annual DPM and PM<sub>2.5</sub> concentrations from construction activities during the 2018 - 2019 period were calculated using the model. DPM and PM<sub>2.5</sub> concentrations were calculated at nearby sensitive receptor locations. Receptor heights of 1.5 meters (4.9 feet) were used to represent the breathing heights of residents in first floor levels of nearby residences. The maximum-modeled cancer risk and annual PM<sub>2.5</sub> concentrations, which includes both the DPM and fugitive PM<sub>2.5</sub> concentrations,

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<sup>9</sup> Bay Area Air Quality Management District (BAAQMD), 2012, *Recommended Methods for Screening and Modeling Local Risks and Hazards, Version 3.0*. May.

occurred at a residence the west of the Project site, as shown in Figure 4.3-1. Using the maximum annual modeled DPM concentrations, the maximum increased cancer risks were calculated. **Attachment 3** in the Illingworth & Rodkin *Air Quality and Greenhouse Gas Emissions* (see Appendix C to this DEIR) report includes the emission calculations used for the construction area source modeling and the cancer risk calculations.

### Cancer Risks

Results of this assessment indicate that the maximum excess residential cancer risks would be 4.1 in one million for an infant exposure and 0.1 in one million for an adult exposure. Excess cancer risk at the Bright Horizons daycare would be 2.1 in one million. The maximum excess cancer risk would not be greater than the BAAQMD significance threshold of 10 in one million.

### Predicted Annual PM<sub>2.5</sub> Concentration

The maximum-modeled annual PM<sub>2.5</sub> concentration, which is based on combined exhaust and fugitive dust emissions, was 0.03 µg/m<sup>3</sup>. The maximum annual PM<sub>2.5</sub> concentration at the MEI receptor location would not exceed the BAAQMD significance threshold of 0.3 µg/m<sup>3</sup>.

### Non-Cancer Hazards

The maximum modeled annual residential DPM concentration (i.e., from construction exhaust) was 0.0249 µg/m<sup>3</sup>. The maximum computed HI based on this DPM concentration is 0.01, which is much lower than the BAAQMD significance criterion of a HI greater than 1.0.

## **Impacts**

Construction activities, particularly during site preparation and grading would temporarily generate fugitive dust in the form of respirable particulate matter (PM<sub>10</sub>) and PM<sub>2.5</sub>. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site would deposit mud on local streets, which could be an additional source of airborne dust after it dries. The BAAQMD *CEQA Air Quality Guidelines* consider these impacts to be less than significant if best management practices are employed to reduce these emissions. Therefore, implementation of mitigation measure MM AIR-1 would implement BAAQMD required best management practices and reduce the impact to *less than significant* levels.

**Mitigation: Implementation of MM AIR-1.**



### 4.3.7 Cumulative Air Quality Impacts

**Impact AIR-4:** The Project would contribute to cumulative air quality degradation and to regional air quality cumulative impacts. The incorporation of construction best management practices as Project conditions of approval would result in a less than significant cumulative air quality impact. (*Less than Significant with Mitigation Incorporation*)

#### ***Geographic Context***

All past, present and reasonably foreseeable future development within the air basin contributes to regional emissions of criteria pollutants, thus basin-wide projections of emissions is factored into assessing the cumulative effect. For cumulative sources of TACs, all existing sources within 1,000 feet of sensitive receptors affected by TAC emissions from the proposed Project are considered, in combination with the Project-generated TACs.

#### ***Impacts***

Based on BAAQMD guidance, if a Project would result in an increase in ROG, NO<sub>x</sub>, PM<sub>10</sub>, or PM<sub>2.5</sub> of more than its respective average daily mass thresholds, then it would also be considered to contribute considerably to a significant cumulative impact. Short-term construction activities associated with the Project will result in emissions that will be mitigated to less than significant levels with implementation of mitigation measure MM AIR-1 and long-term operations of the Project would result in emissions that will be less than significant. Therefore, mass emissions that will be associated with the Project will not be cumulatively considerable when combined with cumulative development in the regional air basin. As indicated above, all existing sources within 1,000 feet of sensitive receptors affected by TAC emissions from the proposed Project are considered, in combination with the Project-generated TACs. Cumulative impacts associated with criteria pollutants will be *less than significant* with implementation of mitigation measure MM AIR-1. No further mitigation is required.

**Mitigation:** Implementation of MM AIR-1.

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## 4.4 Greenhouse Gases and Climate Change

This section incorporates the setting information and analyses included in the 2018 Illingworth and Rodkin *Kaiser Medical Office Building Air Quality and Greenhouse Gas Emissions Assessment* conducted for the Project. This section summarizes key Federal, State, and City statutes, regulations, and policies that would apply to the proposed Project. Global climate change resulting from greenhouse gas (GHG) emissions is an emerging environmental concern being raised and discussed at the international, national, and statewide level. At each level, agencies are considering strategies to control emissions of gases that contribute to global climate change. This analysis was conducted following guidance provided by the Bay Area Air Quality Management District (BAAQMD, 2017). This analysis also evaluates the Project consistent with *CEQA Guidelines* §15183.5 and 15064(h)(3), which allow for tiering and streamlining at the project level when a project meets the criteria of the programmatic analysis of GHG emissions (a climate action plan).

### 4.4.1 Setting

Global temperatures are affected by naturally occurring and anthropogenic-generated (generated by humankind) atmospheric gases, such as water vapor, carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and nitrous oxide (N<sub>2</sub>O) (IPCC, 2014). Gases that trap heat in the atmosphere are called GHGs. Solar radiation enters the Earth's atmosphere from space, and a portion of the radiation is absorbed at the surface. The Earth emits this radiation back toward space as infrared radiation. GHGs, which are mostly transparent to incoming solar radiation, are effective in absorbing infrared radiation and redirecting some of this back to the Earth's surface. As a result, this radiation that otherwise would have escaped back into space is now retained, resulting in a warming of the atmosphere. This is known as the greenhouse effect. The greenhouse effect maintains a habitable climate. Emissions of GHGs from human activities, such as electricity production, motor vehicle use, and agriculture are elevating the concentration of GHGs in the atmosphere, and are reported to have led to a trend of unnatural warming of the Earth's natural climate, known as global warming or climate change. Other than water vapor, the GHGs contributing to global warming include the following gases:

- CO<sub>2</sub> (carbon dioxide) is primarily a byproduct of fuel combustion;
- N<sub>2</sub>O (nitrous oxide) is a byproduct of fuel combustion and also associated with agricultural operations such as fertilization of crops;
- CH<sub>4</sub> (methane) is commonly created by off-gassing from agricultural practices (e.g. livestock), wastewater treatment, and landfill operations;
- Chlorofluorocarbons (CFCs) that were widely used as refrigerants, propellants, and cleaning solvents, but their production has been mostly reduced by international treaty;
- Hydrofluorocarbons (HCFCs) are now used as a substitute for CFCs in refrigeration and cooling; and
- Perfluorocarbons and sulfur hexafluoride (SF<sub>6</sub>) emissions are commonly created by industries such as aluminum production and semiconductor manufacturing.

Gases in the atmosphere can contribute to the greenhouse effect both directly and indirectly. Direct effects occur when the gas itself absorbs outgoing radiation. Indirect effects occur when gases cause chemical reactions that produce other GHGs or prolong the existence of other GHGs. The Global Warming Potential (GWP) concept is used to compare the ability of each GHG to trap heat in the atmosphere relative to CO<sub>2</sub>, which is the most abundant GHG. CO<sub>2</sub> has a potential of 1, expressed as CO<sub>2</sub>e. Other GHGs, such as CH<sub>4</sub> and N<sub>2</sub>O are commonly found in the atmosphere but at much lower concentrations. However, the GWP for methane is 21, while N<sub>2</sub>O has a GWP of 310. Other trace gases, such as CFCs and HCFCs, which are halocarbons that contain chlorine, have much greater GWPs. Fortunately, these gases are found at much lower concentrations and many are being phased out as a result of global efforts to reduce destruction of stratospheric ozone. In the United States, CO<sub>2</sub> emissions account for about 83 percent of the CO<sub>2</sub>e emissions, followed by CH<sub>4</sub> at about 10 percent, and N<sub>2</sub>O at about 5 percent (USEPA, 2011).

The IPCC predicts a temperature increase of between 2 and 11.5 degrees Fahrenheit (°F) (1.1 and 6.4 degrees Celsius) by the end of the 21st Century under six different scenarios of emissions and CO<sub>2</sub> equivalent (CO<sub>2</sub>e) concentrations (IPCC, 2007). Sea levels are predicted to rise by 7 to 23 inches (0.18 to 0.59 meters) during this time, with an additional 3.9 to 7.8 inches possible depending upon the rate of polar ice sheet melting from increased warming. The IPCC states that the increase in hurricane and tropical cyclone strength since 1970 can likely be attributed to human-generated GHGs.

## **4.4.2 Regulatory Setting**

Global climate change resulting from GHG emissions is an emerging environmental concern being raised and discussed at the international, national, state, and local level. At each level, agencies are considering strategies to reduce emissions of gases that contribute to global warming.

### **4.4.2.1 Federal**

The U.S. Environmental Protection Agency (USEPA) is the federal agency responsible for implementing the Clean Air Act (CAA). The U.S. Supreme Court ruled on April 2, 2007, that CO<sub>2</sub> is an air pollutant as defined under the CAA, and that USEPA has the authority to regulate emissions of GHGs. In response to the mounting issue of climate change, USEPA has taken actions to regulate, monitor, and potentially reduce GHG emissions. Actions include a national program to reduce GHG emissions and improve fuel economy for all new cars and trucks sold in the United States. However, there are no federal plans, policies, regulations, or laws related to GHGs that are directly applicable to the Project.

The United States participates in the United Nations Framework Convention on Climate Change (UNFCCC). At this time, there are no federal regulations or policies pertaining to GHG emissions from proposed actions like the proposed Project. As part of the commitments to UNFCCC, the US EPA has developed an inventory of anthropogenic emissions by sources and removals by sinks of all greenhouse gases. This inventory is periodically updated with the latest update being April 2016.

The USEPA reports that total U.S. emissions have risen by 7.4 percent from 1990 to 2014 to 6,870 million metric tons of CO<sub>2</sub>e (MMTCO<sub>2</sub>e) per year, while emissions increased by 1.0 percent from 2013 to 2014. In 2014, relatively cool winter conditions led to an increase in fuels for the residential and commercial sectors for heating. Additionally, transportation emissions increased as a result of a small increase in vehicle miles traveled (VMT) and fuel use across on-road transportation modes. There also was an increase in industrial production across multiple sectors resulting in slight increases in industrial sector emissions. Lastly, since 1990, U.S. emissions have increased at an average annual rate of 0.3 percent. (USEPA, 2016).

#### **4.4.2.2 State of California**

The State of California is concerned about GHG emissions and their effect on global climate change. The State recognizes that “there appears to be a close relationship between the concentration of GHGs in the atmosphere and global temperatures” and that “the evidence for climate change is overwhelming.” The effects of climate change on California, in terms of how it would affect the ecosystem and economy, remain uncertain. The State has many areas of concern regarding climate change with respect to global warming. According to the 2006 Climate Action Team Report, the following climate change effects and conditions can be expected in California over the course of the next century:

- A diminishing Sierra snowpack declining by 70 percent to 90 percent, effecting the state’s water supply;
- Increasing temperatures from 8 to 10.4 degrees Fahrenheit (°F) under the higher emission scenarios, leading to a 25 to 35 percent increase in the number of days ozone pollution standards are exceeded in most urban areas;
- Coastal erosion along the length of California and seawater intrusion into the Sacramento River Delta from a 4- to 33-inch rise in sea level. This would exacerbate flooding in already vulnerable regions;
- Increased vulnerability of forests due to pest infestation and increased temperatures;
- Increased challenges for the state’s important agricultural industry from water shortages, increasing temperatures, and saltwater intrusion into the Delta; and
- Increased electricity demand, particularly in the hot summer months.

#### ***Executive Order S-3-05***

In 2005, the Governor of California signed Executive Order S-3-05, which established GHG emission reduction targets to reduce emissions to 2000 levels by 2010, to reduce emissions to 1990 levels by 2020, and to reduce emissions to 80 percent below 1990 levels by 2050. The Secretary of the California Environmental Protection Agency (Secretary) was designated to coordinate oversight of the efforts made to meet the targets with the Business, Transportation and Housing Agency, the Department of Food and Agriculture, the Resources Agency, the Air Resources Board, the Energy Commission, and the Public Utilities Commission. The Secretary reports to the Governor and State Legislature biannually on the impacts to California from global warming, including impacts to water supply, public health, agriculture, the coastline, and forestry. The most

recent report, *Safeguarding California: Reducing Climate Risk* was approved in July 2014 (Natural Resource Agency 2014).

### ***Executive Order B-30-15***

On April 29, 2015, California Governor Jerry Brown announced E.O. B-30-15, which establishes a California GHG reduction target of 40 percent below 1990 levels by 2030. California is on track to meet or exceed the current target of reducing GHG emissions to 1990 levels by 2020, as established in the California Global Warming Solutions Act of 2006 (AB 32). California's new emission reduction target of 40 percent below 1990 levels by 2030 will make it possible to reach the ultimate goal of reducing emissions 80 percent under 1990 levels by 2050. This is in line with the scientifically established levels needed in the U.S. to limit global warming below 2 degrees Celsius - the warming threshold at which scientists say there will likely be major climate disruptions such as super droughts and rising sea levels.

### ***Assembly Bill 32, California Global Warming Solutions Act of 2006***

AB 32, the Global Warming Solutions Act of 2006, codifies the State's GHG emissions target by directing CARB to reduce the State's global warming emissions to 1990 levels by 2020. AB 32 was signed and passed into law by Governor Schwarzenegger on September 27, 2006. Since that time, the CARB, CEC, California Public Utilities Commission (CPUC), and Building Standards Commission have all been developing regulations that will help meet the goals of AB 32 and Executive Order S-3-05. The statute requires the CARB to track emissions through mandatory reporting, determine the 1990 emission levels, set annual emissions limits that will result in meeting the 2020 target, and design and implement regulations and other feasible and cost-effective measures to ensure that statewide GHG emissions will be reduced to 1990 levels by 2020. In December 2007, the ARB approved the 2020 emissions limit at 427 MMT CO<sub>2e</sub>. The Intergovernmental Panel on Climate Change (IPCC), which assesses scientific, technical, and socioeconomic information relevant to the understanding of climate change, has since revised the global warming potential of certain GHGs. Therefore, CARB recalculated the 2020 emissions limit as 431 MMT CO<sub>2e</sub>. Projected business-as-usual emissions for 2020 are 509 MMT CO<sub>2e</sub>. A reduction of 78 MMT CO<sub>2e</sub> is needed to meet the goal (ARB 2014).

### ***Climate Change Scoping Plan***

In December 2008, pursuant to AB 32, the CARB adopted the Climate Change Scoping Plan (Scoping Plan), which outlined measures to attain the 2020 GHG emissions limit. The Scoping Plan estimated that implementation of identified measures would result in a reduction of 105.3 MMT CO<sub>2e</sub> from various sectors including transportation, energy, forestry, and high global warming potential gas sectors (originally reported as 174 MMT CO<sub>2e</sub>, but updated to 105.3 MMT CO<sub>2e</sub> in the Status of Scoping Plan Recommended Measures [CARB 2012]). This is 24 percent more than is needed to meet the 2020 mandate. In May 2014, CARB approved the First Update to the Climate Change Scoping Plan (Updated Scoping Plan) which describes the progress made to meet the near-term (2020) objectives of AB 32 and defines California's climate change priorities

and activities for the next several years (CARB 2014). The Updated Scoping Plan also updated the 2020 emissions limit and business-as-usual emissions for 2020. The 2020 limit is now 431 MMT CO<sub>2</sub>e and the business-as-usual forecast is 509 MMT CO<sub>2</sub>e. Finally, the Updated Scoping Plan provides recommendations for establishing a mid-term emissions limit that aligns with the long-term (2050) goals of Executive Order S-3-05. The recommendations cover the energy, transportation, agriculture, water, waste management, natural and working lands, short-lived climate pollutants, green building, and cap-and-trade sectors. The initial Scoping Plan recommended that local governments achieve a 15-percent reduction below 2005 levels by 2020, which aligns with the State's goal of not exceeding 1990 emissions levels by 2020. However, the Updated Scoping Plan does not contain a recommended reduction level or percent for local government's municipal operations. CARB adopted the updated Scoping Plan in November 2017.

### ***California Building Code, Title 24***

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. Title 24 of the CCR includes requirements for the structural, plumbing, electrical, and mechanical systems of buildings, and for fire and life safety, energy conservation, green design, and accessibility in and about buildings. Two sections of Title 24 – Part 6, the California Energy Code, and Part 11, the California Green Building Standards Code or CalGreen Code – contain standards that address GHG emissions related to construction. The California Green Building Standards Code, or CalGreen, became a mandatory code beginning January 1, 2011. The code takes a holistic approach to green building by including minimum requirements in the areas of planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and environmental quality. The CalGreen code has minimum mandatory standards and two additional tiers of voluntary measures intended to achieve greater levels of efficiency that result in lower levels of GHG emissions. Local governments must enforce the minimum standards and can choose to adopt either Tier 1 or Tier 2 standards to achieve greater positive environmental impacts. The current 2016 Title 24 standards became effective January 1, 2017.

### ***Senate Bill 375, California's Regional Transportation and Land Use Planning Efforts (2008)***

California enacted legislation (SB 375) to expand the efforts of AB 32 by controlling indirect GHG emissions caused by urban sprawl. SB 375 provides incentives for local governments and applicants to implement new conscientiously planned growth patterns. This includes incentives for creating attractive, walkable, and sustainable communities and revitalizing existing communities. The legislation also allows applicants to bypass certain environmental reviews under CEQA if they build projects consistent with the new sustainable community strategies. Development of more alternative transportation options that would reduce vehicle trips and miles traveled, along with traffic congestion, would be encouraged. SB 375 enhances CARB's ability to reach the AB 32 goals by directing the agency in developing regional GHG emission reduction targets to be

achieved from the transportation sector for 2020 and 2035. CARB works with the metropolitan planning organizations (e.g. Association of Bay Area Governments [ABAG] and Metropolitan Transportation Commission [MTC]) to align their regional transportation, housing, and land use plans to reduce vehicle miles traveled and demonstrate the region's ability to attain its GHG reduction targets. Plan Bay Area, adopted in 2013, is the first Bay Area Regional Transportation Plan (RTP) to incorporate the state-mandated Sustainable Communities Strategy (SCS). As a cooperative effort between MTC and ABAG, Plan Bay Area establishes performance targets for meeting the SCS Bay Area goals of a 7 percent per capita reduction in GHG emissions by 2020 and a 15 percent per capita reduction by 2035.

### ***Executive Order S-13-08 (2008)***

This Executive Order directed California agencies to assess and reduce the vulnerability of future development projects to impacts associated with sea-level rise.

### ***Tiering and Streamlining the Analysis of Greenhouse Gas Emissions (CEQA Guidelines Section 15183.5)***

CEQA allows a lead agency to comply with project-level review requirements pursuant to the CEQA *Guidelines Section 15183.5* which specify that project-level review requirements of GHG emissions can “tier off” a programmatic analysis of GHG emissions, provided that the programmatic analysis (climate action plan) includes the following:

- Quantify GHG emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area.
- Establish a level, based on substantial evidence, below which the contribution to GHG emissions from activities covered by the plan would not be cumulatively considerable.
- Identify and analyze the GHG emissions resulting from specific actions or categories of actions anticipated within the geographic area.
- Specify measures or a group of measures, including performance standards that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level.
- Monitor the plan’s progress.
- Adopt the GHG reduction strategy in a public process following environmental review.

### ***SB 350 Renewable Portfolio Standards***

In September 2015, the California Legislature passed SB 350, which increases the states Renewables Portfolio Standard (RPS) for content of electrical generation from the 33 percent target for 2020 to a 50 percent renewables target by 2030.



## **Statewide GHG Emissions Inventory**

The California Greenhouse Gas Emission Inventory – 2017 Edition (released June 6, 2017) indicates that total California emissions in 2015 were 440.4 MMT of CO<sub>2</sub>e<sup>1</sup>. Approximately 37 percent of these emissions were associated with transportation (i.e., all sectors), followed by the Industrial sector at 21 percent and the Electric Power sector at 19 percent. The statewide inventory was estimated to have peaked in 2004. The current 2015 inventory is estimated to represent an overall decrease of 10 percent from 2004 levels.

### **4.4.2.3 Regional and Local**

#### **Bay Area Air Quality Management District (BAAQMD)**

The Bay Area Air Quality Management District (BAAQMD) publishes CEQA Guidelines to assist local jurisdictions and lead agencies in complying with the requirements of CEQA regarding potentially adverse impacts to air quality. These CEQA Guidelines were updated in June 2010 to include new thresholds of significance (2010 Thresholds) adopted by the BAAQMD Governing Board. The BAAQMD's Guidelines were further updated in May 2017 to address the California Supreme Court's 2015 opinion in *California Building Industry Association vs. Bay Area Air Quality Management District*, 62 Cal.4th 369. The 2010 GHG thresholds of significance contain the following operational thresholds:

- Compliance with a Qualified GHG Reduction Strategy; or
- 1,100 metric tons (MT) of CO<sub>2</sub>e per year; or
- 4.6 MT CO<sub>2</sub>e per service population (residents plus employees) per year.

The BAAQMD does not currently have an adopted threshold of significance for construction GHG emissions and currently recommends that lead agencies quantify GHG emissions resulting from new development and apply all feasible mitigation measures to lessen the potentially significant adverse impacts. The BAAQMD Guidelines state that the BAAQMD encourages local governments to adopt a Qualified GHG Reduction Strategy that is consistent with AB 32 goals. If a project is consistent with an adopted Qualified GHG Reduction Strategy that meets the standards laid out below, it can be presumed that the project will not have significant GHG emission impacts. This approach is consistent with the State CEQA Guidelines, Section 15183.5. The standard plan elements of a GHG reduction strategy identified by the BAAQMD should:

- A. Quantify greenhouse gas emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area;
- B. Establish a level, based on substantial evidence, below which the contribution to greenhouse gas emissions from activities covered by the plan would not be cumulatively considerable;

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<sup>1</sup> See [https://www.arb.ca.gov/cc/inventory/pubs/reports/2000\\_2015/ghg\\_inventory\\_trends\\_00-15.pdf](https://www.arb.ca.gov/cc/inventory/pubs/reports/2000_2015/ghg_inventory_trends_00-15.pdf) accessed June 8, 2017

- C. Identify and analyze the greenhouse gas emissions resulting from specific actions or categories of actions anticipated within the geographic area;
- D. Specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level;
- E. Establish a mechanism to monitor the plan's progress toward achieving the level and to require amendment if the plan is not achieving specified levels;
- F. Be adopted in a public process following environmental review

As provided by BAAQMD (BAAQMD 2010, BAAQMD 2017<sup>2</sup>), justification and substantial evidence supporting thresholds are defined further:

“BAAQMD’s approach to developing a Threshold of Significance for GHG emissions is to identify the emissions level for which a project would not be expected to substantially conflict with existing California legislation adopted to reduce statewide GHG emissions needed to move us towards climate stabilization. If a project would generate GHG emissions above the threshold level, it would be considered to contribute substantially to a cumulative impact, and would be considered significant. If mitigation can be applied to lessen the emissions such that the project meets its share of emission reductions needed to address the cumulative impact, the project would normally be considered less than significant.”

#### **4.4.2.4 Local**

##### ***City of San Rafael General Plan***

The Sustainability and Air and Water Quality Elements of the San Rafael *General Plan 2020* contain the following goal, policies, and implementation programs relevant to the GHG impacts of the proposed Project:

##### **SU-1. Land Use.**

Implement General Plan land use policies to increase residential and commercial densities within walking distance of high frequency transit centers and corridors.

##### **SU-2. Promote Alternative Transportation.**

Decrease miles traveled in single-occupant vehicles.

##### **SU-3. Alternative Fuel and Fuel Efficient Vehicles.**

Promote the use of alternative fuel and fuel efficient vehicles.

##### **SU-6. New and Existing Trees.**

Plant new and retain existing trees to maximize energy conservation and carbon sequestration benefits.

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<sup>2</sup> BAAQMD, *California Environmental Quality Act Air Quality Guidelines, May 2017*

**SU-9. Zero Waste.**

Reduce material consumption and waste generation, increase resource re-use and composting of organic waste, and recycle to significantly reduce and ultimately eliminate landfill disposal.

**SU-11. Environmentally Beneficial Economy.**

Support environmentally beneficial businesses and job creation.

**AW-1. State and Federal Standards.**

Continue to comply and strive to exceed state and federal standards for air quality for the benefit of the Bay Area.

**AW-2. Land Use Compatibility.**

To ensure excellent air quality, promote land use compatibility for new development by using buffering techniques such as landscaping, setbacks, and screening in areas where different land uses abut one another.

**AW-3. Air Quality Planning with Other Processes.**

Integrate air quality considerations with the land use and transportation processes by mitigating air quality impacts through land use design measures, such as encouraging project design that will foster walking and biking.

**AW-4. Particulate Matter Pollution Reduction.**

Promote the reduction of particulate matter pollution from roads, parking lots, construction sites, agricultural lands and other activities.

**AW-5. Circulation Alternatives.**

Promote circulation alternatives that reduce air pollution.

***City of San Rafael Climate Change Action Plan (CCAP)***

The City of San Rafael adopted a *Climate Change Action Plan* (CCAP) in 2009 with the intent to comply with state and federal regulations on reducing GHG emissions, such as California's AB 32 and SB 375 legislation. San Rafael's community-wide GHG emissions in 2005 amounted to 524,148 tons of CO<sub>2</sub>e (equivalent carbon dioxide units, including nitrous oxides and methane); of that, 61 percent was associated with transportation, 17 percent from commercial buildings, 17 percent from residential buildings, and 5 percent from waste. A 15% reduction from this level would actually constitute a 30% reduction by 2020, since the community's GHG emissions are projected to continue to grow 21% over that time period if unchecked. Implementation of the programs recommended in the CCAP, together with others already underway, would meet the state's AB32 goal for local government actions by achieving a 15% reduction in San Rafael's GHG emissions. The San Rafael CCAP targets a total reduction of 25% by 2020, to be achieved as actions at other levels of government, technological improvements and local educational efforts continue to spur residents and businesses to reduce their carbon footprints. The City will have to periodically update the Plan to achieve both this 2020 goal and the ambitious 2050 goal.

On July 18, 2011, San Rafael adopted its Greenhouse Gas Emissions Reduction Strategy as Appendix E of the CCAP (Resolution No.13212). Concurrently, a an Addendum to the **General Plan 2020** EIR was prepared and a General Plan Amendment was adopted to include the **General Plan 2020 Sustainability Element** policies. These amendments were adopted in response to SB97 and changes by the BAAQMD in 2010 to update its **CEQA Air Quality Guidelines** for the Bay Area; requiring that projects address new state climate change and GHG reduction requirements (consistent with AB32 goals). The GHG Emissions Reduction Strategy includes the following:

- An updated GHG emissions inventory. The initial inventory prepared for the CCAP using the ICLEI modeling program has been updated using more current methodologies for calculating vehicle miles traveled (VMT) and associated emissions. Methane emissions associated with waste disposal were updated using the California Air Resources Board (CARB) Landfill Emission Tool. Stationary sources of emissions have been included in the inventory update per the BAAQMD guidelines and thresholds. The strategy discloses that community-wide GHG emissions in 2005 were 412,804 metric tons of CO<sub>2</sub> equivalents (MTCO<sub>2</sub>e), with 43% of this amount attributed to transportation. This emission estimate is considered the “baseline” for future reduction goals.
- GHG emission projections through year 2035 (consistent with target date set by Senate Bill 375). The projections rely on ABAG projections of housing, population, and employment growth within the City by 2020 (per Senate Bill 32) and 2035 (per Senate Bill 375), as well as Metropolitan Transportation Commission’s (MTC) county-specific growth estimates of VTM for Marin County. Based on projected growth, annual emission forecasts under “business as usual” conditions (no application of GHG reduction measures) are estimated at 494,824 MTCO<sub>2</sub>e by 2035 (19.87% increase).
- Identification of reduction targets. SB 32 and the adopted CCAP target a 25% reduction in 2005 baseline GHG emissions by 2020. For San Rafael, the annual emission reduction target is 385,282 MTCO<sub>2</sub>e for 2020 and 380,765 MTCO<sub>2</sub>e by 2035.
- Application of reduction measures from CCAP. The strategy quantifies numerous reduction measures from CCAP programs such as: implementing transit-oriented development; participation in Marin Clean Energy; SMART rail service; increased transit service; implementing transportation demand management; promoting alternative and fuel efficient vehicles; promoting zero waste; implementation of Green Building codes; and promoting affordable housing.
- Providing a GHG Emission Reduction Summary. Based on application of the reduction measures and projected growth, estimated annual emissions can be reduced by 56,858 MTCO<sub>2</sub>e by 2020 and 78,382 MTCO<sub>2</sub>e by 2035

The GHG Emissions Reduction Strategy includes revisions to the baseline community-wide GHG inventory to comply with BAAQMD guidance. As part of these revisions, the methodology for calculating VMT and associated emissions on state highways, like US Highway 101 and Interstate 580 which pass through San Rafael, was updated. Methane emissions associated with waste disposal were updated using the California Air Resources Board (CARB) Landfill Emissions Tool to determine the methane emissions that will be released over the next hundred years from the decomposition of waste that was disposed of by San Rafael residents and businesses in 2005.

The 2011 San Rafael CCAP update was integrated into the *General Plan 2020* pursuant to the *General Plan 2020 EIR Addendum - General Plan Amendment No. 2* (Resolution No. 13211), to include the GHG Emission Reduction Strategy to meet the requirements of the BAAQMD criteria for a qualified document as defined by the *CEQA Air Quality Guidelines*.

### 4.4.3 Impacts and Mitigation Measures

#### 4.4.3.1 Significance Criteria

Utilizing criteria from Appendix G of the State CEQA **Guidelines**, the Project will have a significant impact if it would:

- a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or
- b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

#### 4.4.3.2 Approach to Analysis

The Project will result in a significant impact if it conflicts with any applicable City of San Rafael *General Plan 2020* goals, policies, and programs, or City of San Rafael ordinances adopted to increase building energy efficiency or to reduce GHG emissions. One purpose of the City's CCAP (and Qualified GHG Emissions Reduction Strategy) is to streamline the environmental review process regarding a proposed project's impact on GHG emissions within the City. Pursuant to **CEQA Guidelines** Section 15183.5, a project's environmental document may tier off the existing programmatic CCAP to meet CEQA evaluation requirements for GHG emissions at the project level. The City's CCAP was evaluated, pursuant to CEQA, in the *General Plan 2020 EIR Addendum General Plan Amendment No. 2* in 2011. This DEIR analyzes the Project's increment of change over this prior CEQA and the City's established CEQA GHG baseline of analysis. Compliance with the CCAP assures that the *General Plan 2020 Sustainability Element* policies will be addressed, and that a development project will satisfy regional air quality and GHG reduction requirements enforced by the BAAQMD.

In order to meet the City's GHG reduction targets, new construction projects must be determined to be consistent with the GHG Emissions Reduction Strategy. A checklist has been developed to be used in reviewing new development applications to ensure that GHG reduction measures are incorporated into project design and operation. Project compliance with the measures in the checklist would exempt an individual, quantitative study of GHG emissions for an individual development project. Development projects that are unable to meet the standards in the checklist, or projects that propose an amendment to the San Rafael *General Plan 2020* (e.g., a change in land use that results in changes to the projections used in the strategy) would require an individual, quantitative GHG emissions assessment. Here, since the Project conforms to the current *General Plan 2020*, and thus the 2011 CCAP, it is appropriate to qualitatively evaluate the significance of GHG impacts by assessing the Project's consistency with relevant CCAP measures and actions.

#### **4.4.4 Greenhouse Gas Emissions Impacts and Mitigations**

**Impact GHG-1: The Project will not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. (*Less than Significant*).**

GHG emissions associated with development of the proposed Project would occur over the short-term from construction activities, consisting primarily of emissions from equipment exhaust and worker and vendor trips. There would also be long-term operational emissions associated with vehicular traffic within the Project vicinity, energy and water usage, and solid waste disposal. Emissions for the proposed Project are discussed below and were analyzed using the methodology recommended in the BAAQMD *CEQA Air Quality Guidelines*.

##### ***Consistency with Adopted CCAP***

As discussed in the CCAP discussion above, projects that show consistency with CCAP forecasts and implement applicable strategies included in a CCAP are considered to have less than significant GHG emissions. The 2011 CCAP update included the Qualified GHG Emissions Reduction Strategy, which was integrated into the *General Plan 2020*. The Project is consistent with the *General Plan 2020* and therefore, would be consistent with the applicable CCAP measures if it meets the standards included in the Qualified GHG Emissions Reduction Strategy. As shown in **Table 4.4-1**, the Project is consistent with the standards, and as result, the Project GHG emissions would be *less than significant*.

**Table 4.4-1. Climate Change Action Plan Consistency**

Measure	Action Item/Project Standard	Consistency
LF1	Continue to encourage greater residential and commercial densities within walking distance of high frequency transit centers and corridors as called for in the General Plan. High frequency is defined as buses arriving at least every 15 minutes.	Consistent - the Project is located within ¼ mile of the Highway 101 at Lucas Valley Road bus stop
LF8	Encourage ownership of plug-in electric vehicles, as they become available and in use, by providing charging stations in City garages and parking lots, consider requirements for charging stations in newly constructed private parking facilities, and participate in regional efforts to encourage widespread availability of charging stations.	Consistent – the Project would comply with CalGreen minimum requirements, with a goal to exceed the minimum
LF10	Educate and encourage businesses and residents to limit vehicle idling	Consistent – the Project would install signs limiting truck delivery idling to 10 minutes
LF11	Adopt a Zero Waste Goal and develop a Zero Waste Strategic Plan for San Rafael	Consistent – Kaiser Permanente’s goal is to recycle, reuse, or compost 100% of its non-hazardous waste by 2025
LF15	Adopt a construction debris recycling and reuse ordinance	Consistent – the Project would divert at least 50 percent of construction and demolition waste
BU4	Apply green building requirements to residential, commercial and civic remodeling projects as well as new construction	Consistent – the Project would meet all City green building requirements
EN3	Update zoning regulations for parking lot landscaping to increase shading and reduce thermal gain	Consistent – the Project would meet all City parking lot shading requirements

Source Illingworth & Rodkin 2018

**Mitigation:** None Required.

## 4.4.5 Applicable Plan or Policy Impacts and Mitigations

**Impact GHG-2:** The Project will not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. (*Less than Significant*).

AB 32, the Global Warming Solutions Act of 2006, codifies the State of California’s GHG emissions target by directing CARB to reduce the state’s global warming emissions to 1990 levels by 2020. AB 32 was signed and passed into law by Governor Schwarzenegger on September 27, 2006. Since that time, CARB, CEC, the CPUC, and the Building Standards Commission have all been developing regulations that will help meet the goals of AB 32 and Executive Order S-3-05.

A Scoping Plan for AB 32 was adopted by CARB in December 2008. It contains the State of California’s main strategies to reduce GHGs from business-as-usual (BAU) emissions to 1990

levels. BAU is the projected emissions in 2020, including increases in emissions caused by growth, without any GHG reduction measures. The Scoping Plan has a range of GHG reduction actions, including direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, and market-based mechanisms such as a cap-and-trade system. It required CARB and other state agencies to develop and adopt regulations and other initiatives reducing GHGs by 2012.

As directed by AB 32, CARB has also approved a statewide GHG emissions limit. On December 6, 2007, CARB staff resolved an amount of 427 MMT of CO<sub>2</sub>e as the total statewide GHG 1990 emissions level and 2020 emissions limit. The limit is a cumulative statewide limit, not a sector- or facility-specific limit. CARB updated the future 2020 BAU annual emissions forecast, in light of the economic downturn, to 545 MMT of CO<sub>2</sub>e. Two GHG emissions reduction measures currently enacted that were not previously included in the 2008 Scoping Plan baseline inventory were included, further reducing the baseline inventory to 507 MMT of CO<sub>2</sub>e. Thus, an estimated reduction of 80 MMT of CO<sub>2</sub>e is necessary to reduce statewide emissions to meet the AB 32 target by 2020.

SB 32 was passed in 2016, which codified a 2030 GHG emissions reduction target of 40 percent below 1990 levels. CARB recently published a second update to the Scoping Plan to reflect the 2030 target set by Executive Order B-30-15 and codified by SB 32. The second Scoping Plan Update was published in November 2017 as directed by SB 32 companion legislation AB 197. The mid-term 2030 target is considered critical by CARB on the path to obtaining an even deeper GHG emissions target of 80 percent below 1990 levels by 2050, as directed in Executive Order S-3-05. The Scoping Plan outlines the suite of policy measures, regulations, planning efforts, and investments in clean technologies and infrastructure, providing a blueprint to continue driving down GHG emissions and obtain the statewide goals.

The proposed Project would not conflict or otherwise interfere with the statewide GHG reduction measures identified in CARB's Scoping Plan. The Project would comply with requirements of the Green Building Code and the CCAP. For example, the parking structure and tenant improvements of the medical office building will be constructed in conformance with CALGreen and the Title 24 Building Code. Therefore, the impact is considered *less than significant*, and no mitigation is required.

**Mitigation:** None Required.



## 4.4.6 Cumulative GHG Impacts

**Impact GHG-3:** The Project would not result in a cumulatively considerable contribution to a significant cumulative impact related to greenhouse gas emissions. (*Less than Significant*)

Greenhouse gas impacts are cumulative in nature. The Project's cumulative contribution to GHG impacts is addressed in Impact GHG-1. As identified in Impact GHG-1, the Project would not exceed the BAAQMD's recommended threshold of significance for GHG emissions and is consistent with the adopted City of San Rafael CCAP, which serves as a Qualified Greenhouse Gas Reduction Strategy. No further analysis is required, and no mitigation is required.

**Mitigation:** None Required.

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## 4.5 Noise

This section incorporates the setting information and analyses included in the *Kaiser Medical Office Building Project Noise and Vibration Assessment* (Illingworth and Rodkin, Inc., 2018) conducted for the Project. The setting section presents the fundamentals of environmental noise, provides a discussion of policies and standards applicable to the Project, and presents the results of ambient noise measurements made at the site to document baseline noise conditions at adjacent noise-sensitive residential receivers in the site vicinity. The impacts and mitigation measures section of the Project summarizes future noise levels resulting from the construction and operation of the project and provides an evaluation of potential significance of Project impacts. Where appropriate, mitigation measures are recommended to reduce noise impacts resulting from the Project to a less than significant level.

### 4.5.1 Setting

#### 4.5.1.1 Fundamentals of Environmental Noise

Noise may be defined as unwanted sound. Noise is usually objectionable because it is disturbing or annoying. The objectionable nature of sound could be caused by its *pitch* or its *loudness*. *Pitch* is the height or depth of a tone or sound, depending on the relative rapidity (*frequency*) of the vibrations by which it is produced. Higher pitched signals sound louder to humans than sounds with a lower pitch. *Loudness* is intensity of sound waves combined with the reception characteristics of the ear. Intensity may be compared with the height of an ocean wave in that it is a measure of the amplitude of the sound wave.

In addition to the concepts of pitch and loudness, there are several noise measurement scales which are used to describe noise in a particular location. A *decibel (dB)* is a unit of measurement which indicates the relative amplitude of a sound. The zero on the decibel scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Sound levels in decibels are calculated on a logarithmic basis. An increase of 10 decibels represents a ten-fold increase in acoustic energy, while 20 decibels is 100 times more intense, 30 decibels is 1,000 times more intense, etc. There is a relationship between the subjective noisiness or loudness of a sound and its intensity. Each 10 decibel increase in sound level is perceived as approximately a doubling of loudness over a fairly wide range of intensities. Technical terms are defined in **Table 4.5-1**.

There are several methods of characterizing sound. The most common in California is the *A-weighted sound level (dBA)*. This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Representative outdoor and indoor noise levels in units of dBA are shown in **Table 4.5-2**. Because sound levels can vary markedly over a short period of time, a method for describing either the average character of the sound or the statistical behavior of the variations must be utilized. Most commonly, environmental sounds are described in terms of an average level that has the same acoustical energy as the summation of all the time-varying events.

**TABLE 4.5-1: Definition of Acoustical Terms**

<b>Term</b>	<b>Definition</b>
Decibel, dB	A unit describing, the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure. The reference pressure for air is 20 micro Pascals.
Sound Pressure Level	Sound pressure is the sound force per unit area, usually expressed in micro Pascals (or 20 micro Newtons per square meter), where 1 Pascal is the pressure resulting from a force of 1 Newton exerted over an area of 1 square meter. The sound pressure level is expressed in decibels as 20 times the logarithm to the base 10 of the ratio between the pressures exerted by the sound to a reference sound pressure (e. g., 20 micro Pascals). Sound pressure level is the quantity that is directly measured by a sound level meter.
Frequency, Hz	The number of complete pressure fluctuations per second above and below atmospheric pressure. Normal human hearing is between 20 Hz and 20,000 Hz. Infrasonic sound are below 20 Hz and Ultrasonic sounds are above 20,000 Hz.
A-Weighted Sound Level, dBA	The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.
Equivalent Noise Level, $L_{eq}$	The average A-weighted noise level during the measurement period.
$L_{max}$ , $L_{min}$	The maximum and minimum A-weighted noise level during the measurement period.
$L_{01}$ , $L_{10}$ , $L_{50}$ , $L_{90}$	The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% of the time during the measurement period.
Day/Night Noise Level, $L_{dn}$ or DNL	The average A-weighted noise level during a 24-hour day, obtained after addition of 10 decibels to levels measured in the night between 10:00 pm and 7:00 am.
Community Noise Equivalent Level, CNEL	The average A-weighted noise level during a 24-hour day, obtained after addition of 5 decibels in the evening from 7:00 pm to 10:00 pm and after addition of 10 decibels to sound levels measured in the night between 10:00 pm and 7:00 am.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Intrusive	That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level.

Source: Handbook of Acoustical Measurements and Noise Control, Harris, 1998.; Illingworth & Rodkin 2018

**TABLE 4.5-2 Typical Noise Levels in the Environment**

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
Jet fly-over at 1,000 feet	110 dBA	Rock band
Gas lawn mower at 3 feet	100 dBA	
Diesel truck at 50 feet at 50 mph	90 dBA	Food blender at 3 feet
Noisy urban area, daytime	80 dBA	Garbage disposal at 3 feet
Gas lawn mower, 100 feet	70 dBA	Vacuum cleaner at 10 feet
Commercial area	60 dBA	Normal speech at 3 feet
Heavy traffic at 300 feet	50 dBA	Large business office
Quiet urban daytime	40 dBA	Dishwasher in next room
Quiet urban nighttime	30 dBA	Theater, large conference room
Quiet suburban nighttime	20 dBA	Library
Quiet rural nighttime	10 dBA	Bedroom at night, concert hall (background)
	0 dBA	Broadcast/recording studio

Source: Technical Noise Supplement (TeNS), California Department of Transportation, September 2013; Illingworth & Rodkin 2018

This *energy-equivalent sound/noise descriptor* is called  $L_{eq}$ . The most common averaging period is hourly, but  $L_{eq}$  can describe any series of noise events of arbitrary duration. The scientific instrument used to measure noise is the sound level meter. Sound level meters can accurately

measure environmental noise levels to within about plus or minus 1 dBA. Various computer models are used to predict environmental noise levels from sources, such as roadways and airports. The accuracy of the predicted models depends upon the distance the receptor is from the noise source. Close to the noise source, the models are accurate to within about plus or minus 1 to 2 dBA.

Since the sensitivity to noise increases during the evening and at night -- because excessive noise interferes with the ability to sleep -- 24-hour descriptors have been developed that incorporate artificial noise penalties added to quiet-time noise events. The *Community Noise Equivalent Level (CNEL)* is a measure of the cumulative noise exposure in a community, with a 5-dB penalty added to evening (7:00 pm - 10:00 pm) and a 10-dB addition to nocturnal (10:00 pm - 7:00 am) noise levels. The *Day/Night Average Sound Level (DNL or  $L_{dn}$ )* is essentially the same as CNEL, with the exception that the evening time period is dropped and all occurrences during this three-hour period are grouped into the daytime period.

