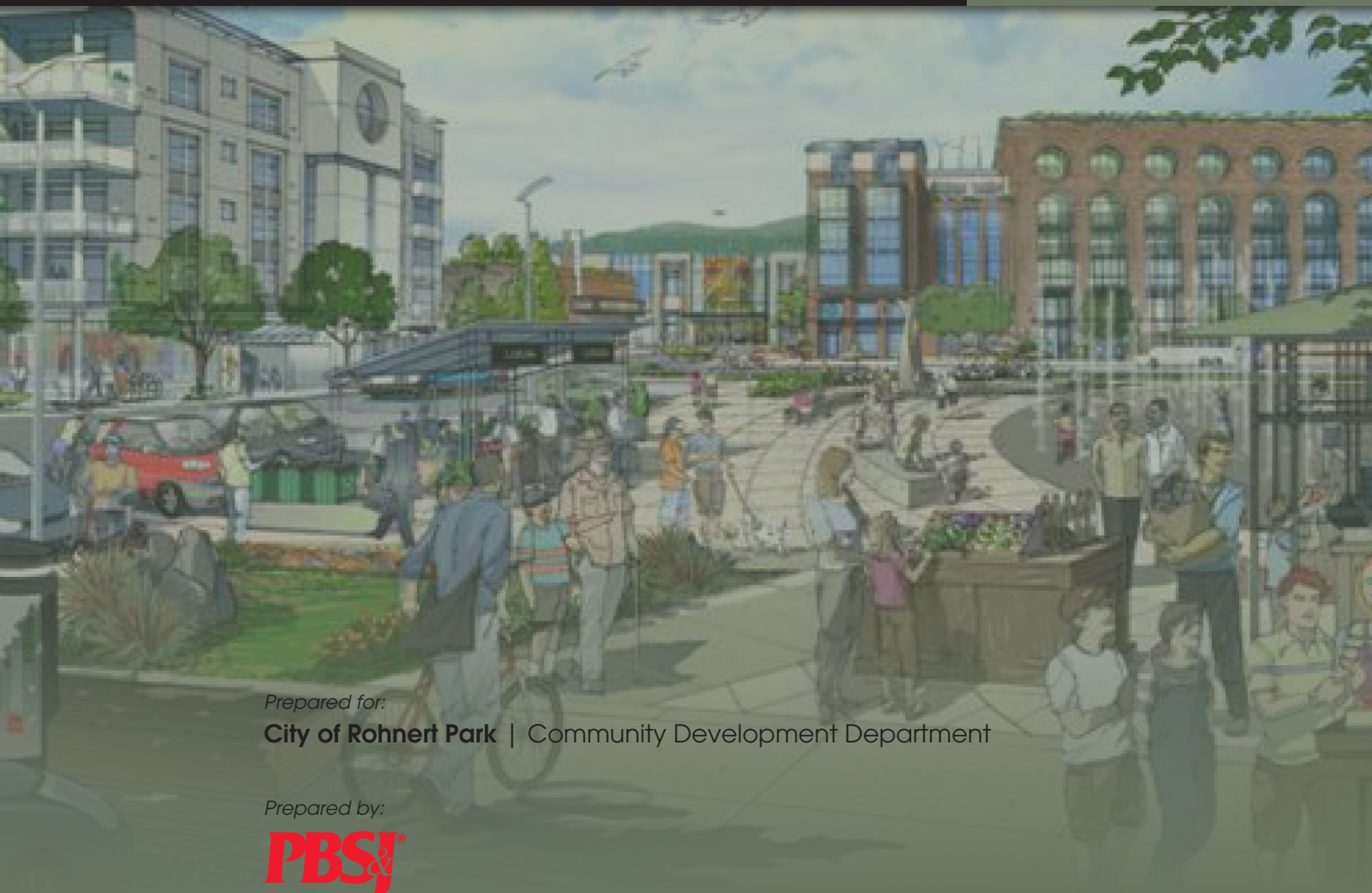


# Sonoma Mountain Village

Draft Environmental Impact Report

SCH No. 20070521116

August 2009



Prepared for:  
**City of Rohnert Park** | Community Development Department

Prepared by:  
**PBS&J**





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**CITY OF ROHNERT PARK**

**SONOMA MOUNTAIN VILLAGE**

**DRAFT ENVIRONMENTAL IMPACT REPORT**  
**SCH #20070521116**

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Prepared for:

City of Rohnert Park  
Planning Department

Prepared by:

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San Francisco, CA 94111

(415) 362-1500

August 2009



# City of Rohnert Park Sonoma Mountain Village EIR

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# Introduction

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## PURPOSE OF ENVIRONMENTAL IMPACT REPORT (EIR)

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This Environmental Impact Report (EIR) has been prepared for the proposed Sonoma Mountain Village project (the project) to be located on the approximately 175-acre parcel immediately northwest and south west of the junction of Valley House Drive and Bodway Parkway in southeast Rohnert Park. The project sponsor is Coddling Enterprises. The EIR has been prepared in conformance with the provisions of the California Environmental Quality Act (CEQA) Guidelines as amended.<sup>1</sup>

The purpose of the EIR is to provide the City of Rohnert Park, public agencies and the public in general with detailed information about the environmental effects of implementing the Sonoma Mountain Village project, to examine and include methods of mitigating any adverse environmental impacts should the project be approved for construction, and to consider alternatives to the project as proposed.

CEQA provides that public agencies should not approve projects for construction until all feasible means available have been employed to substantially lessen any significant environmental effects of such projects. “Feasible” means capable of being accomplished in a successful manner within a reasonable period of time taking into account economic, environmental, social, and technological factors.<sup>2</sup>

This document is a Draft EIR. The Final EIR will include comments on this Draft EIR and responses to those comments. The Final EIR will be considered by officials of the City of Rohnert Park, acting as Lead Agency for the project under CEQA, prior to any decisions being made on the project. Certification of the Final EIR by the City of Rohnert Park City Council as complete and adequate in conformance with CEQA does not grant any approvals for the project. The merits of the project will be considered by City officials after the EIR is certified.