### **4.5.1.2 Effects of Noise**

#### ***Sleep and Speech Interference***

The thresholds for speech interference indoors are about 45 dBA if the noise is steady and above 55 dBA if the noise is fluctuating. Outdoors the thresholds are about 15 dBA higher. Steady noises of sufficient intensity (above 35 dBA) and fluctuating noise levels above about 45 dBA have been shown to affect sleep. Interior residential standards for multi-family dwellings are set by the State of California at 45 dBA CNEL. Typically, the highest steady traffic noise level during the daytime is about equal to the CNEL and nighttime levels are 10 dBA lower. The standard is designed for sleep and speech protection and most jurisdictions apply the same criterion for all residential uses. Typical structural attenuation is 12-17 dBA with open windows. With closed windows in good condition, the noise attenuation factor is around 20 dBA for an older structure and 25 dBA for a newer dwelling. Sleep and speech interference is therefore possible when exterior noise levels are about 57-62 dBA CNEL with open windows and 65-70 dBA CNEL if the windows are closed. Levels of 55-60 dBA are common along collector streets and secondary arterials, while 65-70 dBA is a typical value for a primary/major arterial. Levels of 75-80 dBA are normal noise levels at the first row of development outside a freeway right-of-way. In order to achieve an acceptable interior noise environment, bedrooms facing secondary roadways need to be able to have their windows closed; those facing major roadways and freeways typically need special glass windows.

#### ***Annoyance***

Attitude surveys are used for measuring the annoyance felt in a community for noises intruding into homes or affecting outdoor activity areas. In these surveys, it was determined that the causes for annoyance include interference with speech, radio and television, house vibrations, and interference with sleep and rest. The CNEL as a measure of noise has been found to provide a valid correlation of noise level and the percentage of people annoyed. People have been asked to judge the annoyance caused by aircraft noise and ground transportation noise. There continues to be disagreement about the relative annoyance of these different sources. When measuring the

percentage of the population highly annoyed, the threshold for ground vehicle noise is about 50 dBA CNEL. At a CNEL of about 60 dBA, approximately 12 percent of the population is highly annoyed. When the CNEL increases to 70 dBA, the percentage of the population highly annoyed increases to about 25-30 percent of the population. There is, therefore, an increase of about 2 percent per dBA between a CNEL of 60-70 dBA. Between a CNEL of 70-80 dBA, each decibel increment increases by about 3 percent the percentage of the population highly annoyed. People appear to respond more adversely to aircraft noise. When the CNEL is 60 dBA, approximately 30-35 percent of the population is believed to be highly annoyed. Each decibel increase to 70 dBA adds about 3 percentage points to the number of people highly annoyed. Above 70 dBA, each decibel increase results in about a 4 percent increase in the percentage of the population highly annoyed.

### ***Fundamentals of Groundborne Vibration***

Ground vibration consists of rapidly fluctuating motions or waves with an average motion of zero. Several different methods are typically used to quantify vibration amplitude. One method is the Peak Particle Velocity (PPV). The PPV is defined as the maximum instantaneous positive or negative peak of the vibration wave. In this report, a PPV descriptor with units of mm/sec or in/sec is used to evaluate construction generated vibration for building damage and human complaints. **Table 4.5-3** displays the reactions of people and the effects on buildings that continuous vibration levels produce.

The annoyance levels shown in **Table 4.5-3** should be interpreted with care since vibration may be found to be annoying at much lower levels than those shown, depending on the level of activity or the sensitivity of the individual. To sensitive individuals, vibrations approaching the threshold of perception can be annoying. Low-level vibrations frequently cause irritating secondary vibration, such as a slight rattling of windows, doors, or stacked dishes. The rattling sound can give rise to exaggerated vibration complaints, even though there is very little risk of actual structural damage.

Construction activities can cause vibration that varies in intensity depending on several factors. The use of pile driving, and vibratory compaction equipment, typically generates the highest construction related groundborne vibration levels. Because of the impulsive nature of such activities, the use of the PPV descriptor has been routinely used to measure and assess groundborne vibration and almost exclusively to assess the potential of vibration to induce structural damage and the degree of annoyance for humans.

**TABLE 4.5-3: Reaction of People and Damage to Buildings from Continuous or Frequent Intermittent Vibration Levels**

<b>Velocity Level, PPV (in/sec)</b>	<b>Human Reaction</b>	<b>Effect on Buildings</b>
0.01	Barely perceptible	No effect
0.04	Distinctly perceptible	Vibration unlikely to cause damage of any type to any structure

0.08	Distinctly perceptible to strongly perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
0.1	Strongly perceptible	Virtually no risk of damage to normal buildings
0.3	Strongly perceptible to severe	Threshold at which there is a risk of damage to older residential dwellings such as plastered walls or ceilings
0.5	Severe - Vibrations considered unpleasant	Threshold at which there is a risk of damage to newer residential structures

Source: Transportation and Construction Vibration Guidance Manual, California Department of Transportation, September 2013; Illingworth & Rodkin 2018

The two primary concerns with construction-induced vibration, the potential to damage a structure and the potential to interfere with the enjoyment of life, are evaluated against different vibration limits. Studies have shown that the threshold of perception for average persons is in the range of 0.008 to 0.012 in/sec PPV. Human perception to vibration varies with the individual and is a function of physical setting and the type of vibration. Persons exposed to elevated ambient vibration levels, such as people in an urban environment, may tolerate a higher vibration level.

Structural damage can be classified as cosmetic only, such as minor cracking of building elements, or may threaten the integrity of the building. Safe vibration limits that can be applied to assess the potential for damaging a structure vary by researcher and there is no general consensus as to what amount of vibration may pose a threat for structural damage to the building. Construction-induced vibration that can be detrimental to the building is very rare and has only been observed in instances where the structure is at a high state of disrepair and the construction activity occurs immediately adjacent to the structure.

## 4.5.2 Existing Noise Environment

The Project site is located south of Lucas Valley Road between U.S. Highway 101 and Los Gamos Drive, in the City of San Rafael. The Project site is currently developed with a three-story office building that would be converted into medical offices uses as part of the proposed Project. Adjacent to the site along the southern boundary is an existing office building. Opposite Los Gamos Drive, a surface parking lot would be converted to a three-level, with upper ramp, parking structure. Implementation of traffic mitigation measures identified in Chapter 4.6: *Traffic and Circulation* would result in upgrades to the existing Lucas Valley Road / Los Gamos Drive intersection. West of the surface parking lot, at a higher elevation, are existing single-family residences of the Mont Marin San Rafael Park neighborhood.

A noise monitoring survey was performed at the Project site beginning on Wednesday, March 8, 2017 and concluding on Friday, March 10, 2017. The monitoring survey included two long-term



and four short-term noise measurements, as shown in **Figure 4.5-1**. The noise environment at the site and in the Project vicinity is dominated by traffic noise along U.S. Highway 101. The surrounding local roadways (Lucas Valley Road and Los Gamos Drive) would also affect the noise environment, as would aircraft flyovers associated with the San Rafael Airport.

Long-term noise measurement LT-1 was made from the Project site's existing parking lot. LT-1 had direct line-of-sight to U.S. Highway 101, with a setback from the centerline of the nearest through travel lane of approximately 295 feet. LT-1 represented the existing noise environment at the Project site. Hourly average noise levels at this location typically ranged from 59 to 67 dBA  $L_{eq}$  during the day and from 54 to 66 dBA  $L_{eq}$  at night. The day-night average noise level measured on Thursday, March 9, 2017 was 68 dBA  $L_{dn}$ . The daily trend in noise levels measured at LT-1 is shown in **Figures 4.5-2** through **4.5-4**.

Long-term noise measurement LT-2 was made across the roadway from 59 Salvador Way in a tree. LT-2 was approximately 20 feet from the centerline of Salvador Way. LT-2 represented the existing noise environment of the nearest residential land uses surrounding the Project site. Hourly average noise levels at this location typically ranged from 43 to 54 dBA  $L_{eq}$  during the day and from 35 to 49 dBA  $L_{eq}$  at night. The day-night average noise level measured on Thursday, March 9, 2017 was 56 dBA  $L_{dn}$ . The daily trend in noise levels measured at LT-2 is shown in **Figures 4.5-5** through **4.5-7**.

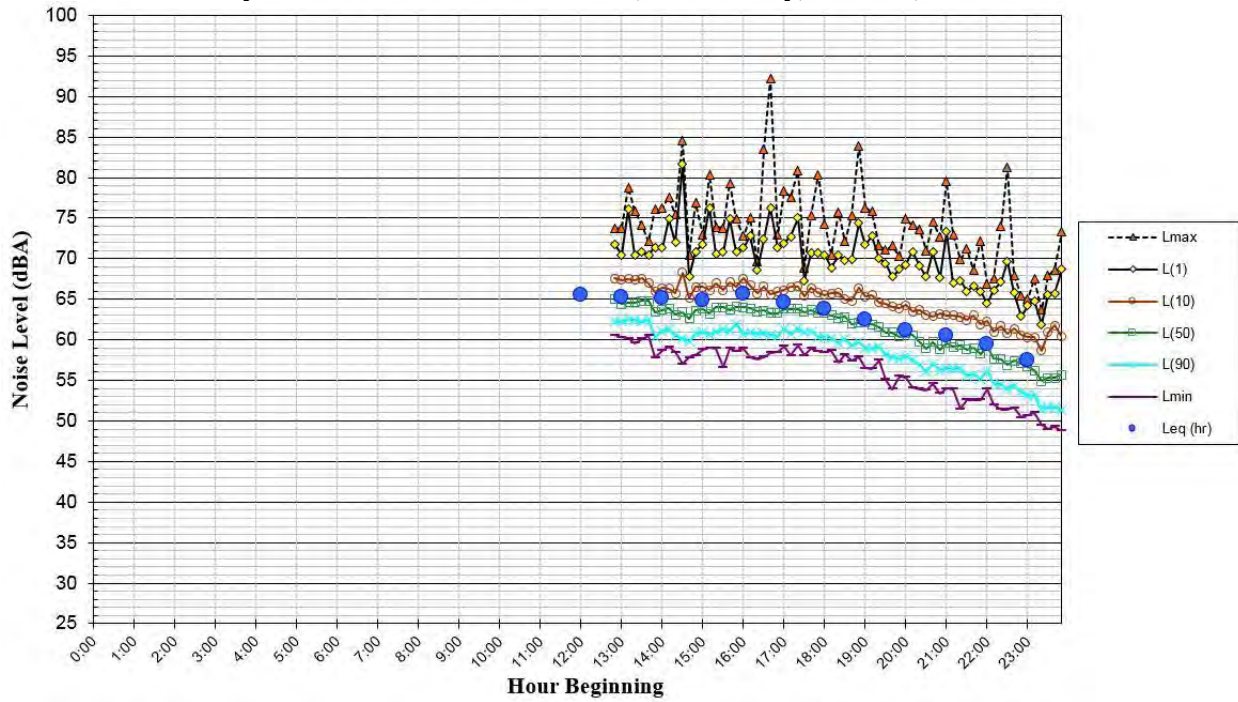
Short-term measurements were made on Friday March 10, 2017 in ten-minute intervals between 11:30 a.m. and 12:40 p.m. ST-1 was made approximately 30 feet from the northeast corner of the existing office building and approximately 50 feet from the chilling unit. Noise from the chilling unit is audible when traffic along U.S. Highway 101 slows down, with levels of about 49 dBA at 50 feet. The ten-minute average noise level measured at ST-1 was 59 dBA  $L_{eq(10)}$ , and the estimated day-night average noise level was 61 dBA  $L_{dn}$ . ST-2 was made approximately 30 feet from the northwest corner of the existing office building. The ten-minute average noise level measured at ST-2 was 55 dBA  $L_{eq(10)}$ , and the estimated day-night average noise level was 58 dBA  $L_{dn}$ . ST-3 was made at the front of the existing office building, approximately 40 feet from the centerline of Los Gamos Drive. Noise levels from ST-3 were affected by vehicle pass-bys along Los Gamos Drive, which typically reached levels of 60 to 65 dBA. The ten-minute average noise level measured at ST-3 was 58 dBA  $L_{eq(10)}$ , and the estimated day-night average noise level was 61 dBA  $L_{dn}$ . ST-4 was made in front of 40 Salvador Way. ST-4 was approximately 20 feet from the centerline of Salvador Way. The ten-minute average noise level measured at ST-4 was 42 dBA  $L_{eq(10)}$ , and the estimated day-night average noise level was 52 dBA  $L_{dn}$ . **Table 4.5-4** summarizes the results of the short-term noise measurements.



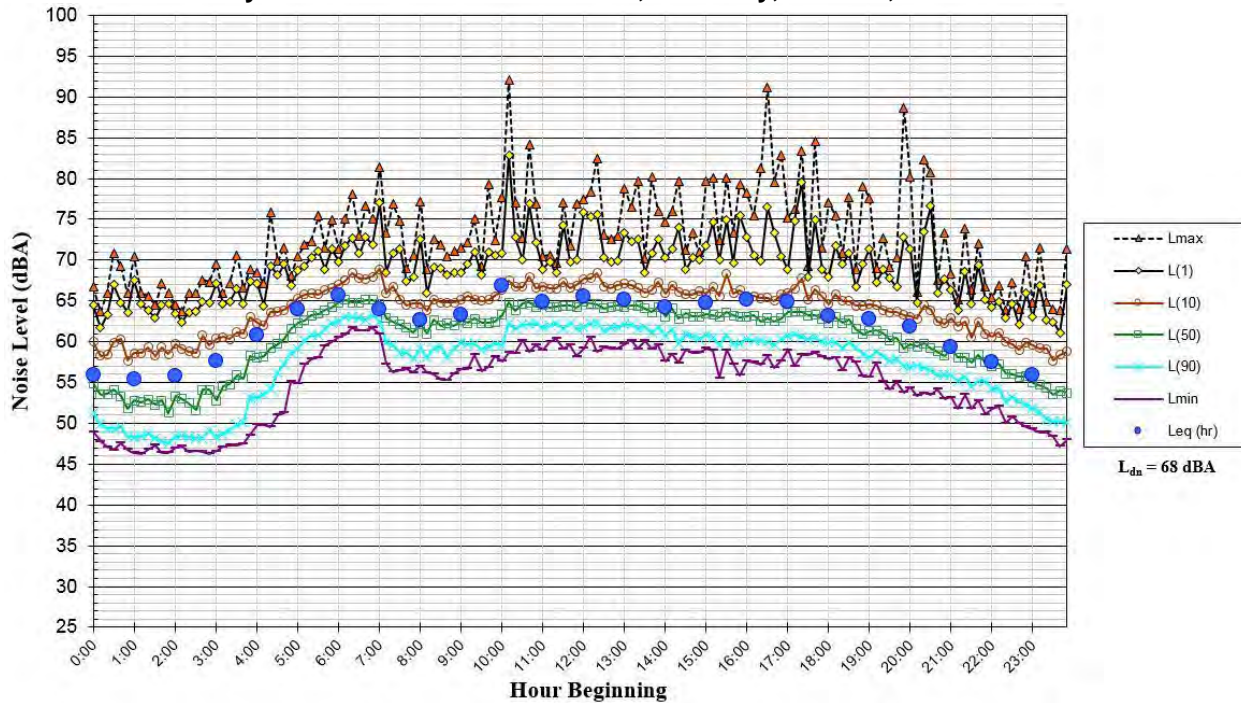
Source: Google Earth, 2016., Illingworth & Rodkin, 2018

**FIGURE 4.5-1: Noise Measurement Locations**

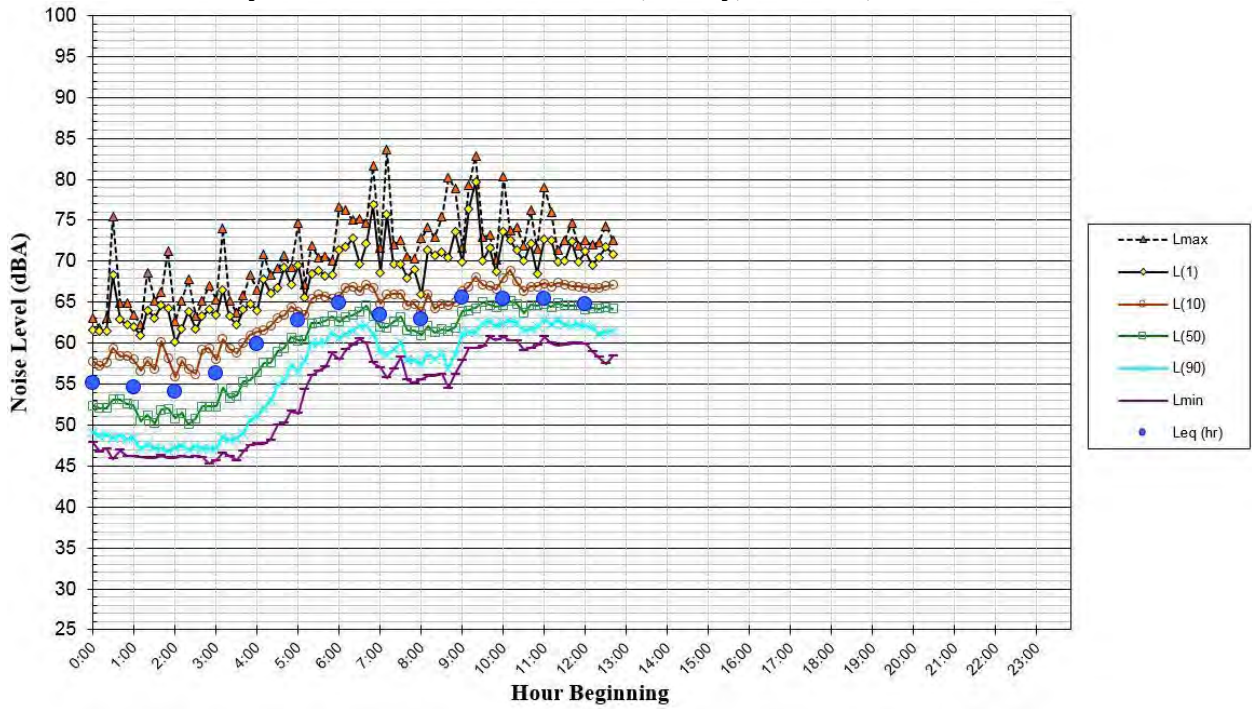
**FIGURE 4.5-2: Daily Trend in Noise Levels at LT-1, Wednesday, March 8, 2017**



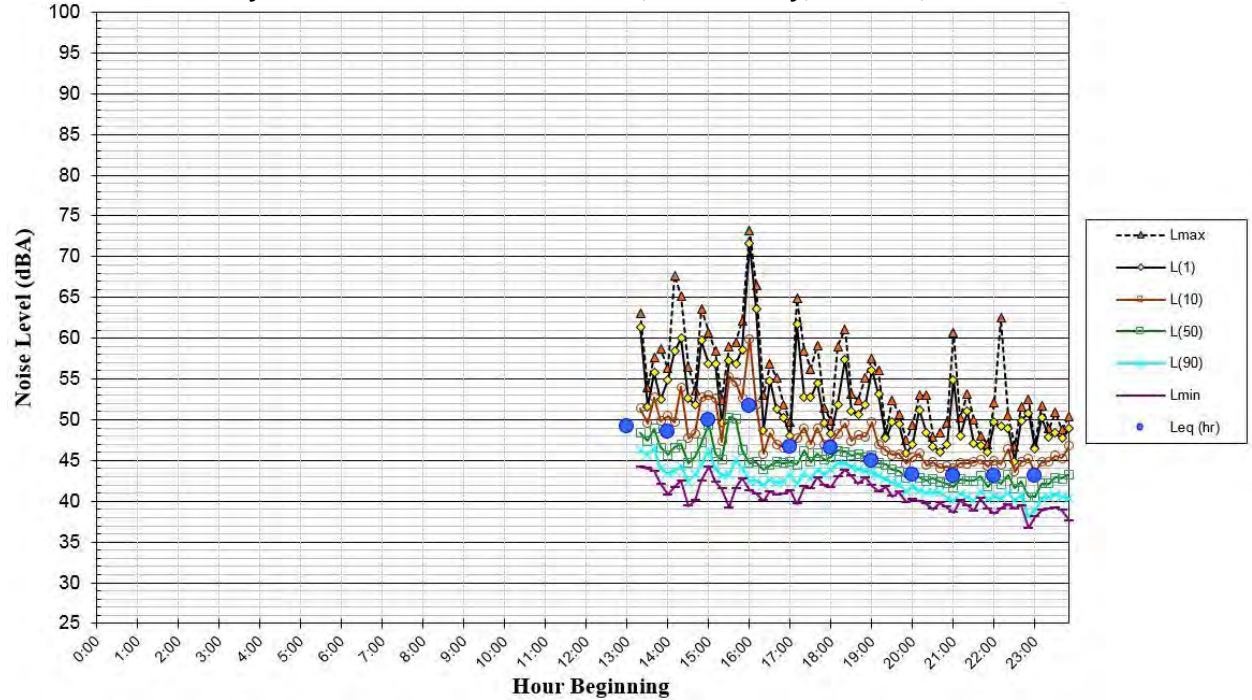
**FIGURE 4.5-3 Daily Trend in Noise Levels at LT-1, Thursday, March 9, 2017**



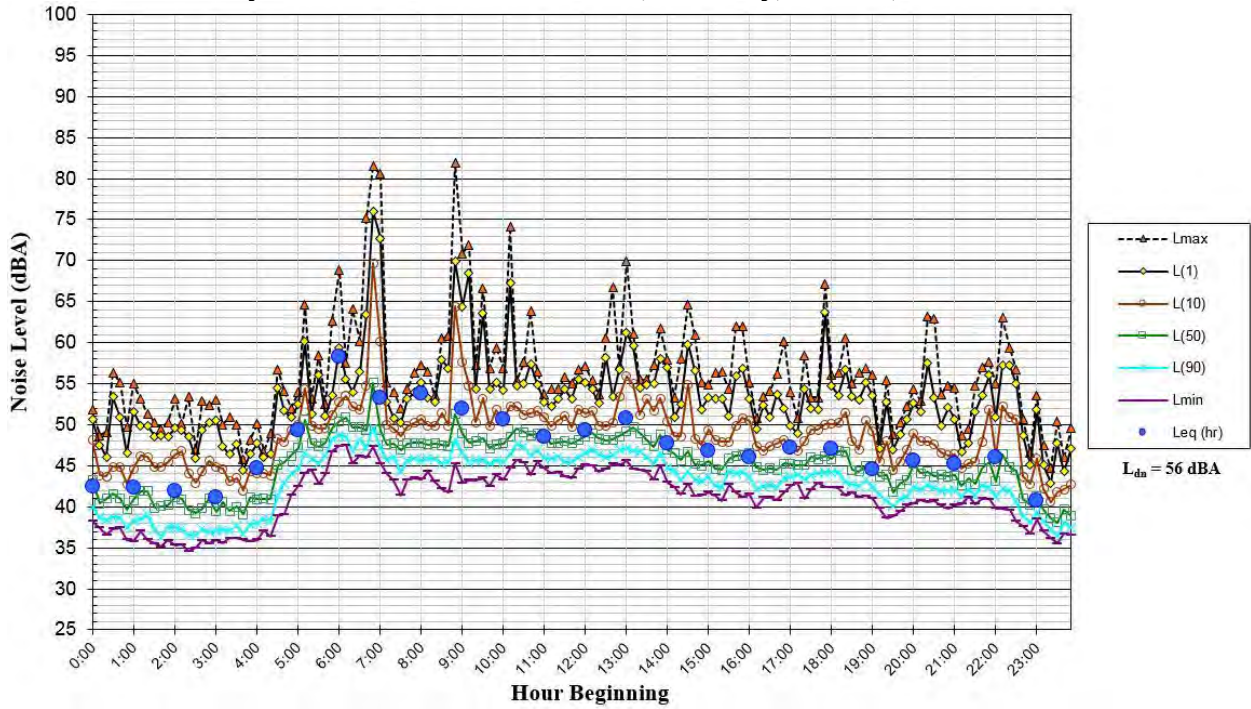
**FIGURE 4.5-4: Daily Trend in Noise Levels at LT-1, Friday, March 10, 2017**



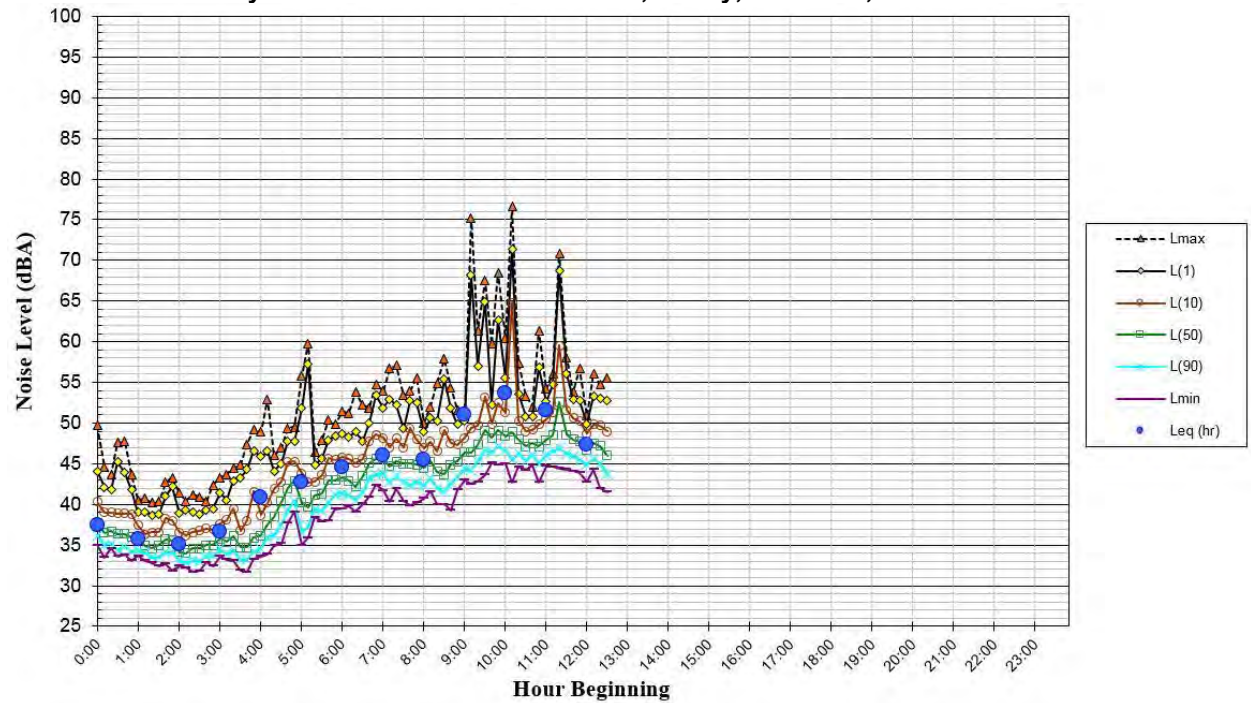
**FIGURE 4.5-5: Daily Trend in Noise Levels at LT-2, Wednesday, March 8, 2017**



**FIGURE 4.5-6: Daily Trend in Noise Levels at LT-2, Thursday, March 9, 2017**



**FIGURE 4.5-7 Daily Trend in Noise Levels at LT-2, Friday, March 10, 2017**



**TABLE 4.5-4 Summary of Short-Term Noise Measurement Data**

Noise Measurement Location	Date, Time	L <sub>max</sub>	L <sub>(1)</sub>	L <sub>(10)</sub>	L <sub>(50)</sub>	L <sub>(90)</sub>	L <sub>eq(10)</sub>	L <sub>dn</sub> <sup>a</sup>
ST-1: Near northeast corner of existing office building	3/10/2017, 11:30-11:40	70	65	60	58	56	59	61
ST-2: Near northwest corner of existing office building	3/10/2017, 11:50-12:00	62	59	57	55	53	55	58
ST-3: ~40 feet east of Los Gamos Drive	3/10/2017, 12:10-12:20	67	66	63	56	49	58	61
ST-4: Front of 40 Salvador Way	3/10/2017, 12:30-12:40	60	56	43	41	40	42	52

<sup>a</sup> L<sub>dn</sub> was approximated by correlating to corresponding period at long-term site  
Source: Illingworth & Rodkin 2018

## 4.5.3 Regulatory Background

### 4.5.3.1 State

The State of California and the City of San Rafael have established regulatory criteria that are applicable in this assessment. The State CEQA Guidelines, Appendix G, are used to assess the potential significance of impacts pursuant to local General Plan policies, Municipal Code standards, or the applicable standards of other agencies. A summary of the applicable regulatory criteria is provided below.

#### *CEQA Guidelines.*

CEQA contains guidelines to evaluate the significance of effects of environmental noise attributable to a proposed project. Under CEQA, noise impacts would be considered significant if the project would result in:

- (a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- (b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels;
- (c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;
- (d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;

- (e) For a project located within an airport land use plan or where such a plan has not been adopted within two miles of a public airport or public use airport, if the project would expose people residing or working in the project area to excessive noise levels;
- (f) For a project within the vicinity of a private airstrip, if the project would expose people residing or working in the project area to excessive noise levels.

Pursuant to recent court decisions, the impacts of site constraints such as exposure of the proposed Project to excessive levels of noise and vibration are not included in the Impacts and Mitigation Section of this report. Checklist item (a), regarding the compatibility of the project with noise levels at the site, is discussed in the General Plan Consistency section of the report. Checklist items (a) through (d) are applicable in the assessment of potential impacts resulting from the proposed Project at off-site receptors.

CEQA does not define what noise level increase would be considered substantial. Typically, an increase in the  $L_{dn}$  noise level resulting from the Project at noise sensitive land uses of 3 dBA or greater would be considered a significant impact when projected noise levels would exceed those considered acceptable for the affected land use. An increase of 5 dBA  $L_{dn}$  or greater would be considered a significant impact when projected noise levels would remain within those considered acceptable for the affected land use.

### 4.5.3.2 Local

**City of San Rafael *General Plan 2020*.** The Noise Element of San Rafael's *General Plan 2020* is intended to reduce noise impacts and improve the quality of life of the residents. To accomplish this intent, the Noise Element contains goals and policies (references to exhibits in the following section pertain to the numbering organization contained in the *General Plan 2020*). The goals and policies that apply to the proposed Project are as follows:

**Goal 29: It is the goal of San Rafael to have acceptable noise levels.** Excessive noise is a concern for many residents of San Rafael. These concerns can be managed with proper mitigation or through the implementation of the noise ordinance. The City of San Rafael recognizes the issue of noise and has standards to protect people from excessive, unnecessary and unreasonable noises from any and all sources in the community.

#### **N-1. Noise Impacts on New Development.**

Protect people in new development from excessive noise by applying noise standards in land use decisions. Apply the Land Use Compatibility Standards (see Exhibit 31) to the siting of new uses in existing noise environments. These standards identify the acceptability of a project based on noise exposure. If a project exceeds the standards in Exhibit 31, an acoustical analysis shall be required to identify noise impacts and potential noise mitigations. Mitigation should include the research and use of state-of-the-art abating materials and technology.

**N-1a. Acoustical Studies.** Require acoustical studies for all new residential projects within the projected  $L_{dn}$  60 dB noise contours (see Exhibit 31) so that noise mitigation measures can be incorporated into project design. Acoustical studies shall identify noise sources and contain a discussion of the existing and future noise exposure and the mitigation measures that may be used to achieve the appropriate outdoor and indoor noise standards.

### **N-3. Planning and Design of New Development.**

Encourage new development to be planned and designed to minimize noise impacts from outside noise sources.

**N-3a. Noise Mitigation.** Require, where appropriate, the following mitigation measures to minimize noise impacts on proposed development projects:

1. **Site planning.** Proper site planning is the first mitigation measure that should be investigated to reduce noise impacts. By taking advantage of the natural shape and terrain of the site, it often is possible to arrange the buildings and other uses in a manner that will reduce and possibly eliminate noise impacts. Specific site planning techniques include:
  - a. Increasing the distance between the noise source and the receiver;
  - b. Placing non-noise sensitive land uses such as parking lots, maintenance facilities, and utility areas between the source and the receiver;
  - c. Using non-noise sensitive structures such as garages to shield noise-sensitive areas; and
  - d. Orienting buildings to shield outdoor spaces from a noise source.
2. **Architectural layout of buildings.** In many cases, noise reduction can be attained by careful layout of noise-sensitive spaces. Bedrooms, for example, should be placed away from freeways. Quiet outdoor spaces can be provided next to a noisy highway by creating a U-shaped development, which faces away from the highway.
3. **Noise barriers.** Absorptive types of noise barriers or walls should be used to reduce noise levels from ground transportation noise sources and industrial sources. A barrier must interrupt the line of sight between the noise source and the receiver in order to reduce noise level both outdoors and indoors. A barrier should provide at least  $L_{dn}$  5 dB of noise reduction to achieve a noticeable change in noise levels.
4. **Construction modifications.** If site planning, architectural layout, noise barriers, or a combination of these measures does not achieve the required



noise reduction, then mitigation should be facilitated through construction modification to walls, roofs, ceilings, doors, windows.

5. **Alternatives to sound walls.** Encourage new development to identify alternatives to the use of sound walls to ease noise impacts.

#### **N-4. Noise from New Nonresidential Development.**

Design nonresidential development to minimize noise impacts on neighboring uses.

- a. **Performance Standards for Uses Affecting Residential Districts.** New nonresidential development shall not increase noise levels in a residential district by more than  $L_{dn}$  3 dB, or create noise impacts that would increase noise levels to more than  $L_{dn}$  60 dB at the property line of the noise receiving use, whichever is the more restrictive standard.
- b. **Performance Standards for Uses Affecting Nonresidential and Mixed-Use Districts.** New nonresidential projects shall not increase noise levels in a nonresidential or mixed-use district by more than  $L_{dn}$  5 dB, or create noise impacts that would increase noise levels to more than  $L_{dn}$  65 dB (Office, Retail) or  $L_{dn}$  70 dB (Industrial), at the property line of the noise receiving use, whichever is the more restrictive standard.
- c. **Waiver.** These standards may be waived if, as determined by an acoustical study, there are mitigating circumstances (such as higher existing noise levels), and no uses would be adversely affected.

**N-4a. Require Acoustical Study.** Identify through an acoustical study noise mitigation measures to be designed and built into new nonresidential and mixed-use development, and encourage absorptive types of mitigation measures between noise sources and residential districts.

#### **N-5. Traffic Noise from New Development.**

Minimize noise impacts of increased off-site traffic caused by new development. Where the exterior  $L_{dn}$  is 65 dB or greater at a residential building or outdoor use area and a plan, program, or project increases traffic noise levels by more than  $L_{dn}$  3 dB, reasonable noise mitigation measures shall be included in the plan, program or project.

**N-5a. Traffic Noise Studies.** Require acoustical studies to evaluate potential off-site noise impacts resulting from traffic generated by new development.

#### **N-6. Traffic Noise.**

Attempt to minimize traffic noise through land use policies, law enforcement, and street improvements.

**N-6a. Enforce Speed Limits.** Enforce speed limits on roads generating numerous noise complaints.

**N-6b. Mixed-Use.** Develop land use districts to allow housing close to offices and services to reduce the amount of traffic from local trips.

**N-6c. Coordination with Local and State Agencies.** Coordinate with CalTrans, Marin Countywide Planning Agency, Congestion Management Agency and other agencies to achieve noise reduction along Pt. San Pedro Road, Highways 101 and 580, and the Sonoma Marin Area Rail Transit corridor.

**N-6d. Vehicle Code.** Enforce the California Vehicle Code regarding noisy vehicles.

**N-6e. Street Improvements.** Pursue feasible cost-effective new street paving technologies to minimize traffic noise.

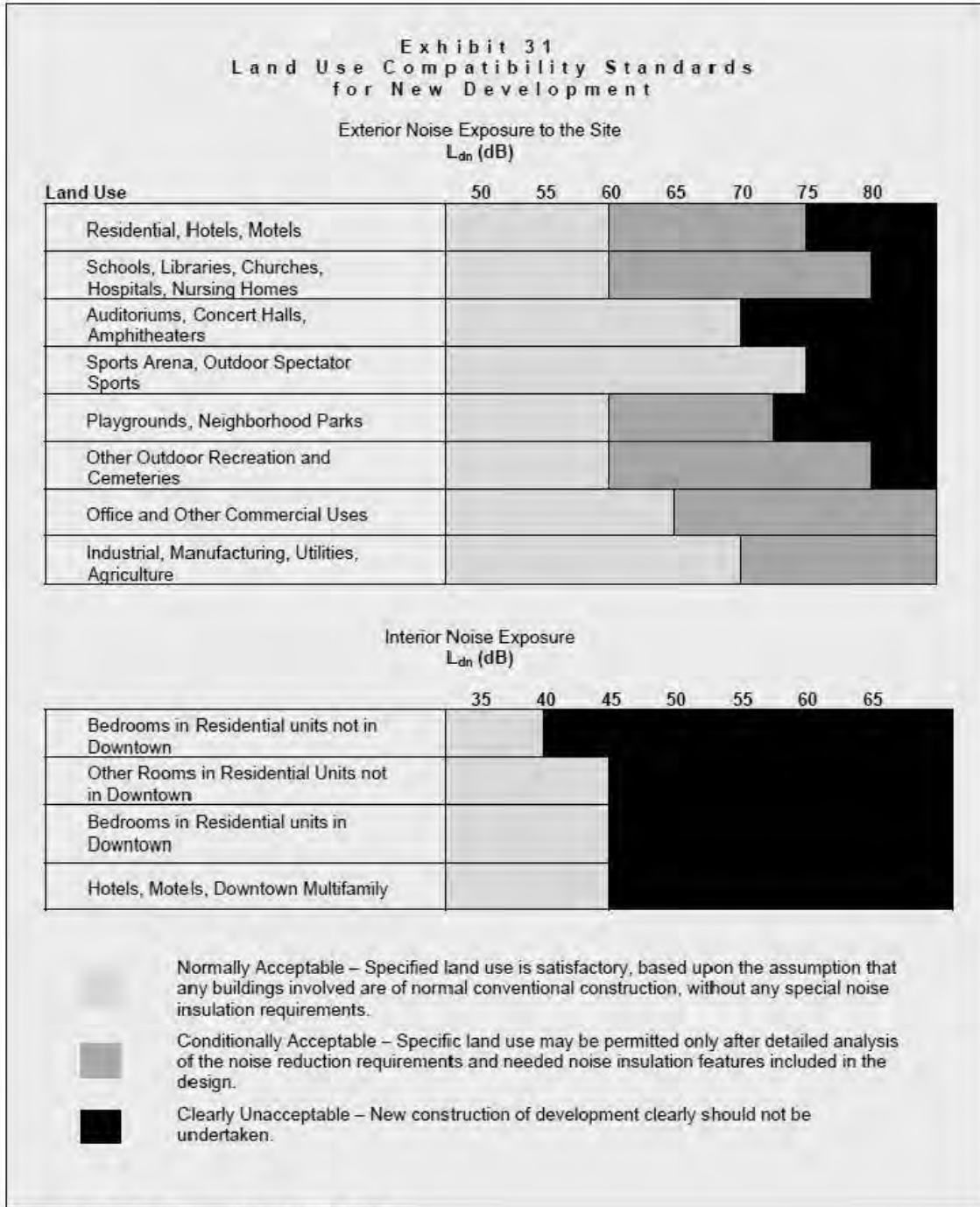
**N-6f. Widening of US 101 and 580.** Encourage Caltrans to mitigate highway noise impacts as a part of the US 101 widening project. Review and comment, as necessary, on any proposed sound walls in San Rafael. Encourage Caltrans to use noise mitigation measures other than walls if they can be shown to be effective. These measures may include alternative pavement types and sound-absorptive treatments on existing and future noise barriers.

**N-8a. Future Transitway Mitigation Measures.** A detailed noise assessment and appropriate mitigation measures should be prepared for any rail project on the Sonoma Marin Area Rail Transit right-of-way. The analysis should address the City's noise standards and the Federal Transit Administrations (FTA) guidelines.

**N-9. Nuisance Noise.**

Minimize impacts from noise levels that exceed community sound levels.

**N-9a. Enforce and Update the Noise Ordinance.** Enforce and update, as necessary, the City's Noise Ordinance that addresses common noise nuisances including amplified music, outdoor mechanical equipment and construction activities.



Source: San Rafael General Plan 2020, 2013.

**Figure 4.5-8: Exhibit 31: Land Use Compatibility Standards; San Rafael General Plan 2020**

**N-10b. Mitigation for Construction Activity Noise.** Through environmental review, identify mitigation measures to minimize the exposure of neighboring properties to excessive noise levels from construction-related activity.

**N-10c. Noise Specifications.** Include noise specifications in requests for equipment information and bids for new City equipment and consider this information as part of evaluation of the bids.

*City of San Rafael Municipal Code.* Chapter 8.13, Noise, in the City's Municipal Code seeks to protect the peace, health, safety, and general welfare of the citizens of San Rafael from excessive, unnecessary, and unreasonable noises from any and all sources in the community. Section 8.13.040 provides General Noise Limits.

**Chapter 8.13.050 Standard exceptions to general noise limits.** The following standard exceptions to the provisions of Section 8.13.040 shall be allowed as of right, to the extent and during the hours specified. A summary of the standard exceptions provided in this section is set forth in Table 5 below.

- A. Construction. Except as otherwise provided in subsection B of this section, or by the planning commission or city council as part of the development review for the project, on any construction project on property within the city, construction, alteration, demolition, maintenance of construction equipment, deliveries of materials or equipment, or repair activities otherwise allowed under applicable law shall be allowed between the hours of seven a.m. (7:00 a.m.) and six p.m. (6:00 p.m.), Monday through Friday, and nine a.m. (9:00 a.m.) and six p.m. (6:00 p.m.) on Saturdays, provided that the noise level at any point outside of the property plane of the project shall not exceed ninety (90) dBA. All such activities shall be precluded on Sundays and holidays. Violation of the foregoing may subject the permittee to suspension of work by the chief building official for up to two (2) days per violation.

Noise level at any point outside the construction property plane shall not exceed ninety (90) dBA.

Violation of the construction hours and noise limits may be enforced as either an infraction or a misdemeanor punishable by fines or jail time or both, or by an administrative citation with a fine, or by a civil action with a monetary penalty, injunction and/or other remedies, as provided in Chapter 1.42 of this code. In addition, the chief building official may issue a stop work order requiring suspension of work for up to two (2) days per violation.

- C. Refuse Collection. Refuse collection activities shall be permitted as specified in this section, provided they do not produce a noise level in excess of ninety-five (95) dBA measured at a distance of twenty-five feet (25') from the activity:

1. Residential or mixed-use property: between the hours of six a.m. (6:00 a.m.) and nine p.m. (9:00 p.m.), Monday through Saturday;
2. Industrial or commercial property: between the hours of four a.m. (4:00 a.m.) and nine p.m. (9:00 p.m.) daily.

**General Plan 2020 - 8.13.050 TABLE 5: Standard Exceptions to General Noise Limits**

Type of Activity	Maximum Noise Level	Days/Hours Permitted
Construction	90 dBA	Mon-Fri 7:00 a.m.-6:00 p.m. Sat 9:00 a.m.-6:00 p.m. Sun, Hol. – prohibited or as otherwise set by city approval
Residential Power Equipment and Construction Activities Undertaken by Residential Property Owners	90 dBA	Mon-Fri 8:00 a.m.-8:00 p.m. Sat, Sun, Hol. 9:00 a.m.-6:00 p.m.
Sound Performances	80 dBA measured 50 feet or more from property plane, or as excepted by permit approval	Every day 10:00 a.m.-10:00 p.m., or as excepted by permit approval
Refuse Collection	95 dBA	Residential or mixed-use property: Mon-Sat 6:00 a.m.-9:00 p.m. Industrial or commercial property: Daily 4:00 a.m.-9:00 p.m.

Source: City of San Rafael Municipal Code, 2002.

## 4.5.4 Impacts and Mitigation Measures

### 4.5.4.1 Significance Criteria

Paraphrasing from Appendix G of the CEQA Guidelines, a project would normally result in significant noise impacts if noise levels generated by the project conflict with adopted environmental standards or plans, if the project would generate excessive groundborne vibration levels, or if ambient noise levels at sensitive receivers would be substantially increased over a permanent, temporary, or periodic basis. The following criteria were used to evaluate the significance of environmental noise resulting from the project:

- A significant noise impact would be identified if the project would expose persons to or generate noise levels that would exceed applicable noise standards presented in the General Plan or Municipal Code.
- A significant impact would be identified if the construction of the project would expose persons to excessive vibration levels. Groundborne vibration levels exceeding 0.3 in/sec PPV would have the potential to result in cosmetic damage to normal buildings.

- A significant impact would be identified if traffic generated by the project or project improvements/operations would substantially increase noise levels at sensitive receivers in the vicinity. A substantial increase would occur if: a) the noise level increase is 5 dBA  $L_{dn}$  or greater, with a future noise level of less than the “normally acceptable” standard, or b) the noise level increase is 3 dBA  $L_{dn}$  or greater, with a future noise level equal to or greater than the “normally acceptable” standard.
- A significant noise impact would be identified if construction-related noise would temporarily increase ambient noise levels at sensitive receptors. Hourly average noise levels exceeding 60 dBA  $L_{eq}$ , and the ambient by at least 5 dBA  $L_{eq}$ , for a period of more than one year would constitute a significant temporary noise increase at adjacent residential land uses.

### 4.5.5 Noise Levels in Excess of Standards

**Impact NOISE-1:** The Project would not produce noise levels that would exceed the City’s established noise thresholds or increase the existing ambient noise environment. (*Less than Significant*)

#### ***Mechanical Equipment Noise***

Chapter 8.13.040 of the City’s Municipal Code limits mechanical equipment noise, as measured at residential property lines, to 50 dBA during daytime hours and to 40 dBA during nighttime hours for constant noise-generating equipment and to 60 dBA during daytime hours and to 50 dBA during nighttime hours for intermittent noise-generating equipment. While the Municipal Code does not define daytime and nighttime hours, it is assumed that daytime hours are 7:00 a.m. to 10:00 p.m. and nighttime hours are 10:00 p.m. to 7:00 a.m., consistent with the  $L_{dn}$  acoustical descriptor used by the City in the General Plan. Additionally, Policy N-4 of the City’s General Plan states that new nonresidential developments shall not increase noise levels in a residential district by more than 3 dBA  $L_{dn}$ , or create noise impacts that would increase noise levels to more than 60 dBA  $L_{dn}$  at the property line of the noise receiving use, whichever is more restrictive. Since the existing day-night average noise level at the residential land uses is 56 dBA  $L_{dn}$ , the more restrictive criteria would be the 3 dBA  $L_{dn}$  increase.

Further, mechanical equipment noise shall not exceed 55 dBA when measured at any commercial property line for constant noise-generating equipment and shall not exceed 65 dBA for intermittent noise-generating equipment.

While the structure and equipment associated with the existing office building would not change under proposed Project conditions, the parking structure will require mechanical equipment, such as elevators. As proposed in the site plan, the electrical room/elevator control room would be located on the interior of the first floor, and the elevator tower is located at the southeastern corner of the structure. A detailed noise analysis or operational environment was not included as part of

the Project application. Illingworth & Rodkin prepared the analysis based on typical noise levels expected from parking garages/structures.

Typical noise levels from electrical equipment rooms would be 50 to 60 dBA  $L_{eq}$  at 10 feet. The walls of the electrical equipment room would provide 5 to 10 dBA reduction, and the exterior walls of the parking structure would provide an additional 5 to 10 dBA reduction. Typical elevators have levels of about 46 to 47 dBA at a distance of 10 feet when the doors open, while reaching levels of 52 to 53 dBA at 10 feet during movement between floors.

The nearest residential property boundary, 56 Salvador Way in the Mont Marin/San Rafael Park neighborhood, is approximately 150 feet to southwest of the proposed parking structure rear façade. The nearest residential structure is located approximately 215 feet southwest of the proposed parking structure rear façade. Residential properties are approximately 50 feet higher in elevation than the proposed parking structure ground floor pad elevation. This distance, and elevation difference, coupled with structure wall assemblies would provide some shielding from potential noise sources. At 150 feet and assuming shielding from the intervening wall assemblies and elevation of the receptor, the expected noise due to electrical room equipment would be less than 40 dBA  $L_{eq}$ , which would meet both the daytime and nighttime thresholds established in the City's Municipal Code for residential land uses. Although existing mature trees would remain post construction, these residences could potentially have direct line-of-sight to the third floor of the elevator tower (the third floor includes a ramp that would not exceed the elevator tower's height). The distance from the nearest residential property line to the elevator tower would be approximately 320 feet. The difference in elevations from the residence to the third-floor elevator doors would provide some shielding from potential noise sources. Thus, assuming some shielding, the elevator noise at the nearest residential property, at a distance of 320 feet, and would be less than 30 dBA, which would meet the City's Municipal Code thresholds.

The ambient hourly average noise levels at the residential land uses, which is represented by the data collected at LT-2, range from 43 to 54 dBA  $L_{eq}$  during daytime hours and from 35 to 49 dBA  $L_{eq}$  during nighttime hours. The mechanical equipment noise generated by the proposed Project would fall within or below the existing hourly average noise levels at the nearby residences during daytime and nighttime hours. If the mechanical equipment associated with the proposed parking structure ran continuously for a 24-hour period, the day-night average noise level at the residential property line would be less than 50 dBA  $L_{dn}$ , which would be below the existing day-night average of 56 dBA  $L_{dn}$ . Therefore, mechanical equipment noise would have a less-than-significant impact on the residential land uses located to the west of the Project site.

While the proposed Kaiser MOB would be the closest commercial building to the proposed parking structure, this would be considered one Project site. Therefore, the nearest off-site commercial property would be the existing office building to the south, at 1600 Los Gamos Drive. The property line of this off-site office building is approximately 325 feet from the nearest parking structure façade. At this distance and assuming shielding from the intervening wall assemblies, the noise

levels generated by equipment in the electrical room would be less than 40 dBA  $L_{eq}$ . This would meet the City's threshold for commercial properties.

The elevator tower would be approximately 325 feet to the nearest commercial property line, and since the first-floor of the elevator would be the closest access, the wall assemblies of the parking structure would provide 5 to 10 dBA of shielding. At 325 feet and assuming partial shielding from the wall assemblies, elevator noise would be at or below 30 dBA at the nearest commercial property line. This would also meet the City's thresholds.

Since all new mechanical equipment associated with the proposed Project would be below the City's thresholds during daytime and nighttime hours and would not increase the day-night average noise level at the residential land uses, the impact is considered less-than-significant.

### ***Parking Structure Noise***

Intermittent noise from the parking structure must meet the intermittent noise thresholds established in the City's Municipal Code. Additionally, the parking structure noise cannot increase the ambient noise levels at existing residential land uses by more than 3 dBA  $L_{dn}$ .

Regular office hours at the 1650 Los Gamos MOB are estimated to be from 7:00 a.m. until 7:00 p.m.; however, after hour clinic hours is estimated to be available until 12:00 a.m. The 242 surface parking spaces currently available around the existing building would remain as part of the proposed Project. Additionally, the parking structure shall provide up to 476 spaces, for a total of 718 spaces on both parcels. The existing surface parking lot in the location of the proposed parking structure has approximately 213 spaces. With the proposed Project, the available parking could increase up to 263 spaces.

The surrounding land uses are currently exposed to the parking lot noise and will continue to be exposed to the parking lot noise surrounding the existing office building. The three-level, with upper ramp parking structure would move the parking lot noise approximately 25 feet closer to the residences located on the hill to the west due to the height of the parking structure; however, these noise-sensitive receptors would be shielded from parking lot noise located on the first and second floors. The third level would have approximately 150 spaces, and the upper ramp would include an additional 40 spaces. Sensitive receptors in nearby residences would be directly exposed to parking lot noise for 190 spaces, which would be fewer vehicles than the existing surface lot. Due to the shielding that the parking structure would provide, the existing office building to the south of the Project site would be exposed to less parking lot noise than under existing conditions with the surface lot.

Noise associated with parking lot usage would include vehicular circulation, loud engines, car alarms, squealing tires, door slams, and human voices. The maximum sound ( $L_{max}$ ) of a passing car at 15 mph typically ranges from 40 to 50 dBA  $L_{max}$  at 200 feet. The noise generated during an engine start is similar. Door slams create lower noise levels. The hourly average noise level



resulting from all of these noise-generating activities in a busy parking lot, without taking shielding into account, could range from 35 to 40 dBA  $L_{eq}$  at a distance of 200 feet from the parking area.

As stated above, the nearest residential property line would be approximately 150 feet from the nearest parking structure façade. At this distance, and taking into account the elevation difference between the third level and upper ramp of the parking structure and residential property, hourly average noise levels due to parking lot noise would range from 37 to 42 dBA  $L_{eq}$ . This would meet the daytime and nighttime intermittent noise thresholds established in the Municipal Code. During daytime hours, parking lot activity on the third-level and upper ramp of the structure may be fairly constant, which possibly makes it subject to comparison with the constant daytime threshold of 50 dBA. However, the third level and upper ramp of the parking structure is expected to be sparsely used during nighttime hours due to minimal medical office usage during these hours. It is most likely that the surface parking spaces surrounding the medical office building would be used during the nighttime hours, and if the parking structure is used during these hours, the first-level parking spaces would be the likely locations for any activity. The third level and upper ramp is unlikely to be used, and therefore, the constant nighttime threshold would not be appropriate for the assessment of nighttime parking lot noise at the proposed parking structure.

In addition to the Municipal Code standards, parking lot noise at the property line of the nearest residence is assessed against the existing day-night average noise level of 56 dBA  $L_{dn}$  (measured at LT-2). Assuming the maximum hourly average noise level of 42 dBA  $L_{eq}$  occurred continuously through a 24-hour period, the measured day-night average noise level would be 49 dBA  $L_{dn}$ , which is less than the existing ambient measurement. Therefore, the parking structure would not increase the ambient environment at the nearest residential property line by 3 dBA  $L_{dn}$ . This is a *less-than-significant* impact.

The nearest façade of the parking structure would be approximately 325 feet from the property line of the nearest off-site commercial building. At this distance, hourly average parking lot noise would be at or below 36 dBA  $L_{eq}$ . This would meet the City's 65 dBA threshold. This would be a *less than significant* impact.

### **Noise from Refuse Collection**

The City of San Rafael requires that refuse collection at commercial properties be limited to the hours of 4:00 a.m. to 9:00 p.m. daily. Additionally, refuse collection shall not exceed 95 dBA at a distance of 25 feet from the collection activities.

The proposed MOB would require refuse collection, which may be of greater quantity than the existing office building; however, it is unlikely that the proposed Project would require more frequent trash pickups than the existing land use. Therefore, the proposed Project is not expected to change the existing noise environment due to refuse collection activities and would be compatible with the City's noise limits. This is considered a *less than significant* impact.

## Construction Noise

Chapter 8.13.050 of the City’s Municipal Code exempts construction noise from the general noise limits, but limits all noise due to construction to at or below 90 dBA at any point outside the construction property plane. Additionally, construction allowable hours in the City of San Rafael are limited to 7:00 a.m. and 6:00 p.m. on weekdays and to between 9:00 a.m. and 6:00 p.m. on Saturdays. Construction activities are prohibited on Sundays and national holidays.

Construction activities generate considerable amounts of noise, especially during earth-moving activities when heavy equipment is used. The highest maximum noise levels expected to be generated by Project construction would range from about 80 to 90 dBA  $L_{max}$  at a distance of 50 feet from the noise source. Pile driving, which generates noise levels up to 105 dBA  $L_{max}$  at 50 feet, is not proposed for this Project. A list of typical maximum instantaneous noise levels measured at 50 feet are provided in **Table 4.5-5** below.

For the proposed Project, all construction occurring at the future MOB would be indoor renovations, which would reduce construction noise emitting from the site substantially. Construction phases for the parking structure would include demolition of the existing parking lot, excavation, grading, exterior building erection, architectural coating, and paving. Typical hourly average construction-generated noise levels for parking structures are about 77 to 89 dBA  $L_{eq}$  measured at a distance of 50 feet from the center of the site during busy construction periods (e.g., earth moving equipment, impact tools, etc.), as shown in **Table 4.5-6**. The improvements at the Los Gamos Drive/Lucas Valley Road intersection would include reconfiguring the intersection, new light/traffic signals, power for the crossings, new crosswalks, and new sidewalk ramps. Typical hourly average noise levels for this type of construction would range from 78 to 88 dBA  $L_{eq}$  at a distance of 50 feet. Construction-generated noise levels drop off at a rate of about 6 dBA per doubling of the distance between the source and receptor. Shielding by buildings or terrain can provide an additional 5 to 10 dBA noise reduction at distant receptors.

**TABLE 4.5-5: Construction Equipment, 50-foot Noise Emission Limits**

Equipment Category	$L_{max}$ Level (dBA) <sup>1,2</sup>	Impact/Continuous
Arc Welder	73	Continuous
Auger Drill Rig	85	Continuous
Backhoe	80	Continuous
Bar Bender	80	Continuous
Boring Jack Power Unit	80	Continuous
Chain Saw	85	Continuous
Compressor <sup>3</sup>	70	Continuous
Compressor (other)	80	Continuous
Concrete Mixer	85	Continuous
Concrete Pump	82	Continuous
Concrete Saw	90	Continuous
Concrete Vibrator	80	Continuous
Crane	85	Continuous
Dozer	85	Continuous
Excavator	85	Continuous

Equipment Category	L <sub>max</sub> Level (dBA) <sup>1,2</sup>	Impact/Continuous
Front End Loader	80	Continuous
Generator	82	Continuous
Generator (25 KVA or less)	70	Continuous
Gradall	85	Continuous
Grader	85	Continuous
Grinder Saw	85	Continuous
Horizontal Boring Hydro Jack	80	Continuous
Hydra Break Ram	90	Impact
Impact Pile Driver	105	Impact
Insitu Soil Sampling Rig	84	Continuous
Jackhammer	85	Impact
Mounted Impact Hammer (hoe ram)	90	Impact
Paver	85	Continuous
Pneumatic Tools	85	Continuous
Pumps	77	Continuous
Rock Drill	85	Continuous
Scraper	85	Continuous
Slurry Trenching Machine	82	Continuous
Soil Mix Drill Rig	80	Continuous
Street Sweeper	80	Continuous
Tractor	84	Continuous
Truck (dump, delivery)	84	Continuous
Vacuum Excavator Truck (vac-truck)	85	Continuous
Vibratory Compactor	80	Continuous
Vibratory Pile Driver	95	Continuous
All other equipment with engines larger than 5 HP	85	Continuous

Notes: <sup>1</sup> Measured at 50 feet from the construction equipment, with a "slow" (1 sec.) time constant.

<sup>2</sup> Noise limits apply to total noise emitted from equipment and associated components operating at full power while engaged in its intended operation.

<sup>3</sup> Portable Air Compressor rated at 75 cfm or greater and that operates at greater than 50 psi.

Source: Illingworth & Rodkin 2018

**TABLE 4.5-6: Typical Ranges of Construction Noise Levels at 50 Feet, L<sub>eq</sub> (dBA)**

	Domestic Housing		Office Building, Hotel, Hospital, School, Public Works		Industrial Parking Garage, Religious Amusement & Recreations, Store, Service Station		Public Works Roads & Highways, Sewers, and Trenches	
	I	II	I	II	I	II	I	II
Ground Clearing	83	83	84	84	84	83	84	84
Excavation	88	75	89	79	89	71	88	78
Foundations	81	81	78	78	77	77	88	88
Erection	81	65	87	75	84	72	79	78
Finishing	88	72	89	75	89	74	84	84
<p><b>I</b> - All pertinent equipment present at site.  <b>II</b> - Minimum required equipment present at site.</p>								

Source: U.S.E.P.A., Legal Compilation on Noise, Vol. 1, p. 2-104, 1973; Illingworth & Rodkin 2018

A detailed list of equipment expected to be used for the proposed Project construction and phasing information were not available at the time of the Illingworth & Rodkin Noise study. Additionally, a construction schedule was also not provided. While it is possible for the parking structure construction and intersection improvements to occur concurrently, the geometrical center of each construction site would be approximately 460 feet away from each other, and activities occurring at each site would vary at any given time. Therefore, construction noise levels provided in **Table 4.5-6** for parking structures and for roadway improvements were used, separately, to estimate the worst-case scenario of noise levels for each type of construction. The estimated results for the parking structure construction are summarized in **Table 4.5-7** and the estimated results for the intersection improvements are summarized in **Table 4.5-8**. The estimated construction levels in **Tables 4.5-7** and **4.5-8** were measured from the center of the construction sites to five feet outside the construction site boundaries in each direction.

**TABLE 4.5-7: Estimated Construction Noise Levels 5 feet from the Construction Boundary**

Phase	Estimated Noise Levels, dBA $L_{eq}$ <sup>a</sup>			
	North Boundary (180ft)	East Boundary (115ft)	South Boundary (195ft)	West Boundary (110ft)
Ground Clearing	72-73 dBA $L_{eq}$	76-77 dBA $L_{eq}$	71-72 dBA $L_{eq}$	76-77 dBA $L_{eq}$
Excavation	60-78 dBA $L_{eq}$	64-82 dBA $L_{eq}$	59-77 dBA $L_{eq}$	64-82 dBA $L_{eq}$
Foundations	66 dBA $L_{eq}$	70 dBA $L_{eq}$	65 dBA $L_{eq}$	70 dBA $L_{eq}$
Erection	61-73 dBA $L_{eq}$	65-77 dBA $L_{eq}$	60-72 dBA $L_{eq}$	65-77 dBA $L_{eq}$
Finishing	63-78 dBA $L_{eq}$	67-82 dBA $L_{eq}$	62-77 dBA $L_{eq}$	67-82 dBA $L_{eq}$

<sup>a</sup> Range of noise levels indicates the noise levels calculated for the minimum required equipment present at site to all pertinent equipment present at site.

Source: Illingworth & Rodkin 2018

**TABLE 4.5-8: Estimated Construction Noise Levels 5 feet from the Construction Boundary of the Los Gamos Drive/Lucas Valley Road Intersection**

Phase	Estimated Noise Levels, dBA $L_{eq}$ <sup>a</sup>			
	Northeast Boundary (70ft)	East Boundary (115ft)	Northeast Boundary (70ft)	West Boundary (110ft)
Ground Clearing	81 dBA $L_{eq}$	Ground Clearing	81 dBA $L_{eq}$	Ground Clearing
Excavation	75-85 dBA $L_{eq}$	Excavation	75-85 dBA $L_{eq}$	Excavation
Foundations	85 dBA $L_{eq}$	Foundations	85 dBA $L_{eq}$	Foundations
Erection	75-76 dBA $L_{eq}$	Erection	75-76 dBA $L_{eq}$	Erection
Finishing	81 dBA $L_{eq}$	Finishing	81 dBA $L_{eq}$	Finishing

<sup>a</sup> Range of noise levels indicates the noise levels calculated for the minimum required equipment present at site to all pertinent equipment present at site.

Source: Illingworth & Rodkin 2018

As shown in **Tables 4.5-7** and **4.5-8**, noise levels generated by construction of the proposed parking structure are not expected to exceed the City's 90 dBA threshold. Therefore, the impact would be considered *less than significant*.

**Mitigation:** None required

## 4.5.6 Exposure to Excessive Groundborne Vibration due to Construction

**Impact NOISE -2:** Construction-related vibration levels resulting from activities at the Project site would not exceed 0.3 in/sec PPV at the nearest noise-sensitive receptors. (*Less than Significant*)

Construction activities of the Project may generate vibration when heavy equipment or impact tools (e.g., jackhammers, hoe rams, etc.) are used. For the repurposing of the existing office building, heavy construction equipment that would generate excessive vibration levels would likely not be required. However, construction activities for the proposed parking structure would include demolition, grading, foundation work, paving, and new building framing and finishing. The intersection improvements would include intersection reconfiguring, new light/traffic signal installation, power for the crossings, new crosswalks, and new sidewalk ramps. Activities for the construction of the parking structure and the intersection improvements would potentially generate considerable vibration levels. However, the Project is not expected to require pile driving, which can cause excessive vibration.

For structural damage, the California Department of Transportation recommends a vibration limit of 0.5 in/sec PPV for buildings structurally sound and designed to modern engineering standards, 0.3 in/sec PPV for buildings that are found to be structurally sound but where structural damage is a major concern, and a conservative limit of 0.08 in/sec PPV for ancient buildings or buildings that are documented to be structurally weakened. No known ancient buildings or buildings that are documented to be structurally weakened adjoin the Project area. Therefore, conservatively, groundborne vibration levels exceeding 0.3 in/sec PPV would have the potential to result in a significant vibration impact.

**Table 4.5-9** presents typical vibration levels that could be expected from construction equipment at a distance of 25 feet.

**TABLE 4.5-9: Vibration Source Levels for Construction Equipment**

Equipment		PPV at 25 ft. (in/sec)	Approximate L <sub>v</sub> at 25 ft. (VdB)
Pile Driver (Impact)	upper range	1.158	112
	typical	0.644	104
Pile Driver (Sonic)	upper range	0.734	105
	typical	0.170	93
Clam shovel drop		0.202	94
Hydromill (slurry wall)	in soil	0.008	66
	in rock	0.017	75
Vibratory Roller		0.210	94
Hoe Ram		0.089	87
Large bulldozer		0.089	87
Caisson drilling		0.089	87
Loaded trucks		0.076	86

Jackhammer	0.035	79
Small bulldozer	0.003	58

Source: Transit Noise and Vibration Impact Assessment, United States Department of Transportation, Office of Planning and Environment, Federal Transit Administration, May 2006.; Illingworth & Rodkin 2018

Project construction activities, such as drilling, the use of jackhammers, rock drills and other high-power or vibratory tools, and rolling stock equipment (tracked vehicles, compactors, etc.), may generate substantial vibration in the immediate vicinity. Jackhammers typically generate vibration levels of 0.035 in/sec PPV, and drilling typically generates vibration levels of 0.09 in/sec PPV at a distance of 25 feet. Vibration levels would vary depending on soil conditions, construction methods, and equipment used.

The nearest residential structure located to the west of the Project site and at a higher elevation, would be approximately 215 feet from the parking structure construction site boundary. At this distance, vibration levels would be up to 0.02 in/sec PPV, which would not exceed the 0.3 in/sec PPV threshold. The distance from the nearest residential structure to the boundary of the intersection improvements construction zone would be approximately 690 feet, and at this distance, vibration levels would be at or below 0.01 in/sec PPV. The nearest off-site commercial building would be approximately 325 feet south of the parking structure and approximately 615 feet from the intersection. Vibration levels experienced at this building due to construction of the parking structure would be up to 0.01 in/sec PPV and due to intersection improvements would be up to 0.01 in/sec PPV. The on-site proposed MOB would be approximately 115 feet east of the parking structure construction site and approximately 200 feet from the boundary of the intersection improvements. At these distances, vibration levels would be up to 0.04 in/sec PPV and up to 0.02 in/sec PPV, respectively. Construction of the Project would not generate vibration levels of 0.3 in/sec PPV or more at existing noise-sensitive land uses located off- and on-site. This would be considered a *less than significant* impact.

**Mitigation:** None required

## 4.5.7 Permanent Noise Level Increase

**Impact NOISE-3:** The Project would not result in a substantial permanent noise level increase due to project-generated traffic at the existing noise-sensitive land uses in the project vicinity. (*Less than Significant*)

Policy N-5 of the San Rafael *General Plan 2020* states that where the exterior is 65 dBA  $L_{dn}$  or greater at a residential building or outdoor use area and a Project increases traffic noise levels by more than 3 dBA  $L_{dn}$ , a permanent noise impact would be considered significant. For reference, a 3 dBA  $L_{dn}$  noise increase would be expected if the Project would double existing traffic volumes along a roadway.

Existing ambient noise levels at the nearby residential land uses are 56 dBA  $L_{dn}$ , according to noise measurements made at LT-2.

To determine the effect of the project-generated traffic on the nearby existing residences, the existing plus project peak hour turning movements provided in the traffic study conducted for the Project was compared to the existing peak hour turning movements. While peak hour traffic volumes along Los Gamos Drive indicated an increase of 3 dBA Ldn, the traffic noise increase at all other segments included in the traffic study was 1 dBA Ldn or less. The existing peak hour turning movements provided in the traffic study reflect current low occupancy at the surrounding commercial buildings. Since the existing plus Project peak hour turning movements represents the existing conditions plus the Project trips generated by the Project, the existing plus Project turning movements would also reflect the low occupancy scenario. If the occupancy of the commercial buildings in the Project vicinity increased, this increase would be reflected in both existing and existing plus Project traffic scenarios. However, the trips generated by the proposed Project would not change. If the same Project trips were applied to existing traffic volumes that were higher than those presented in the traffic study, then the total Project trips would be a lower percentage of the existing volumes, and therefore, the noise level increase from the existing to the existing plus Project traffic scenarios would be less. The calculated 3 dBA Ldn increase along Los Gamos Drive and the 1 dBA Ldn or less increase along every other roadway segment would be the worst-case scenario.

Under worst-case scenarios, the residential land uses to the west of the Project site would experience an increase of up to 1 dBA  $L_{dn}$ , resulting in ambient noise levels below 60 dBA  $L_{dn}$  with the inclusion of the proposed Project. While the traffic increase along Los Gamos Drive would result in a permanent noise increase of 3 dBA  $L_{dn}$ , this increase would only apply to the commercial office buildings to the south of the Project site. Therefore, the Project-generated traffic would not cause a permanent noise increase at the surrounding residential receptors. This impact is a *less than significant* impact.

**Mitigation:** None required

## 4.5.8 Temporary Construction Noise

**Impact NOISE-4:** Existing noise-sensitive land uses would be exposed to a temporary increase in ambient noise levels due to Project construction activities. The incorporation of construction best management practices as Project conditions of approval would result in a *less-than-significant temporary noise impact. (Less than Significant with Mitigation Incorporation)*

Noise impacts resulting from temporary construction depend upon the noise generated by various pieces of construction equipment, the timing and duration of noise-generating activities, and the distance between construction noise sources and noise-sensitive areas. Construction noise impacts primarily result when construction activities occur during noise-sensitive times of the day (e.g.,

early morning, evening, or nighttime hours), the construction occurs in areas immediately adjoining noise-sensitive land uses, or when construction lasts over extended periods of time.

As discussed in the Fundamentals section of the 2018 Illingworth & Rodkin *Noise and Vibration Assessment* report (included in Appendix D to this DEIR), thresholds for speech interference indoors is 45 dBA. Assuming a 15 dBA exterior-to-interior reduction for standard residential construction and a 25 dBA exterior-to-interior reduction for standard commercial construction, this would correlate to an exterior threshold of 60 dBA  $L_{eq}$  at residential land uses and 70 dBA  $L_{eq}$  at commercial land uses. Additionally, temporary construction would be considered an impact to surrounding land uses if the ambient noise environment increased by at least 5 dBA  $L_{eq}$  for an extended period of time. Therefore, the temporary construction noise impact would be considered significant if Project construction activities exceeded 60 dBA  $L_{eq}$  at property line of nearby residences or exceeded 70 dBA  $L_{eq}$  at the property line of nearby commercial land uses and exceeded the ambient noise environment by 5 dBA  $L_{eq}$  or more for a period longer than one year.

Ambient noise measurements during daytime hours at the nearest residences were estimated at LT-2 to range from 43 to 54 dBA  $L_{eq}$ . The existing ambient noise environment at the nearby commercial land uses would range from 59 to 67 dBA  $L_{eq}$  during daytime hours, as measured at LT-1. These long-term measurements represent the ambient noise environment for off-site receptors that would be affected by construction activities occurring at the Project site.

As stated in Impact NOISE-1, phasing information, including time duration and equipment to be used, were not available at the time of the Illingworth & Rodkin. However, construction activities at the Project is expected to consist of mostly interior renovations, and activities at the proposed parking structure and off-site mitigation measures for roadway improvements would include demolition of the existing surface parking lot, grading/excavation, building construction, paving, and architectural coating; and activities at the Los Gamos Drive/Lucas Valley Road intersection would include reconfiguring the intersection, new light/traffic signals, power for the crossings, new crosswalks, and new sidewalk ramps. During each stage of construction, there would be a different mix of equipment operating, and noise levels would vary by stage and vary within stages, based on the amount of equipment in operation and the location at which the equipment is operating. Once construction moves indoors, minimal noise would be generated at off-site locations. As mentioned above, due to the distance between the intersection and the parking structure, the construction noise levels for each site was calculated separately. Depending upon the location of the nearby receptors, the nearest construction site would represent the dominant noise source.

Typical noise levels for parking structures and roadway improvements were estimated at five feet outside the construction site in **Tables 4.5-7** and **4.5-8**, respectively, and to compare the expected noise levels due to construction activities at the receptor property lines to the ambient noise levels, parking structure and potential off-site mitigation measure roadway improvements construction levels were estimated at the distances of the nearby receptor property lines to the center of the construction site. These are summarized in **Tables 4.5-10** and **4.5-11**, respectively.



**TABLE 4.5-10: Estimated Construction Noise Levels for Parking Structure at Nearby Receptor Property Lines**

Phase	Estimated Noise Levels, dBA $L_{eq}$ <sup>a</sup>			
	Nearest Residence to the West (305ft)	Nearest Residence to the Northwest (985ft)	Nearest Commercial Office Building to the South (505ft)	Nearest Commercial Office Building to the Northwest (550ft)
Ground Clearing	67-68 dBA Leq	57-58 dBA Leq	63-64 dBA Leq	62-63 dBA Leq
Excavation	55-73 dBA Leq	45-63 dBA Leq	51-69 dBA Leq	50-68 dBA Leq
Foundations	61 dBA Leq	51 dBA Leq	57 dBA Leq	56 dBA Leq
Erection	56-68 dBA Leq	46-58 dBA Leq	52-64 dBA Leq	51-63 dBA Leq
Finishing	58-73 dBA Leq	48-63 dBA Leq	54-69 dBA Leq	53-68 dBA Leq

<sup>a</sup>Range of noise levels indicates the noise levels calculated for the minimum required equipment present at site to all pertinent equipment present at site.

Source: Illingworth & Rodkin 2018

**TABLE 4.5-11: Estimated Construction Noise Levels for Roadway Improvements at Nearby Receptor Property Lines**

Phase	Estimated Noise Levels, dBA $L_{eq}$ <sup>a</sup>			
	Nearest Residence to the West (825ft)	Nearest Residence to the Northwest (985ft)	Nearest Residence to the West (825ft)	Nearest Commercial Office Building to the Northwest (550ft)
Ground Clearing	60 dBA $L_{eq}$	Ground Clearing	60 dBA $L_{eq}$	Ground Clearing
Excavation	54-64 dBA $L_{eq}$	Excavation	54-64 dBA $L_{eq}$	Excavation
Foundations	64 dBA $L_{eq}$	Foundations	64 dBA $L_{eq}$	Foundations
Erection	54-55 dBA $L_{eq}$	Erection	54-55 dBA $L_{eq}$	Erection
Finishing	60 dBA $L_{eq}$	Finishing	60 dBA $L_{eq}$	Finishing

<sup>a</sup>Range of noise levels indicates the noise levels calculated for the minimum required equipment present at site to all pertinent equipment present at site.

Source: Illingworth & Rodkin 2018

Estimated construction levels shown in **Tables 4.5-10** and **4.5-11** would exceed 60 dBA  $L_{eq}$  at residential land uses and would exceed ambient noise levels by more than 5 dBA  $L_{eq}$ . While the total time duration of construction is unknown at this time, construction activities as a result of the proposed Project can conservatively be considered a significant impact. As such, implementation of the following mitigation measure would reduce the impact to a less-than-significant level.

**Mitigation: MM NOISE-1. Incorporate best management practices during Project construction activities.** Reasonable regulation of the hours of construction, as well as regulation of the arrival and operation of heavy equipment and the delivery of construction material, are necessary to protect the health and safety of persons, promote the general welfare of the community, and maintain the quality of life. In compliance with the City of San Rafael's Municipal Code, the Project shall adhere to the allowable construction hours of 7:00 a.m. to 6:00 p.m. on weekdays and 9:00 a.m. to 6:00 p.m. on Saturdays. Construction activities are prohibited on Sundays

and national holidays. Additionally, the construction crew shall adhere to the following construction best management practices to reduce construction noise levels emanating from the site and minimize disruption and annoyance at existing noise-sensitive receptors in the Project vicinity.

#### *Construction Best Management Practices*

In order to reduce potential significant impacts from temporary construction activities, the Kaiser Permanente shall be required to develop a construction noise control plan, including, but not limited to, the following available controls:

- Construct temporary noise barriers, where feasible, to screen stationary noise-generating equipment. Temporary noise barrier fences would provide a 5 dBA noise reduction if the noise barrier interrupts the line-of-sight between the noise source and receptor and if the barrier is constructed in a manner that eliminates any cracks or gaps.
- Equip all internal combustion engine-driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.
- Unnecessary idling of internal combustion engines should be strictly prohibited.
- Locate stationary noise-generating equipment, such as air compressors or portable power generators, as far as possible from sensitive receptors as feasible. If they must be located near receptors, adequate muffling (with enclosures where feasible and appropriate) shall be used to reduce noise levels at the adjacent sensitive receptors. Any enclosure openings or venting shall face away from sensitive receptors.
- Utilize "quiet" air compressors and other stationary noise sources where technology exists.
- Construction staging areas shall be established at locations that will create the greatest distance between the construction-related noise sources and noise-sensitive receptors nearest the Project site during all Project construction.
- Locate material stockpiles, as well as maintenance/equipment staging and parking areas, as far as feasible from residential receptors.
- Route construction-related traffic along major roadways and as far as feasible from sensitive receptors.
- Control noise from construction workers' radios to a point where they are not audible at existing residences bordering the Project site.

- The contractor shall prepare a detailed construction schedule for major noise-generating construction activities. The construction plan shall identify a procedure for coordination with adjacent residential land uses so that construction activities can be scheduled to minimize noise disturbance.
- Designate a "disturbance coordinator" who would be responsible for responding to any complaints about construction noise. The disturbance coordinator will determine the cause of the noise complaint (e.g., bad muffler, etc.) and will require that reasonable measures be implemented to correct the problem. Conspicuously post a telephone number for the disturbance coordinator at the construction site and include in it the notice sent to neighbors regarding the construction schedule.

The implementation of the reasonable and feasible controls outlined above would reduce construction noise levels emanating from the site by 5 to 10 dBA in order to minimize disruption. With the implementation of these controls, as well as the Municipal Code limits on allowable construction hours, and considering that construction is temporary, the impact would be reduced to a *less than significant* level.

## 4.5.9 Cumulative Noise Increase Impacts

**Impact NOISE-5:** The Project would not make a cumulatively considerable contribution to future noise levels at residential land uses in the project vicinity. (*Less than Significant*)

### ***Geographic Context***

Development located in the vicinity of the Project site and nearby sensitive receptors, and that which would generate increased traffic along area roadways and intersections, as defined by the street network analyzed in the transportation analysis in Section 4.6: *Transportation and Circulation*, comprise the geographic context considered for potential cumulative noise impacts.

The City of San Rafael does not define the noise increase that would constitute a significant cumulative noise impact. Therefore, a significant impact would occur if the cumulative traffic noise level increase was 3 dBA  $L_{dn}$  or greater for future levels exceeding 60 dBA  $L_{dn}$  or was 5 dBA  $L_{dn}$  or greater for future levels at or below 60 dBA  $L_{dn}$  and if the Project would make a "cumulatively considerable" contribution to the overall traffic noise increase. A "cumulatively considerable" contribution would be defined as an increase of 1 dBA  $L_{dn}$  or more attributable solely to the proposed Project.

Cumulative traffic noise level increases were calculated by comparing the cumulative (no Project) peak hour turning movements and the cumulative plus Project peak hour turning movements to existing peak hour turning movements. From these comparisons, future traffic noise increase along Las Gallinas avenue, north of Lucas Valley Road; North Redwood Drive, north of Smith Ranch Road; and Redwood Highway, south of Smith Ranch Road would be 3 dBA  $L_{dn}$  under both cumulative scenarios (with and without the Project). However, under the cumulative plus Project

traffic scenario, the increase from existing conditions was calculated to be 4 dBA  $L_{dn}$ , along Los Gamos Drive, while the increase of the cumulative (no Project) would be 3 dBA  $L_{dn}$ . Since the difference between the two cumulative scenarios would result in 1 dBA  $L_{dn}$  or more, the Project would make a “cumulative considerable” contribution to the overall traffic noise increase along Los Gamos Drive. However, the office buildings located along this roadway would not be considered noise-sensitive, and therefore, this would impact would be considered *less than significant*.

**Mitigation:** None required

## 4.6 Transportation and Circulation

This section incorporates the setting information and analyses included in the *Kaiser Medical Office Building 1650 Los Gamos Drive Final Traffic Impact Analysis (FTIA)*, prepared by Fehr & Peers in February 2018. This section describes and evaluates issues related to Transportation and Circulation in the context of the proposed Project. Discussed are the physical and regulatory setting; the baseline for determining environmental impacts; the criteria used for determining the significance of environmental impacts; and potential impacts and appropriate mitigation measures when necessary for the various scenarios: Existing Plus Project; Baseline; Baseline Plus Project, and Cumulative.

As described in *Chapter 3: Project Description*, the proposed Project involves the redevelopment of an existing office building to permit the addition of medical office as an allowed use for the existing approximately 150,000 square foot building located at 1650 Los Gamos Drive. The existing building was constructed at approximately 148,000 square feet; however, the Planned Development District that governs the Project site allows up to 150,000 square feet of office space at the Project site. For the purpose of the analysis, Fehr & Peers conservatively assumed a 150,000 square-foot building, though the Project does not plan to rebuild or construct the remaining balance allowed under the current Planned Development District.

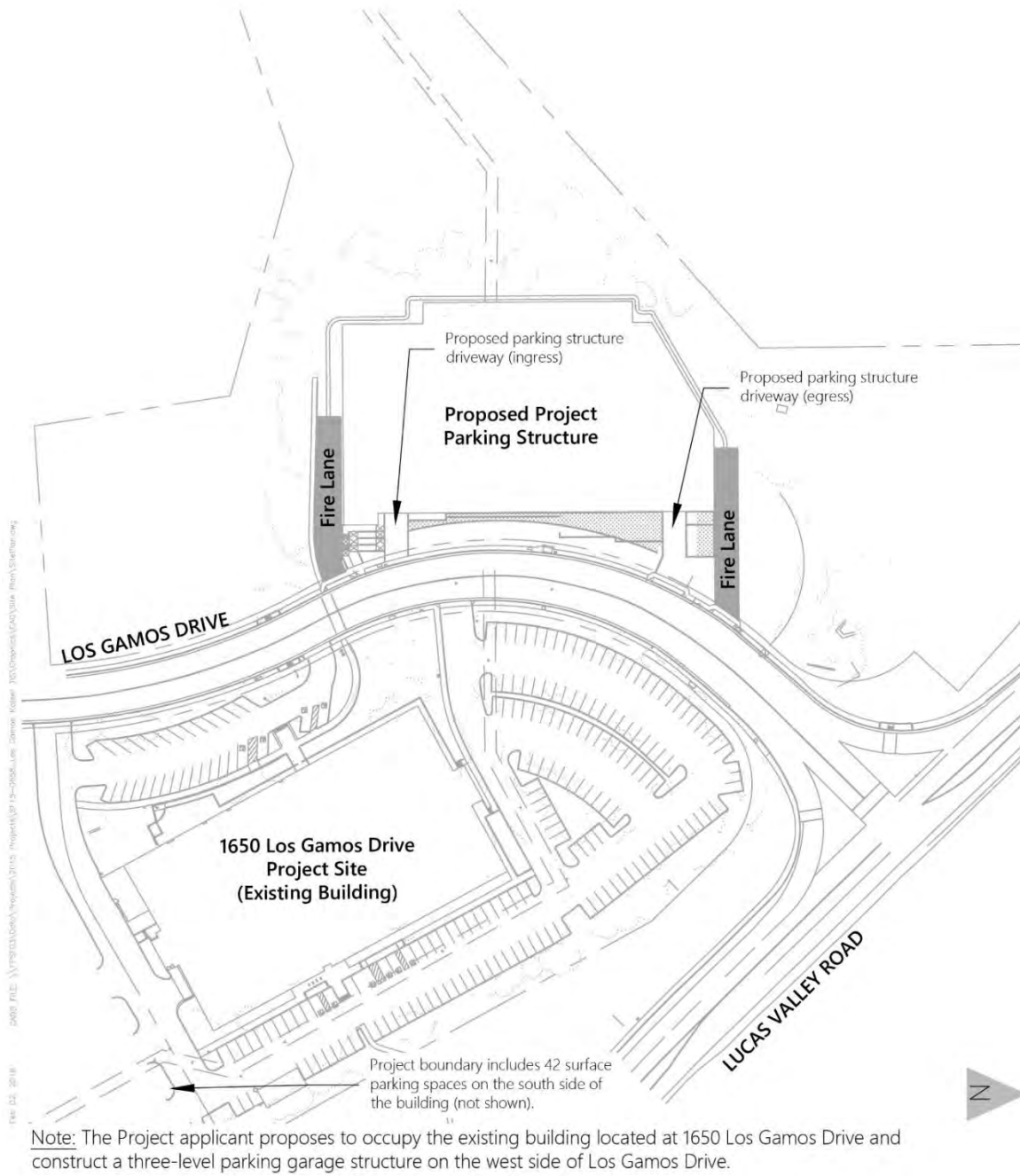
The proposed Project also includes the construction of a maximum 476-space, three-level with upper ramp, parking structure on the west side of Los Gamos Drive, where there currently is an existing surface parking lot associated with the building. The Project will also continue to use 42 existing parking spaces located on the adjacent property at 1600 Los Gamos Drive via an existing legal easement as well as the existing parking lots surrounding the medical office building at 1650 Los Gamos Drive. **See Figure 4.6-1 below.**

### 4.6.1 Setting

The existing transportation-related context for the proposed project is described below, beginning with a description of the street network that serves the Project area. Existing transit service, bicycle and pedestrian facilities, and on- and off-street parking in the vicinity of the Project are also described. Intersection and freeway levels of service are then defined and current conditions for roadways and intersections in the Project area vicinity are summarized.

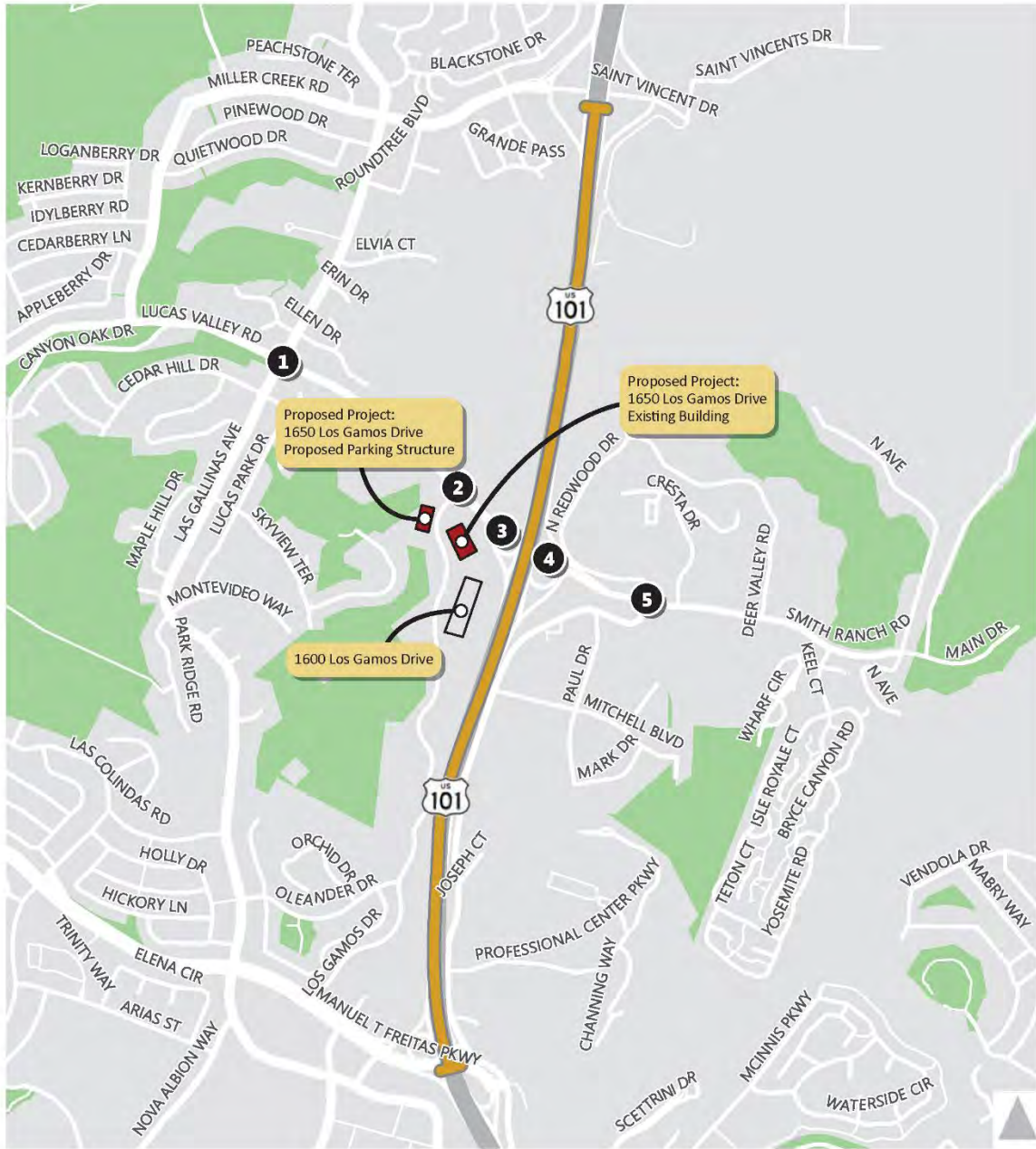
#### 4.6.1.1 Existing Roadway Network




The Project site is located at 1650 Los Gamos Drive in San Rafael, California. The Project site is bounded by Lucas Valley Road to north, US Highway 101 to the east, and is bisected by Los Gamos Drive running north to south. The Project site is surrounded by a mix of transportation resources that provide local and regional access to the site, including U.S. Highway 101, Lucas Valley Road, and local streets, bicycle lanes, sidewalks, and public transit. Primary access to the project site is via Los Gamos Drive. **See Figure 4.6-2** for roadways in the Project area.