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## PROGRAM EIR

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In accordance with section 15168 of the CEQA Guidelines, this EIR has been developed as a “Program” EIR as it evaluates the environmental effects of implementing all phases of the Sonoma Mountain Village project. A Program EIR is an EIR that is prepared on a series of actions that are proposed for implementation over a period of time, in this case a number of years, and are geographically related and can be characterized as one large project. This would be consistent with

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<sup>1</sup> *CEQA, California Environmental Quality Act, Statutes and Guidelines*, Title 14, California Code of Regulations, Chapter 3, Guidelines for Implementation of the California Environmental Quality Act, as amended, July 11, 2006, published by the Governor’s Office of Planning Research.

<sup>2</sup> Public Resources code 21061.1.



CEQA Guidelines section 15165 regarding projects that are phased where a single Program EIR shall be prepared for the ultimate project.

There are basic advantages to the Program EIR level of analysis. The intent is to deal with all project activities, including subsequent activities of the program, as specifically and comprehensively as possible. For example, a Program EIR provides for a more exhaustive consideration of the effects and alternatives than would be practical for an EIR on an individual action (such as an individual project development component comprising only a part of the Sonoma Mountain Village project). However, the EIR can only be as specific as the project plan itself. As individual activities are carried out for the project, further consideration under CEQA may be undertaken. In addition, a Program EIR ensures the consideration of cumulative impacts that otherwise could be overlooked on a case-by-case basis, avoids duplicative reconsideration of basic policy issues, and allows the Lead Agency under CEQA (City of Rohnert Park) to consider broad policy alternatives and area-wide mitigation measures at an early time when the Agency has greater flexibility to deal with basic policy and or development problems or cumulative impacts.

Subsequent project development activities may be examined in light of the Program EIR to determine whether any additional environmental documentation must be prepared. With a good and detailed analysis many subsequent activities could be found to be within the scope of the project described in the Program EIR and no further environmental documents would be required. If a later activity would have effects that were not examined in the Program EIR, a new Initial Study (IS) would need to be prepared leading to either an EIR or Negative Declaration of environmental impact. If the Lead Agency finds that no new effects could occur or no new mitigation measures would be required, the Agency could approve the activity (the project) as being within the scope of the project covered by the Program EIR and no new environmental document would be required. Furthermore, the Program EIR can provide the basis for a subsequent IS to determine whether the later activity would have any significant environmental effects. The Program EIR may also focus subsequent environmental review on the project (or project component), to permit discussion solely of new effects which had not been considered before.

The trigger for subsequent environmental review under a Program EIR occurs when a project or portion of an overall project becomes defined in greater detail than originally presented in the Program EIR, or subsequent development components within the project are expanded, altered, revised, or otherwise redefined as compared to the original proposal. The Program EIR is to identify those probable environmental effects that can be identified. For those environmental effects that cannot be determined without speculation, the Lead Agency can defer specific analysis until later points in the project review process.

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## **EIR PROCEDURE**

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### **Notice of Preparation**

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On May 14, 2007 the Rohnert Park Planning Department issued a Notice of Preparation (NOP) that an EIR would be prepared for the proposed Sonoma Mountain Village project. The NOP response period extended for 30 days from the time of receipt of the NOP. The NOP noted that it had been determined that the Sonoma Mountain Village project may have a significant effect on the environment and an EIR is required to be prepared for the project.

The NOP was sent to approximately 360 individuals and local interest groups, including adjacent residents and property owners, and responsible and trustee state and county agencies having jurisdiction or interest over environmental resources and/or conditions in the project area (e.g., California Regional Water Quality Control Board; California Department of Transportation (Caltrans); and the Governor's Office of Planning and Research, State Clearinghouse for EIRs). The purpose of the Notice was to allow various private and public entities to transmit their concerns and comments on the scope and content of the EIR, focusing on specific information related to each individual's or group's interest or agency's statutory responsibility early in the environmental review process.

Letters of comment in response to the NOP were received from the following:

State Agencies

Governor's Office of Planning and Research, State Clearinghouse

Caltrans

Local Agencies/Utilities

Sonoma County, Permit and Resource Management Department

The NOP and letters of comment in response to the NOP are included in this Draft EIR as Appendix A.

### **Public Scoping Meeting**

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The City of Rohnert Park Planning Department conducted an EIR agency/public scoping meeting for the Sonoma Mountain Village project at the City offices at the Planning Commission meeting of June 14, 2007 at 7 PM. Members of the public, mostly residents near the project site, were in attendance. The purpose of the public scoping meeting was to allow agency representatives, individuals and the public at large to express the environmental issues and project alternatives they felt should be addressed in the Program EIR, and for the Planning Department and EIR preparers to record those expressed concerns for purposes of EIR preparation and entry into the record.

Notification of the meeting was achieved by posting a notice of the time and place of the meeting in the NOP noted above, and posting the agenda 72 hours prior to the meeting. In addition, notices of the

meeting were mailed to all property owners, residents, and businesses within 300 feet of the project site, as well as members of the public who requested to be notified of the meeting.

## **Environmental Impact Report Topics**

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As a result of letters resulting from issuance of the NOP and EIR scoping meeting, as well as those issues listed in CEQA Guidelines Appendix G (“Environmental Checklist”), the following subjects were determined to be studied in the Sonoma Mountain Village Program EIR (in alphabetical order):

- Aesthetics and Urban Design
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Planning Policy and Relationship to Plans
- Population and Housing
- Public Services
- Traffic and Circulation
- Utilities and Service Systems
- Global Climate Change

Accordingly, the environmental effects of implementing the Sonoma Mountain Village project are analyzed in this EIR under each major topic as listed above in accordance with CEQA Guidelines. The CEQA Guidelines define the effects of a project as changes from the environmental setting (existing conditions) that are attributable to the project. Short-term construction impacts as well as the long-term operational impacts are analyzed as appropriate for the various topics as listed (see the discussion below under sub-heading, Effect on the Environment).