Source: Fehr & Peers 2018

Figure 4.6-1: Proposed Site Plan



-  Study Intersections
-  Freeway Analysis Segment
-  Project Site

Source: Fehr & Peers 2018

**Figure 4.6-2: Study Intersections**

## **Regional Roadways**

**U.S. Highway 101 (U.S. 101)** is the main north-south freeway facility in Marin County. In the Project study area, U.S. 101 has eight travel lanes with major north-south interchanges located at Lucas Valley Road and Smith Ranch Road. U.S. 101 is designated as a State Highway in the Marin County Congestion Management Plan (CMP) roadway network from the Golden Gate Bridge / San Francisco County line to the Sonoma County line (TAM, 2014a). U.S. Highway 101 provides regional access to cities in the south such as San Francisco, San Jose, Gilroy and beyond and cities to the north, such as to Novato, Santa Rosa, Ukiah and beyond. U.S. 101 intersects Interstate 580 approximately 4.5 miles south of Lucas Valley Road and intersects State Highway 37 (SR-37) approximately 4 miles north of Lucas Valley Road.

**Interstate 580 (I-580)** extends in an east-west direction from Marin County through Contra Costa County to Alameda County. In the Project study area, I-580 connects with U.S. 101 about 4.5 miles south of Lucas Valley Road. Extending east from U.S. 101, I-580 has four travel lanes through the Richmond-San Rafael Bridge. I-580 is designated as a State Highway in the CMP roadway network from U.S. 101 to the Contra Costa County Line.

**California State Highway 37 (SR-37)** is a four to two-lane state highway connecting north Marin County to Sonoma, Napa and Solano County to the north east. In the Project study area, SR-37 connects with US 101 about four miles north of Lucas Valley Road. From the US 101 interchange, / SR-37 is a four-lane road heading northeast towards the Sonoma County line. At the Sears Point, State Route 112 turnoff, SR-37 becomes a two-lane divided road extending to the Napa/Solano County southern boundaries where it eventually terminates at Interstate 80 east.

## **Local Roadways**

**Lucas Valley Road** is primarily a two-lane road west of US 101 that provides east-west access between US 101 and Lucas Valley to the west. Near the US 101 interchange, Lucas Valley Road becomes a four-lane road, with two lanes in each direction and entrance and exit ramps to US 101. East of US 101, Lucas Valley Road becomes Smith Ranch Road. Lucas Valley Road is not a designated arterial road in the CMP roadway Network.

**Los Gamos Drive** is a two lane north-south facility with on-street parking and sidewalk on a majority of the corridor and is designated as a Class III bicycle route<sup>1</sup>. The north-south street bisects Lucas Valley Road, just west of US 101, at an unsignalized intersection. The Los Gamos Drive corridor provides access to several buildings fronting the west side of US 101 including the Project site.

**Smith Ranch Road** is a four-lane road with on-street parking and is a major access route from US 101 to the Project site. In addition to the unsignalized crosswalk at Silveira Parkway/Smith Ranch Road intersection, there is a marked crosswalk at the Yosemite Road/Smith Ranch Road

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<sup>1</sup>The Class III bicycle route is approximately 3,500 feet long and terminates at the 1401 Los Gamos Drive/emergency access location south of the Project site.



intersection.

**Las Gallinas Avenue** is a two-lane road with on-street parking and runs north-south, west of US 101. Las Gallinas Avenue also has bicycle lanes running from Nova Albion Way to Miller Creek Road. South of Northgate Drive, Las Gallinas becomes Los Ranchitos Road.

### 4.6.1.2 Transit Service

Golden Gate Transit is the primary regional transit provider within Marin and Sonoma Counties. Golden Gate Transit provides extensive bus service to the San Rafael Transit Center in Downtown San Rafael from Marin and Sonoma counties, San Francisco, and Contra Costa County. Marin Transit provides local bus service within Marin County. Bus service in the Project vicinity is provided along Lucas Valley Road, Smith Ranch Road, Las Gallinas Avenue, and along US 101. **Figure 4.6-3** illustrates the existing Golden Gate Transit and Marin Transit routes in the vicinity of the Project site. **Table 4.6-1** below describes the service provided on these routes and the nearest stops to the site. The nearest bus stop is at the US 101 / Lucas Valley Road interchange.

US 101 is an active bus corridor, particularly for regional bus travel. The bus stops at the US 101 / Lucas Valley Road interchange, referred to as the Lucas Valley Bus Pad, allows for nearby access and serves both local and regional routes serving people with origins or destinations outside the immediate vicinity. A Park & Ride surface lot is provided just east of the US 101 / Lucas Valley Road interchange. Two bus stops located near the Lucas Valley Road and Las Gallinas Avenue intersection, located 0.6 miles west of the Project site, serve routes including the 44, 245, and 257. Commute routes including route 44, 54, and 58 offer transportation to San Francisco though do not offer weekend services. Marin transit routes including route 35, 49, and 245 offer local service operating each day of the week. In 2017, the Marin County Board of Supervisors approved an employee shuttle between the SMART Civic Center station and the Civic Center arch on Judge Haley Drive in San Rafael.

**TABLE 4.6-1: GOLDEN GATE TRANSIT SERVICE SUMMARY**

Line <sup>1</sup>	Route	Nearest Stop	Weekday Operations		Weekend Operations	
			Hours of Operation	Frequency	Hours of Operation	Frequency
35	Canal- Novato	Lucas Valley Bus Pad	6:05 AM – 8:11 PM (SB) 6:41 AM – 11:12 PM (NB)	30 minutes	6:49 AM – 7:41 PM (SB) 7:11 AM – 11:05PM (NB)	30 minutes
44	Marinwood- San Francisco	Lucas Valley and Las Gallinas	6:41 AM – 9:04 AM (SB) 5:05 PM – 7:29 PM (NB)	60 minutes	-	-

49	San Rafael- Novato	Lucas Valley Bus Pad	6:11 AM – 8:10 PM (SB) 6:15 AM – 9:01 PM (NB)	30 minutes	8:20 AM – 10:55 PM (SB) 7:15 AM – 9:41 PM (NB)	60 minutes
54	Marin-San Francisco	Lucas Valley Bus Pad	4:40 AM – 10:02 AM (SB) 2:27 PM – 8:29 PM (NB)	30 minutes	-	-
58	Novato-San Francisco	Lucas Valley Bus Pad	6:06 AM – 9:06 AM (SB) 4:26 PM – 6:57 PM (NB)	30 minutes	-	-
70	Novato-San Francisco	Lucas Valley Bus Pad	5:00 AM – 12:38 AM (SB) 5:00 AM – 1:26 AM (NB)	60 minutes	5:00 AM – 12:28 PM (SB) 5:55 AM – 1:28 AM (NB)	60 minutes
245	Gallinas-San Rafael	Las Gallinas Ave/Cedar Hill Dr	7:28 AM – 6:55 PM (SB) 7:00 AM – 6:26 PM (NB)	60 minutes	7:30 AM – 6:55 PM (SB) 7:00 AM – 6:26 PM (NB)	60 minutes
257	San Rafael/Ignacio	Las Gallinas Ave/Cedar Hill Dr	6:00 AM - 10:25 PM (SB) 7:30 AM – 9:22 PM (NB)	60 minutes	-	-

Source: 1650 Los Gamos Drive - Final Traffic Impact Analysis Fehr & Peers 2018

### 4.6.1.3 Bicycle and Pedestrian Facilities

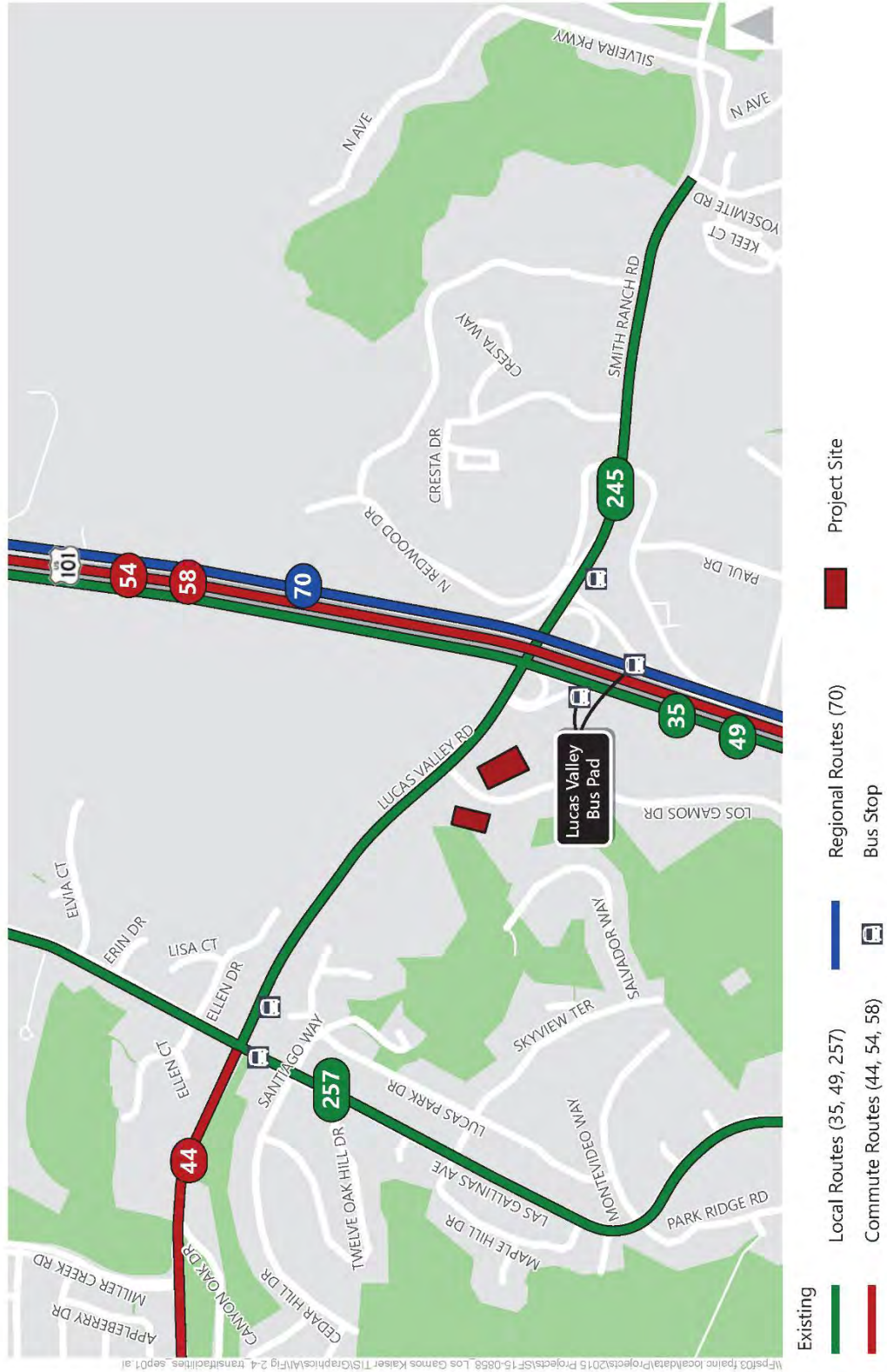
The San Rafael Bicycle / Pedestrian Master Plan (2011) defines bicycle facilities by three classes:

- **Class I Bicycle Facility:** Referred to as a bicycle path. It provides for two-way bicycle travel on a paved right-of-way completely separated from any street or highway. These are described in Section 1003.1 of the Caltrans Highway Design Manual.
- **Class II Bicycle Facility:** Referred to as a bicycle lane. It provides a striped and stenciled lane for one-way travel on a street or highway. These are described in Section 1003.2 of the Caltrans Highway Design Manual.
- **Class III Bicycle Facility:** Referred to as a bicycle route. It provides for shared use with pedestrian or motor vehicle traffic and is identified by signing and (sometimes) ‘Shared Roadway Bicycle Marking’ or ‘Sharrows’ stenciling. These are described in Section 1003.3 of the Caltrans Highway Design Manual.

Currently, Class II bicycle lanes are provided along Las Gallinas Avenue and Lucas Valley Road, west of Los Gamos Drive. Class III facilities are provided along Los Gamos Drive and Frontage Road. **Figure 4.6-4** illustrates the existing and proposed bicycle facilities in the study area.

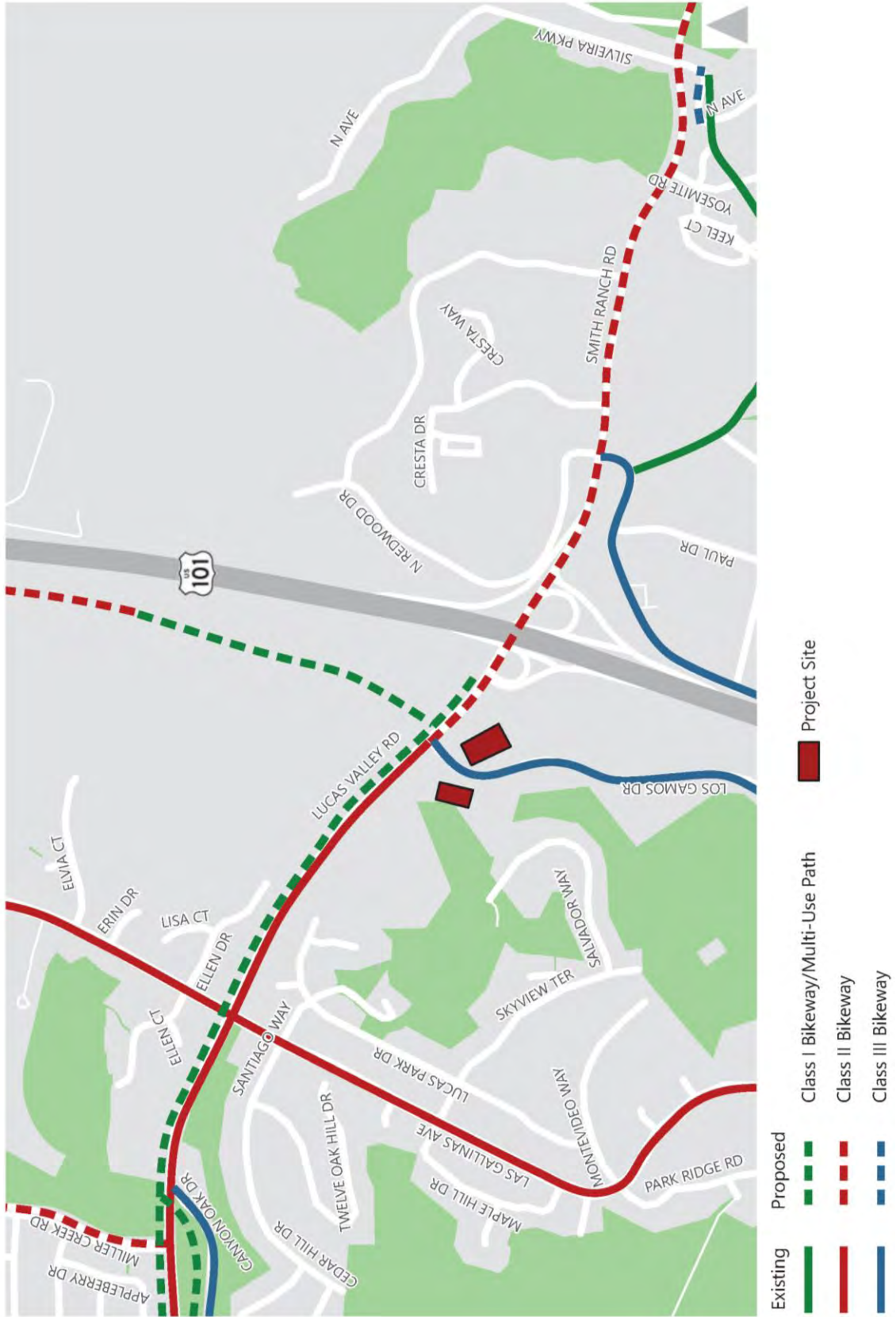
Sidewalks are present along Los Gamos Drive and Lucas Valley Road, two roads adjacent to the Project site. At the intersection of Los Gamos Drive and Lucas Valley Road there is a crosswalk across Los Gamos Drive serving the east / west direction. Along Lucas Valley Road there is a sidewalk along the south side of the corridor providing access to nearby transit stops; however, there are no pedestrian facilities provided on the north side from Las Gallinas Avenue to North Redwood Drive.

There is a midblock crosswalk on Los Gamos Drive serving the surface parking lot (which is the location of the future parking structure) and 1650 Los Gamos Drive building, as well as sidewalks serving both east and west sides of Los Gamos Drive. Additionally, a four foot-wide sidewalk is provided from the 1650 Los Gamos Drive surface parking lot directly to the Lucas Valley / Southbound US 101 intersection. There are two narrow foot paths located on the south side of Lucas Valley Road to the northbound and southbound transit stops on US Highway 101. Fehr & Peers observed several pedestrians using the foot path as an alternate route to and from the transit stop to reduce walking distance. **Figure 4.6-5** illustrates existing and proposed pedestrian facilities in the study area.



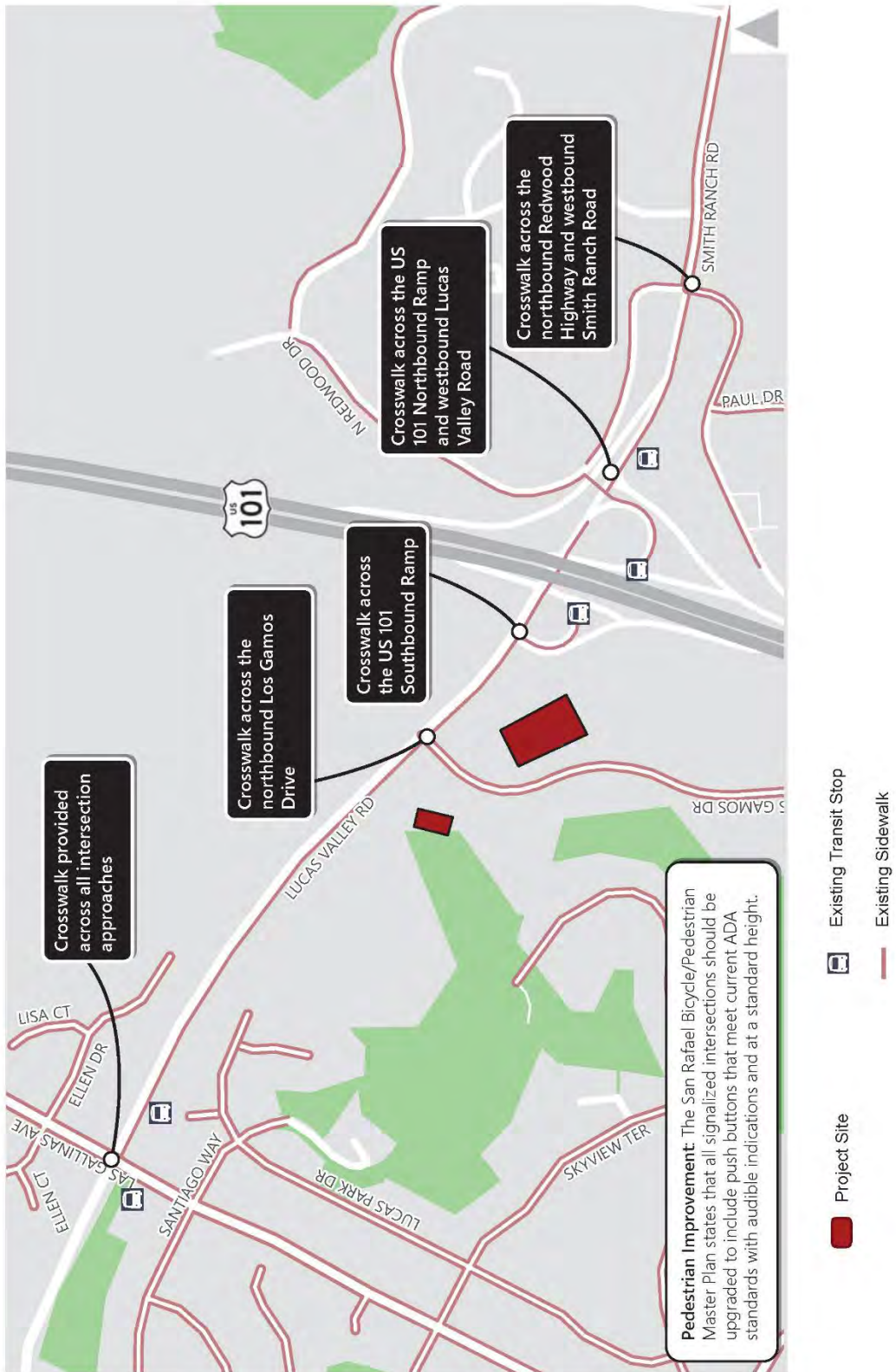
Source: Fehr & Peers 2018

**Figure 4.6-3: Transit Routes**



Source: Fehr & Peers 2018

**Figure 4.6-4: Existing and Proposed Bicycle Facilities**



Source: Fehr & Peers 2018

**Figure 4.6-5: Existing and Proposed Pedestrian Facilities**

## 4.6.2 Regulatory Setting

### 4.6.2.1 State

#### ***California Department of Transportation***

The California Department of Transportation (Caltrans) manages interregional transportation, including management and construction of the California highway system. In addition, Caltrans is responsible for permitting and regulation of the use of state roadways. Within proximity of the Project site, the freeway interchange at Lucas Valley Road/Smith Ranch Road and US Highway 101 falls under Caltrans' jurisdiction.

### 4.6.2.2 Regional

#### ***San Rafael General Plan 2020***

The San Rafael *General Plan 2020* provides guiding principles for maintaining and managing the City's transportation network. Goals, policies, and programs pertaining to transportation and circulation that are relevant to the proposed Project include the following (references to figures in the following section pertain to figures contained in the *General Plan 2020*):

#### **LU-2. Development Timing.**

For health, safety and general welfare reasons, new development should only occur when adequate infrastructure is available consistent with the following findings:

- a. Project-related traffic will not cause the level of service established in the Circulation Element to be exceeded;
- b. Any circulation improvements needed to maintain the level of service standard established in the Circulation Element have been programmed and funding has been committed;
- c. Environmental review of needed circulation improvement projects has been completed;
- d. The time frame for completion of the needed circulation improvements will not cause the level of service in the Circulation Element to be exceeded, or the findings set forth in Policy C-5 have been made;

#### **C-1. Regional Transportation Planning.**

Actively coordinate with other jurisdictions, regional transportation planning agencies, and transit providers to expand and improve local and regional transportation choice. Work cooperatively to improve transit and paratransit services, achieve needed highway corridor improvements, and improve the regional bicycling network. As part of this effort, support implementation of Marin County's *25-Year Transportation Vision*.

#### **C-4. Safe Roadway Design.**

Design of roadways should be safe and convenient for motor vehicles, transit, bicycles and pedestrians. Place highest priority on safety. In order to maximize safety and multimodal mobility, the City Council may determine that an intersection is exempt from the applicable intersection level of service standard where it is determined that a circulation improvement

is needed for public safety considerations, including bicycle and pedestrian safety, and/or transit use improvements.

**C-5. Traffic Level of Service Standards.**

**A. Intersection LOS.** In order to ensure an effective roadway network, maintain adequate traffic levels of service (LOS) consistent with standards for signalized intersections in the A.M. and PM.

**B. Arterial LOS.** The City Traffic Engineer may apply arterial level of service analysis as the primary method of analysis for any proposed development project.

**C. Exemptions.** Signalized intersections at Highway 101 and Interstate 580 on-ramps and off-ramps are exempt from LOS standards because delay at these locations is affected by regional traffic and not significantly impacted by local measures.

**D. Evaluation of Project Merits.** In order to balance the City's objectives to provide affordable housing, maintain a vital economy and provide desired community services with the need to manage traffic congestion, projects that would exceed the level of service standards set forth above may be approved if the City Council finds that the benefits of the project to the community outweigh the resulting traffic impacts.

**C-5a. LOS Methodology.** Use appropriate methodologies for calculating traffic Levels of Service, as determined by the City Traffic Engineer.

**C-5.1. Vehicle Miles Traveled (VMT) Methodology for Environmental Review of Traffic Impact.**

Pursuant to Public Resources Code § 21099 and 21083 (provided under Senate Bill 743, effective January 2016,) an alternative method for measuring transportation impacts of projects will replace the Level of Service (LOS) methodology. For environmental review, the use of the vehicle miles traveled (VMT) metric will be applied in assessing development projects.

**C-6. Proposed Improvements.**

The proposed circulation improvements in Exhibit 21 have been identified as potentially needed to improve safety and relieve congestion in San Rafael over the next 20 years. Major Proposed Circulation Improvements include those improvements deemed necessary to maintain City LOS standards. Other recommended roadway improvements include additional improvements that may become necessary in the long-term and are desirable to enhance San Rafael's circulation system, but are not necessary to maintain LOS standards. Specific improvements will be implemented as conditions require, and will be refined during the design phase. Recognize that other feasible design solutions may become available and be more effective in achieving the same goals as the improvements listed in Exhibit 19, and allow for their implementation, consistent with the most recent engineering standards. As conditions change, planned roadway improvements may be amended, through the annual General Plan Review. Roadway improvements are implemented through the Capital Improvements Program, and are typically funded through a variety of sources, including Traffic Mitigation Fees. Environmental review is required.



**C-7. Circulation Improvements Funding.**

Take a strong advocacy role in securing funding for planned circulation improvements. Continue to seek comprehensive funding that includes Federal, State, County, and Redevelopment funding, Local Traffic Mitigation Fees, and Assessment Districts. The local development projects' share of responsibility to fund improvements is based on: (1) the generation of additional traffic that creates the need for the improvement; (2) the improvement's role in the overall traffic network; (3) the probability of securing funding from alternative sources; and (4) the timing of the improvement.

**C-8. Eliminating and Shifting Peak Hour Trips.**

Support efforts to limit traffic congestion through eliminating low occupancy auto trips or shifting peak hour trips to off-peak hours. Possible means include telecommuting, walking and bicycling, flexible work schedules, car and vanpooling and other Transportation Demand Management approaches.

**C-9. Access for Emergency Services.**

Provide safe routes for emergency vehicle access so that emergency services can be delivered when Highway 101 or 580 are closed or congested with traffic.

**C-11. Alternative Transportation Mode Users.**

Encourage and promote individuals to use alternative modes of transportation, such as regional and local transit, carpooling, bicycling, walking and use of low-impact alternative vehicles. Support development of programs that provide incentives for individuals to choose alternative modes.

**C-12. Transportation Demand Management.**

Work cooperatively with governmental agencies, non-profits, businesses, institutions and residential neighborhoods to create new and effective Transportation Demand Management (TDM) programs to minimize single occupancy automobile use and peak period traffic demand.

**C-25. Meeting Local Circulation Needs Around Highway Interchanges.**

Work with appropriate agencies to address local circulation needs for all modes when freeway improvements are planned and constructed.

**C-26. Bicycle Plan Implementation.**

Make bicycling and walking an integral part of daily life in San Rafael by implementing the San Rafael's *Bicycle and Pedestrian Master Plan*.

**C-27. Pedestrian Plan Implementation.**

Promote walking as the transportation mode of choice for short trips by implementing the pedestrian element of the City's *Bicycle and Pedestrian Master Plan*. In addition to policies and programs outlined in the *Bicycle and Pedestrian Plan*, provide support for the following programs:

**C-32. Parking for Alternative Modes of Transportation.**

Use preferential parking as an incentive to encourage alternative modes of transportation.

## **Marin Countywide Plan**

The *Transportation* Section of the *Built Environment Element* of the Marin Countywide Plan provides guiding principles for maintaining and managing the County's transportation network. Although the proposed Project is contained within the San Rafael City Limits, potential improvements to the local circulation system would be located in Marin County's jurisdiction. Goals, policies, and programs pertaining to transportation and circulation that are relevant to the proposed Project include the following:

### **Goal TR-1. Safe and Efficient Movement of People and Goods.**

Provide a range of transportation options that meets the needs of residents, businesses, and travelers.

*Policy TR-1.1, Manage Travel Demand.* Improve the operation efficiency of the transportation system by reducing vehicle travel demand and provide opportunities for other modes of travel.

*Policy TR-1.2, Maintain Service Standards.* Establish level of service standards for vehicles on streets and highways and performance standards for transit, bicycles, pedestrians, and other modes of transportation.

*Program TR-1.d, Coordinate with Local Agencies.* Work with a proposed City-County Planning Committee, Department of Public Works, Transportation Authority of Marin, Metropolitan Transportation Commission, and other Bay Area counties to coordinate transportation system planning, including updating the County Congestion Management Program and the Capital Improvement Program to prioritize the projects that will meet the goals of the County Transportation Vision.

*Program TR-1e, Uphold Vehicle Level of Service Standards.* Uphold peak-hour vehicle level of service standard of LOS D or better for urban and suburban arterials and LOS E or better for freeways and rural expressway. Level of service standards should adhere to established standards for designated roadways in the Congestion Management Program system.

*Program TR-1g, Determine Appropriate Mitigation.* Work with the Transportation Authority of Marin to monitor traffic impacts of development and identify mitigation requirements for proposed development that would cause a drop below adopted LOS, including transportation system improvements, impact fees, Transportation Demand Management strategies, direct support of alternative travel modes, or redesign the development of projects for transportation improvements.

*Program TR-1s, Vehicle Miles Traveled (VMT) Reduction Monitoring and Implementation and Transportation Demand Management Program.* Identify and require in new developments specific transportation demand management (TDM) strategies for reducing the VMT below levels that would otherwise occur.

### **Goal TR-2, Increased Bicycle and Pedestrian Access.**

Expand bicycle and pedestrian facilities and access in and between neighborhoods, employment centers, shopping areas, schools, and recreational uses.

*Policy TR-2.2, Provide New Bicycle and Pedestrian Facilities.* Where appropriate, require new development to provide trails or roadways and paths for use by bicycles and/or on-street bicycle and pedestrian facilities. In-lieu fees may be accepted if warranted in certain cases.

*Program TR-2b, Adopt Standards for Pedestrian and Bicycle Access.* As appropriate, require new development and redevelopment projects to address the following: bicycle and pedestrian access internally and to other areas through easements; safe access to public transportation and construction of paths that connect with other non-motorized routes; safe road crossings at major intersections for school children and seniors; and secure, weatherproof bicycle storage facilities and shower/changing room facilities for bicycle commuters. Ensure that such facilities will have ongoing maintenance.

### **Transportation Authority of Marin**

The Transportation Authority of Marin (TAM) serves as the Congestion Management Agency (CMA) of Marin County. As the County's CMA, TAM is responsible for managing the county's blueprint to reduce congestion and improve air quality. TAM is authorized to set state and federal funding priorities for transportation improvements affecting the Marin County Congestion Management Program (CMP) transportation system (TAM, 2014). Roadways in proximity to the Project site that are designated in the CMP roadway system include U.S. 101, I-580, and Sir Francis Drake Boulevard. TAM forwards the County's prioritized list of projects to the Metropolitan Transportation Commission (Metropolitan Planning Organization [MPO] for the San Francisco Bay Area) for incorporation into the regional list to receive state and federal funding.

### **Congestion Management Program**

The CMP specifies a system of highways and roadways for which traffic level of service standards are established. The CMP system includes all freeways, state highways, and principal arterials in the County. The program sets level of service standards for all CMP roadway segments and intersections. Lucas Valley Road has a level of service standard of LOS D, and the LOS standard for freeways (I-580, U.S. 101) is LOS E. The CMP also contains an element promoting the use of alternative transportation modes and ways to reduce future travel demand. Improving the county's jobs/housing balance and implementing travel demand management strategies are specifically mentioned as ways of attaining the objectives of this element of the CMP. TAM requires local jurisdictions to analyze impacts of new developments or land use policy changes on CMP facilities. TAM has adopted an annual schedule for monitoring the CMP Roadway System. The last monitoring report was completed in 2014 (TAM, 2014).

## 4.6.3 Impact Analysis

### 4.6.3.1 Significance Criteria

Consistent with CEQA *Guidelines* Appendix G (Environmental Checklist), the Project could have a significant impact if it would:

- a) Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation, including mass transit, non-motorized travel, and relevant components of the circulation system (including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit);
- b) Conflict with an applicable congestion management program (CMP), including, but not limited to, level of service (LOS) standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways;
- c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in locations that results in substantial safety risks;
- d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);
- e) Result in inadequate emergency access; or
- f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

In addition to the criteria above, the following standards were used to identify significant impacts of the proposed Project:

#### ***San Rafael General Plan 2020***

The following transportation and circulation significance criteria based on the CEQA Guidelines and the *San Rafael General Plan 2020* (City of San Rafael, 2004) are presented below.

The CEQA Guidelines specify that a project would have a significant traffic and circulation impact if it:

- Conflicts with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.

- Conflicts with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.
- Results in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks
- Substantially increases hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- Conflicts with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

### ***Signalized Intersections***

The San Rafael *General Plan 2020* includes traffic LOS standards for signalized intersections and arterials. These criteria and interpretations consistent with the San Rafael *General Plan 2020 EIR* (City of San Rafael, 2004), are presented below.

The citywide LOS standard from the San Rafael *General Plan 2020* is LOS D except as noted below:

- **LOS E**
  - Downtown
  - Irwin Street and Grand Avenue between 2nd Street and Mission Avenue
  - Andersen Drive and West Francisco Boulevard
  - Andersen Drive and Bellam Boulevard
  - Freitas at Civic Center/Redwood Highway
  - Merrydale at Civic Center Drive
- **LOS F**
  - Mission Avenue and Irwin Street

The San Rafael *General Plan 2020* defines the following as significant impacts:

- If a signalized intersection with baseline traffic volumes is operating at an acceptable LOS and deteriorates to an unacceptable operation with the addition of project traffic
- If a signalized intersection with baseline traffic volumes is at an unacceptable LOS and project traffic causes an increase in the delay of five seconds or more

The San Rafael *General Plan 2020* states that signalized intersections along US 101 and Interstate 580 are exempt from LOS standards because delay at these locations are affected by regional traffic and not significantly impacted by local measures.

### ***Unsignalized Intersections***

The San Rafael *General Plan 2020* does not provide significance thresholds for unsignalized intersections. Therefore, this analysis utilizes the commonly accepted methodology provided in the 2010 Highway Capacity Manual (HCM) as documented by the Transportation Research Board. For the purposes of this analysis, a significant impact at an unsignalized intersection would be identified based on the following:

- If an unsignalized intersection with baseline traffic volumes is operating at an acceptable LOS (LOS A, B, C, D, or E) and deteriorates to an unacceptable operation (LOS F) with the addition of Project traffic; or
- If an unsignalized intersection with baseline traffic volumes is already operating at LOS F and Project traffic causes an increase in the delay of five seconds or more.

### ***Freeway Interchanges***

The San Rafael *General Plan 2020* and TAM CMP do not provide significance thresholds for freeway segments. Therefore, this analysis utilizes the commonly accepted methodology consistent with other traffic impact studies completed in the surrounding area. For the purposes of this analysis, a significant impact at a freeway segment would be identified based on the following:

- If operations on US 101 deteriorate from LOS E or better under conditions without the project to LOS F during the AM or PM peak hour; or
- If operations on US 101 operating at unacceptable LOS F under conditions without the project by causing the freeway volume over capacity ratio (v/c) to increase by 0.01 or more (i.e. 1 percent of the freeway segment capacity) during the AM or PM peak hour.

## **4.6.3.2 Impacts Not Further Evaluated**

***Results in a change in air traffic patterns, including either an increase in traffic levels or a change in locations that result in substantial safety risks.*** Due to the nature of the proposed Project, there would be no impacts related to air traffic patterns as the Project would not introduce new air traffic or interfere with existing air traffic. The nearest private airport is San Rafael Airport, about one mile east of the Project site. This impact category, listed in the significance criteria above as an impact topic to consider in a CEQA evaluation, is therefore not further examined.

## **4.6.3.3 Approach to Analysis**

Intersection and freeway results will be summarized by Level of Service (LOS). LOS is a qualitative description of operations ranging from LOS A, when the roadway facility has excess capacity and vehicles experience little or no delay, to LOS F, where the volume of vehicles exceeds the capacity, resulting in long queues and excessive delays. Typically, LOS E represents “at-

capacity” conditions and LOS F represents “over-capacity” conditions. Intersection and freeway LOS were established based on traffic analysis of the study intersections, conducted using a method documented by the Transportation Research Board (TRB) in the 2010 HCM.

Intersections are generally the critical capacity-controlling elements of suburban roadway networks. Therefore, the operations of critical intersections surrounding the Project site are used as indicators of the adequacy of the vehicular circulation system. Five intersections were selected by City of San Rafael staff as those most likely to be affected by the Project and thus warranting analysis.

The Fehr & Peers analysis for the proposed Project focused on the AM and PM peak hour operations at the following intersections (**Figure 4.6-1 above**):

1. Lucas Valley Road and Las Gallinas Avenue
2. Lucas Valley Road and Los Gamos Drive
3. Lucas Valley Road and US 101 Southbound Ramps
4. Lucas Valley Road and Smith Ranch Road and US 101 Northbound Ramps
5. Smith Ranch Road and N Redwood Drive and Redwood Highway

Freeways provide regional access connecting different cities and communities. Near the Project site, US 101 serves as a major regional freeway system and its operations are critical to provide access to the Project site. Two freeway segments were selected as the most likely to be affected by the Project: US 101 between Miller Creek and Lucas Valley Road and US 101 between Lucas Valley Road and Manuel T Freitas Parkway.

Freeway segments are typically divided into four sections: merge, diverge, weave, and basic:

- Merge and diverge segments extend 1,500 feet downstream and upstream, respectively, from the ramp gore (where the freeway mainline and ramp split)
- Weave segments must have a continuous auxiliary lane connecting the on-ramp and the downstream off-ramp
- All other freeway segments not covered by the above are considered basic segments

Additionally, existing pedestrian, bicycle, and transit facilities within the Project study area were identified and the Project’s impacts to these existing facilities were evaluated. The analysis includes an evaluation of transportation conditions during a typical weekday AM and PM peak hour, occurring between 7:00 to 9:00 AM and 4:00 to 6:00 PM, when the surrounding transportation network is at its most congested.

The Fehr & Peers *1650 Los Gamos FTIA* report presents the analysis of the following scenarios:

- **Existing No Project**– Based on recently collected traffic counts (in order to calibrate micro-simulation model).
- **Existing Plus Project**– Traffic volumes from existing conditions plus traffic volume estimates for the proposed Project.
- **Baseline No Project**– Existing conditions volumes plus traffic estimates for approved, but not yet constructed, developments; background traffic increases due to regional growth expected prior to the proposed Project opening; and approved/funded transportation system improvements expected to be in place when the Project opens.
- **Baseline Plus Project**– Traffic volumes from Baseline conditions plus traffic volume estimates for the proposed Project.
- **Cumulative No Project**– Traffic estimates for development patterns as proposed in the *San Rafael General Plan 2020*; background traffic increases due to regional growth expected through year 2020; and approved/funded/proposed transportation system improvements.
- **Cumulative Plus Project**– Traffic volumes from *San Rafael General Plan 2020* conditions plus traffic volume estimates for the proposed Project

At the time of data collection (November 2015), the building was 34-percent occupied (50,000 sq ft) with office and now it is 7-percent occupied with two-office tenants. However, since the time the building was constructed in the late 1970's, through 2006, the building was 100-percent occupied by office uses. From 2006 to 2016 the building occupancy ranged from 25-percent to 40-percent. The Great Recession and subsequent building purchase in 2015 for re-use contributed to a lower occupancy rate than usual in the last ten years. Historically, the existing building has been 100-percent occupied with general office uses. Therefore, it is reasonable to foresee that, should the Project not be approved, the building could continue to be 100-percent occupied with general office uses without the need for a discretionary permit. Thus, for the purpose of this analysis the Baseline No Project and Cumulative No Project assumes 100-percent office occupancy.

Detailed descriptions of travel demand forecasting methodologies per study scenario are presented in the Fehr & Peers *1650 Los Gamos Drive FTIA* report (Appendix E to this DEIR).

#### **4.6.3.4 Analysis Methods**

##### ***Study Intersections***

The traffic analysis software Synchro/SimTraffic 9.0 was used for this study and was based on the City's existing traffic model. For purposes of modeling the entire network as a "system", micro-simulation (SimTraffic) was used. The primary difference between SimTraffic and HCM is that the HCM analyzes intersections in isolation and does not include the effects of upstream or downstream intersections, which directly affect traffic flow. SimTraffic provides measures of effectiveness that are consistent with the HCM such as movement delay and weighted average delay.



For signalized intersections, the LOS is based on the average delay experienced by all vehicles passing through the intersection. This methodology uses various intersection characteristics (such as traffic volumes, lane geometry, and signal phasing) to estimate the delay per vehicle. The delay is the portion of the total delay attributed to the signal operations and includes initial deceleration, queue move up time, time stopped, and acceleration.

At unsignalized intersections, operations are defined by the average control delay per vehicle (measured in seconds) for each stop-controlled movement. This incorporates delay associated with deceleration, acceleration, stopping, and moving up in the queue. For side-street stop-controlled intersections, LOS is not defined for the intersection as a whole. Instead, the average delay and associated LOS reported in this study is for the worst-case controlled approach. For all-way stop-controlled intersections, the LOS is represented by the average control delay for the whole intersection.

**Table 4.6-2** shows the correlation of average control delays and LOS designations for signalized and unsignalized intersections.

**TABLE 4.6-2: INTERSECTION LOS CRITERIA**

Level of Service	Average Control Delay (seconds/vehicle)	
	Signalized	Unsignalized
A	< 10.0	< 10.0
B	> 10.0 to 20.0	> 10.0 – 15.0
C	> 20.0 to 35.0	> 15.0 – 25.0
D	> 35.0 to 55.0	> 25.0 – 35.0
E	> 55.0 to 80.0	> 35.0 – 50.0
F	> 80.0	> 50.0

Source: Fehr & Peers 1650 Los Gamos Drive Final Traffic Impact Analysis - 2018

### **Freeways**

Similar to intersections, the operating characteristics of freeway basic, merge, and diverge segments are evaluated using the concept of LOS. Freeway section LOS is based on vehicle density (passenger cars per lane per mile). **Table 4.6-3** shows the correlation of density and LOS. Freeway ramp density was calculated using the methods described in Chapter 13 of the HCM. The inputs to calculate freeway segment densities would be obtained through Caltrans data and field observations.

**TABLE 4.6-3: FREEWAY LOS CRITERIA**

LOS	Density (pc/mi/ln) <sup>1</sup>
A	< 11
B	> 11 – 18

C	> 18 – 26
D	> 26 – 35
E	> 35 – 45
F	> 45

Notes: 1. pc/mi/ln = passenger car per mile per lane Source: 2010 Highway Capacity Manual.