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## **STANDARD FOR ADEQUACY**

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Section 15151 of the CEQA Guidelines specifies that an EIR should be prepared on a project with a sufficient degree of analysis to provide decision-makers with information that enables them to make a decision that intelligently takes account of the environmental consequences of implementing a project.

The standards for adequacy are described in the CEQA Guidelines:<sup>3</sup>

- An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible.
- Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts.

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<sup>3</sup> CEQA Guidelines section 15151.



- The courts have looked not for perfection but for adequacy, completeness, and a good faith effort at full disclosure.

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## EFFECT ON THE ENVIRONMENT

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The environmental impacts resulting from implementation of the Sonoma Mountain Village project are considered in this EIR. Current environmental conditions under which the project would be implemented are evaluated in determining impact significance. If it is determined that a potential impact is too speculative for evaluation, this condition is so noted, and the discussion of impact is terminated.

In accordance with sections 15143 and 15145 of the CEQA Guidelines, this EIR focuses on the significant effects on the environment resulting from implementing the project. Each major topic (e.g., Hydrology and Water Quality, Biological Resources), provides criteria for evaluating whether an environmental impact is significant or less than significant. These criteria, known as “thresholds of significance,” and as presented in each technical section of this EIR, are based on the applicable CEQA Guidelines Appendix G criteria as approved by the City of Rohnert Park for use in EIRs where Rohnert Park serves as Lead Agency. As explained in section 15002(g) of the CEQA Guidelines, a significant effect on the environment is defined as a substantial adverse change in the physical conditions which exist in the area affected by the proposed project. For purposes of the discussion of impacts in this EIR, conclusions of impact significance are further indicated as follows:

- *No Impact:* This level of significance is used where circumstances indicate there would clearly be no adverse impact.
- *Less-Than-Significant Impact:* This level of significance is used where circumstances indicate there would be an impact, but the degree of impact would not meet or exceed the identified thresholds of significance.
- *Less-Than-Significant Impact with Mitigation Incorporated:* This level of significance is used where circumstances indicate there would be an impact that would meet or exceed the identified thresholds of significance but would be reduced to a less-than-significant level through the implementation of mitigation measures.
- *Significant and Unavoidable Impact:* This level of significance is used where circumstances indicate mitigation to reduce the identified impact to a less-than-significant level would not be available or feasible.

For each significant or potentially significant environmental impact identified, the EIR discusses mitigation measures that would be necessary to avoid or substantially reduce the impact. Determining that a mitigation measure reduces a significant impact to a less-than-significant level rests with understanding the criteria for determining a significant impact. In some cases, the proposed mitigation may require approval by a jurisdiction other than the City of Rohnert Park. In such cases, the mitigation measures will be identified but due to the speculative nature of the approval, the impact conclusion will remain significant and unavoidable. If the criterion for determining a significant impact

is not met, the impact is considered less than significant. For one or more significant unavoidable impacts that cannot be substantially mitigated, the City of Rohnert Park, under CEQA must prepare a Statement of Overriding Considerations in which the City sets forth its views in writing on the ultimate balancing of the merits of approving a project despite the environmental impacts which would result from project implementation. This process requires consideration of the decision maker (the Lead Agency) to balance the benefits of a proposed project against its unavoidable environmental risks in determining whether to approve a project. The Statement is preserved in the record of project approval (if a project is approved), and is prepared after the Final EIR has been completed.

It should be noted that the Sonoma Mountain Village project, as described in this EIR, is treated as a single undertaking in order to determine its potential environmental impacts at full buildout. The project's development components are identified as necessary and expected, and the environmental impacts are thus assessed consistent with the magnitude of each component as compared to the project as a whole. In this way, the potential range of development up to and including the maximum that could occur on the project site and the relative contribution of each development component as currently proposed to the whole may be assessed and compared for purposes of comprehension.

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## **ECONOMIC AND SOCIAL EFFECTS**

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Section 15131 of the CEQA Guidelines specifies that economic or social effects of a project shall not be treated as significant effects on the environment. However, "an EIR may trace a chain of cause and effect from a proposed decision on a project through anticipated economic or social changes resulting from the project to physical changes caused in turn by the economic or social changes. The intermediate economic or social changes need not be analyzed in any detail greater than necessary to trace the chain of cause and effect. The focus of the analysis shall be on the physical changes."<sup>4</sup> Accordingly, this EIR focuses on physical changes that would be caused through implementing the Sonoma Mountain Village project.

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## **CUMULATIVE IMPACT ASSESSMENT**

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Cumulative impacts are discussed at the end of each technical section of this EIR. Cumulative impact refers to two or more individual effects which, when considered together compound or increase the environmental impact under consideration or other related environmental impacts. For example, a project may have possible environmental effects which are individually limited but cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, other current projects and probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

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<sup>4</sup> Ibid.

Furthermore and as noted in CEQA Guidelines section 15130 (a), “Where a lead agency is examining a project with an incremental effect that is not ‘cumulatively considerable’, a lead agency need not consider that effect as significant, but shall briefly describe its basis for concluding that the incremental effect is not cumulatively considerable.” Section 15130 (a) (3) concludes, “A project’s contribution is less than cumulatively considerable if the project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact.”

Depending on subject area, i.e., Aesthetics and Urban Design, the discussion of cumulative impacts is more general in character due to the more general relationship of the subject matter to the City as a whole. On the other hand, the discussion of cumulative impacts may be broken down into specific subject areas as required for comprehension and where possible in other technical sections of the EIR. Throughout the EIR, the cumulative impact analysis is based on the projected future level of growth in Rohnert Park as described in the Rohnert Park 2020 General Plan, inclusive of various Specific Plan Areas as documented in the General Plan.

The City is currently processing development applications and plans for five Specific Plan Areas within the City’s Sphere of Influence.<sup>5</sup> These are unincorporated areas that are identified by the City’s General Plan for growth. One such plan includes the Southeast Specific Plan and is located to the immediate northeast of Sonoma Mountain Village. There is also a redevelopment proposal within the City Center area (known as the City Center project). that will require preparation of a Specific Plan at some point in the future. Each is described below based on information contained in the General Plan and data provided by the Rohnert Park Planning Department. It should be noted that ultimate development profiles and building square footage may vary from that which is indicated in the current Rohnert Park General Plan as each project may be implemented. The six specific plan areas comprise the following:

- **University District Specific Plan Area:** The University District Specific Plan Area consists of 20 assessor’s parcels on about 300 acres. The project as defined would consist of up to about 1,645 residential units, 126 accessory dwelling units and up to about 175,000 square feet (sf) of commercial land uses.<sup>6</sup> The Specific Plan has been approved by the City of Rohnert Park.
- **Northwest Specific Plan Area:** While the Northwest Specific Plan Area application has been withdrawn the Preliminary Plan was reviewed by the Planning Commission in 2008. The following is noted here for informational purposes. The Specific Plan consisted of about 170 acres, for which a Specific Plan Application had been submitted for the southern portion of the Specific Plan Area site covering approximately 102 acres on 16 assessor’s parcels. The application requested 495 residential units and 495,000 sf of commercial/industrial use. The entire Specific Plan Area addressed the potential for developing a project with 900 residential units, 480,000 sf of commercial space, 260,000 sf of office space and 560,000 sf of industrial space under the City’s General Plan.<sup>7</sup>

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<sup>5</sup> While the City Limits define the incorporated limits of the City of Rohnert Park, the Sphere of Influence describes the potential ultimate service area of the City.

<sup>6</sup> City of Rohnert Park General Plan, Land Use Program, University District Specific Plan Area Table 2.4-1.

<sup>7</sup> Ibid., Northwest Specific Plan Area Table 2.4-2.

- **Southeast Specific Plan Area:** The Southeast Specific Plan Area consists of two assessor’s parcels on 80 acres. The Specific Plan Application submitted requests up to 499 residential units and up to 20,000 sf of commercial/retail space. The Specific Plan application is currently under review.
- **Northeast Specific Plan Area:** The Northeast Specific Plan Area consists of 36 assessor’s parcels on about 272 acres. A Specific Plan Application has been submitted covering 122 acres and 11 of the parcels. The application requests 427 residential units. The entire Specific Plan Area has the potential for 1,090 residential units and 24 accessory residential units.<sup>8</sup> A preliminary version of the plan was reviewed by the City in August 2008. The Specific Plan application is currently under review.
- **Wilfred Dowdell Specific Plan Area:** The Wilfred Dowdell Specific Plan Area consists of about 25 acres. Future land uses include up to about 300,000 sf of commercial space. The Specific Plan application was approved by the Rohnert Park City Council in September 2008 and will be considered for annexation in 2009.
- **Canon Manor Specific Plan Area:** Canon Manor is an approximately 237 acre subdivision consisting of about 118 developed residential parcels and 109 vacant parcels, and a 20 acre commercial golf range within unincorporated Sonoma County. The County General Plan EIR reflects a rural zoning for the proposed project area. Despite the planned development of the area, the City of Rohnert Park decided not to annex the Canon Manor subdivision. The Canon Manor subdivision will require preparation of a Specific Plan and assurance of water and sewer service by the City and Penngrove Water Company prior to approval of any development in Canon Manor with the amount of development controlled by the underlying land use designations.

Data regarding each of the six Specific Plan areas is summarized in Table 1. Figure 2-2 in Chapter 2, Project Description, shows the location of the projects described above.

In addition, included in the consideration of cumulative development potential are the following ongoing projects:

- **Stadium Lands:** The Stadium Lands project is a 30 acre multi-use project, consisting of up to 338 high density residential uses, 140,000 sf of retail/commercial, and adjoining park space.
- **City Center:** The City Center area around City Hall Drive is planned to include a new commercial and residential uses as primary use. About 180 high-density residential units are envisioned above ground floor commercial uses with the sites designated as “Mixed Use” by the General Plan diagram. The project is within the City’s redevelopment area.

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<sup>8</sup> Ibid., Table 2.4-4.

**Table 1**  
**Summary of Cumulative Development Building Potential**

	University District Plan Area	Northwest Plan Area <sup>a</sup>	Southeast Plan Area	Northeast Plan Area	Wilfred Dowdell Plan Area	Canon Manor Plan Area <sup>b</sup>	City Center <sup>c</sup>	Graton Rancheria <sup>d</sup>	Stadium Lands
Acreage	300	—	80	272	25	237	—	360 <sup>e</sup>	30
Total Residential Units	1771 with accessory units	—	499	1114 with accessory units	—	—	180	—	338
Commercial (sf)	175K	—	20K	—	300K	—	—	—	140K
Office (sf)	—	—	—	—	—	—	—	—	—
Industrial (sf)	—	—	—	—	—	—	—	—	—
Other								300 Rooms Hotel, 199K Casino, 1,600 Seats Restaurants, 1,500 Seats Entertainment, 70K Banquet, 27K Pool and Spa	Park space

Source: City of Rohnert Park, 2009.

Notes:

Table indicates building (sf of structure) potential. Parks and open space are not included. Data is approximate and could vary from that which is indicated in the table as each project may be implemented. Development potential shown is the upper limit of what is indicated in the Rohnert Park General Plan.

K = 1,000 sf (i.e., 350K = 350,000 sf of floor area).