Source: Fehr & Peers 1650 Los Gamos Drive Final Traffic Impact Analysis - 2018

The purpose of the freeway analysis is to determine the Project’s contribution to the available capacity on the freeway; therefore, the Highway Capacity Software (HCS) was used to complete this analysis. HCS is an appropriate analysis tool because it applies the freeway methodologies in the HCM by accounting for the volume demand and available capacity by segment. The HCS tool is a static model which does not account for downstream queues. However, since the purpose of this analysis is to determine the Project’s contribution to the regional network, and not to determine or mitigate existing bottlenecks or queues, the static model approach was the most appropriate to account for the Project’s contribution. To supplement for existing queues as a result of downstream bottlenecks, field observations were completed and included in analysis findings.

#### 4.6.3.5 Data Collection

In November 2015, Fehr & Peers collected weekday morning (7:00 to 9:00 AM) and evening (4:00 to 6:00 PM) peak period intersection turning movement counts at the study intersections, including separate counts of pedestrians and bicyclists, supplemented with field observations within the Project study area. Intersection count data was analyzed to identify the single hour with the highest traffic volumes during the count periods. The weekday AM peak hour in the study area is generally 7:45 to 8:45 AM and the weekday PM peak hour is generally from 5:00 to 6:00 PM. Peak hour intersection volumes are summarized on **Figure 4.6-6** along with existing lane configuration and traffic control. The traffic counts for existing conditions are provided in **Appendix A** of the Fehr & Peers *1650 Los Gamos Drive FTIA* (see Appendix E to this DEIR).

#### 4.6.3.6 Intersection Operations

Existing intersection operations were evaluated using the method described in Chapter 1 of the Fehr & Peers *1650 Los Gamos Drive FTIA* for the weekday AM and PM peak hours at all study intersections. The existing levels of service of study intersections can be seen in **Table 4.6-4**. Observed global peak hour factors were used at all intersections for the existing analysis. Pedestrian and bicycle activity was also factored into the analysis.

All intersections are operating at an acceptable level of service C or better during the AM and PM peak hour conditions, consistent with field observations conducted in November 2015. **Appendix B** in the Fehr & Peers *1650 Los Gamos Drive FTIA* presents all LOS calculations (see Appendix E to this DEIR).

**TABLE 4.6-4: INTERSECTION LOS AND DELAY**

<b>Intersection</b>	<b>Intersection Control<sup>1</sup></b>	<b>Time Period</b>	<b>LOS<sup>2,3</sup></b>	<b>Delay<sup>2,3</sup></b>
1. Lucas Valley Road and Las Gallinas Avenue	Signal	AM PM	C B	22 14
2. Lucas Valley Road and Los Gamos Drive	SSSC	AM PM	A (C) A (A)	<10 (17) <10 (<10)
3. Lucas Valley Road and US 101 Southbound Ramps	Signal	AM PM	B C	16 22
4. Lucas Valley Road / Smith Ranch Road and US 101 Northbound Ramps	Signal	AM PM	B B	20 12
5. Lucas Valley Road / Smith Ranch Road and Redwood Drive / Redwood Highway	Signal	AM PM	A B	10 12

Notes:

1. SSSC = Side-Street Stop Control
2. Worst approach is noted for side street stop controlled intersections.
3. **Bold** denotes unacceptable level of service and delay.

Source: Fehr & Peers 2018

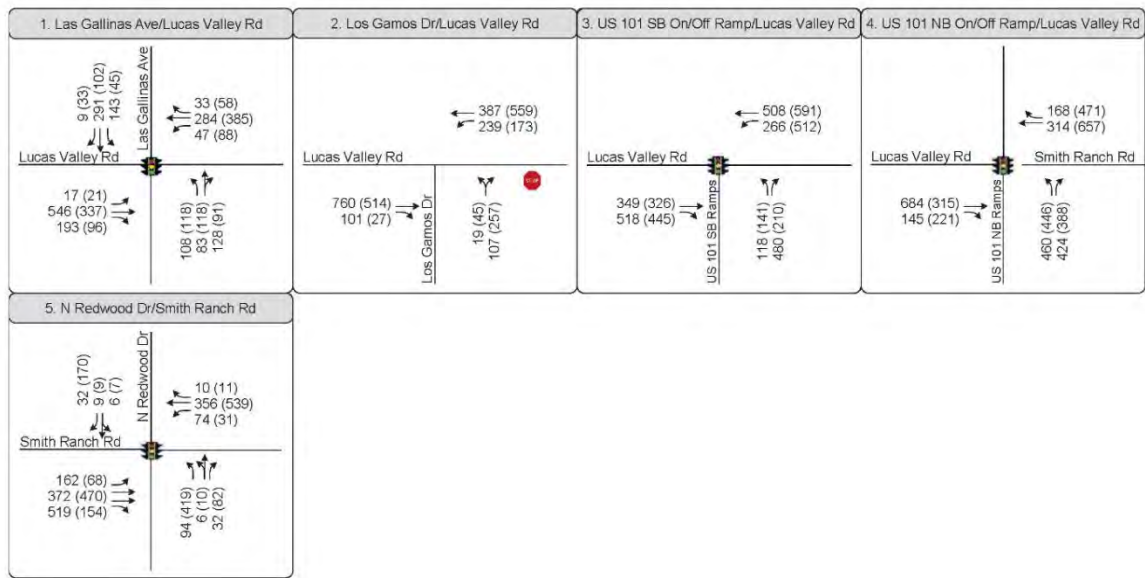
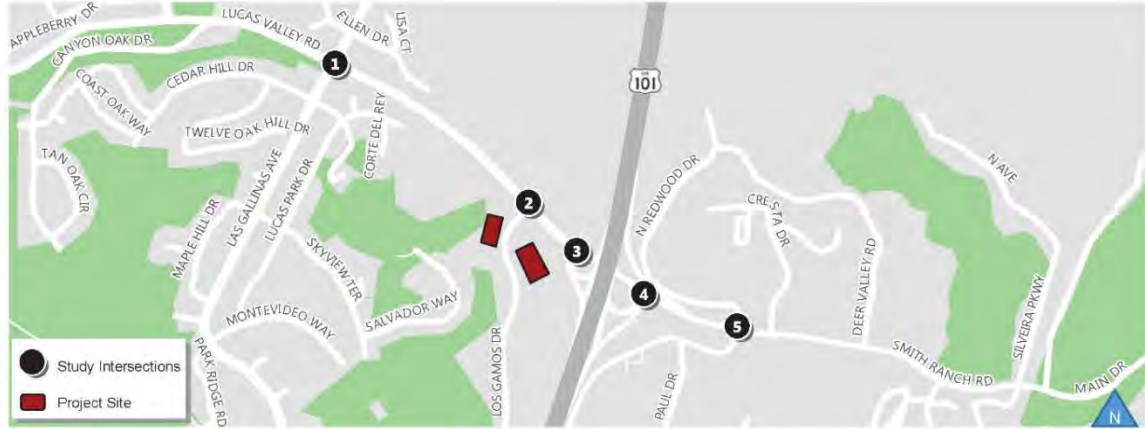
### **Traffic Signal Warrant Analysis**

The Manual of Uniform Traffic Control (MUTCD) (Federal Highway Administration 2012) presents eight signal warrants to assess if existing stop-controlled intersections warrant signalization. Three of the eight signal warrants were used in this study as a supplemental analysis tool to assess operations at the unsignalized intersection of Los Gamos Drive and Lucas Valley Road, including:

- Warrant 1: Eight Hour Signal Warrant
- Warrant 2: Four Hour Signal Warrant
- Warrant 3: Peak Hour Signal Warrant

Based on this analysis, existing conditions currently fulfill the peak hour warrant for a signalized intersection, therefore a signal should be considered at this intersection. Signal warrant worksheets are provided in **Appendix C** of the Fehr & Peers *1650 Los Gamos Drive FTIA* (see Appendix E to this DEIR).

4. Environmental Setting, Impacts, and Mitigation Measures  
 6. Transportation and Circulation



**Legend**

XX(YY) AM (PM) Peak Hour Traffic



Signalized Intersection



Stop Controlled Approach

Source: Fehr & Peers 2018

**Figure 4.6-6: Existing Peak Hour Intersection Volumes, Lane Control, and Lane Configuration**

### 4.6.3.7 Freeway Operations

Under the guidelines in the Freeway discussion above, the on-ramp merge, off-ramp diverge, and basic segments located near the Project site were analyzed. **Table 4.6-5** summarizes the freeway segment density and LOS results. Detailed calculations are included in **Appendix D** of the Fehr & Peers *1650 Los Gamos Drive FTIA* (see Appendix E to this DEIR). As shown, all segments operate at acceptable levels during the AM and PM peak hour which is consistent with existing field observations. The one exception is the southbound segments during the AM peak hour which operates over capacity and under congested conditions. As described above, the analysis software did not account for downstream bottlenecks. As a result, the software accounted for the number of vehicles that are able to use the facility, not the number of vehicles that want to use the facility and are in queue (demand). Additionally, the methodology accounts for the free-flow speed and does not account for the observed or congested speed based on downstream bottlenecks. The southbound AM peak hour queue through the study area is a result of a downstream bottleneck located between the San Pedro on-ramp and Mission Avenue off-ramp near Downtown San Rafael.

**TABLE 4.6-5: EXISTING CONDITIONS FREEWAY DENSITY AND LOS**

Segment	Segment Type	AM Peak Hour		PM Peak Hour	
		Density (pc/mi/ln) <sup>1</sup>	LOS <sup>2</sup>	Density (pc/mi/ln) <sup>1</sup>	LOS
<b>Northbound</b>					
Manuel T Freitas Off / Manuel T Freitas On	Basic	19.4	C	28.6	D
Manuel T Freitas On / Redwood Highway On	Basic	15.9	B	33.7	D
Redwood Highway On	Merge	18	B	25.5	C
Smith Ranch Road Off	Basic	16.4	B	24.7	C
Smith Ranch Road Off / Lucas Road EB On	Basic	18	B	21.7	C
Lucas Road EB On / Smith Ranch Road WB On	Basic	14	B	22.4	C
Smith Ranch Road WB On	Merge	16.7	B	25.5	C
Miller Creek Off	Basic	14.5	B	24.1	C
Miller Creek On	Basic	18.7	C	32.9	D
<b>Southbound</b>					
Miller Creek Off	Basic	19.8	<b>F<sup>3</sup></b>	21.1	C
Miller Creek On	Merge	28.8	<b>F<sup>3</sup></b>	24.7	C
Lucas Valley Road Off	Basic	18.3	<b>F<sup>3</sup></b>	16.5	B
Lucas Valley Road Off / Lucas Valley Road On	Basic	21.9	<b>F<sup>3</sup></b>	20.5	C

Lucas Valley Road On	Merge	28.6	<b>F<sup>3</sup></b>	28.5	D
Lucas Valley Road On / Manuel T Freitas Off	Basic	25.5	<b>F<sup>3</sup></b>	24.8	C
Manuel T Freitas Off	Diverge	31.1	<b>F<sup>3</sup></b>	30.4	D
Manuel T Freitas Off / Manuel T Freitas On	Basic	21.4	<b>F<sup>3</sup></b>	21.4	C

Notes:

1. pc/mi/ln = passenger car per mile per lane
2. **Bold** = unacceptable LOS
3. The LOS results were revised to match existing observations.

Sources: Fehr & Peers, 2018

## 4.6.4 Traffic Conditions

### 4.6.4.1 Project Considerations

As discussed in the Chapter 4.6 summary above, the Project involves the redevelopment of an existing approximately 148,000 square foot office building at 1650 Los Gamos Drive to permit the addition of medical office as an allowed use. The Project also proposes to construct an up to 476-space three-level, plus upper ramp, parking structure on the west side of Los Gamos Drive, where there is an existing surface parking lot associated with the building. The project will also continue to use 42 existing parking spaces located on the adjacent property at 1600 Los Gamos Drive via an existing legal easement. For purposes of the Fehr & Peers *1650 Los Gamos Drive FTIA*, the building was assumed to include 150,000 square feet, the maximum amount of development allowed under the existing zoning.

The components of the Project were used to evaluate the Project trip generation, distribution, and assignment characteristics, allowing for an evaluation of Project impacts on the surrounding roadway network. Fehr & Peers estimated the amount of traffic associated with the Project using a three-step process:

- 1) **Trip Generation** – The *amount* of vehicle traffic entering/existing the Project site was estimated.
- 2) **Trip Distribution** – The *direction* of trips would use to approach and depart the site was projected.
- 3) **Trip Assignment** – Trips were then *assigned* to specific roadway segments and intersection turning movements.

### 4.6.4.2 Transportation Demand Management (TDM) Considerations

In addition to assessing the Project components, Fehr & Peers included Kaiser Permanente’s Transportation Demand Management (TDM) program as a component of the Project. TDM

programs are a set of tools that incentivize users to change their transportation mode choice from a single occupant vehicle. As a result, a TDM program can reduce impacts to a transportation system by reducing trip generation, air quality, energy use, and travel costs, while still preserving mobility options. As part of the PD District approval, Kaiser Permanente is subject to participating in a TDM program that includes:

- A TDM manager who is responsible for but not limited to: developing and disseminating transportation information, aiding employees in the selection of transportation options, communicating available transit alternatives, and informing tenants of the benefits of flexible work schedules;
- A transit information center that describes current public transit, buspools, vanpools, carpools and shuttle services serving the area;
- A carpool and vanpool matching program

In addition to the above required program, the Kaiser Permanente will include additional TDM program strategies, most of which are currently implemented at nearby Kaiser Permanente facilities, including:

- Commuter subsidy for transit, bicycle or vanpool use
- Pre-tax community spending accounts
- Guaranteed Ride Home program
- Internal website that provides information on the San Rafael Kaiser Permanente TDM program and alternative modes of transportation to/from the site
- Designated bicycle parking on-site
- Local Kaiser Shuttle: An employee shuttle linking the SMART Station and San Rafael Kaiser Permanente facilities
- Provide on-site amenities such as a café to reduce midday vehicle trips and exercise programs to spread out some vehicle trips before the AM peak hour and following the PM peak hour
- Partner with organizations to provide employees with additional information on transportation options and encourage employees to attend Kaiser-sponsored events such as Wellness Events

Kaiser Permanente's TDM program will also include exploring additional program opportunities, including:

- Partner with the City of San Rafael and nearby businesses to explore opportunities to enhance nearby bicycle facilities
- Work with local transit providers to support improvements to the regional transit system
- Explore the dedication of on-site parking spaces for use by car-sharing services
- Partner with neighboring businesses (such as the Marin County Department of Education and YMCA) to identify additional programs to increase transit usage and spread out peak hour trips such as discounts for transit passes and/or a shared shuttle; and discounted gym

- memberships for nearby facilities
- Allow staff to adjust start/end their work times to better match transit schedules

As discussed in the *1650 Los Gamos Drive FTIA*, Kaiser Permanente applies similar strategies at other Bay Area locations to reduce vehicle trip generation. In order to understand the effectiveness of the program, Kaiser Permanente is committed to completing an annual employee transportation survey that will ask employees how the travel to the project site, time of day, and mode. The results of the survey will be reviewed by Kaiser Permanente staff, such that adjustments to the TDM program could be made in order to address employee needs. Based on guidance provided by the California Air Pollution Control Officers Association (CAPCOA), the maximum vehicle trip reduction for suburban developments such as the Project is generally accepted to be 15-percent. Thus, it is expected that even with implementation of the comprehensive TDM program as described above, vehicle trip generation would be reduced by no more than 15-percent.

In order to present a conservative analysis, Fehr & Peers did not make reductions to the Project trip generation to account for the TDM strategies. Therefore, the Project trip generation in *1650 Los Gamos Drive FTIA* is conservative and the actual number of trips generated by the Project may be lower than presented and lower than the number of trips assumed for impact analysis purposes.

#### 4.6.4.3 Project Trip Generation

Trip generation refers to the process of estimating the amount of vehicular traffic a project would add to the surrounding roadway system. Estimates are created on a daily basis and for the peak one-hour periods during the morning and evening commute periods when traffic volumes on the adjacent streets are the highest. The Project trip generation was estimated using rates from the Institute of Transportation Engineers *Trip Generation* (9th Edition) land use numbers 710 (office building) and 720 (medical office building).

The net new Project trips represent the increase in vehicular trips that the building would generate after the 150,000 square foot building is occupied by medical office instead of general office. **Table 4.6-6** shows the Project's daily, weekday AM peak hour, and weekday PM peak hour contribution. As shown, the Project would contribute net new 3,765 daily, 125 AM and 312 PM peak hour trips, in addition to the trips that would be generated by the site's permitted land uses (Planned Development Allowed).



**TABLE 4.6-6: PROJECT TRIP GENERATION ESTIMATES**

Scenario	Land Use	ITE Code <sup>1</sup>	Size (KSF) <sup>2,3</sup>	Daily	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
Planned Development (PD) Allowed	General Office	710	150	1,655	206	28	234	38	186	224
Proposed Project	Medical Office	720	150	5,420	284	75	359	150	386	536
<b>NET NEW PROJECT TRIPS</b>				<b>3,765</b>	<b>78</b>	<b>47</b>	<b>125</b>	<b>112</b>	<b>200</b>	<b>312</b>

Notes:

1. Trip generated based on Institute of Transportation Engineers (ITE), Trip Generation (9th Edition) equations for:

General Office (Land Use Code 710):

Daily: 11.03

AM Peak Hour: 1.56; Enter = 88%;

Exit = 12% PM Peak Hour: 1.49;

Enter = 17%; Exit = 83%

Medical Office (Land Use Code 720):

Daily: 36.13

AM Peak Hour: 2.39; Enter= 79% Exit= 21%

PM Peak Hour: 3.57; Enter= 28% Exit= 72%

2. ksf = 1,000 square-feet

3. The existing building is 148,000 square feet; however, the Planned Development District allows up to 150,000 square feet of office space so for the purpose of the analysis, we have assumed a 150,000 square-foot building, though the Project does not plan to rebuild or construct the remaining 2,000 square foot balance.

Source: Trip Generation (9th Edition), ITE, 2012; Fehr & Peers, 2018.

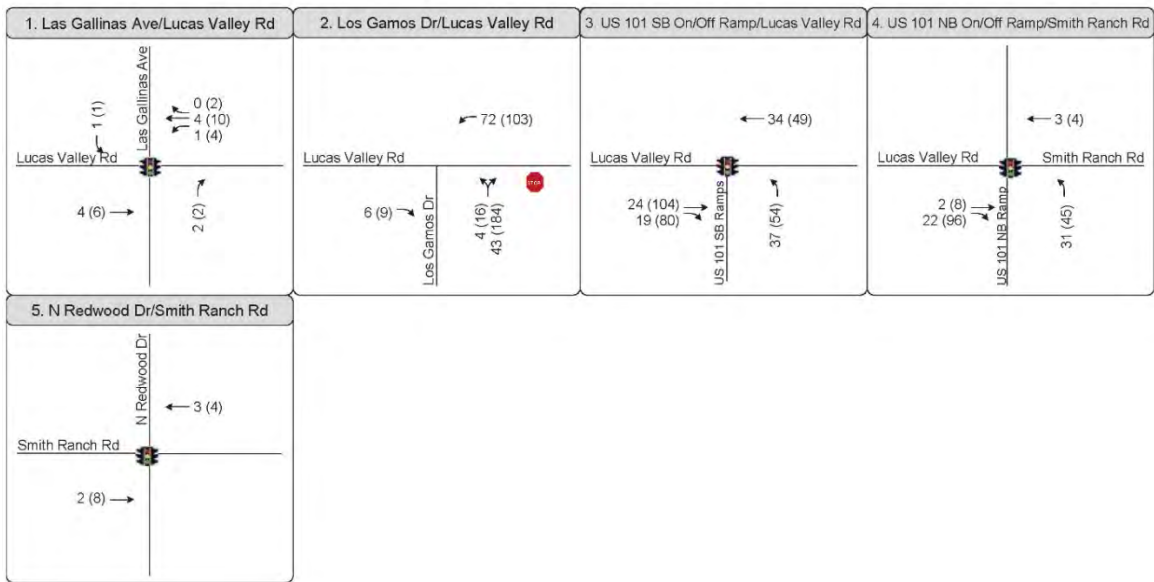
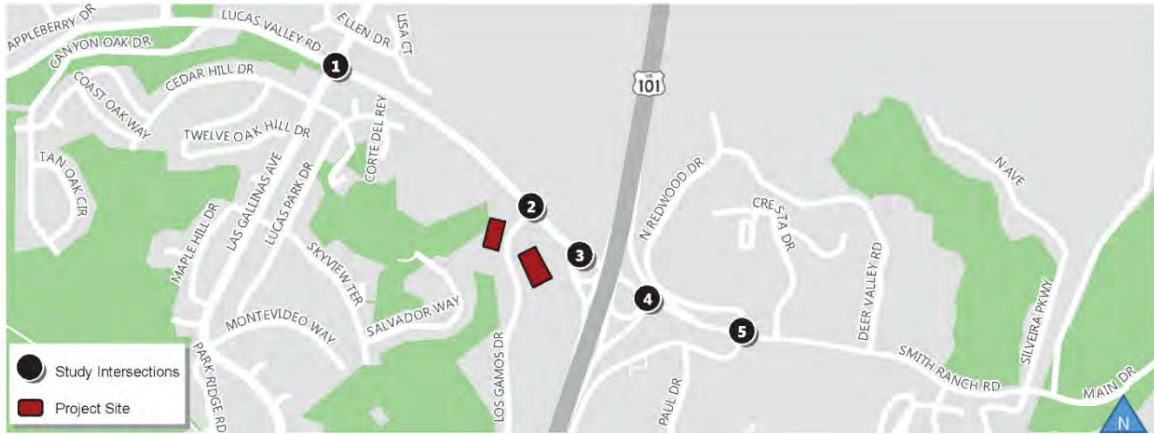
#### 4.6.4.4 Project Trip Distribution & Assignment

Trip distribution percentages, as shown in **Table 4.6-7** and **Figure 4.6-7**, were developed based on the Project site location, anonymous existing Kaiser Permanente employee and membership data, existing intersection counts, and surrounding land uses. Net new Project-generated trips, as summarized in **Table 4.6-6**, were assigned to the roadway system based on the trip distribution patterns shown below. **Figure 4.6-8** illustrates the net new Project trip assignments at the five study intersections compared to the No Project.

**TABLE 4.6-7: TRIP DISTRIBUTION**

Origin/Destination	Percentage
US 101 North	48%
US- 101 South	40%
Lucas Valley Road	8%
Redwood Highway	4%
<b>Total</b>	<b>100%</b>

Source: Fehr & Peers 2018



**Legend**

XX(YY) AM (PM) Peak Hour Traffic



Signalized Intersection

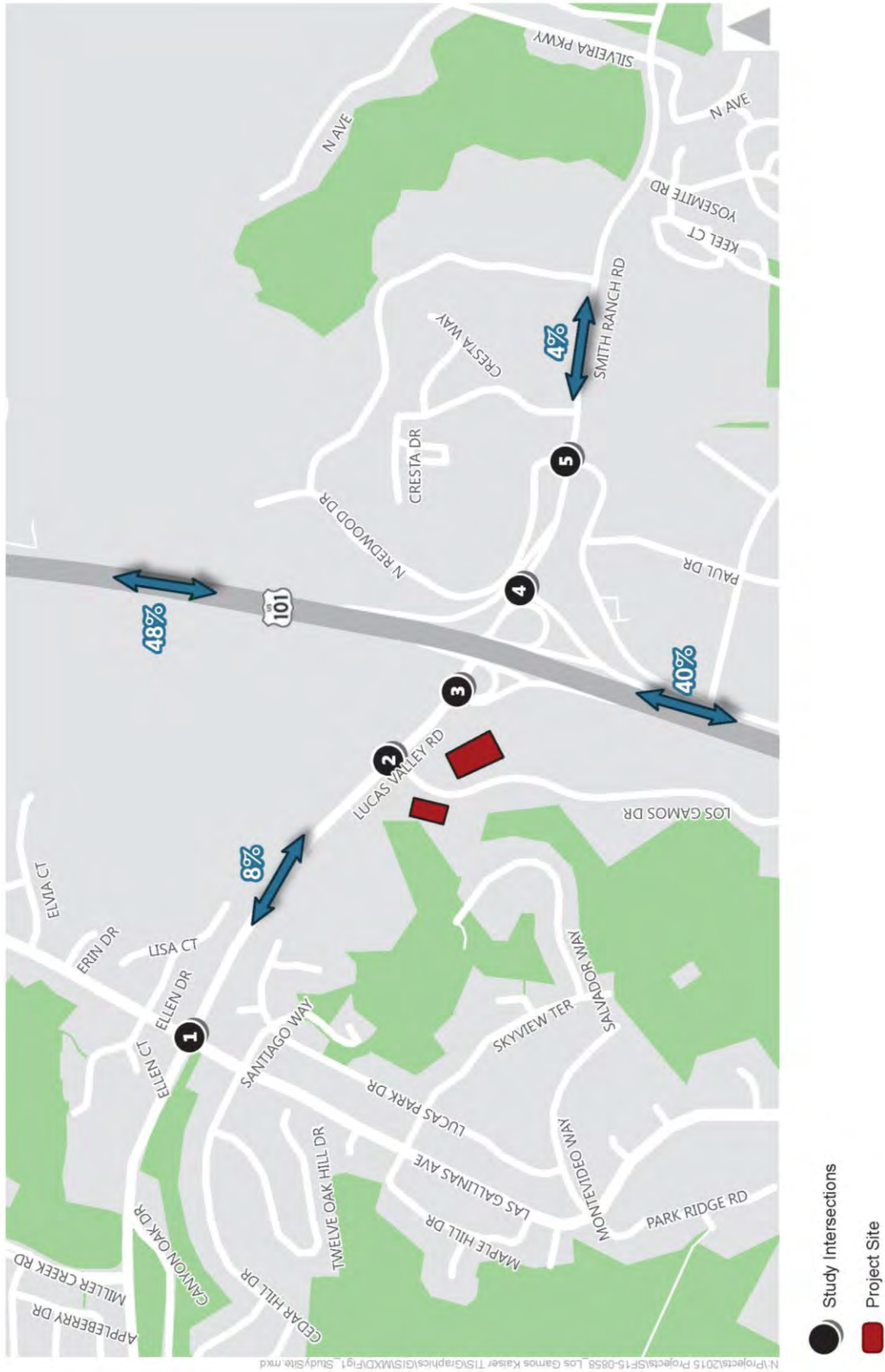


Stop Controlled Approach

**Note:** Project Trip Assignment based on project trips added on top of Planned Development District Allowed (100% office)

Source: Fehr & Peers 2018

**Figure 4.6-7: Project Trip Assignment**



Source: Fehr & Peers 2018

Figure 4.6-8: Project Trip Distribution

## 4.6.5 Vehicle Miles Traveled Analysis<sup>2</sup>

The San Rafael *General Plan 2020* and EIR were prepared and evaluated using the LOS metric for traffic related delay and impacts. As such, the Fehr & Peers *1650 Los Gamos Drive FTIA* was prepared with LOS to evaluate the Project's potential traffic impacts. However, Fehr & Peers also completed a Vehicle Miles Traveled (VMT) analysis for the Project. Although the City has adopted the VMT analysis for new development projects, the *CEQA Guidelines* have not yet adopted this methodology but is anticipated to be revised to include VMT analysis in the near future. Caltrans has released new internal interim intergovernmental review (IGR) guidance to its districts which accepts VMT analysis. The results of the Fehr & Peers' VMT analysis are included in the *1650 Los Gamos Drive FTIA* with methodology and an analysis summary consistent with Caltrans procedures.

The VMT analysis forecasted the Project employee VMT and compared them to future projected VMT based on the regional transportation and land use model provided by the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG). The proposed Project will move employees from existing compressed Kaiser facilities in Marin County to the building at 1650 Los Gamos Drive. As such, the Project is not expected to generate significant additional regional trips, rather, will redistribute them to a new location within the region. The VMT analysis is based on the California Environmental Quality Act (CEQA) Guidelines on VMT developed by the Governor's Office of Planning and Research per SB 743 (Steinberg, 2013). SB 743 mandates a change in the way that public agencies evaluate the transportation impacts of projects under CEQA, away from LOS. The proposed changes to the CEQA Guidelines are not yet adopted; when they are, VMT will be the new metric for transportation analysis.

The proposed Project would include approximately 315 employees at full build out. Approximately 77-percent (245) of the staff at the proposed Project will be relocated from three existing Kaiser Permanente facilities in Marin County: Downtown San Rafael, San Rafael medical Center, and Novato. The remaining 23-percent (70) are expected to be new employees. The number of existing Kaiser staff at other facilities that are estimated to move to the proposed Project are presented in **Table 4.6-8**. Kaiser Permanente provided anonymous employee zip code data for existing employees that work at the three main locations (of which employees are anticipated to transfer from nearby Kaiser facilities to the new MOB). **Figure 4.6-9** below illustrates the existing employee residential distribution.

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<sup>2</sup> The Fehr & Peers *1650 Los Gamos Drive FTIA* was prepared beginning in November 2015 when LOS was the adopted methodology in the San Rafael *General Plan 2020* for calculating traffic levels of service. In April 2017, the City included Policy 5.1 *Vehicle Miles Traveled (VMT) Methodology for Environmental Review of Traffic Impact* to replace the LOS methodology for transportation impacts. However, Fehr & Peers anticipated the analysis update and prepared the *1650 Los Gamos Drive FTIA* utilizing both LOS and VMT methodologies.

**TABLE 4.6-8: KAISER EMPLOYEES MOVING FROM EXISTING FACILITIES TO PROPOSED PROJECT**

Existing Facility Name	Existing Facility Location	Estimated Number of Employees Planned to Relocate to 1650 Los Gamos Drive	
		Number	Percent
Downtown San Rafael	1033 3rd St, San Rafael	53	22%
San Rafael Medical Center	99 Montecillo Rd, San Rafael	171	70%
Novato	97 San Marin Dr, Novato	5	2%
Other sites	Mill Valley & Paul Drive (San Rafael)	16	6%
<b>Total</b>		245	100%

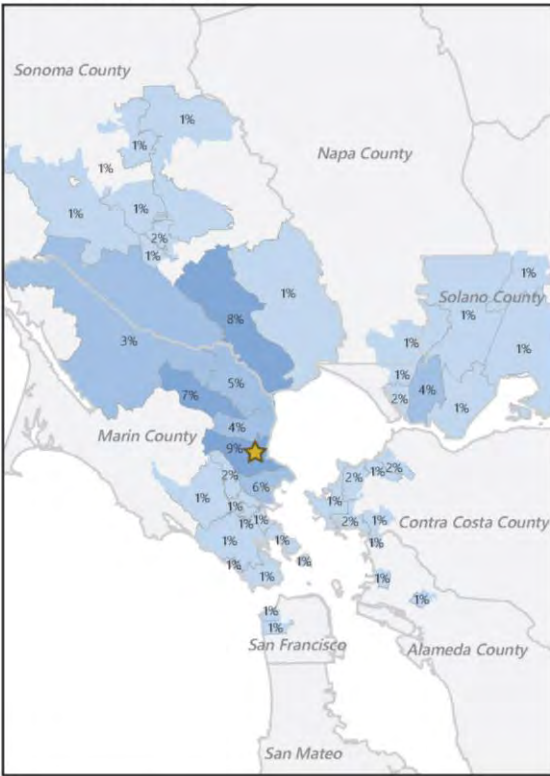
Source: Kaiser Permanente, Fehr & Peers 2018

VMT per employee was calculated consistent with methodologies outlined in the IGR for office developments. Using Kaiser Permanente employee data above, the distance between existing employee zip codes and the three existing Kaiser Permanente facilities near the Project site was calculated. The average VMT per employee by existing facility was calculated by using the weighted average of distances between each site and zip based on the number of employees residing in each zip code. To determine the average VMT per employee at the proposed Project, the study calculated the weighted average of the VMT per existing employee to/from the existing facilities based on the number of staff that are planned to move to the proposed project.

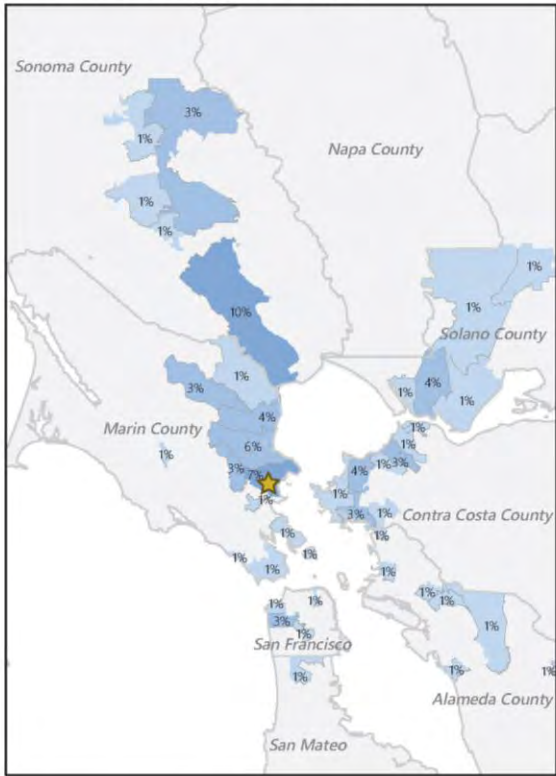
The main limitation of this approach is that distances were calculated based on zip codes, which provides an approximate estimate of distance traveled. Additionally, zip code data was available for only three of the five existing Kaiser facilities that plan to move employees to the Proposed Project. However, approximately 93-percent of the 245 existing employees that would move to the Proposed Project currently work at the three sites. As shown in **Figure 4.6-9**, the distribution of home locations for the three sites used to estimate average VMT were similar; therefore, the analysis assumes that the distribution of home locations for existing Kaiser Permanente employees at the Mill Valley and Paul Drive (San Rafael) site, and new Kaiser Permanente employees as part of the proposed Project would parallel the existing distribution and would not fundamentally alter the results.

Since many of the existing facilities are overcrowded, not all of the employees that will be relocated to 1650 Los Gamos Drive will be backfilled at their current location. However, for a conservative VMT analysis, it was assumed that all of the Project employees will result in new VMT. The analysis did not incorporate off-sets from a reduction of trips at the existing Kaiser sites. As a result, the actual VMT generated by the Project would likely be less than assumed in the following analysis.

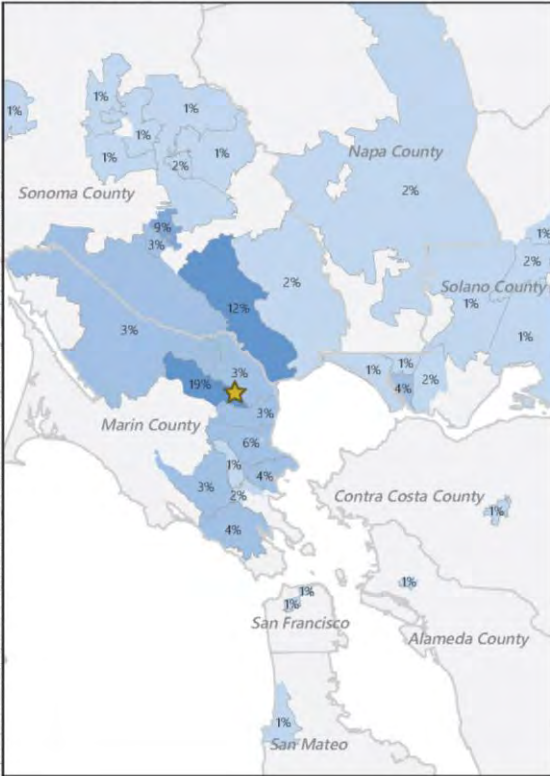
Los Gatos Medical Office



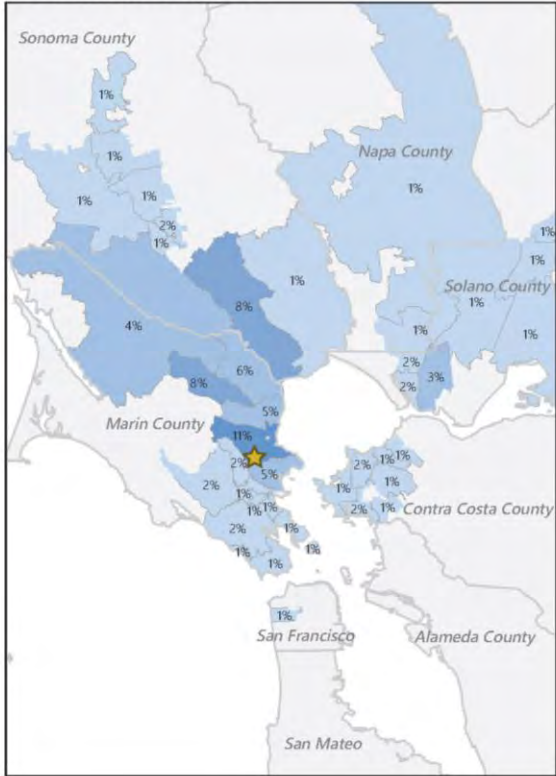
Downtown San Rafael Medical Office



Novato Medical Office



San Rafael Medical Center



Source: Fehr & Peers 2018

Figure 4.6-9: Employee Origin-Destination

As noted above, the City of San Rafael has recently adopted VMT thresholds although the CEQA *Guidelines* have yet to fully implement the methodology. Therefore, there is no formal significance criteria set for the VMT analysis. However, in order to understand the Project’s contribution to the transportation network, the Governor’s Office of Planning and Research (OPR) Technical Advisory recommendations, consistent with guidance presented in Caltrans IGR, were used. In summary, OPR’s Technical Advisory states that office developments that would generate vehicle travel exceeding 15-percent below existing VMT per employee for the region may indicate a significant transportation impact.

For this analysis, VMT per employee results were compared to the Project Transportation Analysis Zone (TAZ) from the MTC and the ABAG regional model. Existing VMT data by TAZ was not available, so the Projected VMT estimates for Year 2020 were used. The results of the VMT analysis are presented in **Table 4.6-9** below. A detailed summary of the analysis results and information gathered from the MTC/ABAG model for Baseline (2020) and Cumulative (2040) conditions is presented in **Appendix E** of the Fehr & Peers *1650 Los Gamos Drive FTIA* (see Appendix E to this DEIR).

The MTC/ABAG model projects that the 2020 VMT per employee for the Project site TAZ is 32 VMT per employee. A 15-percent reduction of the Project VMT per employee would result in 27 VMT per employee. As shown, the average trip length for employees at the proposed Project is estimated to be 20 miles, 40-percent under the 2020 projected VMT per employee. Therefore, based on the OPR’s Technical Advisory, the Project would not result in a significant impact.

**TABLE 4.6-9: AVERAGE VMT PER EMPLOYEE COMPARISON**

2020 MTC/ABAG Model		Kaiser Permanente	
Estimated Average VMT / Employee <sup>1</sup>	Maximum Average VMT/Employee <sup>2</sup>	Empirically Derived Estimated Average VMT / Employee <sup>3,4</sup>	Below Maximum Average VMT / Employee?
32	27	20	Yes

Notes:

1. 2020 VMT/Employee estimates are determined by the MTC regional travel model for the TAZ zone where the facility is located.
2. Maximum average VMT/Employee based on 15-percent reduction from baseline per OPR’s Technical Advisory.
3. Average VMT/Kaiser Employee at existing facilities is based on anonymous employee home zip code data provided by Kaiser Permanente.
4. Average VMT/Kaiser Employee at Proposed Project is based on Average VMT/Kaiser Employee at existing facilities and the planned number of employees to be moved to the Proposed Project from each existing facility.

Source: Fehr & Peers, 2018

## 4.6.6 Existing Plus Project Impacts and Mitigations

### 4.6.6.1 Existing Plus Project Intersection Operations

**Impact TRAF-1:** Implementation of the Project would increase traffic volumes on area roadways and affect levels of service at the local intersections and freeways under Existing plus Project Conditions. (*Significant and Unavoidable*)

The Fehr & Peers *1650 Los Gamos Drive FTIA* evaluated the potential traffic impacts under Existing Plus Project conditions. In this scenario, no roadway improvements are anticipated as part of the proposed Project. As such, no additional improvements were included as part of the Existing Plus Project analysis.

#### Traffic Volumes

Project-generated traffic volumes were added to the existing peak hour traffic volumes to estimate the Existing Plus Project peak hour traffic volumes as shown on **Figure 4.6-10**. No roadway improvements were assumed as part of the Project. Existing Plus Project conditions were evaluated using the methods described in Section 4.6.3.3: *Approach to Analysis* above. The Existing Plus Project analysis results are presented in **Table 4.6-10** and are based on the traffic volumes shown on **Figure 4.6-10**.

**TABLE 4.6-10: EXISTING INTERSECTION LEVEL OF SERVICE AND DELAY RESULTS**

Intersection	Intersection Control <sup>1</sup>	Time Period	Existing No Project		Existing Plus Project	
			LOS <sup>2,3</sup>	Delay <sup>2,3</sup>	LOS <sup>2,3</sup>	Delay <sup>2,3</sup>
1. Lucas Valley Road and Las Gallinas Avenue	Signal	AM	C	22	C	22
		PM	B	14	B	14
2. Lucas Valley Road and Los Gamos Drive	SSSC	AM	A (C)	<10 (17)	B (E)	15 (37)
		PM	A (A)	<10 (<10)	D (F)	30 (>50)
3. Lucas Valley Road and US 101 Southbound Ramps	Signal	AM	B	16	C	24
		PM	C	22	D	51
4. Lucas Valley Road / Smith Ranch Road and US 101 Northbound Ramps	Signal	AM	B	20	<b>E</b>	<b>56</b>
		PM	B	12	B	12
5. Lucas Valley Road / Smith Ranch Road and Redwood Drive / Redwood Highway	Signal	AM	A	10	A	10
		PM	B	12	B	12

Notes:

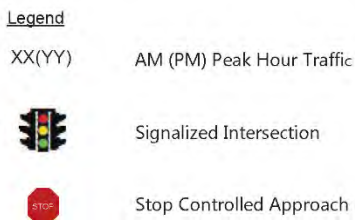
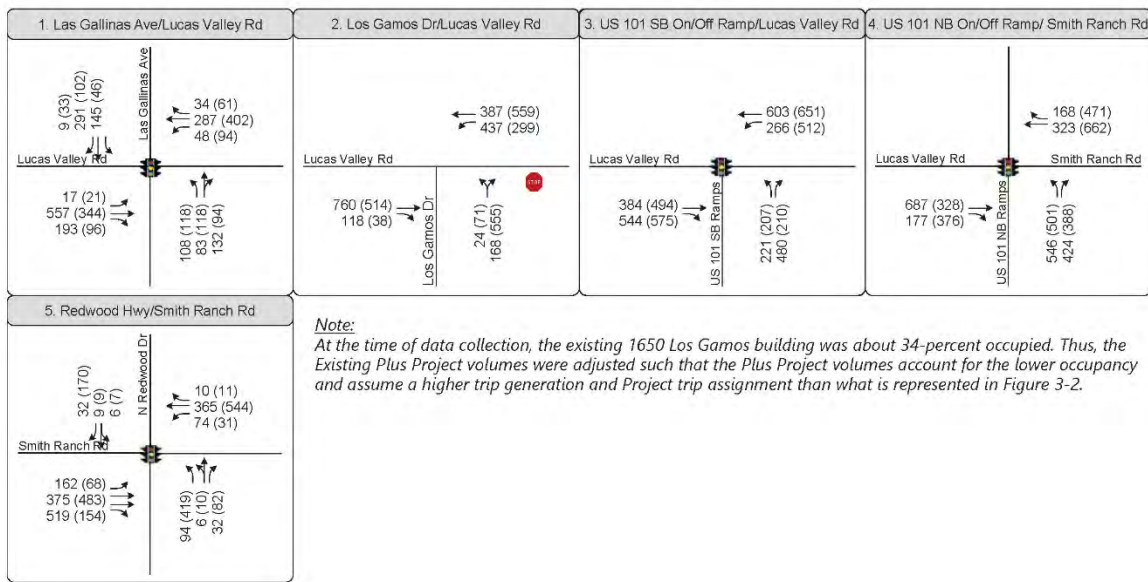
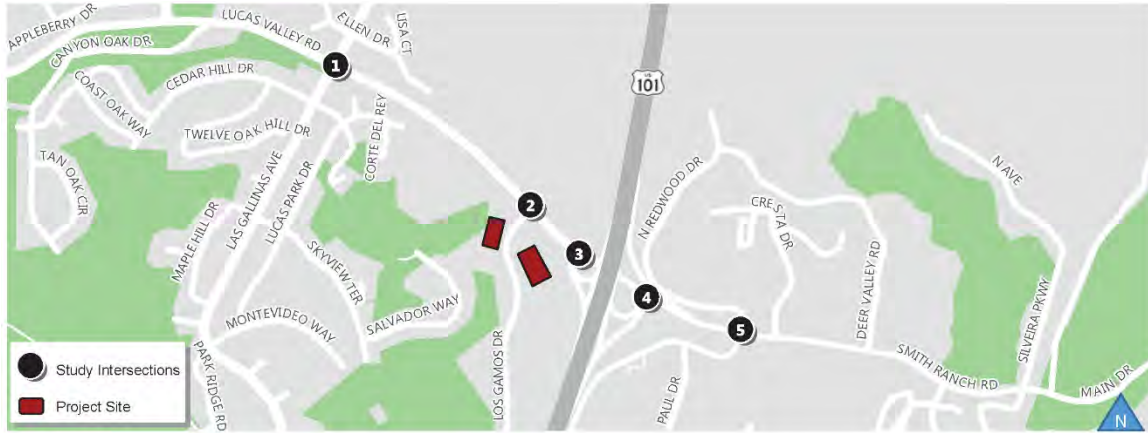
1. SSSC = Side-Street Stop Control

2. Worst approach is noted for side street stop controlled intersections.

3. **Bold** denotes unacceptable level of service and delay.

Sources: Fehr & Peers, 2016





Source: Fehr & Peers 2018

**Figure 4.6-10: Existing Plus Project Peak Hour Traffic Volumes**

As shown in **Table 4.6-10**, signalized intersections would continue to operate at LOS D or better with the exception of the Lucas Valley Road/Smith Ranch Road/US 101 Northbound Ramps intersection. The intersection operating conditions would worsen from LOS B to LOS E with the Project during the AM peak hour and would continue to operate at the acceptable LOS B during the PM peak hour. The Project's contribution during the AM peak hour would worsen the intersection operations below the LOS D threshold during the AM peak hour which triggers a significant impact. However, the San Rafael *General Plan 2020* exempts US 101 interchange intersections from LOS standards because delay at these locations are affected by regional traffic and not significantly impacted by local measures. Therefore, the Project's contribution to the Lucas Valley Road/Smith Ranch Road/US 101 intersection is not considered as part of the impact analysis and is therefore not a significant impact. Though the Project does not result in a Project specific impact, a potential improvement was identified for informational purposes. Signal timings should be adjusted at the Lucas Valley Road/Smith Ranch Road/US 101 Northbound Ramps intersection to account for the new intersection demand. With implementation, operations at the Lucas Valley Road / Smith Ranch Road / US 101 Northbound Ramps would reduce the Project's impact to existing LOS standards. In addition, if the intersection were subject to the significance criteria, the implementation of signal timing would result in the impact being reduced to a less than significant level, similar to other intersections included in the Fehr & Peers *1650 Los Gamos Drive FTIA* study.

The addition of Project traffic at the Lucas Valley Road/Los Gamos Drive side street stop-controlled (unsignalized) intersection would increase vehicle delay during the AM and PM peak hour. Although the intersection would continue to operate at LOS D or better during Existing Plus Project conditions, average delay and associated LOS for the side-street stop-controlled intersection is reported for the worst-case controlled approach in this study. During Existing Plus Project conditions, Project traffic would worsen the side street stop-controlled approach from LOS C to LOS E during the AM peak hour and LOS A to LOS F during the PM peak hour. As a result, the Project's contribution during the PM peak hour would result in a significant impact because the Project's contribution would worsen the intersection operations to an unacceptable LOS. Mitigation Measure MM TRAF-1, described below, has been identified to address the impact.

**Mitigation:** **MM TRAF-1. Signalize Lucas Valley Road / Los Gamos Drive.** In coordination with the City of San Rafael, the County of Marin Department of Public Works, and Caltrans, Kaiser Permanente shall pay the fair share cost to signalize the Lucas Valley Road / Los Gamos Drive intersection to mitigate poor operating conditions. Signalizing the intersection is consistent with improvements identified in the San Rafael *General Plan 2020*. Due to its close proximity to the US-101 Ramp terminal intersections, the new signal should include traffic signal interconnect and be coordinated with the adjacent interchange signals. Additionally, interagency coordination will be required during design, construction and maintenance of the new signal. Therefore, a memorandum of understanding (MOU) will be required between the City of San Rafael and the County of Marin to document the management and maintenance of the new signal, since the US 101/Lucas Valley interchange signals and the new Lucas Valley Road / Los Gamos Drive signal would need to be operated and maintained by one or

multiple agencies.

Signalizing the intersection would mitigate the project impact to a *less than significant* impact. However, implementation of the mitigation measure requires the intersection improvements to be fully funded and constructed. Therefore, until and unless the MOU and fair-share contributions are finalized, and the design and construction of the intersection is permitted and approved, the Project will result in a *significant and unavoidable* impact.

### **Signal Warrants**

As mentioned in Section 4.6.3.5: *Data Collection*, the existing volumes fulfill the three signal warrants, therefore a signal should be considered at the Lucas Valley Road/Los Gamos Drive intersection. The addition of Project traffic would further qualify the intersection for a signal. Furthermore, implementation of **MM TRAF- 1: Signalize Lucas Valley Road/Los Gamos Drive** would mitigate the project impact during Existing Plus Project Conditions to a *less than significant level* and no further mitigation would be required. However, as stated above, since implementation of the mitigation measure requires the intersection improvements to be fully funded and constructed and this action is outside of the Lead Agency's direct control, this impact remains *significant and unavoidable*.

### **4.6.6.2 Existing Plus Project Freeway Operations**

**Impact TRAF-2: Implementation of the Project would increase traffic volumes on freeway segments and affect levels of the regional network under Existing plus Project Conditions. (Less than Significant with Mitigation Incorporation)**

Existing Plus Project conditions were evaluated using the methods described in Section 4.6.3.3: *Approach to Analysis* above. As described in Section 4.6.5: *Vehicle Miles Traveled Analysis* above, the Project plans to shift existing employees from existing Kaiser Permanente facilities in Marin County to the proposed Project site; however, the freeway analysis methodology assumes that all Project trips are added to the Existing No Project freeway volumes. Therefore, the approach is conservative and may be double counting vehicle trips that are already accounted for in the Existing No Project volume.

The Existing Plus Project analysis results are presented in **Table 4.6-11** and **Table 4.6-12**, for the AM and PM peak hours, respectively. Detailed freeway level of service calculation sheets are provided in **Appendix D** of the Fehr & Peers *1650 Los Gamos Drive FTIA* (see Appendix E to this DEIR).

**TABLE 4.6-11: EXISTING CONDITIONS FREEWAY DENSITY AND LOS – AM PEAK HOUR**

Segment	Segment Type	Existing No Project		Existing Plus Project	
		Density (pc/mi/ln) <sup>1</sup>	LOS <sup>2</sup>	Density (pc/mi/ln) <sup>1</sup>	LOS
<b>Northbound</b>					
Manuel T Freitas Off / Manuel T Freitas On	Basic	19.4	C	20.3	C
Manuel T Freitas On / Redwood Highway On	Basic	15.9	B	16.6	B
Redwood Highway On	Merge	18	B	18.5	B
Smith Ranch Road Off	Basic	16.4	B	17	B
Smith Ranch Road Off / Lucas Road EB On	Basic	18	B	18.5	C
Lucas Road EB On / Smith Ranch Road WB On	Basic	14	B	14.4	B
Smith Ranch Road WB On	Merge	16.7	B	17	B
Miller Creek Off	Basic	14.5	B	15	B
Miller Creek On	Basic	18.7	C	19.3	C
<b>Southbound</b>					
Miller Creek Off	Basic	19.8	<b>F<sup>3</sup></b>	20.2	<b>F<sup>3</sup></b>
Miller Creek On	Merge	28.8	<b>F<sup>3</sup></b>	29.2	<b>F<sup>3</sup></b>
Lucas Valley Road Off	Basic	18.3	<b>F<sup>3</sup></b>	18.6	<b>F<sup>3</sup></b>
Lucas Valley Road Off / Lucas Valley Road On	Basic	21.9	<b>F<sup>3</sup></b>	21.9	<b>F<sup>3</sup></b>
Lucas Valley Road On	Merge	28.6	<b>F<sup>3</sup></b>	28.8	<b>F<sup>3</sup></b>
Lucas Valley Road On / Manuel T Freitas Off	Basic	25.5	<b>F<sup>3</sup></b>	25.6	<b>F<sup>3</sup></b>
Manuel T Freitas Off	Diverge	31.1	<b>F<sup>3</sup></b>	31.2	<b>F<sup>3</sup></b>
Manuel T Freitas Off / Manuel T Freitas On	Basic	21.4	<b>F<sup>3</sup></b>	21.6	<b>F<sup>3</sup></b>

Notes:

1. pc/mi/ln = passenger car per mile per lane
2. Bold = unacceptable LOS
3. This segment operates in queue; however, the results reported in the analysis software does not match existing condition observations because the methodology accounts for the number of vehicles that are able to use the facility, not the number of vehicles that want to use the facility and are in queue (demand). The LOS results were revised to match existing observations.

Sources: Fehr & Peers, 2018

**TABLE 4.6-12: EXISTING CONDITIONS FREEWAY DENSITY AND LOS – PM PEAK HOUR**

Segment	Segment Type	Existing No Project		Existing Plus Project	
		Density (pc/mi/ln) <sup>1</sup>	LOS	Density (pc/mi/ln) <sup>1</sup>	LOS
<b>Northbound</b>					
Manuel T Freitas Off / Manuel T Freitas On	Basic	28.6	D	28.9	D
Manuel T Freitas On / Redwood Highway On	Basic	33.7	D	34.1	D
Redwood Highway On	Merge	25.5	C	25.6	C
Smith Ranch Road Off	Basic	24.7	C	24.9	C
Smith Ranch Road Off / Lucas Road EB On	Basic	21.7	C	21.7	C
Lucas Road EB On / Smith Ranch Road WB On	Basic	22.4	C	23	C
Smith Ranch Road WB On	Merge	25.5	C	25.9	C
Miller Creek Off	Basic	24.1	C	24.7	C
Miller Creek On	Basic	32.9	D	34.1	D
<b>Southbound</b>					
Miller Creek Off	Basic	21.1	C	20.8	C
Miller Creek On	Merge	24.7	C	24.4	C
Lucas Valley Road Off	Basic	16.5	B	16.3	B
Lucas Valley Road Off / Lucas Valley Road On	Basic	20.5	C	20	C
Lucas Valley Road On	Merge	28.5	D	28.8	D
Lucas Valley Road On / Manuel T Freitas Off	Basic	24.8	C	24.8	C
Manuel T Freitas Off	Diverge	30.4	D	30.4	D
Manuel T Freitas Off / Manuel T Freitas On	Basic	21.4	C	21.4	C

Notes:

1. pc/mi/ln = passenger car per mile per lane

Sources: Fehr & Peers, 2018

During the weekday AM and PM peak hours, all of the freeway segments would operate at LOS D or better, except southbound segments during the AM peak hour. As mentioned in Section 4.6.3.7: *Freeway Operations* above, the southbound segments are currently in queue due to a downstream bottleneck between the San Pedro on-ramp and Mission Avenue off-ramp. The addition of Project

trips would contribute to the existing failing condition. To understand the Project’s impact, the Project’s volume-to-capacity (v/c) ratio contribution calculation was completed and is summarized in **Table 4.6-13**.

**TABLE 4.6-13: EXISTING CONDITIONS VOLUME TO CAPACITY (V/C) SUMMARY<sup>1</sup> - AM PEAK HOUR**

Segment	Segment Capacity <sup>1</sup>	Existing No Project		Existing Plus Project	
		Volume <sup>2</sup>	v/c	Volume <sup>2</sup>	v/c <sup>3</sup>
<b>Southbound</b>					
Miller Creek Off / Miller Creek On	6,600	3,616	0.55	3,694	<b>0.56</b>
Miller Creek On / Lucas Valley Road Off	8,100	4,454	0.55	4,532	0.55
Lucas Valley Road Off / Lucas Valley Road On	6,600	4,002	0.61	4,002	0.61
Lucas Valley Road On / Manuel T Freitas Off	6,600	4,595	0.70	4,615	0.70
Manuel T Freitas Off / Manuel T Freitas On	6,600	3,916	0.59	3,936	0.59

Notes:

1. Summary based on mixed flow lanes only. High Occupancy Vehicles lane not included in analysis.
  2. v/c calculation assumes the following capacities:
    - Mixed Flow Lanes: 2,200 vehicles per lane
    - Auxiliary Lanes: 1,500 vehicles per lane
  3. The total volume reported does not account for the HOV volume.
  4. **Bold** = Project contributes greater than at least 0.01 v/c to the No Project condition resulting in a significant impact
- Sources: Fehr & Peers, 2018

The purpose of calculating a v/c ratio is to understand the Project’s contribution to an existing facility. The v/c ratio is based on the estimated or counted volume over the study segment capacity. Segments with a v/c ratio greater than 1.0 means the number of vehicles that want to use the facility exceed the available capacity and as a result, delays and queuing are anticipated. Because the US 101 ramp operations in the southbound direction are projected at unacceptable LOS F and the Project’s contribution increases the corridor’s v/c ratio by more than 0.01, the Project results in a significant impact, at the following location:

- Between Miller Creek Off-Ramp and Miller Creek On-Ramp

Within the Project vicinity, US 101 roadway improvements are neither planned nor funded. Thus, it is infeasible for the Kaiser Permanente to contribute its fair-share contribution to the regional network. However, Caltrans IGR states that implementation of a TDM program could reduce VMT and the Project’s impact to the regional network. The Project description already includes TDM elements based on the TDM program that Kaiser Permanente currently provides at its nearby

facilities. Kaiser Permanente's proposed TDM goes beyond what is required under the requirements of the existing PD District. In order to further reduce the Project's impact to the regional network and ensure the implementation of the Kaiser Permanente proposed TDM, Mitigation Measure MM TRAF-2 would have Kaiser Permanente implement TDM measures which would reduce trip allocation.

**Mitigation:** **MM TRAF-2. Kaiser Permanente shall implement additional TDM measures.** Kaiser Permanente shall implement a TDM program, as described in *Chapter 3: Project Description* and *Section 4.6.4.2: Transportation Demand Management Considerations* of this traffic impact chapter (Section 3.1.1 of the *1650 Los Gamos Drive FTIA*). Implementation of these TDM strategies would go beyond what is required as part of the PD District, with the goal of reducing employee vehicle trips, thereby reducing the Project's impact on the regional network.

Based on a quantitative assessment of the TDM measures proposed in the *1650 Los Gamos Drive FTIA*, the TDM strategies may yield a Project vehicle trip generation reduction of up to 12-percent between the Miller Creek Off-Ramp and Miller Creek On-Ramp. If maximally effective, implementation of the Project's TDM strategies would result in a project trip reduction of up to 10-15 AM peak hour trips along this segment, which would result in a project contribution of less than a 0.01 increase in volume to capacity ratio. As presented in the *1650 Los Gamos Drive FTIA*, implementation of the Project's TDM measures will achieve this reduction, however, Kaiser will annually quantitatively analyze and monitor employee vehicle trip generation data via comprehensive employee surveys and make adjustments to its TDM measures as needed to achieve the stated reduction.

As described in the *4.6.4.2: Transportation Demand Management Considerations* and the Fehr & Peers *1650 Los Gamos Drive FTIA*, Kaiser Permanente shall conduct an annual employee survey and prepare a monitoring report that evaluates the effectiveness of the Project's TDM Plan. The TDM program will be submitted to the City of San Rafael for comment and review. Kaiser Permanente will coordinate with the City of San Rafael, as necessary. The annual survey shall demonstrate how the TDM measures reduce the Project's impact to peak-hour volume to capacity ratio for the Miller Creek On and Off Ramp.

Implementation of the TDM Program and annual monitoring report would reduce the Project's impact to *less than significant*.

### **4.6.6.3 Existing Plus Project On-Site Vehicle Access and Circulation**

CEQA does not consider on-site vehicular access and circulation for significant environmental impacts, however, Fehr & Peers evaluated the proposed Project's access and circulation for

information purposes. Access to the Project would be provided from five unsignalized driveways as well as two additional driveways on either side of the proposed parking structure for fire access, as indicated in **Figure 4.6-1** above. Three driveways on the east side of Los Gamos Drive, which are existing driveways, would lead to surface parking lots adjacent to the MOB building. The existing northernmost driveway, located on the west side of Los Gamos Drive, would be moved about 100 feet south and provide direct access to the proposed parking garage structure, with the vehicular entrance located at the southern end of the parking structure. The relocated driveway would provide a longer storage length between the driveway and vehicles traveling north to the Los Gamos Drive / Lucas Valley Road intersection. The Initial Study concluded that the Project would not substantially increase hazards due to a design feature since the Project will use existing driveways, where feasible, and does not propose to change the roadway alignment. The revisions to the site plan that have occurred since the Initial Study have been reviewed and no additional hazards due to a design feature have been identified.

#### **4.6.6.4 Existing Plus Project Bicycle and Pedestrian Impacts**

Bicycling and pedestrian trips in the study area may increase as a result of the proposed Project. Bicycle travel would likely occur along Lucas Valley Road and Los Gamos Drive since they provide direct connections to the Project site and are designated bicycle facilities. Pedestrian travel would likely occur on Lucas Valley Road as it provides direct access to nearby transit facilities. The projected increase in vehicles at the intersections in the vicinity of the proposed Project may result in an increase in vehicle-bicycle-pedestrian conflicts at intersections in the study area. However, the proposed Project would not create potentially hazardous conditions for bicycles, pedestrians, or otherwise interfere with bicycle and pedestrian accessibility to the site and adjoining areas because the Project does not remove existing facilities and does not prohibit the construction of proposed future facilities in the Project vicinity.

The Project includes construction of an approximately up to 476 car parking structure on the west side of Los Gamos Drive which would increase the number of pedestrian crossings across Los Gamos Drive. Due to the increase in pedestrian crossings, Kaiser Permanente will include crosswalk enhancements to the existing crossing, located just north of the existing driveway into the front side of 1650 Los Gamos Drive.

Enhancements include:

- Shifting the existing crosswalk north such that the crosswalk fronts the pedestrian ingress/egress of the parking structure
- The addition of bulbouts on both sides of the road to increase pedestrian visibility
- The addition of a pedestrian-activated crossing beacon that would flashes lights to increase a driver's awareness of a potential pedestrian crossing.

The Project's impact to bicycle and pedestrian facilities are considered *less than significant* and mitigations are not required under Existing Plus Project conditions.



#### 4.6.6.5 Existing Plus Project Transit Impacts

Transit trips in the study area may increase as a result of the Project. As described above, a majority of Kaiser Permanente staff will be relocated from existing Kaiser Permanente facilities in the area to the proposed Project site. Thus, a majority of employees that may use transit are likely captured in existing transit ridership. Therefore, the addition of new transit users will be limited to new staff. Although the addition of new staff may increase transit trips as a result of the Project, however, Project related transit trips would have no foreseeable impacts to transit operations because the Project would not likely generate enough transit demand to exceed the capacity of existing or planned transit service nor does it interfere with existing or future transit users. Therefore, the Project impacts to transit facilities are considered *less than significant* and mitigations are not required.

#### 4.6.6.6 Parking Conditions

While parking is not considered an environmental impact under CEQA, Fehr & Peers prepared a parking analysis, based on City of San Rafael parking requirements, in the *1650 Los Gamos Drive FTIA* for information purposes. As such, the following discussion documents the parking related to the proposed Project, but it is not evaluated in this EIR for environmental impacts. For medical office uses, one (1) space is required for every 225-gross building square feet (4.4 spaces/1,000 sq ft), resulting in a code requirement of 651 spaces (assuming a 148,000 sq ft medical office building). Kaiser Permanente is proposing a higher parking ratio (4.85 spaces/1,000 sq. ft.) based on existing parking demand at its nearby medical facilities (to avoid impacting surrounding streets). The proposed parking plan includes 722 parking spaces which exceeds the City's requirements by 71 spaces. Of the 722 parking spaces, there are approximately 22 accessible parking spaces (10 spaces in the parking structure and 2 in the surface lot) which meets the minimum accessible parking requirements from the United States Access Board; and no compact spaces.

The *City of San Rafael Bicycle/Pedestrian Master Plan Update (2011)* includes an objective to provide bicycle parking in employment and commercial areas; and the City of San Rafael Code of Ordinances requires a minimum number of short term and long term bicycle parking spaces equivalent to 5-percent of the requirement for automobile parking spaces, with a minimum of one two-bike capacity rack; therefore, the ordinance requires 38 short term bicycle parking spaces (based on 148,000 sq ft medical office building). The Project will meet (or exceed) all City requirements for bicycle parking spaces. Based on this review, the total number of parking spaces the Project provides is sufficient and meets the City of San Rafael's parking requirements.

## 4.6.7 Baseline Plus Project Impacts and Mitigations

The Fehr & Peers *1650 Los Gamos Drive FTIA* evaluated the potential traffic impacts under Baseline Plus Project analysis. Consistent with the Existing Plus Project analysis, no roadway improvements are anticipated as part of this scenario. The baseline scenario includes existing transportation conditions plus traffic generated from approved developments that are not yet constructed. Under the Baseline Condition, the San Rafael Airport Recreational Facility is included.

### ***Traffic Volumes***

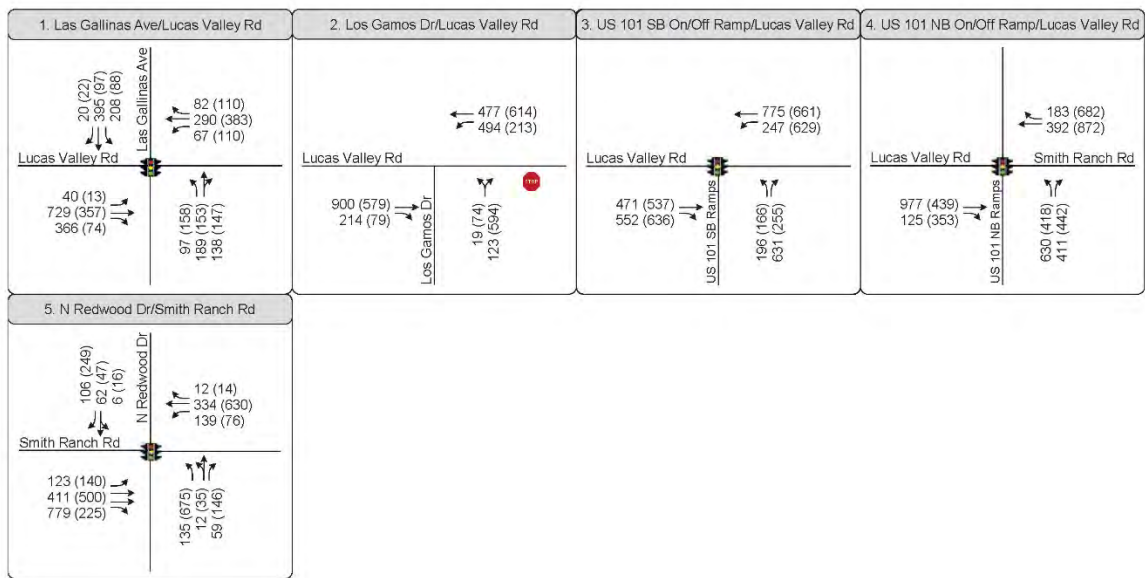
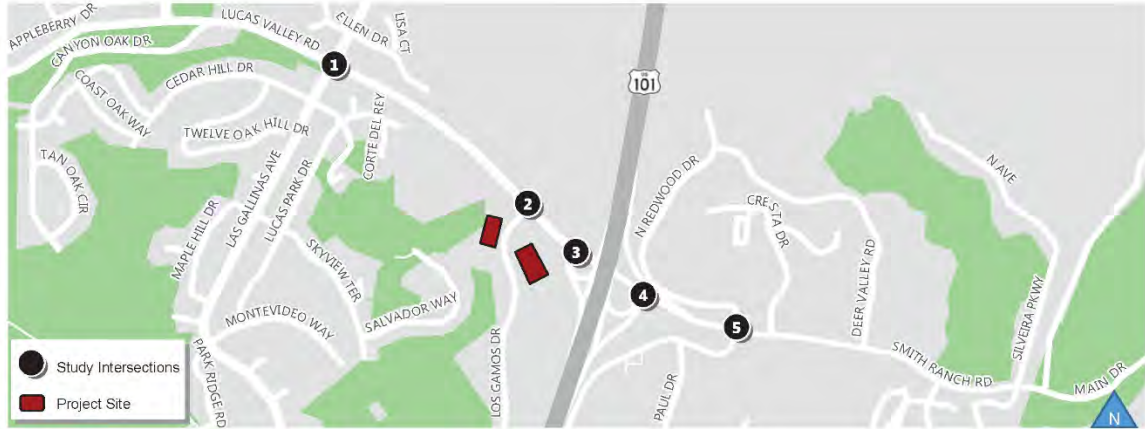
The City of San Rafael maintains a database of baseline traffic volumes, which assumes the 100-percent occupied building at 1650 Los Gamos Drive, and provided Synchro files for use in the Fehr & Peers *1650 Los Gamos Drive FTIA*. The baseline peak hour intersection volumes, lane configurations, and traffic controls at each intersection for the AM and PM peak hours is summarized on **Figure 4.6-11**. Similar to Existing Plus Project conditions, Project traffic volumes were added to the baseline peak hour traffic volumes to estimate the Baseline Plus Project peak hour traffic volumes, summarized in **Figure 4.6-12**.

### 4.6.7.1 Baseline Plus Project Intersection Operations

**Impact TRAF-3:** The Project would contribute to deficient operations of the Lucas Valley Road/Las Gallinas Avenue intersection by increasing the average delay by more than five seconds under Baseline plus Project conditions. (*Significant and Unavoidable*)

**Impact TRAF-4:** The Project would contribute to deficient operations of the Lucas Valley Road/Las Gamos Drive intersection by increasing the average delay by more than five seconds under Baseline plus Project conditions. (*Significant and Unavoidable*)

The Lucas Valley Road/Las Gallinas Avenue intersection operates below LOS D during the weekday AM and/or PM peak hour under Baseline No Project and Baseline Plus Project conditions. Baseline No Project and Baseline Plus Project conditions were evaluated using the same methods described in Section 4.6.3.2: *Approach to Analysis* above. The Baseline analysis results are presented in **Table 4.6-14**, based on the traffic volumes presented in **Figure 4.6-11** and **Figure 4.6-12**, respectively. As shown on **Table 4.6-14**, the Lucas Valley Road / Smith Ranch Road / Redwood Drive/Redwood Highway signalized intersection operates at LOS D or better during the Baseline No Project and Baseline Plus Project scenarios, therefore the Project's contribution to this intersection is considered less than significant. However, two intersections trigger a significant impact, as described below.



**Legend**

XX(YY) AM (PM) Peak Hour Traffic



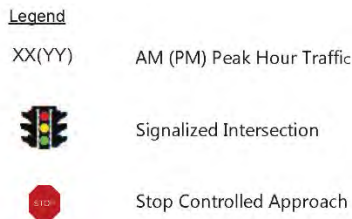
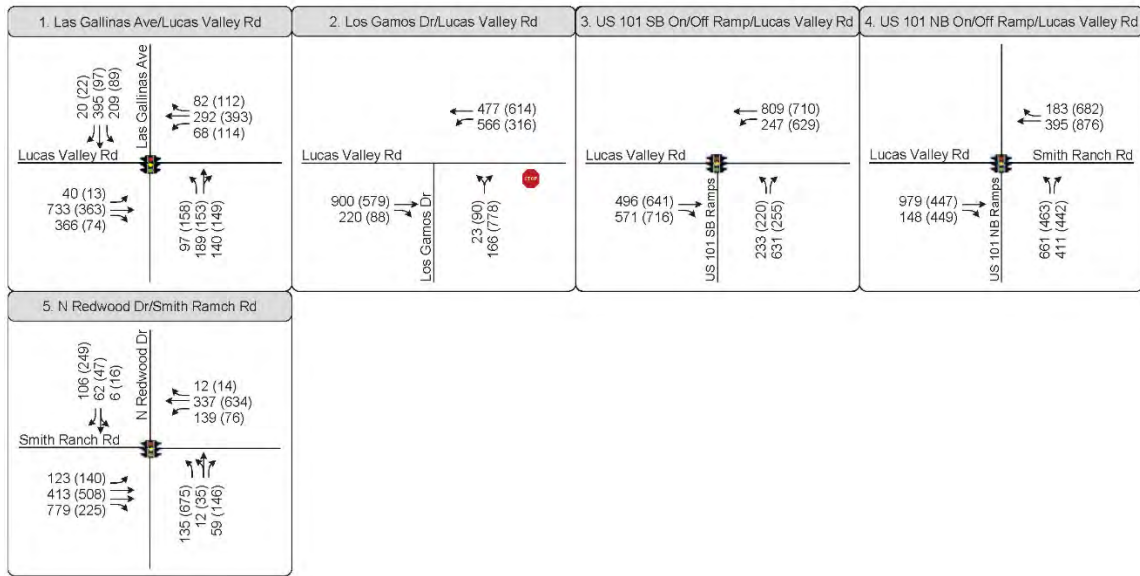
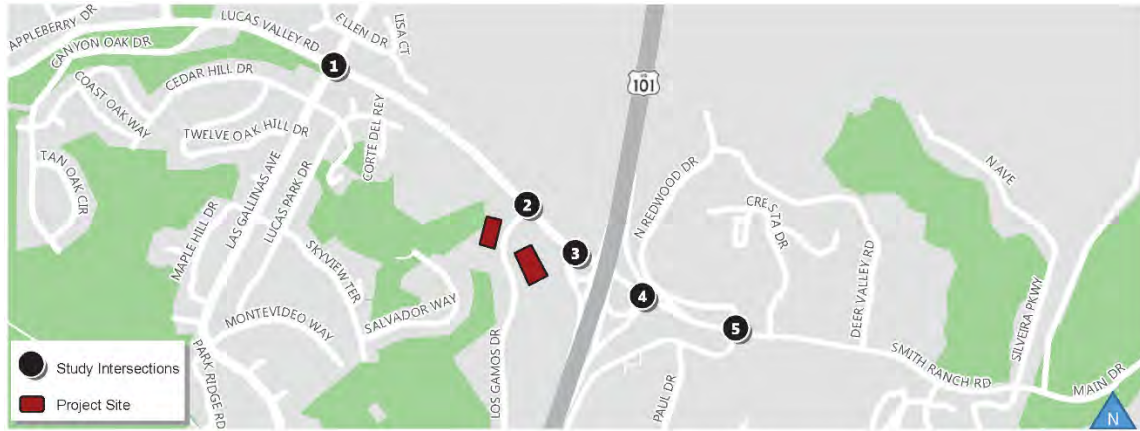
Signalized Intersection



Stop Controlled Approach

Source: Fehr & Peers 2018

**Figure 4.6-11: Baseline No Project Peak Hour Intersection Volumes**



Source: Fehr & Peers 2018

**Figure 4.6-12: Baseline Plus Project Peak Hour Intersection Volumes**

**TABLE 4.6-14: BASELINE INTERSECTION LEVEL OF SERVICE AND DELAY RESULTS**

Intersection	Intersection Control <sup>1</sup>	Time Period	Baseline No Project		Baseline Plus Project	
			LOS <sup>2,3</sup>	Delay <sup>2,3, 4</sup>	LOS <sup>2,3</sup>	Delay <sup>2,3, 4</sup>
1. Lucas Valley Road and Las Gallinas Avenue	Signal	AM PM	<b>F</b> C	<b>94</b> 34	<b>F</b> D	<b>182</b> 38
2. Lucas Valley Road and Los Gamos Drive	SSSC	AM PM	<b>E (F)</b> <b>F (F)</b>	<b>44 (67)</b> <b>&gt;80(375)</b>	<b>E (F)</b> <b>F (F)</b>	<b>41 (&gt;80)</b> <b>&gt;80</b> <b>(364)</b>
3. Lucas Valley Road and US 101 Southbound Ramps	Signal	AM PM	<b>E</b> <b>F</b>	<b>58</b> <b>156</b>	<b>F</b> <b>F</b>	<b>87</b> <b>156</b>
4. Lucas Valley Road / Smith Ranch Road and US 101 Northbound Ramps	Signal	AM PM	D B	44 15	<b>F</b> B	<b>84</b> 16
5. Lucas Valley Road / Smith Ranch Road and Redwood Drive / Redwood Highway	Signal	AM PM	B C	15 35	B D	13 51

Notes:

1. SSSC = Side-Street Stop Control
2. Worst approach is noted for side street stop controlled intersections.
3. **Bold** denotes unacceptable level of service and delay.
4. Standard industry practice is to summarize delay greater than 80 seconds (LOS F) as ">80". However, in some instances, the ">80" was over written with the estimated delay to better under the Project's impact to the No Project conditions and its relationship to the significance criteria.

Sources: Fehr & Peers, 2018

As shown on **Table 4.6-14**, the Lucas Valley Road / Smith Ranch Road / Redwood Drive/Redwood Highway signalized intersection operates at LOS D or better during the Baseline No Project and Baseline Plus Project scenarios, therefore the Project's contribution to this intersection is considered less than significant. However, two intersections trigger a significant impact, as described below.

The Lucas Valley Road/Las Gallinas Avenue intersection operates below LOS D during the weekday AM and/or PM peak hour, under Baseline No Project and Baseline Plus Project conditions. The proposed Project would contribute to deficient operations by increasing the average delay by more than five seconds, thus resulting in a significant impact and would require mitigation as described in Mitigation Measure **MM TRAF-3** below.

**Mitigation: MM TRAF-3. Improve Intersection Operations at Lucas Valley Road/Las Gallinas Avenue.** Improvements at the Lucas Valley Road/Las Gallinas Avenue

intersection have yet to be identified through the City of San Rafael's General Plan 2020; however, several vehicle capacity improvements (such as reconfiguring the intersection to remove channelized turn islands or replacing the existing signal with a roundabout) may be considered by the City of San Rafael to mitigate poor operating conditions at the intersection. Capacity increasing improvements include various trade-offs, however. For example, adding capacity could facilitate more vehicular traffic but this could also have an adverse impact to pedestrians and bicyclists and result in the diversion of more pass-through traffic along Las Gallinas Avenue and an increase in VMT. Although mitigation is possible at this intersection to address Project impacts, the intersection is outside of the City's jurisdiction and specific improvements have yet to be identified by either the City of San Rafael or the County of Marin. As such, the feasibility of potential mitigations will require further study and coordination with local neighborhood groups, the City of San Rafael, and the County of Marin, who operates and maintains the existing traffic signal. Since the City cannot legally implement mitigation measures outside of its jurisdiction, this potential mitigation is infeasible from both a legal and public policy standpoint. Ultimately, the City of San Rafael, in coordination with the County of Marin, would be responsible for implementing improvements, of which Kaiser Permanente would pay its fair share; however, as discussed above, since the intersection is not part of a traffic fee program and intersection improvements have yet to be identified, the Project would result in a *significant and unavoidable* impact.<sup>3</sup>

With the addition of Project traffic, the side street stop-controlled intersection at Lucas Valley Road/Los Gamos Drive would experience increased vehicle delay during the AM peak hour. The Project would add 102 trips to the stop-controlled northbound approach during the AM peak period, which would contribute to deficient operations and increase average delay by more than five seconds at the stopped controlled approach compared to Baseline No Project conditions. Therefore, the Project impact to this intersection is significant and would require mitigation, as described in Mitigation Measure **MM TRAF-4** below.

**Mitigation:** **MM TRAF-4. Signalize and Reconfigure the Lucas Valley Road/Los Gamos Drive Intersection.** In coordination with the City of San Rafael Department of Public Works, the County of Marin Department of Public Works, and Caltrans, Kaiser Permanente shall pay a fair share contribution to the reconfiguring and signalization of the Lucas Valley Road/Los Gamos Drive Intersection. The San Rafael *General Plan 2020* (Exhibit 21 #2<sup>4</sup>) identifies improvements at this intersection, including signalizing the intersection, adding dual westbound left turn lanes, reconfiguring the northbound approach, and removing existing

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<sup>3</sup> As described in MM TRAF-2, Kaiser Permanente shall include additional TDM measures to reduce the Project's trip generation and could potentially reduce the Project's impact to the Lucas Valley Road / Las Gallinas Avenue intersection. However, it is unknown if the reduction in vehicle trips would mitigate the Project's contribution to the intersection to less than significant.

<sup>4</sup> The exhibits referenced in the San Rafael General Plan 2020 pertain to the numbering system from that document

striped channelized islands, as illustrated in **Figure 4.6-13**. Due to its close proximity to the US-101 Ramp terminal intersections, the new signal should include traffic signal interconnect and be coordinated with the adjacent interchange signals. Additionally, since the majority of the intersection is located within the County of Marin jurisdiction, interagency coordination will be required during design, construction and maintenance of the new signal. Furthermore, a memorandum of understanding (MOU) will be required between the City of San Rafael and the County of Marin to document the management and maintenance of the intersection and signals since the US 101/Lucas Valley interchange signals and the new Lucas Valley Road / Los Gamos Drive signal would be operated and maintained by one or multiple agencies.

Implementing these improvements would mitigate the Project's impact to *less than significant*. However, until the intersection is fully funded, approved by the referenced public agencies, and constructed, the impact to the level of service would remain. Therefore, until and unless the MOU and fair-share contributions are finalized, the design and construction of the intersection is permitted and approved by all parties, the Project will result in a *significant and unavoidable* impact.

The Lucas Valley Road/US 101 Southbound Ramps intersection operates below LOS D during the weekday AM and/or PM peak hour, under Baseline No Project and Baseline Plus Project conditions. The proposed Project would contribute to deficient operations by increasing the average delay by more than five seconds, triggering a significant impact during the AM peak hour. However, as identified in the Existing Plus Project scenario, the San Rafael *General Plan 2020* exempts US 101 interchange intersections from LOS standards because delay at these locations are affected by regional traffic and not significantly impacted by local measures. Therefore, the Project's contribution to the Lucas Valley Road/US 101 Southbound Ramps intersection is also not considered a significant impact.



Note: Conceptual illustration not to scale.  
 Source: BKF, Kaiser Permanente (2017)

Source: Fehr & Peers 2018

**Figure 4.6-13: Mitigation Measure TRAF-4**



As discussed in Section 4.6.6: *Existing Plus Project Impacts and Mitigations* above, although the Project was not evaluated for significant impacts for freeway interchanges, a potential improvement was identified for informational purposes only. Signal timings could be adjusted at the Lucas Valley Road/US 101 Southbound Ramps intersection to account for the new intersection demand. With implementation, operations at the Lucas Valley Road / Smith Ranch Road / US 101 Southbound Ramps would be improved as a result of the Project. If the intersection were subject to the significance criteria, the implementation of signal timing would be considered a less than significant impact, similar to other intersections included in the study.

The Lucas Valley Road/Smith Ranch Road/US 101 Northbound Ramps intersection also operates below the LOS D threshold with the Project during the weekday AM peak hour, and thus would result in a significant impact. In order to address this, the intersection should reconfigure the eastbound approach to provide two through lanes, which is consistent with improvements identified in the City of San Rafael *General Plan 2020*. However, as explained for the Southbound Ramps, the intersection is part of the US 101 interchange, therefore it is exempt from the significance criteria and the above mentioned potential improvement was identified for information purposes only.

### **Signal Warrants**

As mentioned above, the existing volumes fulfill the peak hour signal warrants, therefore a signal should be considered at the Lucas Valley Road/Los Gamos Drive intersection. The addition of Baseline growth and Project traffic would further qualify the intersection for a signal based on Peak Hour Warrant (Warrant 3). Furthermore, implementation of mitigation measure **MM TRAF-1: Signalize Lucas Valley Road/Los Gamos Drive** would mitigate the Project impact during Baseline Plus Project conditions to a *less than significant* level. However, as stated above, since implementation of the mitigation measure requires the intersection improvements to be fully funded and constructed and this action is outside of the Lead Agency's direct control, this impact remains *significant and unavoidable*.

### **4.6.7.2 Baseline Plus Project Freeway Operations**

Baseline freeway conditions were evaluated using the same methods described in Section 4.6.4 *Traffic Conditions* above. The Baseline conditions analysis results are presented in **Table 4.6-15** and **Table 4.6-16**, for the AM and PM peak hours, respectively. Detailed freeway level of service calculation sheets are provided in **Appendix D** in the *1650 Los Gamos Drive FTIA* (see Appendix E to this DEIR).

**TABLE 4.6-15: BASELINE CONDITIONS FREEWAY DENSITY AND LOS – AM PEAK HOUR**

Segment	Segment Type	Baseline No Project		Baseline Plus Project	
		Density (pc/mi/ln) <sup>1</sup>	LOS <sup>2</sup>	Density (pc/mi/ln) <sup>1</sup>	LOS <sup>2</sup>
<b>Northbound</b>					
Manuel T Freitas Off / Manuel T Freitas On	Basic	20.6	C	20.7	C
Manuel T Freitas On / Redwood Highway On	Basic	16.9	B	17	B
Redwood Highway On	Merge	18.8	B	18.9	B
Smith Ranch Road Off	Basic	17.4	B	17.4	B
Smith Ranch Road Off / Lucas Road EB On	Basic	18.9	C	19.1	C
Lucas Road EB On / Smith Ranch Road WB On	Basic	14.7	B	14.9	B
Smith Ranch Road WB On	Merge	17.3	B	17.5	B
Miller Creek Off	Basic	15.3	B	15.5	B
Miller Creek On	Basic	19.6	C	19.9	C
<b>Southbound</b>					
Miller Creek Off	Basic	21.7	<b>F<sup>3</sup></b>	21.9	<b>F<sup>3</sup></b>
Miller Creek On	Merge	30.9	<b>F<sup>3</sup></b>	31.0	<b>F<sup>3</sup></b>
Lucas Valley Road Off	Basic	19.9	<b>F<sup>3</sup></b>	20.0	<b>F<sup>3</sup></b>
Lucas Valley Road Off / Lucas Valley Road On	Basic	23.2	<b>F<sup>3</sup></b>	23.2	<b>F<sup>3</sup></b>
Lucas Valley Road On	Merge	29.9	<b>F<sup>3</sup></b>	30.0	<b>F<sup>3</sup></b>
Lucas Valley Road On / Manuel T Freitas Off	Basic	27.0	<b>F<sup>3</sup></b>	27.1	<b>F<sup>3</sup></b>
Manuel T Freitas Off	Diverge	32.2	<b>F<sup>3</sup></b>	32.3	<b>F<sup>3</sup></b>
Manuel T Freitas Off / Manuel T Freitas On	Basic	22.5	<b>F<sup>3</sup></b>	22.6	<b>F<sup>3</sup></b>

Notes:

1. pc/mi/ln = passenger car per mile per lane
2. **Bold** = unacceptable LOS
3. This segment operates in queue; however, the results reported in the analysis software does not match existing condition observations because the methodology accounts for the number of vehicles that are able to use the facility, not the number of vehicles that want to use the facility and are in queue (demand). The LOS results were revised to match existing observations.