- a. The Northwest Specific Plan application was submitted to Planning Commission in August 2008.
- b. No Specific Plan has been prepared for Canon Manor.
- c. Additional development data was not available at the time of preparing this EIR.
- d. Data taken from Graton Rancheria Casino and Hotel Draft Environmental Impact Statement, February 2007, pages ES-1 through ES-3.
- e. Stony Point Site. Actual development area would be less than the total site.



- **Graton Rancheria Casino and Hotel Project:** is a proposed to be located on unincorporated land about one-half mile west of U.S. 101 and west of the Northwest Specific Plan area. The Casino and Hotel project is proposed to include a hotel of up to 300 rooms, gambling casino, restaurants, an entertainment venue, banquet/meeting space, a pool and spa, other ancillary uses such as a wastewater treatment plant and supporting infrastructure<sup>9</sup> and parking for up to about 6,000 vehicles, depending on the ultimate alternative plan selected.

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## MITIGATION MONITORING AND REPORTING

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Amendments to CEQA require public agencies to adopt mitigation monitoring and reporting programs, for changes to a project to mitigate or avoid significant effects on the environment. The monitoring and reporting program provides the Lead Agency with the means for tracking and ensuring mitigation measures as documented in a project EIR are fully implemented. The monitoring and reporting program need not be a component of the EIR. The program is part of the project approval process, not necessarily part of the impact analysis process. A mitigation monitoring and reporting program will be included with the City of Rohnert Park findings for the Sonoma Mountain Village project.

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## CITY ACTION ON THE PROJECT

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After the 45 day agency/public comment period for the Draft EIR closes, the City will respond to environmental issues raised by the comments. The comments and responses will be published in the Final EIR.

If the City approves the proposed project, it must also adopt mitigation measures, a mitigation monitoring and reporting program as noted above, and a Statement of Overriding Considerations explaining why the project's benefits outweigh any significant and unavoidable environmental effects as identified in the EIR.

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<sup>9</sup> Graton Rancheria Casino and Hotel, Draft Environmental Impact Statement, February 2007, Section 1.0, Purpose and need, page 1-3.

# Chapter 1 Summary

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## 1.1 PROJECT DESCRIPTION

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### Proposed Project

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Codding Enterprises, the project sponsor, is proposing to construct a multiple use project called Sonoma Mountain Village on a 175 acre site located immediately south and southwest of the intersection of Valley House Drive and Bodway Parkway in southeast Rohnert Park (Figure 1-1). The project site is the former location of an Agilent Technologies research and development campus. The project site (046-051-040, 046-051-041, 046-051-042, and 046-051-045) consists of approximately 76.9 acres of undeveloped land on the southern portion and approximately 98.3 acres of developed industrial and re-used commercial building area (the former Agilent Technologies campus) on the north portion of the site (Figure 1-2).

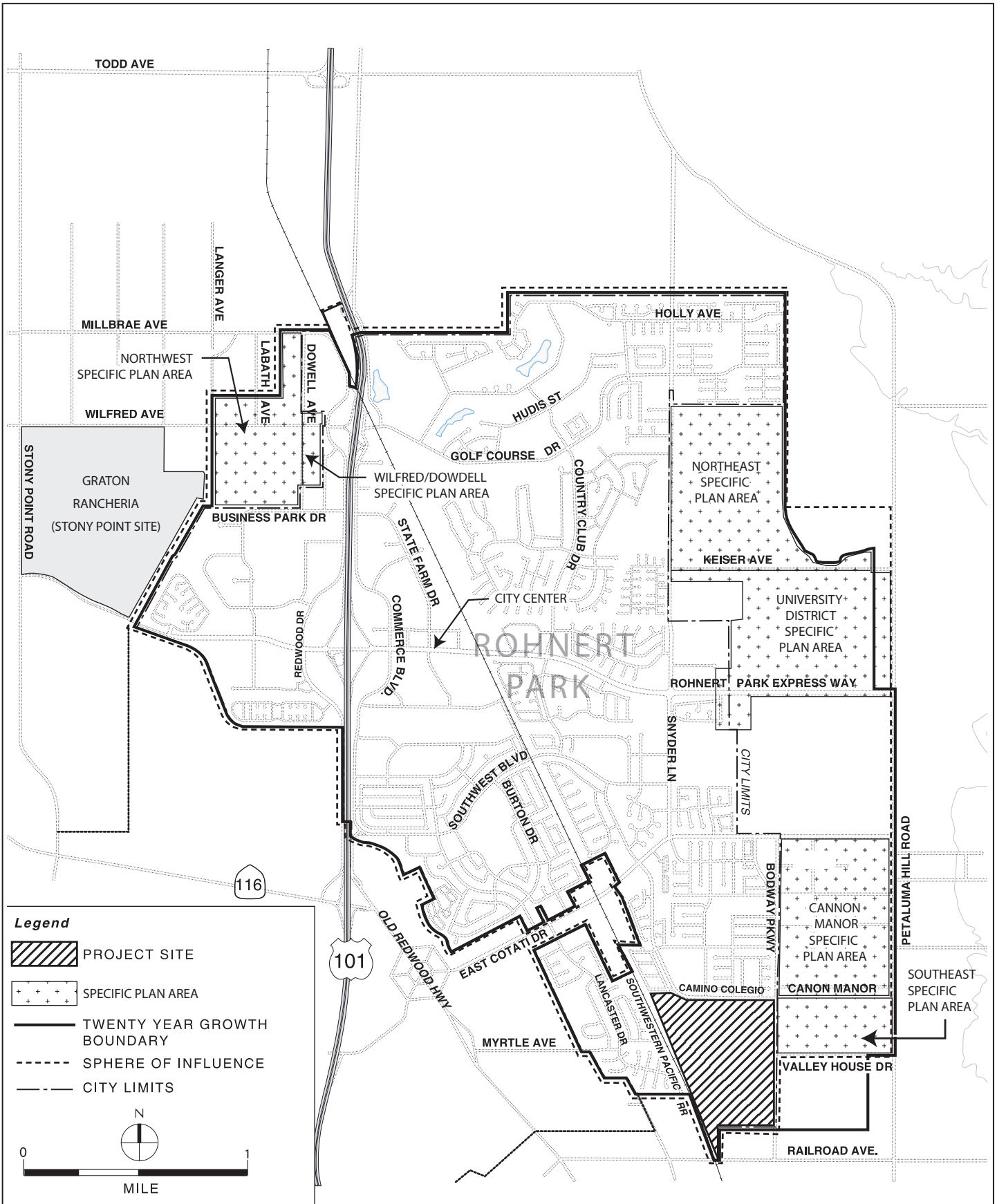
The project is proposed to include a maximum of 1,694 residential units and an additional 198 secondary dwelling units for a total of 1,892 dwelling units. The project would also include approximately 425,978 square feet (sf) of commercial office space, 107,329 sf of retail space, 45,000 sf of grocery space, a 15,000 sf child care facility, 39,472 sf restaurant space, a 100 room hotel (91,000 sf), a 30,000 sf health club, a 25,000 sf movie theatre, 35,000 sf of civic building use, covered structure parking for 800 cars, an 11,528 sf enclosed promenade, and 27.3 net acres for parks and open space. This development profile includes adaptive reuse of the existing 700,000 gross sf of Agilent Technologies buildings to contain a mix of residential, office and retail/commercial uses. The project is anticipated to generate approximately 4,414 jobs upon buildout, including nearly 2,576 jobs on site. A more detailed description of the project can be found in Chapter 2, Project Description.