Sources: Fehr & Peers, 2018

**TABLE 4.6- 16: BASELINE CONDITIONS FREEWAY DENSITY AND LOS – PM PEAK HOUR**

Segment	Segment Type	Baseline No Project		Baseline Plus Project	
		Density (pc/mi/ln) <sup>1</sup>	LOS <sup>2</sup>	Density (pc/mi/ln) <sup>1</sup>	LOS
<b>Northbound</b>					
Manuel T Freitas Off / Manuel T Freitas On	Basic	30.6	D	31.8	D
Manuel T Freitas On / Redwood Highway On	Basic	36.7	E	38.3	E
Redwood Highway On	Merge	26.6	C	27	C
Smith Ranch Road Off	Basic	26.1	D	26.9	D
Smith Ranch Road Off / Lucas Road EB On	Basic	22.8	C	23.3	C
Lucas Road EB On / Smith Ranch Road WB On	Basic	23.8	C	24.5	C
Smith Ranch Road WB On	Merge	26.7	C	27.2	C
Miller Creek Off	Basic	25.8	C	26.5	D
Miller Creek On	Basic	36.1	E	37.7	E
<b>Southbound</b>					
Miller Creek Off	Basic	22	C	22.6	C
Miller Creek On	Merge	25.5	C	26.1	C
Lucas Valley Road Off	Basic	17.2	B	17.7	B
Lucas Valley Road Off / Lucas Valley Road On	Basic	21.3	C	21.8	C
Lucas Valley Road On	Merge	29.8	D	30.4	D
Lucas Valley Road On / Manuel T Freitas Off	Basic	26.2	D	26.9	D
Manuel T Freitas Off	Diverge	31.5	D	32	D
Manuel T Freitas Off / Manuel T Freitas On	Basic	22.4	C	23	C

Notes:

1. pc/mi/ln = passenger car per mile per lane
2. **Bold** = unacceptable LOS

Sources: Fehr & Peers, 2018

During the weekday AM and PM peak hours, all of the freeway segments operate at LOS E or better during the No Project and Plus Project Baseline scenarios, except southbound segments

during the AM peak hour. As described in the sections above, the southbound segments operate in congestion under existing conditions due to a downstream bottleneck between the San Pedro on-ramp and Mission Avenue off-ramp. The addition of Project trips would contribute to the existing failing operations. The v/c ratio calculations are summarized in **Table 4.6-17**.

**TABLE 4.6-17: BASELINE CONDITIONS VOLUME TO CAPACITY (V/C) SUMMARY<sup>1</sup> – AM PEAK HOUR**

Segment	Segment Capacity <sup>1</sup>	Baseline No Project		Baseline Plus Project	
		Volume <sup>2</sup>	v/c	Volume <sup>2</sup>	v/c <sup>3</sup>
<b>Southbound</b>					
Miller Creek Off / Miller Creek On	6,600	3,966	0.60	3,994	0.60
Miller Creek On / Lucas Valley Road Off	8,100	4,847	0.60	4,875	0.60
Lucas Valley Road Off / Lucas Valley Road On	6,600	4,221	0.64	4,221	0.64
Lucas Valley Road On / Manuel T Freitas Off	6,600	4,826	0.73	4,840	0.73
Manuel T Freitas Off / Manuel T Freitas On	6,600	4,112	0.62	4,126	0.62

Notes:

1. Summary based on mixed flow lanes only. High Occupancy Vehicles lane not included in analysis.
2. v/c calculation assumes the following capacities:
  - Mixed Flow Lanes: 2,200 vehicles per lane
  - Auxiliary Lanes: 1,500 vehicles per lane
3. The total volume reported does not account for the HOV volume.
4. **Bold** = Project contributes greater than 0.01 v/c to the No Project condition resulting in a significant impact

Sources: Fehr & Peers, 2018

As shown in **Table 4.6-17** the Project would not increase the freeway’s v/c ratio by 0.01 or more with the Project’s contribution. Therefore, the Project results in a *less than significant* impact during the Baseline Plus Project AM peak hour.

### 4.6.7.3 Baseline Plus Project Bicycle & Pedestrian Impacts

Bicycling and pedestrian trips in the study area may increase as a result of the proposed Project and Baseline growth; however, in this scenario, bicycle and pedestrian impacts are typically site-specific and generally do not contribute to impacts from other development projects. As indicated in Section 4.6.6: *Existing Plus Project Impacts and Mitigations* above, there is a projected increase in vehicles at the intersections in the vicinity of the proposed Project, which may result in an increase in vehicle-bicycle-pedestrian conflicts at intersections in the study area. However, the proposed Project would not create potentially hazardous conditions for bicycles, pedestrians, or otherwise interfere with bicycle and pedestrian accessibility to the site and adjoining areas because

the Project does not remove existing facilities and does not prohibit the construction of proposed facilities in the Project vicinity. As described in Section 4.6.6.4 *Existing Plus Project Bicycle and Pedestrian Impacts*, the addition of the proposed parking structure on the west side of Los Gamos Drive would result in an increase to pedestrian crossings across Los Gamos Drive. Thus, Kaiser Permanente will include pedestrian enhancements to the existing Los Gamos Drive crossing, just north of the 1650 Los Gamos Drive driveway. Therefore, the Project's impact to bicycle and pedestrian facilities are considered *less than significant* and mitigations are not required under Baseline Plus Project conditions.

#### 4.6.7.4 Baseline Plus Project Transit Impacts

Transit trips in the study area may increase as a result of the Project. However, Project related transit trips would have no foreseeable impacts to transit operations because the Project would not likely generate enough transit demand to exceed the capacity of existing or planned transit service nor does it interfere with existing or future transit users. Therefore, the Project impacts to transit facilities are considered *less than significant* and mitigations are not required.

### 4.6.8 Cumulative Conditions Impacts and Mitigation

The cumulative scenario includes traffic estimates and transportation infrastructure improvements as proposed in the San Rafael *General Plan 2020*.

#### 4.6.8.1 Assumed Roadway Improvements

The San Rafael *General Plan 2020* identifies proposed roadway improvements along Lucas Valley Road and Smith Ranch Road near the Project. Capital improvements include:

- Widening Lucas Valley Road to provide two westbound and two eastbound lanes between Redwood Highway and Los Gamos Drive
- Widening the US 101 northbound and southbound off-ramps with additional right and left turn lanes
- Signalizing the Los Gamos Drive / Lucas Valley Road intersection and coordinating the new signal with adjacent intersections
- Providing the westbound Lucas Valley Road approach at Los Gamos Drive two left turn lanes and two southbound receiving lanes on Los Gamos Drive

The improvements listed above were included in the Cumulative No Project and Cumulative Plus Project scenarios.

The *City of San Rafael Bicycle/Pedestrian Master Plan Update (2011)* proposes to continue Class II bicycle lanes along Lucas Valley Road and Smith Ranch Road, to the east. Additionally, a Class I facility is proposed to extend north of Los Gamos Drive and connect to Marinwood Avenue.

Caltrans approved the Project Study Report (Project Development Support) [PSR (PDS)] for the

Route 101/Lucas Valley Interchange Improvement Project in 2003. Caltrans prepared the PSR (PDS) at the request of the City of San Rafael through the Marin County Congestion Management Agency. The PSR (PDS) documents consensus between Caltrans and City of San Rafael on the purpose-and-need, scope, and schedule of a project. As part of the PSR (PDS), project development and capital costs are estimated. The next phase of project development is not yet funded. Improvements for this interchange were not identified in the San Rafael General Plan 2020; however, a supplementary cumulative analysis was completed for informational purposes and is summarized in Section 4.6.8.3: *Cumulative Conditions with Interchange Improvements* below.

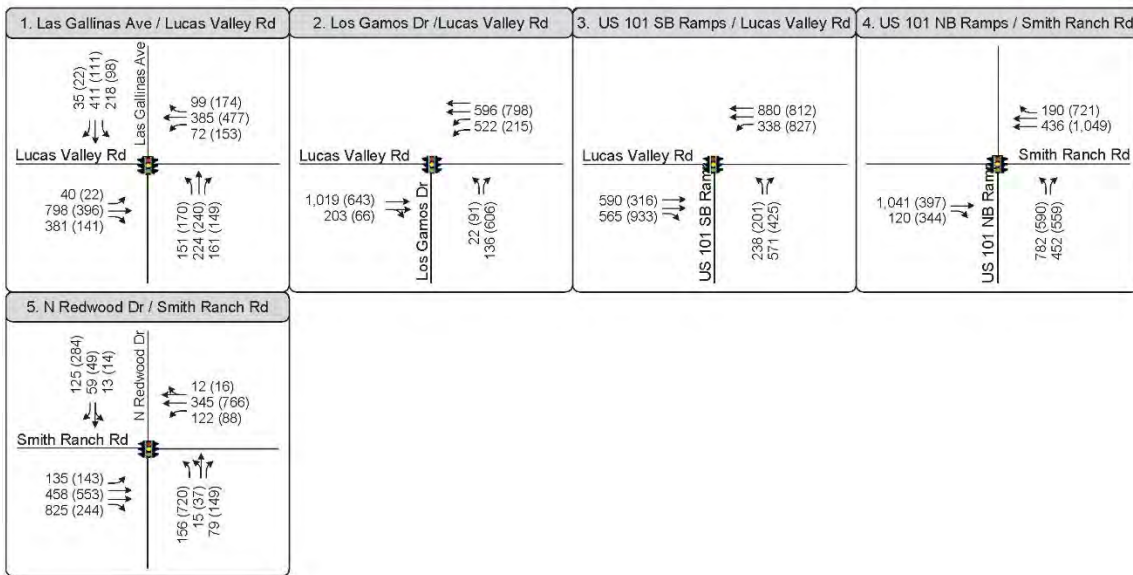
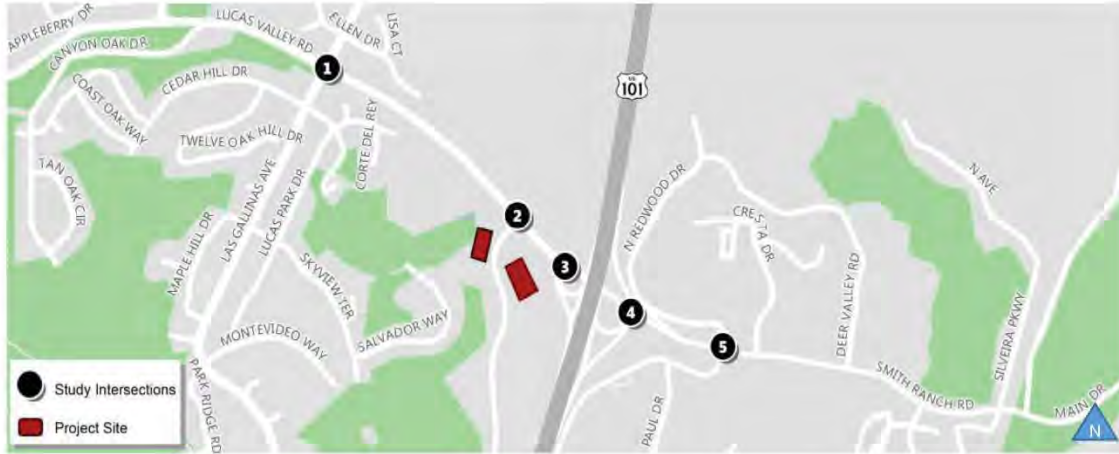
### **Traffic Volumes**

Similar to the Baseline Condition, the analysis used cumulative traffic volumes from the City of San Rafael's traffic database which is consistent with assumptions developed in the City of San Rafael *General Plan 2020*. The Cumulative No Project and Cumulative Plus Project peak hour intersection volumes, lane configurations, and traffic controls at each Project intersection is summarized in **Figure 4.6-14** and **4.6-15**, respectively.

## **4.6.8.2 Cumulative Intersection Operations**

**Impact TRAF-5.** The addition of Project-related traffic would exacerbate the Cumulative No Project condition and contribute more than 5 seconds of delay at the Lucas Valley Road/Las Gallinas Avenue intersection. (*Significant and Unavoidable*).

Cumulative No Project and Cumulative Plus Project conditions were evaluated using the same methods described in Section 4.6.4: *Traffic Conditions*. The Cumulative Plus Project analysis results are presented in **Table 4.6-18**, based on the traffic volumes presented in **Figures 4.6-14** and **4.6-15**, respectively.



**Legend**

XX(YY) AM (PM) Peak Hour Traffic



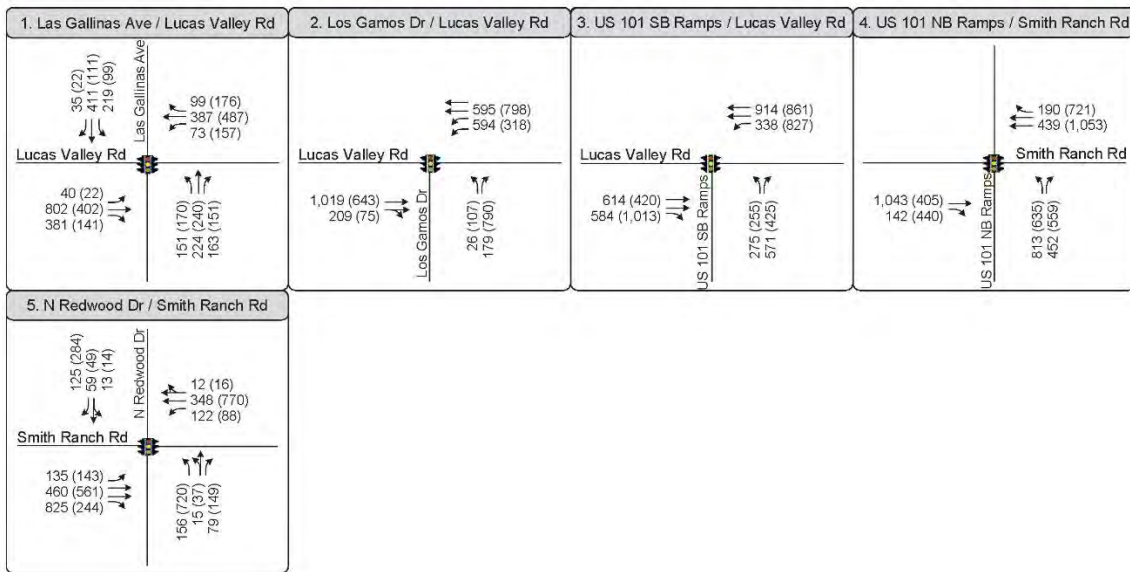
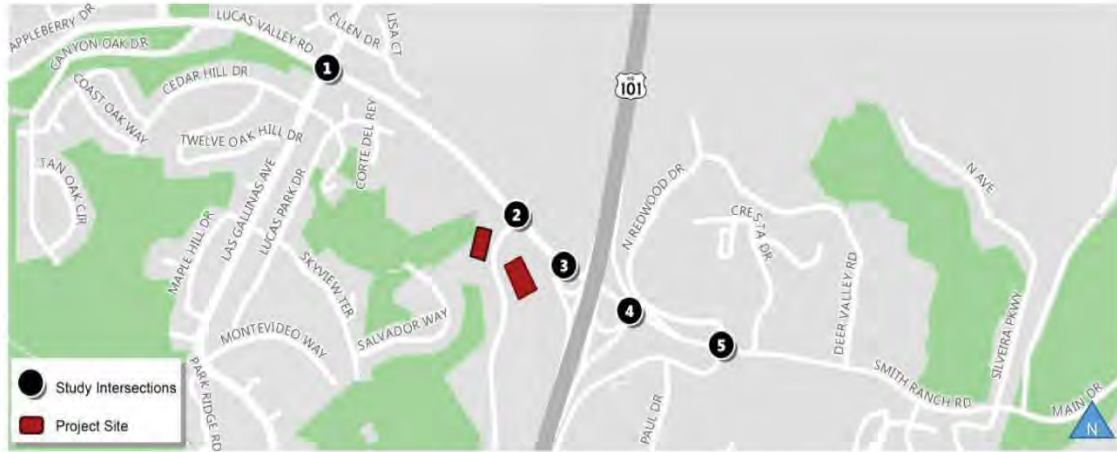
Signalized Intersection



Stop Controlled Approach

Source: Fehr & Peers 2018

**Figure 4.6-14: Cumulative No Project Peak Hour Intersection Volumes**



**Legend**

XX(YY) AM (PM) Peak Hour Traffic



Signalized Intersection



Stop Controlled Approach

Source: Fehr & Peers 2018

**Figure 4.6-15: Cumulative Plus Project Peak Hour Intersection Volumes**



**TABLE 4.6-18: CUMULATIVE INTERSECTION LEVEL OF SERVICE AND DELAY RESULTS**

Intersection	Intersection Control	Time Period	Cumulative No Project		Cumulative Plus Project	
			LOS <sup>1</sup>	Delay <sup>1,2</sup>	LOS <sup>1</sup>	Delay <sup>1,2</sup>
1. Lucas Valley Road and Las Gallinas Avenue	Signal	AM	<b>F</b>	<b>&gt;80</b>	<b>F</b>	<b>&gt;80</b>
		PM	D	38	D	38
2. Lucas Valley Road and Los Gamos Drive	Signal	AM	B	20	C	25
		PM	<b>E</b>	<b>67</b>	<b>E</b>	<b>67</b>
3. Lucas Valley Road and US 101 Southbound Ramps	Signal	AM	B	19	C	23
		PM	D	46	D	47
4. Lucas Valley Road / Smith Ranch Road and US 101 Northbound	Signal	AM	C	23	C	24
		PM	C	30	C	30
5. Lucas Valley Road / Smith Ranch Road and Redwood Drive / Redwood Highway	Signal	AM	B	16	B	17
		PM	<b>F</b>	<b>185</b>	<b>F</b>	<b>185</b>

1. **Bold** denotes unacceptable level of service and delay.
2. Standard industry practice is to summarize delay greater than 80 seconds (LOS F) as ">80". However, in some instances, the ">80" was over written with the estimated delay to better under the Project's impact to the No Project conditions and its relationship to the significance criteria.

Sources: Fehr & Peers, 2018

As shown on **Table 4.6-18**, all intersections would operate at an acceptable LOS C or better during the AM peak hour with exception to Lucas Valley Road / Las Gallinas Avenue intersection which operates at LOS F under Cumulative No Project and Cumulative Plus Project conditions.

During the PM peak hour, all intersections operate at an acceptable LOS D or better except the Lucas Valley Road / Los Gamos Drive and the Lucas Valley Road / Smith Ranch Road / Redwood Drive / Redwood Highway intersections, which operate at LOS E and LOS F, respectively. While the Project would contribute additional traffic to both the intersections, the overall intersection delay would not increase by more than five seconds compared to the Cumulative No Project conditions. Therefore, the Project impact is considered less-than-significant during the PM peak hour.

As discussed above in Section 4.6.7.1: *Baseline Plus Project Intersection Operations* above, improvements to Lucas Valley Road / Las Gallinas Avenue intersection have yet to be identified through the City of San Rafael's *General Plan 2020*; however, several vehicle capacity improvements could be considered to mitigate poor operating conditions at the intersection. The feasibility of the potential improvement projects (such as reconfiguring the intersection to

remove channelized turn islands or replacing the existing signal with a roundabout) and any potential adverse impacts will require further study and coordination with the City of San Rafael, County of Marin, and the local community. Therefore, the following mitigation measure is required to address potential impacts to the Lucas Valley Road / Las Gallinas Avenue intersection:

**Mitigation:** Implementation of Mitigation Measure **MM TRAF-3** would work towards reducing the Project's impact upon the local circulation network. However, since the intersection is not part of a traffic fee program and intersection improvements have yet to be identified, the Project would result in a *significant and unavoidable* impact.

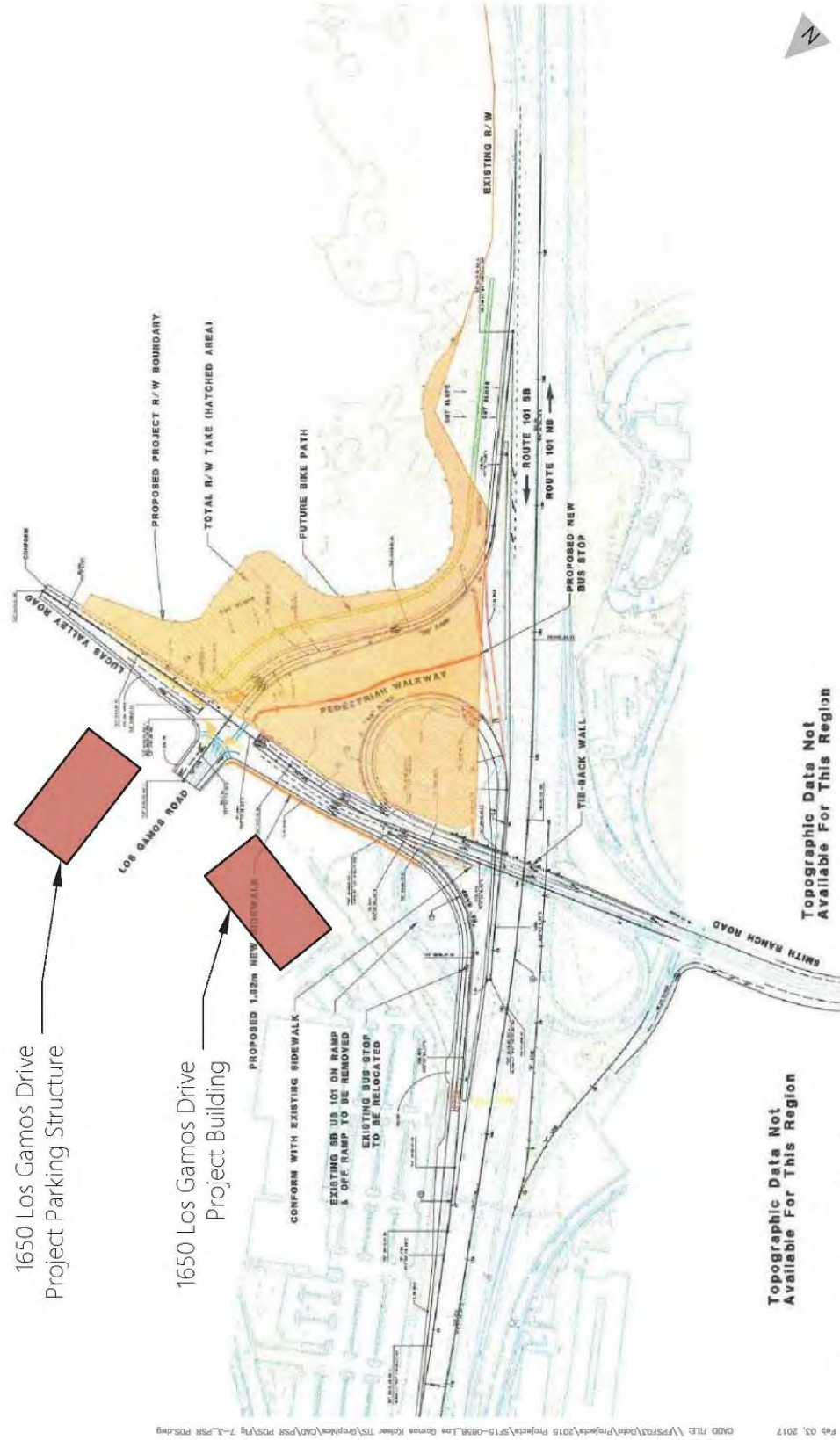
### **4.6.8.3 Cumulative Conditions with Interchange Improvements**

In 2003, Caltrans approved the PSR (PDS) for the US 101/Lucas Valley Interchange Improvement Project to relieve congestion at the existing interchange. The Project included modifications to the interchange by replacing the existing southbound loop off-ramp with a new diagonal off-ramp on the north side of Lucas Valley Road, which would meet Los Gamos Drive as the fourth leg of the intersection. Additionally, the Project would construct a new southbound US 101 loop on-ramp to serve traffic from westbound Smith Ranch Road, widen Lucas Valley Road the US 101 overpass, and add a second right turn lane at the existing northbound off-ramp. The existing southbound on-ramp on the south side of Lucas Valley Road would remain; however, the existing signal would be removed and the eastbound right turn lane would be changed to a free movement. **Figure 4.6-16** illustrates the proposed interchange improvements.

The PSR (PDS) is not yet funded and was not identified in the San Rafael *General Plan 2020*; however, a supplementary cumulative analysis was completed for informational purposes, summarized below.

The Cumulative with PSR (PDS) Interchange Improvements were evaluated using the same methods described in Section 4.6.4.3: *Trip Generation* above. The Cumulative with PSR (PDS) Interchange Improvements analysis results are presented in **Table 4.6-19**, based on the cumulative traffic volumes presented in **Figure 4.6-14** and **Figure 4.6-15**. Detailed LOS calculation worksheets are included in **Appendix B** and queue summary worksheets in **Appendix F** of the Fehr & Peers *1650 Los Gamos Drive FTIA* (see Appendix E to this DEIR).

During the AM peak hour, Project traffic would result in an increase of more than five seconds in average delay, the threshold for a Project-related impact, at the Lucas Valley Road/Las Gallinas



Note: Conceptual illustration not to scale.  
 Source: Caltrans Approved Project Study Report (Project Development Support) for the Route 101 / Lucas Valley Interchange Improvement Project (2003)

Source: Fehr & Peers 2018

**Figure 4.6-16: Caltrans PSR Interchange Improvements**

and Lucas Valley Road/Los Gamos Drive intersections. However, the remaining three intersections would operate at an acceptable LOS C or better. During the PM peak hour, the addition of Project traffic would increase delay; however, intersections would continue to operate at an acceptable LOS D or better.

Since the PSR/PDS is not yet funded and was not identified in the San Rafael *General Plan 2020* the Project’s impact to the proposed interchange is not assumed to be affected by the Significance Criteria set by the City of San Rafael. If the PSR (PDS) is to be further considered, a Project Approval/Environmental Document (PA/ED) and further engineering studies must be completed, in which case the Project’s contribution may be considered. However, the PSR/PDS has remained stagnant since the 2003 approval and no further studies have been completed.

**TABLE 4.6-19: CUMULATIVE WITH INTERCHANGE IMPROVEMENTS INTERSECTION LEVEL OF SERVICE AND DELAY RESULTS**

Intersection	Intersection Control	Time Period	Cumulative No Project		Cumulative Plus Project	
			LOS <sup>1</sup>	Delay <sup>1</sup>	LOS <sup>1</sup>	Delay <sup>1</sup>
1. Lucas Valley Road and Las Gallinas Avenue	Signal	AM PM	<b>F</b> C	<b>&gt;80</b> 26	<b>F</b> C	<b>&gt;80</b> 34
2. Lucas Valley Road and Los Gamos Drive / US 101 Southbound Off-Ramp <sup>2</sup>	Signal	AM PM	<b>F</b> D	<b>&gt;80</b> 43	<b>F</b> D	<b>&gt;80</b> 47
3. Lucas Valley Road and US 101 Southbound On-Ramps <sup>2</sup>	Unsig. <sup>2</sup>	AM PM	B A	11 <10	C A	18 <10
4. Lucas Valley Road / Smith Ranch Road and US 101 Northbound Ramps	Signal	AM PM	C B	21 20	C B	27 16
5. Lucas Valley Road / Smith Ranch Road and Redwood Drive / Redwood Highway	Signal	AM PM	B C	16 29	B C	16 31

Notes:

1. **Bold** denotes unacceptable level of service and delay.
2. The PSR configuration proposes a southbound US 101 diagonal off-ramp which would represent the fourth leg of the Los Gamos Drive / Lucas Valley Road intersection. A new southbound US 101 on-ramp from westbound Lucas Valley Road would be constructed as free loop on-ramp. The existing diagonal on-ramp for eastbound Lucas Valley Road traffic would remain and the intersection would become unsignalized and free.

Sources: Fehr & Peers, 2018

## Signal Warrants

As described above, the City of San Rafael General Plan 2020 proposes to signalize the Lucas Valley Road / Los Gamos Drive intersection. Therefore, no study intersection remains unsignalized and needs to be evaluated as part of the signal warrant analysis.

### 4.6.8.4 Freeway Operations

Cumulative freeway conditions were evaluated using the same methods described in Section 4.6.3.1: *Trip Generation* above. The Cumulative conditions analysis results are presented in **Table 4.6-20** and **Table 4.6-21**, for the AM and PM peak hours, respectively. Detailed freeway level of service calculation sheets are provided in **Appendix D** of the *1650 Los Gamos Drive FTIA* (see Appendix E to this DEIR).

**TABLE 4.6-20: CUMULATIVE CONDITIONS FREEWAY DENSITY AND LOS – AM PEAK HOUR**

Segment	Segment Type	Cumulative No Project		Cumulative Plus Project	
		Density (pc/mi/ln) <sup>1</sup>	LOS <sup>2</sup>	Density (pc/mi/ln) <sup>1</sup>	LOS
<b>Northbound</b>					
Manuel T Freitas Off / Manuel T Freitas On	Basic	25.4	C	25.4	C
Manuel T Freitas On / Redwood Highway On	Basic	28.4	D	28.5	D
Redwood Highway On	Merge	22	C	22	C
Smith Ranch Road Off	Basic	21.1	C	21.2	C
Smith Ranch Road Off / Lucas Road EB On	Basic	23	C	23.3	C
Lucas Road EB On / Smith Ranch Road WB On	Basic	17.9	B	18.1	C
Smith Ranch Road WB On	Merge	20.1	C	20.3	C
Miller Creek Off	Basic	18.6	C	18.8	C
Miller Creek On	Basic	24	C	24.3	C
<b>Southbound</b>					
Miller Creek Off	Basic	26.4	F <sup>3</sup>	26.5	F <sup>3</sup>
Miller Creek On	Merge	36.0	F <sup>3</sup>	36.2	F <sup>3</sup>
Lucas Valley Road Off	Basic	23.9	F <sup>3</sup>	24.1	F <sup>3</sup>
Lucas Valley Road Off / Lucas Valley Road On	Basic	29.7	F <sup>3</sup>	29.7	F <sup>3</sup>

Lucas Valley Road On	Merge	35.7	<b>F<sup>3</sup></b>	35.8	<b>F<sup>3</sup></b>
Lucas Valley Road On / Manuel T Freitas Off	Basic	35.9	<b>F<sup>3</sup></b>	36.0	<b>F<sup>3</sup></b>
Manuel T Freitas Off	Diverge	36.9	<b>F<sup>3</sup></b>	37.0	<b>F<sup>3</sup></b>
Manuel T Freitas Off / Manuel T Freitas On	Basic	28.3	<b>F<sup>3</sup></b>	28.4	<b>F<sup>3</sup></b>

Notes:

1. pc/mi/ln = passenger car per mile per lane
2. **Bold** = unacceptable LOS
3. This segment operates in queue; however, the results reported in the analysis software does not match existing condition observations because the methodology accounts for the number of vehicles that are able to use the facility, not the number of vehicles that want to use the facility and are in queue (demand). The LOS results were revised to match existing observations.

Sources: Fehr & Peers, 2018

**TABLE 4.6-21: CUMULATIVE CONDITIONS FREEWAY DENSITY AND LOS – PM PEAK HOUR**

Segment	Segment Type	Cumulative No Project		Cumulative Plus Project	
		Density (pc/mi/ln) <sup>1</sup>	LOS <sup>2</sup>	Density (pc/mi/ln) <sup>1</sup>	LOS <sup>2</sup>
<b>Northbound</b>					
Manuel T Freitas Off / Manuel T Freitas On	Basic	42.8	E	<b>47.5</b>	<b>F</b>
Manuel T Freitas On / Redwood Highway On	Basic	<b>56.7</b>	<b>F</b>	<b>60.1</b>	<b>F</b>
Redwood Highway On	Merge	31.4	D	31.9	D
Smith Ranch Road Off	Basic	34.3	D	35.4	E
Smith Ranch Road Off / Lucas Road EB On	Basic	28.7	D	29.3	D
Lucas Road EB On / Smith Ranch Road WB On	Basic	30.4	D	31.2	D
Smith Ranch Road WB On	Merge	31.6	D	32	D
Miller Creek Off	Basic	33.7	D	34.6	D
Miller Creek On	Basic	55.4	F	58.4	F
<b>Southbound</b>					
Miller Creek Off	Basic	27.4	D	28.3	D
Miller Creek On	Merge	30	D	30.6	D
Lucas Valley Road Off	Basic	20.9	C	21.4	C

Lucas Valley Road Off / Lucas Valley Road On	Basic	26.4	D	27	D
Lucas Valley Road On	Merge	35.3	E	35.8	E
Lucas Valley Road On / Manuel T Freitas Off	Basic	34.5	D	35.5	E
Manuel T Freitas Off	Diverge	36.1	E	36.5	E
Manuel T Freitas Off / Manuel T Freitas On	Basic	28.2	D	28.9	D

Notes:

1. pc/mi/ln = passenger car per mile per lane
2. **Bold** = unacceptable LOS

Sources: Fehr & Peers, 2018

During the weekday AM peak hour, all of the freeway study segments operate at LOS E or better across both Cumulative scenarios, except southbound segments during the AM peak hour. As described under Existing conditions, the southbound segments currently operate in congestion due to a downstream bottleneck between the San Pedro on-ramp and Mission Avenue off-ramp. The addition of Project trips would contribute to the existing failing operations. The v/c ratio calculation is summarized in **Table 4.6-22**.

**TABLE 4.6-22: CUMULATIVE CONDITIONS VOLUME TO CAPACITY (V/C) SUMMARY<sup>1</sup> – AM PEAK HOUR**

Segment	Segment Capacity <sup>1</sup>	Cumulative No Project		Cumulative Plus Project	
		Volume <sup>2</sup>	v/c	Volume <sup>2</sup>	v/c <sup>3</sup>
<b>Southbound</b>					
Miller Creek Off / Miller Creek On	6,600	4,729	0.72	4,757	0.72
Miller Creek On / Lucas Valley Road Off	8,100	5,800	0.72	5,828	0.72
Lucas Valley Road Off / Lucas Valley Road On	6,600	5,188	0.79	5,188	0.79
Lucas Valley Road On / Manuel T Freitas Off	6,600	5,871	0.89	5,886	0.89
Manuel T Freitas Off / Manuel T Freitas On	6,600	5,003	0.76	5,018	0.76

Notes:

1. Summary based on mixed flow lanes only. High Occupancy Vehicles lane not included in analysis.
2. v/c calculation assumes the following capacities:
  - Mixed Flow Lanes: 2,200 vehicles per lane
  - Auxiliary Lanes: 1,500 vehicles per lane
3. The total volume reported does not account for the HOV volume.
4. **Bold** = Project contributes greater than 0.01 v/c to the No Project condition resulting in a significant impact

Sources: Fehr & Peers, 2018

As shown in **Table 4.6-21** the Project would not increase the freeway’s v/c ratio by 0.01 or more with the Project’s contribution. Therefore, the Project results in a *less than significant* impact during the Cumulative Plus Project AM peak hour.

During the PM peak hour, all freeway study segments operate at LOS E or better across all Cumulative scenarios, except the following northbound segments:

- Manuel T Freitas Off to Manuel T Freitas On (degrades from LOS E to LOS F with the Project)
- Manuel T Freitas On to Redwood Highway On (operates at LOS F across all PM peak hour Cumulative scenarios)
- Miller Creek On (operates at LOS F across all PM peak hour Cumulative scenarios)

The Project’s contribution to these segments are summarized in **Table 4.6-23** below, however, the Project’s addition to these segments is less than 1-percent of total traffic on the corridor.

**TABLE 4.6-23: CUMULATIVE CONDITIONS VOLUME TO CAPACITY (V/C) SUMMARY<sup>1</sup> – PM PEAK HOUR**

Segment	Segment Capacity <sup>1</sup>	Cumulative No Project		Cumulative Plus Project	
		Volume <sup>2</sup>	v/c	Volume <sup>2</sup>	v/c <sup>3</sup>
<b>Northbound</b>					
Manuel T Freitas Off / Manuel T Freitas On	6,600	6,451	0.98	6,468	0.98
Manuel T Freitas On / Redwood Highway On	8,800	7,236	0.82	7,262	0.82
Miller Creek On	8,100	7,405	0.91	7,421	0.91

Notes:

1. Summary based on mixed flow lanes only. High Occupancy Vehicles lane not included in analysis.
2. v/c calculation assumes the following capacities:
  - Mixed Flow Lanes: 2,200 vehicles per lane
  - Auxiliary Lanes: 1,500 vehicles per lane
3. The total volume reported does not account for the HOV volume.
4. **Bold** = Project contributes greater than 0.01 v/c to the No Project condition resulting in a significant impact

Sources: Fehr & Peers, 2018

As shown the Project would not increase the freeway’s v/c ratio by 0.01 or more with the Project’s contribution. Therefore, the Project results in a *less than significant* impact during the Cumulative Plus Project PM peak hour.

**Mitigation:** None required

#### 4.6.8.4 Cumulative Bicycle & Pedestrian Impacts

Bicycling and pedestrian trips in the study area may increase as a result of the proposed Project and Cumulative growth, which may result in an increase in vehicle-bicycle-pedestrian conflicts at intersections in the study area. However, the proposed Project would not create potentially



hazardous conditions for bicycles, pedestrians, or otherwise interfere with bicycle and pedestrian accessibility to the site and adjoining areas because the Project does not remove existing facilities and does not prohibit the construction of proposed future facilities as documented under the Cumulative Roadway Assumptions. As described in Section 4.6.6.4: *Existing Plus Project Bicycle and Pedestrian Impacts* above, the addition of the proposed parking structure on the west side of Los Gamos Drive would result in an increase to pedestrian crossings across Los Gamos Drive. Thus, Kaiser Permanente will include pedestrian enhancements to the existing Los Gamos Drive crossing, just north of the 1650 Los Gamos Drive driveway. Therefore, the Project's impact to bicycle and pedestrian facilities are considered *less than significant* and mitigations are not required under Cumulative Plus Project conditions.

**Mitigation:** None required

#### **4.6.8.5 Cumulative Transit Impacts**

Transit trips in the study area may increase as a result of the Project. However, Project related transit trips would have no foreseeable impacts to transit operations because the Project would not likely generate enough transit demand to exceed the capacity of existing or planned transit service nor does it interfere with existing or future transit users. Therefore, the Project impacts to transit facilities are considered *less than significant* and no mitigation is required.

**Mitigation:** None required

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# CHAPTER 5

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## Alternatives

This chapter describes and evaluates alternatives to the Kaiser Permanente 1650 Los Gamos Drive Medical Office Building Project, pursuant to CEQA *Guidelines* Section 15126.6. This chapter provides a comparative evaluation of four alternatives to the proposed Project. The chapter begins with a discussion of the scope of the alternatives considered, followed by a description and evaluation of the alternatives. The chapter concludes with a discussion of the Environmentally Superior alternative.

### 5.1 CEQA Requirements

CEQA requires an evaluation of the comparative effects of a range of reasonable alternatives to a project. The alternatives considered should feasibly attain most of the basic objectives of the project and avoid or substantially lessen one or more of the significant effects of the project. The discussion of alternatives in an EIR is to focus on alternatives to the project or its location that are capable of avoiding or substantially lessening significant effects of the project, even if such alternatives would impede, to some degree, the attainment of the project objectives, or would be costlier (CEQA *Guidelines* Sections 15126.6[a] and 15126.6[b]). The range of alternatives required in an EIR is governed by a "rule of reason" that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice.

An EIR need not consider every conceivable alternative to a project. Rather, it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. Section 21083.3(b) of the CEQA statute further states that when a proposed project is consistent with a city's General Plan, and an EIR was prepared for said plan, the review of the proposed project "need only to analyze the impacts peculiar to the proposed project and which were not addressed as significant effects in the prior EIR, or which substantial new information shows will be more significant than described in the prior EIR."

### 5.2 Factors Considered in Selection of Alternatives

This chapter presents a meaningful comparative analysis of the Project and the alternatives, and discusses any alternatives that were considered by the City of San Rafael but that it rejected as infeasible for detailed analysis in this DEIR. The CEQA *Guidelines* recommend that an EIR briefly describe the rationale for selecting the alternatives to be discussed (CEQA *Guidelines* Section 15126.6[c]). The goal of the alternatives analysis considers the following factors:

- The extent to which the alternative would accomplish all or most of the basic goals and objectives of the project;
- The extent to which the alternative would avoid or lessen the identified significant and unavoidable environmental impacts of the project;
- The feasibility of the alternative, taking into account site suitability, availability of infrastructure, general plan consistency, and consistency with other applicable plans and regulatory limitations;
- The extent to which an alternative contributes to a “reasonable range” of alternatives necessary to permit a reasoned choice; and
- The requirement of the CEQA Guidelines to consider a “no project” alternative and to identify an “environmentally superior” alternative in addition to the no-project alternative.

### **5.2.1 Basic Goals and Objectives of the Project**

As stated in the first factor bulleted above, the selection of alternatives shall consider the basic goals and objectives of the Project.

The basic objectives of the Kaiser Permanente 1650 Los Gamos Medical Office Building (MOB) Project are listed below, as initially presented in Section 3.3.1, *Objectives of Proposed Project*, in Chapter 3, Project Description. Objectives of the proposed Project are intended to be consistent with the policies of the City of San Rafael General Plan 2020 and the health care, economic, and other considerations of Kaiser Permanente. The following specific project objectives have been identified for the Project:

1. Provide high quality, affordable health care in new, approximately 150,000 square foot centralized outpatient facility for Kaiser Permanente members and the greater Marin County area by reusing an existing building and surface parking lot area in a practical and cost-effective manner.
2. Immediately supplement and support existing Kaiser Permanente medical offices and support services in the North Bay region in one consolidated location, allowing for the ability to:
  - i. right-size spaces to decompress existing services and providers,
  - ii. modernize clinical areas of the existing Kaiser Permanente San Rafael Medical Center, and
  - iii. provide enhanced medical services for local residents at a conveniently located facility.
3. Facilitate the logical, orderly development of an infill site in order to achieve a beneficial set of end uses at a site with good freeway access and proximity to public transportation.
4. Positively contribute to the local economy through new capital investment.

5. Design the new MOB in a manner so as to meet the evolving and varied health care demands of Kaiser Permanente members and the residents of San Rafael within the framework of Kaiser Permanente resources and changing health care industry practices.
6. Provide an environment that is easy to negotiate and access for pedestrians, bicyclists, and vehicles, including persons with disabilities. Create pedestrian circulation that is clear and safe.
7. Implement a MOB and parking structure that are aesthetically compatible with surrounding development and do not unduly impact existing views.

## **5.2.2 Summary of Significant Impacts Identified with the Project**

The proposed Project and the Project objectives are described in detail in Chapter 3, *Project Description*, and the potential environmental effects of implementing the proposed Project are analyzed in Chapter 4, *Environmental Settings, Impacts and Mitigation Measures*. As discussed in the Initial Study, several environmental issues were determined to not be significant, less than significant, or less than significant with mitigation incorporation. The mitigation measures for those environmental issues are incorporated into the Project as referenced in Appendix B. Project impacts associated with the following environmental topics would be significant without the implementation of mitigation measures, but would be reduced to a less than significant level if the mitigation measures recommended in this DEIR are implemented:

- Air Quality
- Greenhouse Gas Emissions

As discussed in Chapter 4.6: *Transportation and Circulation*, although mitigations have been identified to reduce Project impacts to less than significant levels, traffic impacts may remain significant and unavoidable for purposes of this EIR analysis due to the timing and coordination with third party jurisdictions required to implement the identified intersection improvements. As such, the following environmental topics would be considered significant and unavoidable

- Transportation and Circulation

## **5.3 Alternatives Considered but Not Analyzed Further in the DEIR**

### **5.3.1 One Off-Site Project Location Alternative**

The existing Kaiser Permanente San Rafael Medical Center at 99 Montecillo Road is landlocked and without any near-term opportunities to expand on-site due to the current campus configuration and site plan. As such, the primary objective of the Project is to provide a new MOB for Marin County residents so as to decompress capacity at existing Kaiser Permanente medical offices and support services in the North Bay region. Kaiser Permanente does not currently own or control any feasible alternative sites in the geographical area that have the required land use and zoning designations that

could accommodate the development intensity proposed. To this end, Kaiser Permanente’s real estate team has spent nearly a decade researching potentially feasible sites (those both on the market for lease and/or for sale and potentially so) in the greater San Rafael geographical area.

With the exception of the current proposed Project site at 1650 Los Gamos Drive, other potential sites were rejected from further consideration due to a variety of factors, including, but not limited to: size, distance from Kaiser Permanente San Rafael Medical Center, and onsite contamination risks. In determining the appropriateness of an off-site alternative, the City of San Rafael also evaluated the reduction of potentially significant impacts that would be generated by the proposed Project and assessed the viability of lessening the potential traffic and circulation and accompanying air quality and GHG impacts elsewhere in Marin County. This includes identifying sites that are similarly located near the highway and near intersections and access ramps that do not have existing conditions at circulation capacity. As an initial matter, given the scarcity of available and comparable development space in the San Rafael geographical area, there is no potential off-site location where a new similar sized MOB could realistically and feasibly be developed, could meet the proposed Project’s main objectives, or is ideally zoned for medical office use.