Major project objectives as stated by the project sponsor include: enhancing opportunities for housing through the provision of a range of housing types; increasing job opportunities creating a Village Square as the heart of the community allowing for a wide variety of events; increasing revenues to the City in the form of taxation, permit fees, and increased visitors; and creating a model of sustainable development.


### General Plan Amendment, Rezoning and Final Development Plan Approval

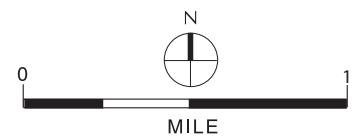
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Because the project site is designated for Industrial land use on the Rohnert Park General Plan Diagram, the project application includes a request: to change the Industrial designation to “Mixed Use”, “Public/Institutional”, and “Parks/Recreation”. In order to maintain consistency with the requested General Plan amendments, the project includes a proposal to rezone the project site from “I-L” (Limited Industrial) to “P-D” (Planned Development). The “P-D,” Planned Development District is intended to accommodate a wide range of residential, commercial, and industrial land uses that are mutually supportive and compatible with existing and proposed development on surrounding properties.



**Legend**

-  PROJECT SITE
-  SPECIFIC PLAN AREA
-  TWENTY YEAR GROWTH BOUNDARY
-  SPHERE OF INFLUENCE
-  CITY LIMITS



**FIGURE 1-1**  
**Site Location Map**

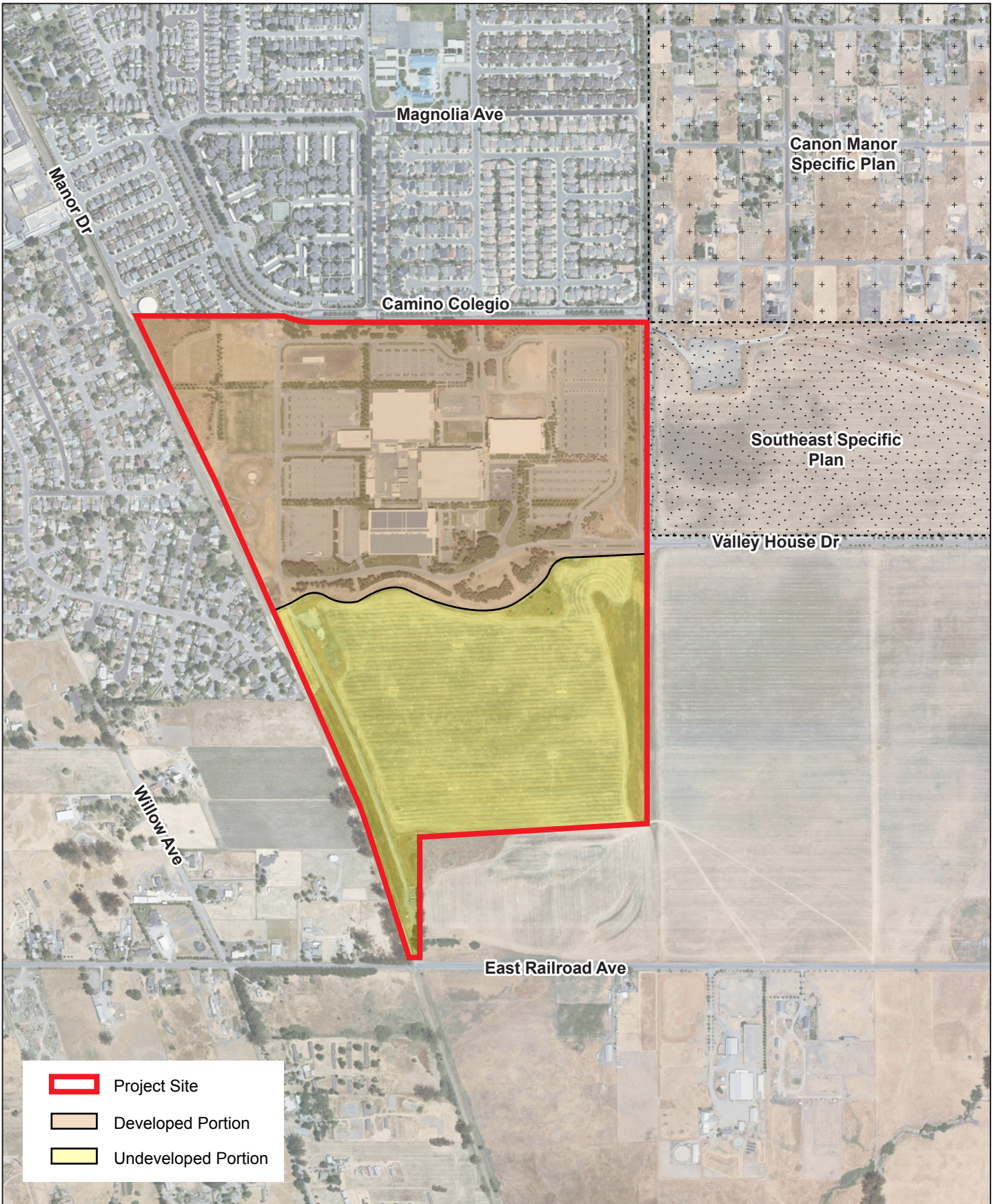
Source: City of Rohnert Park, EIP Associates



D41336.00

Sonoma Mountain Village





Source: Google Earth Pro, basemap, 2009



**FIGURE 1-2**  
**Existing Site Conditions**

D41336.00

Sonoma Mountain Village

In accordance with the provisions of the “P-D” District, the project sponsor is proposing project development according to the provisions of the SmartCode, which establishes design criteria for streets, blocks, open spaces, and buildings based on geographic characteristics of the project site setting through the identification of conditions that vary by level and intensity of urban character or use that ranges from rural to urban. For planning purposes, the range of environments as defined becomes the basis for organizing the land use components of project development.

The P-D District requires the approval of a Final Development Plan specific to Sonoma Mountain Village which will function as the zoning regulations for the area. The project sponsor is proposing to use a New Urbanist template known as the “SmartCode” as the basis for the Final Development Plan.<sup>1</sup> The Final Development Plan will establish design criteria standards for streets, blocks, open spaces, and buildings as well as incorporating the other development standards required by Chapter 17.06 of the Rohnert Park Municipal Code. The Final Development Plan will be adopted as a codified municipal ordinance at the same time that the City’s zoning map is amended to place Sonoma Mountain Village in the P-D District. The Final Development Plan will be referenced in the P-D section of the City’s Municipal Code. The SmartCode generally keeps with the principles of New Urbanism wherein the neighborhood is the basic unit of urban form, avoids sprawl.<sup>2</sup> The SmartCode is intended by the project sponsor “to be used both as a guide for builders, to allow them to understand from the outset the parameters that the community has set for development, and also as a framework and systematic checklist for the City’s use as it plans its investment in capital projects and evaluates the design of proposed building projects.”

Thus, in accordance with the proposed General Plan Amendments and Rezoning, the project Final Development Plan and SmartCode specify how and where specific land use types may be developed on the project property. These documents establish the “P-D” zoning district. The SmartCode, as a zoning and regulating plan, describes the nature, character, and location of all development contemplated within the project property.

Sustainability is a key principle of the project. A Sustainability Action Plan (SAP) has been prepared by the project sponsor to define how the project will express this concept. The SAP (Appendix C) addresses a number of subject areas regarding resource conservation and includes procedures, plans, devices and features to be incorporated into the project to reduce carbon emissions, reduce solid waste generation, reduce individual transportation requirements, increase materials recycling, improve water use efficiency, enhance habitat preservation, and preserve the local culture.

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## **1.2 AREAS OF CONTROVERSY, ISSUES TO BE RESOLVED**

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As noted in the Introduction section of this EIR, the purpose of the EIR is to provide the City of Rohnert Park, public agencies, and the public with detailed information regarding the potential

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<sup>1</sup> [www.smartcode.com](http://www.smartcode.com)

<sup>2</sup> Urban Sprawl is defined as a development pattern that requires more land and the extension of utility and service systems to outlying areas in order to accommodate growth.



environmental effects of implementing the Sonoma Mountain Village project, to examine and institute methods of mitigating any adverse environmental impacts should the project be approved for construction, and to consider alternatives to the project as proposed. Such mitigations would further serve to strengthen the sustainability principles of the project.

As a result of the EIR public scoping session held on June 14, 2007, environmental subjects were raised by the public and concerns were expressed regarding the potential environmental effects surrounding a number of issues. During the scoping period a number of environmental issues were identified to be addressed in the EIR, among them the following: project traffic generation and congestion; the contribution of the project to noise conditions in the area including construction noise; generation of construction dust; groundwater recharge, domestic water consumption; population increases and growth inducement; impacts on wildlife; security and safety and the potential increase in demand for police services; how storm runoff would be handled; air quality; the project's potential effects on biological resources and wetlands; aesthetics and how the project would appear when completed when viewed from different vantage points around the project site; and project construction scheduling.

An issue of particular concern to the public was the project's proposed SAP. The presentation of such a support document is not typical for a development of this size; therefore, it was unclear to many members of the public how such a document would affect the development of the Sonoma Mountain Village project. Some of the specific concerns include how the project's One Planet Communities SAP would be applied and incorporated into the project design and implementation, how achievement of the SAP goals would be measured and monitored, and the feasibility of the SAP goals. In order to address these concerns, the SAP is included in Appendix C of this EIR. A detailed summary discussion of the role of the SAP and the key goals and policies can be found in Chapter 2 Project Description.

Accordingly, the issues to be resolved include determining those project impacts that would be significant and unavoidable, and those impacts that would be significant but could be reduced to a less-than-significant level through the implementation of mitigation measures as available. Toward this end, the environmental effects of implementing the Sonoma Mountain Village project are analyzed in this EIR under each major topic as listed in accordance with the CEQA Guidelines as noted earlier.