Because the subject property is located adjacent to a major highway (with highway interchange) and includes an existing building with available parking, the comparison to new development at an alternate location is not realistically possible, as there are no available or similar sized properties located within the Project area. However, the impacts of developing a new MOB with the same program, size, office space, and parking requirements as the existing office building on another property in central Marin County would likely result in greater impacts than those identified with the proposed Project. CEQA does not require that the EIR consider an off-site alternative if it would not avoid or substantially lessen any of the significant effects of the Project to be considered for inclusion in the EIR. Furthermore, CEQA does not require an off-site alternative to be analyzed if the lead agency concludes that no feasible alternative locations exist. Here, a single offsite location alternative was considered but not further evaluated because such an alternative would not: (i) meet the main Project Objectives 1 and 2 above; (2) possibly not meet Project Objectives 3, 6, and 7; and (iii) is infeasible (see alternative site feasibility factors put forth by the California Supreme Court in *Citizens of Goleta Valley v. Board of Supervisors*, 52 Cal. 3d 553 (1990) (“A feasible alternative is one which can be ‘accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors.’ (Pub. Resources Code, § 21061.1; Guidelines, § 15364)). Alternatives that cannot be “realistically considered and successfully accomplished” do not legally need to be reviewed in depth. Therefore, a scenario in which Kaiser Permanente would develop a new MOB at a single off-site alternative location is not considered in this DEIR analysis.

### **5.3.2 Multiple Off-Site Project Locations Alternative**

Similar to the single off-site alternative concept, a multiple, smaller off-site project locations alternative was not considered for many of the reasons stated above. Partitioning the proposed Project into several smaller sized developments is potentially more likely than locating one large property for an MOB development since the market for large office or medical office properties in Marin County

is limited at this time. As such, one alternative to meet the overall square footage needs for the Project (approximately 150,000 square feet) would be to locate the use in several existing buildings with ample available office space, adequate vehicular access, and ample parking. However, this would not meet the objective of creating a single centralized facility that fits within the Kaiser Permanente business model to provide a one-stop facility with supportive services. A review of available commercial office space databases indicates that the largest possible available office space in the Marin County area is just under 24,000 square feet<sup>1</sup>. Similarly, although there are many medium to large sized office developments in the area (50,000 – 75,000 sq. ft.) with available office spaces for lease, these buildings tend to have a high occupancy rate with limited opportunity for rentable office spaces (i.e. one or two available offices at 2,000 to 3,000 sq. ft.).

As such, in order to achieve space needed for Kaiser Permanente, while also reducing the potential significant impacts of the proposed Project, the multiple alternative-sites alternative would require several office locations to meet the space needs for the Project. Dividing the medical offices into several smaller facilities would require significantly more internal staffing and coordination between the facilities and would not fit the Kaiser Permanente business model of providing medical services as at centralized location. With a dispersal of medical services to several smaller locations, this alternative would also require additional travel between disconnected medical center locations, assuming the same number of proposed providers were staffed at several locations, and therefore result in greater trip generation and possible transportation, air quality, and GHG emission impacts. Finally, reducing or avoiding most of the potentially significant environmental impacts from the proposed Project would more likely be achieved by the reduced Project alternative that is evaluated below. For these reasons, the multiple off-site project locations alternative was not evaluated in this DEIR.

## 5.4 Alternatives Selected for Consideration

With consideration given to the factors for alternatives selection discussed in Section 5.2, The City of San Rafael identified the following reasonable range of project alternatives to be addressed in this EIR:

- 1. No Project/No Medical Office Uses:** Assumes there will be no new Kaiser Permanente MOB at 1650 Los Gamos Drive and the existing commercial building would remain used for office uses, with no addition of medical office uses. The general office and parking lot uses would continue, and no new development would occur on the Project site. Kaiser Permanente would continue to use its main medical campus at 99 Montecillo for medical office uses and would have limited ability for modernization of existing spaces.

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<sup>1</sup> LoopNet online database: <http://www.loopnet.com/for-sale/san-rafael-ca/?e=u>, accessed October/November 2017

2. **Reduced Medical Office Use:** Assumes Kaiser Permanente reduces the amount of proposed medical office uses in the existing 1650 Los Gamos Drive office building. The reduced Project alternative assumes a total square foot program of the office building such that the proposed Project's overall peak hour traffic trips and parking structure needs do not require mitigation to reduce potentially significant impacts.
3. **Alternate Parking Structure Location:** Assumes Kaiser Permanente would construct the parking structure on the Project site's eastern parcel, in the area currently utilized for surface parking to the north and northeast of the existing office building. In order to achieve the City's Municipal Code minimum parking requirement for medical office use, the alternate parking structure design would be taller than the three-level structure included in the proposed Project.
4. **Applicant-Implemented Traffic Improvements:** Assumes Kaiser Permanente voluntarily constructs an intersection improvement at Los Gamos Drive and Lucas Valley Road and other related traffic or vehicular circulation improvements as part of the proposed Project. As a result, there would be no required mitigation measure to reduce impact significance related to AM and PM peak hour trips at Los Gamos Drive and Lucas Valley Road intersection. However, permitting and construction of the intersection would still require multi-agency coordination and entitlement review and approval.

The development program and key site characteristics for the Project and each alternative are presented below in **Table 5-1: Summary of Alternatives to the Project**. **Table 5-1** depicts the basic components of each alternative for a side by side analysis of potential environmental impacts and whether the impact significance changes based on the alternative. Each alternative is described in greater detail in the comparative analysis that follows in Section 5.3.1. The environmentally superior alternative that CEQA requires the EIR identify is discussed in Section 5.5.

### 5.4.1 Comparative Analysis of CEQA Alternatives

Throughout this section a description of each alternative is followed by a discussion of impacts and how those impacts compare to those of the Project. As permitted by CEQA, the effects of the alternatives are discussed in less detail than the impact discussions of the Project in Chapter 4 (CEQA Guidelines Section 15126.6[d]). In most cases, the comparisons are qualitative and discussed in terms of whether the alternative would avoid, worsen, reduce, or maintain the same *degree* of impact as those identified with the proposed Project, as well as providing an overall impact determination. The analysis is conducted at a sufficient level of detail to provide the public, other public agencies, and Project decision-makers adequate information to fully evaluate the alternatives and approve any of the alternatives without further environmental review. Impacts are stated as levels of significance *after* implementation of mitigation measures identified in Chapter 4, except where discussion of pre-mitigation effects is relevant to the comparison.



TABLE 5-1: SUMMARY OF ALTERNATIVES TO THE PROJECT

	Project	No Project / No Medical Uses Alternative	Reduced Medical Office Use	Alternate Parking Structure Location	Applicant Implemented Traffic Improvements
1650 Los Gamos Drive Medical Office Space (sq ft)	148,000	0	104,000	148,000	148,000
1650 Los Gamos Drive Non- Medical Office Space (sq ft)		148,000	44,000	0	0
Off-site Medical Office Space		Up to 150,000 sq ft	Up to 46,000 sf ft	0	0
Parking Structure (sq ft)	63,000	0	44,000	77,000	63,000
Peak Hour traffic trips (Net increase from No Project / No Medical Uses Alternative	473	0	371	473	473
Grading Volume (cubic yards)	15,000	0	15,000	5,000	15,000
Tree Removal (approx. total #)	61	0	61	54	61
Land Use Impacts	LTS	NI	LTS	LTS	LTS
Aesthetics Impacts	LTS	NI	LTS	LTSWM	LTS
Air Quality Impacts	LTSWM	NI	LTSWM	LTS	LTSWM
Greenhouse Gas Impacts	LTSWM	NI	LTSWM	LTS	LTSWM
Noise Impact	LTSWM	NI	LTSWM	LTS	LTSWM
Traffic Impacts	SU	NI	LTSWM	SU	LTS/SU
Meets Primary Objectives	√			√	√
Environmentally Superior		√			√

NI - No Impact  
LTS - Less Than Significant  
LTSWM - Less Than Significant with Mitigation Incorporation  
SU - Significant and Unavoidable

## **5.5 Alternative 1: No Project / No Medical Office Uses**

### **5.5.1 Principle Characteristics**

The No Project / No Medical Office Uses Alternative assumes that the Project site would generally remain in its existing condition and would not be subject to redevelopment as an MOB. Under this alternative, the existing commercial building would continue to be used for office uses, as currently allowed under the PD District zoning. The owner of the building would actively market the building to lease or sell for office uses. There would be no new parking structure constructed on the Project site and no traffic or intersection improvements proposed. Furthermore, Kaiser Permanente's existing medical office uses would remain at the main hospital campus at 99 Montecillo in Terra Linda and elsewhere at existing and potentially alternative location(s) throughout Marin County and the region.

No new short-term air quality, GHG emissions, noise, or traffic impacts would occur during construction at the Project site under this alternative and neither would any potential long-term impacts associated with Project operation. No new roadway infrastructure or pedestrian improvements at the Project site would be undertaken in the near future (unless funded and implemented under General Plan programs). Although some environmental impacts would be avoided under the No Project / No Medical Office Uses Alternative, this alternative would not have the benefits of improved medical facility services for local residents, improved stormwater drainage, improved pedestrian circulation and bicycle lanes on Lucas Valley Road, and roadway infrastructure improvements. In addition, since the medical services that would have been located at the project site would need to be provided at other locations, there may be unknown environmental impacts at other locations.

Under this No Project / No Medical Office Uses Alternative, Kaiser Permanente would continue to operate its existing facilities throughout Marin County, including, but not limited to, the Kaiser Permanente medical office facilities in San Rafael, Novato, and at the main San Rafael Medical Center campus at 99 Montecillo. However, as discussed previously, the Project is intended to immediately relieve pressure on Kaiser Permanente's existing facilities to ensure the most efficient flow of members and provide the space necessary for today's modern health care technology. Thus, the No Project / No Medical Office Uses Alternative could result in short- and long-term service reductions to Kaiser Permanente members and the community, impact existing facilities outside the immediate service area and limit time-sensitive decisions on future potential growth opportunities for the organization.

### **5.5.2 Relationship with Project Objectives**

The No Project / No Medical Office Uses Alternative would not achieve any of the proposed Project objectives. This alternative would maintain the current uses on site, which would not allow for a new, modern, MOB nor would it relieve pressure on Kaiser Permanente's existing facilities. No new infrastructure or traffic improvements would be included in this alternative. Additionally, this alternative would continue to contribute the same amount of vehicle trips at Kaiser Permanente's main campus at 99 Montecillo. Furthermore, use of the existing office building at 1650 Los Gamos

Drive would continue as a general office with daily usage and vehicular trips consistent with a general office building.

### **5.5.3 Comparative Analysis of the No Project / No Medical Office Uses Alternative**

The No Project / No Medical Office Uses Alternative would maintain the existing office building on the Project site. Under this alternative, there would be no excavation/grading, tree removal, or change of use to the existing structures. The No Project / No Medical Office Uses Alternative would result in the following impact levels:

- **Air Quality: No Impact**
- **Greenhouse Gas Emissions: No Impact**
- **Noise: No Impact**
- **Land Use: No Impact**
- **Transportation and Circulation: No Impact**

It is unknown at this time if there would be any other impacts if the proposed medical uses were located at alternative locations in the region.

### **5.5.4 Feasibility**

With regard to the No Project / No Medical Office Uses Alternative, it can be assumed that without development of the proposed Project, redevelopment of the Project site would be postponed indefinitely, new MOB facilities development would not be created on-site, and Kaiser Permanente would be required to find an alternate location(s) for the proposed Project. Until new space could be identified, Kaiser Permanente's existing clinics and medical facilities in the North Bay region would not be supplemented or supported as a result of this alternative, and therefore would continue to experience the same operational loads and space challenges with regard to future modernization. Although Kaiser Permanente may realize short-term cost savings specific to Project development costs, the inability to develop a new, centralized MOB could affect its long-term operational activities throughout Marin County.

## **5.6 Alternative 2: Reduced Medical Office Use**

### **5.6.1 Principle Characteristics**

The Reduced Medical Office Use Alternative is intended to reduce the effects of the proposed Project on the transportation system and reduce associated environmental impacts such as air quality and GHG emissions. The Reduced Medical Office Use alternative assumptions are based on the traffic analysis results for the proposed Project. To determine how much the proposed Project's trip generation would need to decrease in order to reduce the proposed Project's transportation impact to less than significant, a high-level quantitative analysis was completed by Kaiser Permanente's traffic consultant Fehr & Peers.

The analysis compared the proposed Project's added traffic delay and expected trip generation to understand how each Project trip contributed to delay. The density reduction was then calculated by determining the maximum delay that could be added to an intersection before triggering an impact. The results of this quantitative analysis provide evidence that a trip generation reduction between 10 and 20 percent will likely result in less than significant impacts.

Thus, this Reduced Medical Office Use Alternative proposes a reduction in the Project's overall trip generation by reducing the amount of medical office use at the Project site from 100 percent to approximately 70 percent and keeping the remaining 30 percent of use as general office. As described in the Section 5.2.1: *Basic Goals and Objectives* above, Kaiser Permanente requires an approximately 150,000 square foot centralized facility with ample parking and the required medical office space to support and supplement its existing uses. Thus, while reducing the Project's percentage of medical uses may reduce localized traffic impacts around 1650 Los Gamos Drive, Kaiser Permanente would need to find a secondary site(s) to accommodate the remaining 30 percent of uses that would not be located at 1650 Los Gamos.

Under this alternative, the total square footage of medical office use would be reduced from approximately 148,000 square feet to approximately 104,000 square feet. As compared to the proposed Project, the number of medical provider offices would decrease from 70 to roughly 50, and the number of employees would decrease from approximately 315 at full buildout to approximately 220. Some of the planned services would no longer be relocated to 1650 Los Gamos Drive and would remain at one of other existing Kaiser Permanente facilities, primarily at the 99 Montecillo Road Kaiser Permanente San Rafael Medical Center or would be located at an undetermined alternative off-site location(s). This would result in a much less efficient use of resources; for instance, members would potentially need to drive to multiple locations to receive the full suite of services they could otherwise find at one location. Therefore, this reduced density alternative could still result in the same or more overall trip generation and GHG estimates, though they will not all occur at this location.

This alternative assumes an approximately 70 percent occupancy by medical office use, with the remainder of the building utilized by general office uses. As shown in **Table 5.2**, below, the reduced medical density alternative would result in a daily trip reduction at 1650 Los Gamos of approximately 20 percent and AM and PM peak hour trip reductions of approximately 11 percent and 17 percent, respectively. Based on a qualitative review of the estimated traffic volumes, it is likely that some intersections near the Project site (i.e., along Lucas Valley Road) would continue to operate under LOS D. However, although the Reduced Medical Office Use alternative would still result in poor operating traffic conditions along Lucas Valley Road, it would likely not result in a significant and unavoidable impact at local intersections. At a regional level, the Project's impact to US-101 would likely continue to trigger an impact because the Project would increase the volume to capacity (v/c) ratio by more than 0.01. However, with mitigation implementation of the proposed Project's TDM program, this will result in a less than significant impact with mitigation.

**Table 5-2: Reduced Medical Office Use Trip Generation for 1650 Los Gamos** <sup>1, 2, 3</sup>

Scenario	Land Use	Quantity	Trip Generation		
			Daily	AM Peak	PM Peak
Proposed Project	<b>Medical Office</b>	<b>150 ksf</b>	<b>5,420</b>	<b>359</b>	<b>536</b>
Reduced Medical Density Alternative	Medical Office	104 ksf	3,794	251	375
	General Office	45 ksf	496	70	67
	<b>Sub-Total</b>	<b>150 ksf</b>	<b>4,290</b>	<b>321</b>	<b>442</b>
Delta		0 ksf	<b>-1,130 (-21%)</b>	<b>-38 (-11%)</b>	<b>-94 (-17%)</b>

## Notes:

1. The trip generation calculations presented above compare the proposed 150,000 sq. ft. Project to the reduced medical office use alternative. The trip generation calculations presented do not account for the number of allowed trips based on current General Office entitlements. As a result, the Project's actual trip generation numbers for both the existing and proposed uses (for daily, AM Peak and PM Peak) are/will be less than the values presented above.
2. The existing building is 148,000 square feet; however, the Planned Development District allows up to 150,000 square feet of office space, so for the purpose of the analysis and to remain consistent with the proposed Project's traffic analysis assumptions, this alternative also assumes a 150,000 square-foot building.
3. The 1,625 daily trips (the difference between 150,000 sq. ft. vs. 104,000 sq. ft. of Medical Office) generated by the 30 percent of displaced medical uses would necessarily need to be relocated to another existing Kaiser Permanente medical office location if possible or, more likely due to capacity availability, to a currently undetermined alternative off-site location.

Source: Fehr &amp; Peers 2017

The site circulation system would remain approximately the same as proposed for the Project. While mitigation measures specific to site access and circulation were not proposed, it is assumed that this alternative would include the same recommended improvements as the proposed Project to the pedestrian and bicycle facilities.

The existing office building footprint would remain the same as the proposed Project. Since the Planned Development zoning would be updated to allow medical office on 104,000 square feet of the building, it is assumed that the City would require adequate on-site parking to meet current City requirements. This would result in 1 parking space provided for every 250 square feet of office and 1 space per every 225 square feet of medical office, for a total of approximately 640 parking spaces.

The Reduced Medical Office Use alternative would still require a new parking structure to provide adequate parking on site since there is not adequate space on site for approximately 185 new surface parking spaces; however, the parking structure contemplated by the proposed Project could be reduced by approximately 100 parking spaces. This smaller parking structure could be achieved by removing the upper ramp and a portion of the third level, while retaining the same footprint as the proposed Project. Another option would be to reduce the parking structure footprint while still retaining the same height across the entire structure.

The Reduced Medical Office Use alternative would require the same entitlements that would be requested as part of the Project.

## 5.6.2 Relationship with Project Objectives

The Reduced Medical Office Use alternative would achieve some of the Project objectives. This alternative would maintain current general office uses on site, but would also allow medical office uses in roughly 70% of the building as well. General site improvements included as part of the proposed Project would be included in this alternative; however, major infrastructure improvements, such as the signalized intersection at Los Gamos, would not be triggered by increased vehicular trips and therefore would not be required nor implemented. In order to address the remaining 30% of medical office space removed from this alternative, Kaiser would be required to find alternative locations that may not be as centrally located or have ease of access or available parking. As such, this alternative could potentially contribute the same amount of vehicle trips at the main campus or elsewhere throughout Marin.

## 5.6.3 Comparative Analysis of the Reduced Medical Office Alternative

The Reduced Medical Office Use alternative would maintain the existing office building on the subject site but convert approximately 70% to medical office uses. Under this alternative, the development of the parking structure would still be required, but off-site traffic and circulation improvements would not be required. There would continue to be no demolition or change of the existing office building. The Reduced Medical Office alternative would result in the following impact levels:

- **Land Use: No Impact**
- **Air Quality: Less than Significant with Mitigation Incorporation**
- **Greenhouse Gas Emissions: Less than Significant**
- **Noise: Less than Significant Impact with Mitigation Incorporation**
- **Transportation and Circulation: Less than Significant**

It is unknown at this time if there would be any other impacts if the remaining 30% of the medical uses were located at alternative locations in the region.

## 5.6.4 Feasibility

With regard to the Reduced Medical Office alternative, it can be assumed that a reduced medical office use for Kaiser would limit the overall ability to maximize a centralized MOB with modernized facilities. As the overall medical use would be reduced by approximately 30%, Kaiser would be tasked with finding alternative locations or suspend the relocation of additional services. This may also create a need for additional service and maintenance staff, as well as create additional internal processes for patient and staffing coordination. Furthermore, Kaiser would be a landlord to general office uses which could require additional staffing and/or security needs required for managing tenants on-site. However, the ultimate net benefit/burden is unknown regarding how these physical and programmatic requirements would impact Kaiser's overall operational activities.

## 5.7 Alternative 3: Alternate Parking Structure Location

### 5.7.1 Principle Characteristics

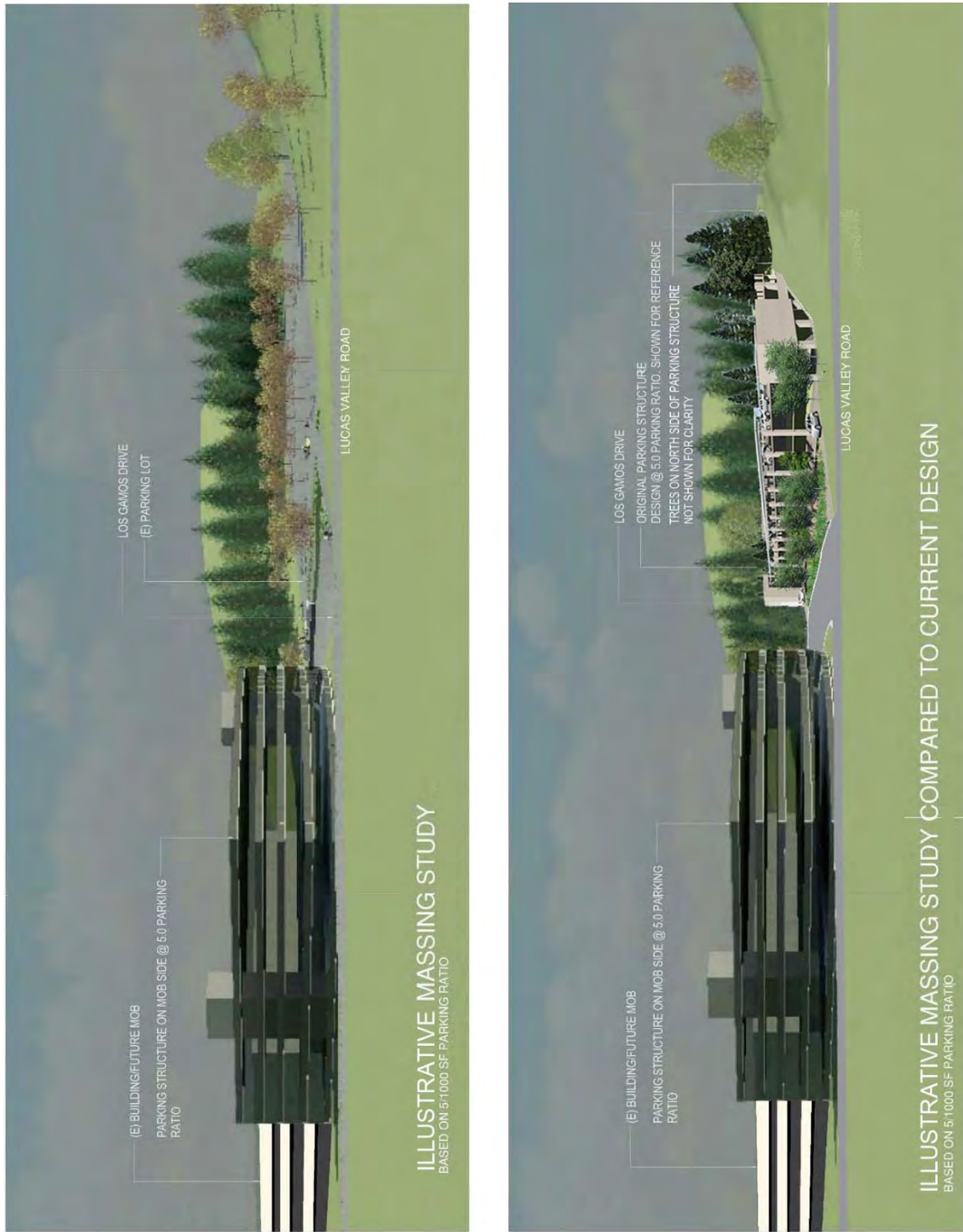
The Alternate Parking Structure Location Alternative assumes that Kaiser Permanente would modify and relocate the proposed parking structure to the surface parking lot to the north of the existing office building (southeast of Los Gamos Drive). This alternative assumes that the proposed parking spaces required for Kaiser operations would still include up to 476 total spaces. This alternative would locate the proposed parking structure within the footprint of the existing surface parking lot to the south of Los Gamos Drive and eliminate the need to disturb the hillside to the west of the western parcel. This alternative would result in an overall slightly smaller development footprint but would require additional height to achieve the same parking ratio. This alternative would displace the mature landscaping vegetation on the alternate site but would retain the mature landscaping vegetation currently growing around the existing western surface parking lot and would avoid any impacts to the root systems of the adjacent existing redwoods and other native trees. The public sanitary sewer main, operated and maintained by the Las Gallinas Valley Sanitary District would not need to be relocated, which would result decreased disturbance of the hillside on the west side of Los Gamos Drive. The Alternate Parking Structure Location alternative would potentially require new ingress and egress driveways off Los Gamos Drive and other vehicular and circulation infrastructure. **Figure 5-1** depicts the potential massing of the alternate parking structure location in relation to the proposed parking structure.

### 5.7.2 Relationship with Project Objectives

Although this alternative would result in less short-term construction by eliminating excavation into the hillside to build the parking structure, it would not offer any significant environmental advantages in comparison with the proposed Project. This alternative does not avoid or substantially reduce one or more of the proposed Project's significant environmental impacts because it would include the same amount of operational vehicle trips and result in similar impacts and required mitigation measures. In addition, the Alternate Parking Structure Location alternative would not meet Project Objective #7, in that it may create a structure that would be significantly more visibly prominent at the corner of Lucas Valley Road and Los Gamos Drive. As the structure would need to be taller than the proposed Project, it would be visible from neighboring residential properties and dominate the view corridors along Lucas Valley Road.

### 5.7.3 Comparative Analysis of Alternate Parking Structure Location Alternative

The Alternate Parking Structure Location alternative would still contribute the same amount of traffic trips as the proposed Project. Impacts to Air Quality, GHG Emissions and Transportation and Circulation would continue to be potentially significant without mitigation implementation. Furthermore, the taller parking structure design, located closer to Lucas



Source: Kaiser Permanente 2018

Figure 5-1: Alternate Parking Structure Location



Valley Road and without the aid of existing screen trees could potentially present a new visual impact. Although the City of San Rafael would require design review approval, this alternate location would create new mass and bulk in an area that currently includes mature landscape vegetation. In addition, this location would potentially be more visible from residents along Salvatore Way. With regard to other potential environmental impacts, the Alternate Parking Structure Location alternative would result in the following impact levels:

- **Land Use: No Impact**
- **Aesthetics: Less than Significant with Mitigation Incorporation**
- **Air Quality: Less than Significant with Mitigation Incorporation**
- **Greenhouse Gas: Less than Significant with Mitigation Incorporation**
- **Noise: Less than Significant Impact with Mitigation Incorporation**
- **Transportation and Circulation: Significant and Unavoidable**

### 5.7.4 Feasibility

The Alternate Parking Structure Location alternative would require construction of a smaller footprint but taller parking structure. However, construction on the eastern surface lot would require less excavation, grading, and tree removal/protection. The addition of a fourth or potentially fifth deck to the parking structure would add costs as well as architectural treatments required to minimize the visual impact of the taller structure in a more prominent location. Traffic improvements to reduce potentially significant impacts would still be required, therefore, the Alternate Parking Structure Location alternative could potentially be costlier than the proposed Project while not reducing any of the potential environmental impacts.

## 5.8 Alternative 4: Applicant-Implemented Traffic Improvements

### 5.8.1 Principle Characteristics

Under the Applicant-Implemented Traffic Improvements Alternative, Kaiser Permanente would voluntarily undertake the cost of specific traffic and infrastructure improvements above and beyond what is required by the City's General Plan and the Project's identified fair-share contribution to improve intersection operations at Lucas Valley Road and Los Gamos Drive and the US 101 southbound and northbound ramps.

As discussed in the Fehr & Peers *1650 Los Gamos Drive Final Traffic Impact Analysis (FTIA)*, the proposed Project would contribute vehicular trips to the Lucas Valley Road/Los Gamos Drive intersection and result in a deterioration of the level of service (LOS), thus causing significant impacts. Based on significance criteria adopted in the City of San Rafael *General Plan 2020*, Kaiser Permanente would be required to mitigate for the impact. Mitigation measures MM TRAF-1, MM TRAF-3, and MM TRAF-4 in Chapter 4.6 *Transportation and Circulation* of this DEIR identify improvements that would improve impacted intersections and reduce potential adverse effects to less than significant levels. However, implementation of the mitigation measures requires

inter-agency coordination, review and approval of the intersection improvements. As mitigation measures, the impact can be reduced pursuant to CEQA; however, until the improvements are completed, the potential traffic and circulation conflicts remain. As such, if Kaiser Permanente were to develop intersection designs and coordinate the review and permitting approval of the improvements before the impact threshold is triggered, the impact potential would thus be eliminated.

In addition, the proposed Project would contribute to existing deficient traffic operations at the Lucas Valley Road/US 101 Southbound Ramp intersection and the Lucas Valley Road/Smith Ranch Road/US 101 Northbound Ramp intersection. However, the significance criteria established in the San Rafael *General Plan 2020* exempts freeway intersections from the LOS significance thresholds. As such, even if the addition of Project traffic results in an unacceptable LOS at US-101 terminal intersections, the Project does not result in a significant impact under CEQA. Therefore, Kaiser Permanente would not be required to address potential significance criteria and resulting mitigation measures.

As described in the paragraph above, the San Rafael *General Plan 2020* exempts both the Lucas Valley Road/US 101 Southbound Ramp intersection and the Lucas Valley Road/Smith Ranch Road/US 101 Northbound Ramp intersection from the significance criteria. Although CEQA does not obligate the proposed Project to address impacts associated with these intersections, the *1650 Los Gamos Drive FTIA* identifies several potential optional improvements that, if implemented, would improve intersection operations and offset the Project's contributions to the local and regional transportation network. As described in Chapter 4.6: *Transportation and Circulation*, if these intersections were evaluated for significance criteria pursuant to CEQA, the proposed improvements would theoretically reduce the Project's impact to less than significant levels. As such, although not required, these improvements would also serve to reduce the overall effect of the Project. Kaiser Permanente's traffic consultant, Fehr & Peers, has identified a list of potential optional improvements as listed in **Table 5-3** below:

**Table 5-3: OPTIONAL Intersection/Roadway/Pedestrian improvements**

Intersection / Roadway	Improvement
Lucas Valley Road / US-101 Southbound Ramp	<ul style="list-style-type: none"> <li>Adjust signal timings</li> </ul>
Lucas Valley Road / US-101 Northbound Ramp	<ul style="list-style-type: none"> <li>Adjust signal timings</li> <li>Reconfigure the northbound approach to remove the channelized right turn island in order to provide two receiving lanes on the west leg</li> <li>Reconfigure the eastbound approach to reduce the right turn channelized island and provide a shared eastbound through-right turn lane</li> </ul>

Los Gamos Drive	<ul style="list-style-type: none"> <li>• Install high-visibility crosswalk with rapid rectangular flashing beacon (RRFB) adjacent the proposed parking structure pedestrian exit</li> <li>• Shift Los Gamos Drive crosswalk and pedestrian bridge on the east side of Los Gamos Drive to meet the pedestrian exit at the proposed parking structure</li> </ul>
Lucas Valley Road	<ul style="list-style-type: none"> <li>• Improve the south side sidewalk between Los Gamos Drive the US-101 Southbound Ramp intersections</li> <li>• Improve the pedestrian path from the 1650 Los Gamos Drive surface parking lot with to the Lucas Valley Road / US-101 Ramp intersection with new sidewalk and pedestrian lighting</li> </ul>

Although Kaiser Permanente is not fully responsible under CEQA for implementing and/or funding the noted optional improvements above, this Applicant-Implemented Traffic Improvements Alternative would commit Kaiser Permanente to providing upfront funding to the City above its fair-share contribution to construct these identified intersection improvements, subject to a memorandum of understanding (MOU) and/or a reimbursement agreement. This alternative would also increase community benefits and would address transportation impacts that are not considered significant under the CEQA thresholds associated with the proposed Project impacts by ensuring that suitable intersection/roadway improvements, or funding for such improvements, are provided.

## 5.8.2 Relationship with Project Objectives

The Applicant-Implemented Traffic Improvements Alternative would achieve all of the basic objectives listed above. In addition, because this alternative would be providing up-front improvements that would improve the existing vehicular and pedestrian circulation network, some of the Project objectives would be further enhanced, including Objective #6. As a community benefit, Kaiser would take the initiative to design, coordinate, and obtain permit approval for the improvements listed above, and would thereby increase the functionality and safety of the local circulation network. These improvements would reduce significant and unavoidable impacts and would achieve all of the stated Project objectives.

## 5.8.3 Comparative Analysis of Applicant-Implemented Traffic Improvements Alternative

The Applicant-Implemented Traffic Improvements Alternative would still contribute the same amount of traffic trips as the proposed Project. However, impacts to Transportation and Circulation would be reduced to less than significant, while impacts to Air Quality and GHG Emissions would continue to be potentially significant without mitigation implementation. With regard to other potential environmental impacts, the Applicant-Implemented Traffic Improvements Alternative would result in the following impact levels:

- **Land Use: No Impact**
- **Air Quality: Less than Significant with Mitigation Incorporation**
- **Greenhouse Gas: Less than Significant with Mitigation Incorporation**
- **Noise: Less than Significant with Mitigation Incorporation**
- **Traffic: Less than Significant (Lucas Valley Road / Los Gamos Drive intersection); Significant and Unavoidable (Las Gallinas / Lucas Valley Road intersection)**

#### **5.8.4 Feasibility**

The Applicant-Implemented Traffic Improvements Alternative provides more efficient and improved intersection operations. In addition to principally addressing Objective #6 above, the alternative would meet all of Kaiser Permanente's main project objectives. Furthermore, this alternative reduces the Project's environmental impacts without requiring mitigation to reduce potential impacts specific to traffic impacts. Although the alternative generally meets the Project objectives and furthers community support of improved highway access and circulation, it would require Kaiser Permanente to incur significant up-front costs to fund the improvements. The up-front expenditures could potentially impact Kaiser Permanente's operating budget and could potentially impact its ability to provide affordable health care to the members and the communities it serves (in conflict with Project Objective #1). However, Kaiser Permanente's Marin membership base and local community members would benefit from the improvements.

### **5.9 Environmentally Superior Alternative**

CEQA Guidelines requires that an EIR identify an environmentally superior alternative (CEQA Guidelines, Section 15126.6), which is the CEQA alternative that reduces or avoids the environmental impacts identified for the Project to the greatest extent. The evaluation below first considers the extent to which each of the CEQA alternatives reduces or avoids the significant and unavoidable impacts identified for the proposed Project. These impacts are listed in Section 5.2.2. The extent to which an alternative reduces or avoids the Project's less-than-significant impacts, as well as its potentially significant impacts that can be adequately mitigate, is also considered, balanced by the relative degree to which the impact affects the physical environment.

#### **5.9.1 No Project / No Medical Uses Alternative**

As discussed in Section 5.5 the No Project/No Medical Uses Alternative would avoid all local impacts identified with the Project for all environmental topics, including all significant and unavoidable impacts identified in Section 5.2.2 above. Existing uses at the main campus at 99 Montecillo and potential new location(s) elsewhere in Marin County would remain. Although no new local environmental impacts would occur as a result of the No Project / No Medical Uses Alternative, there may be unknown new impacts at other locations due to ongoing operations and/or expansion of services to alternative location(s). However, because the existing office building at 1650 Los Gamos Drive would remain as is, no parking structure would be required, and no local traffic or circulation impacts would occur. The No Project / No Medical Uses Alternative would

avoid the potentially significant impacts specific to traffic and circulation (Impact TRAF-1 and Impact TRAF-3), construction noise (NOI-1) and intersection and roadway segments (Impact TRA-4). However, the No Project / No Medical Uses Alternative would fail to achieve the basic goals and objectives of the Project (listed in Section 5.2.1).

### **5.9.2 Applicant-Implemented Traffic Improvements Alternative**

Per Section 15126.6(e)(2), if the environmentally superior alternative is the “no project” alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives. In this case, as discussed in Section 5.8, the Applicant-Implemented Traffic Improvements Alternative would avoid the significant impacts related to traffic impacts identified with the project, including Impact TRAF-1 and Impact TRAF-4, by voluntarily gaining approvals and constructing the intersection improvements at the Lucas Valley Road and Los Gamos Drive intersection. Environmental impacts associated with other potential areas of concern, including air quality and greenhouse gas emissions, can be mitigated to less than significant levels in this alternative. The Applicant-Implemented Traffic Improvements Alternative would achieve (and enhance) all of the main objectives of the proposed Project but would require increased investment and expenditure by the Kaiser Permanente. However, Impact TRAF-3 would remain significant and unavoidable for reasons discussed in Chapter 4.6 *Transportation and Circulation* due to the fact that the mitigation measures identified are not proposed to be implemented by Marin County in the near future. Regardless, this alternative, because it would significantly reduce potential impacts to the local circulation network, especially impacts to the Los Gamos Drive / Lucas Valley Road intersection, is considered the environmentally superior alternative.

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# CHAPTER 6

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## Impact Overview

Pursuant to State *CEQA Guidelines*, this section summarizes the significant and unavoidable and cumulative effects identified in the DEIR, the potential for growth inducement from the Project, significant irreversible environmental effects, and effects found not to be significant.

### 6.1 Significant and Unavoidable Impacts

Pursuant to *CEQA Guidelines* Section 15126.2(b), this DEIR has identified specific significant environmental effects that cannot be avoided if the Project is implemented (see “Significant and Unavoidable (SU)” in Section 4.0.3, *Impact Classifications*, in Chapter 4.0), as follows:

1. **Impact TRAF-1: Implementation of the Project would increase traffic volumes on area roadways and affect levels of service at the local intersections and freeways under Existing plus Project Conditions.**
2. **Impact TRAF-3: The Project would contribute to deficient operations of the Lucas Valley Road/Las Gallinas Avenue by increasing the average delay by more than five seconds under Baseline plus Project conditions.**
3. **Impact TRAF-4: The Project would contribute to deficient operations of the Lucas Valley Road/Las Gamos Drive intersection by increasing the average delay by more than five seconds under Baseline plus Project conditions.**
4. **Impact TRAF-5. The addition of Project-related traffic would exacerbate the Cumulative No Project condition and contribute more than 5 seconds of delay at the Lucas Valley Road/Las Gallinas Avenue intersection.**

As identified in Chapter 4.6 *Transportation and Circulation*, the basis for the significant and unavoidable conclusion specific to transportation and circulation impacts, is because proposed mitigation measures can only take into account a fair-share contribution from Kaiser Permanente to address environmental impacts. In order to fully mitigate the Project’s affect, Kaiser Permanente, the City of San Rafael, the County of Marin, and potentially Caltrans, must design, permit, and construct the intersection improvements prior to final occupancy of the new MOB. As detailed in Chapter 5, *Alternative 4: Applicant-Implemented Traffic Improvements* would reduce the significance status of the Los Gamos Drive/Lucas Valley Road intersection because Kaiser Permanente would be voluntarily responsible for designing and constructing the intersection improvements as part of the overall Project entitlements. The Lucas Valley Road/Los Gallinas Avenue intersection would continue to operate at an unacceptable level, however, as there is no design or program in place in the County of Marin to address a redevelopment of the intersection.

Pursuant to *CEQA Guidelines* Section 21081 (a) and (b), the City of San Rafael can approve the Project on the basis that the proposed intersection improvements: (1) would be funded via the appropriate mitigation measures requiring Kaiser Permanente’s fair share contribution; (2) would need to be authorized by the County of Marin, and; (3) the economic and social benefits of the Project outweigh the significant effects on the environment. In short, the intersection improvements have been identified as required, yet the overall design and construction require further coordination and approval from the City of San Rafael, Marin County, and Caltrans regardless of the Project’s contribution to the traffic and circulation network. Therefore, these impacts are characterized as significant and unavoidable.

The significant and avoidable impacts for the Project are identified in the environmental topic sections included in Chapter 4.6 and are included in **Table 2-1, Summary of Impacts, Mitigation Measures**, in Chapter 2.

## **6.2 Significant Irreversible Environmental Changes**

Pursuant to *CEQA Guidelines* Section 21100(b)(2)(B) an EIR shall include a discussion of significant irreversible environmental changes that would result from implementation of a project. *CEQA Guidelines* Section 15126.2(c) describes irreversible environmental changes in the following manner: “Uses of nonrenewable resources during the initial and continued phases of the Project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the Project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.”

Construction activities associated with the Project would result in an irretrievable and irreversible commitment of non-renewable resources through the use of construction materials. This would include the use of fossil fuels (such as gasoline, diesel and oil) during the construction period, and the use of earth minerals and ores (such as concrete and steel). The Project would construct a new parking structure and implement associated traffic infrastructure mitigation measure improvements in areas that have already been developed, as well as build out the existing building at 1650 Los Gamos Drive with new medical offices. Although off-site roadway improvements are required, the overall scope of the improvements have been previously identified in the San Rafael *General Plan 2020*; therefore, the Project would not modify regional access or result in access to a previously inaccessible area. As a proposed medical office use the Project is not characteristic of a land use type that would result in disturbance or land modifications that could lead to irreversible environmental damage.



## 6.3 Cumulative Impact

Pursuant to CEQA Guidelines Section 15065(a)(3), cumulative impacts are defined as occurring when “the project has possible environmental effects that are individually limited but cumulatively considerable. “Cumulatively considerable” means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects. Sections 15130 of the CEQA *Guidelines* requires that an EIR evaluate potential environmental impacts that are individually limited, but cumulatively significant.

Each environmental topic as analyzed in Chapter 4, includes a cumulative analysis at the conclusion of each discussion. The City of San Rafael requires all projects to contribute traffic mitigation fees as part of the entitlement process. These fees are allocated to planned transportation improvements to address cumulative impacts associated with City-wide traffic impacts. The proposed Project will contribute the required fees as a condition of final approval. Therefore, contribution of the required fees and implementation of the mitigation measures included in this DEIR ensure that the Project will not have a cumulatively significant impact.

As detailed in Chapter 4, there are no impacts that would be considered cumulatively significant and therefore, the Project, as a whole, would not result in any cumulatively significant impacts.

## 6.4 Growth Inducement

Pursuant to CEQA *Guidelines* Section 15126.2(d), a project is considered growth-inducing if it would directly or indirectly foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Examples of projects likely to have significant growth-inducing impacts include extensions or expansions of infrastructure systems beyond what is needed to serve project-specific demand, and development of new residential subdivisions or industrial parks in areas that are currently only sparsely developed or are undeveloped. Typically, redevelopment projects on infill sites that are surrounded by existing urban uses are not considered growth-inducing because redevelopment by itself usually does not facilitate development intensification on adjacent sites.

The proposed Project would feature a new use and intensity on the site (medical office) previously developed for a similar use (general office). This new type of use is consistent with the existing pattern of commercial uses in the surrounding area. The intensification of use, as defined, is consistent with the City of San Rafael *General Plan 2020* designation for the subject property and is generally allowed in the office land use designation, although not allowed by the current PD Zoning for the Project site. Therefore, the range of potential environmental impacts, including growth-inducing impacts, considered in the San Rafael *General Plan 2020 EIR* for development in the North San Rafael Commercial Center have been evaluated. Furthermore, the proposed Project includes the relocation of specific existing services from areas throughout the City of San Rafael and Marin County. As a result, the project is not considered growth-inducing.

## 6.5 Effects Found not to be Significant

The City of San Rafael prepared an Initial Study for the proposed Project in June 2017 and determined that the Project would have no impact, less than significant impact, or less than significant impact after mitigation to the following environmental topics: agriculture resource, biological resources, cultural resources, geology and soils, hazards and hazardous resources, hydrology and water quality, mineral resources, population and housing, public services, recreation, tribal cultural resources, and utilities and service systems. The impact and mitigation measures included in the Initial Study are listed in **Table 2-2** in Chapter 2 of this DEIR. The Initial Study is provided in **Appendix B** to this DEIR. The Initial Study also determined that an EIR should be prepared due to the Project's potentially significant impact upon, land use and planning, aesthetics, air quality, greenhouse gas emissions, noise and traffic and circulation. An NOP to solicit public comments about the scope of the EIR was circulated on June 9, 2017, and a public Scoping Hearing was held on July 10, 2017. Written comments received on the NOP and public comments received during the scoping hearing were considered in the preparation of the final scope for this document and evaluation of the proposed Project. As documented in this DEIR, potentially significant impacts regarding land use and planning, aesthetics, air quality, greenhouse gas emissions, and noise have been determined to be less than significant and/or less than significant after implementation of mitigation measures contained herein.

# CHAPTER 7

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## Report Preparation

### 7.1 Lead Agency

City of San Rafael  
Community Development Department  
1400 5th Street, Third floor  
San Rafael, CA 94915  
Raffi Boloyan, Planning Manager

### 7.2 Other Agencies/Persons Consulted

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Robert Goralka, Traffic Engineer

### 7.3 Environmental Consultants

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## 7.4 References

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