In addition, examination of project alternatives as required by CEQA is important to decision-making regarding the approval of the proposed project. This EIR, in Chapter 6, presents and evaluates five alternatives to the project, including a No Project/No Build, a No Project/General Plan Buildout, an All Residential Development Alternative, a Reduced Density Alternative, and a High Density Residential/Open Space Alternative. The Environmentally Superior Alternative is identified among these alternatives pursuant CEQA requirements. Excluding the No Project alternative, these alternatives focus on project development schemes that attempt to avoid or substantially lessen any significant environmental effects of the proposed project. A fundamental issue is whether the project should be approved by City of Rohnert Park officials as proposed. This EIR serves to provide information so that decision makers, responsible agencies, and the public are fully informed of the environmental consequences of these decisions.

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## 1.3 MAJOR EIR CONCLUSIONS

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### Impacts and Mitigation Measures

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The following presents the major findings of the EIR. Table 1-1 summarizes the environmental impacts and mitigation measures as contained in the body of the EIR.

Only those impacts noted as significant and unavoidable, or significant and can be reduced to a less-than-significant level are included in Table 1-1. Less-than-significant impacts are not included in Table 1-1 for brevity. Mitigation measures are listed for reducing the identified significant impacts to less-than-significant levels.

The descriptions of significant and potentially significant impacts and mitigation measures in Table 1-1 have been abbreviated consistent with the format of a summary section. The reader is therefore referred to the main EIR text for a complete discussion of environmental impacts and mitigation measures (refer to the numbering sequence for location).

A summary of each alternative to the proposed Sonoma Mountain Village project as addressed in this EIR is provided following Table 1-1.

**Table 1-1  
Sonoma Mountain Village Project DEIR Summary of Impacts and Mitigation Measures**

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
<b>3.1 Aesthetics and Urban Design</b>			
<b>Impact Criterion #1, Scenic Vistas: Would the project have a substantial adverse effect on a scenic vista?</b>			
<u>Impact 3.1-1</u> In the absence of detailed plans illustrating the planned height of buildings on all portions of the project site, it cannot be confirmed that the project would not obstruct east facing views of the Sonoma Mountains, a Sonoma County designated Scenic Landscape Unit, from properties immediately west of the project site. The obstruction of views to the Sonoma Mountains would be a significant impact.	(S)	<u>Mitigation Measure 3.1-1</u> Prior to submittal of a detailed grading permit, the project sponsor shall prepare a view corridor analysis in order to determine whether revised maximum building setback and height limits should be established within the T-4 General Urban Zone transect, so as not to obstruct views of the Sonoma Mountains from existing properties immediately west of the project site. The revised building height and setback restrictions should be limited to the extent lines of sight to the Sonoma Mountains from properties immediately west of the project site would not obstructed by new buildings on the project site. Storey-poles should be erected in the field prior to building construction to demonstrate that existing views would not be adversely affected. If required, the revised height and setback restrictions would be included as a Condition of Approval and would apply only to the affected properties.	(LS)
<b>Legend:</b>	(S) Significant Adverse Impact	(SU) Significant, Unavoidable Adverse Impact	(PS) Potentially Significant Adverse Impact
			(LS) Less-Than-Significant Adverse Impact



**Table 1-1  
Sonoma Mountain Village Project DEIR Summary of Impacts and Mitigation Measures**

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation	
<b>Impact Criterion #2, <i>Visual Character and Appearances</i>: Would the project substantially degrade the existing visual character or quality of the site and its surroundings?</b>				
<u>Impact 3.1-2</u> Project construction would require site grading, construction materials stockpiling and storage, and the use of construction equipment in varying intensity as the various phases of the project are built. As a change from current site conditions during periods of construction, and with the presence of adjacent residential communities, this is considered a potentially significant visual impact. This construction impact would be localized and short-term however, lasting intermittently during the actual phased periods of construction at specific locations within the project site construction areas during each phase of project construction.	(PS)	<u>Mitigation Measure 3.1-2</u> Upon approval of grading permits, the stockpiling and storage of construction materials and equipment prior to installation and use, as future phases of the project would be implemented, shall be minimized to the extent practicable by the project sponsor. Although construction staging areas have not been designated at this time, such staging areas shall be located internal to the project site. The staging areas shall be located away from Camino Colegio and Bodway Parkway, and as close to or within the areas of construction as possible, out of the way of community traffic, pedestrian use, and local views.	(LS)	
<b>Impact Criterion #3, <i>Project Lighting</i>: Would the project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?</b>				
<u>Impact 3.1-3</u> Project lighting of parking areas, buildings, and streets could form point sources of light interfering with nighttime views from off-site locations, including local roadways and residences both on and off the project site. This would be a potentially significant impact.	(PS)	<u>Mitigation Measure 3.1-3(a)</u> All new street and other public area lighting shall include fixtures that focus the light downward and include shields to prevent light spill to surrounding properties, sky glow, and glare, to the extent feasible.  <u>Mitigation Measure 3.1-3(b)</u> Reflective surfaces in public areas shall be kept to a minimum using non-reflective material wherever possible. The use of non reflective paints, solar treatments, and finishing materials will be encouraged during the development process.	(LS)	
<b>Legend:</b>	(S) Significant Adverse Impact	(SU) Significant, Unavoidable Adverse Impact	(PS) Potentially Significant Adverse Impact	(LS) Less-Than-Significant Adverse Impact

**Table 1-1  
Sonoma Mountain Village Project DEIR Summary of Impacts and Mitigation Measures**

<b>Impacts</b>	<b>Impact Significance without Mitigation</b>	<b>Mitigation Measures</b>	<b>Impact Significance with Mitigation</b>
Cumulative impact: Development of the proposed project in combination with cumulative development assumptions would result in project related considerable contribution to cumulative impacts on scenic vistas.	S	Implement Project-Specific mitigation (see above).	SU

**3.2 Air Quality**

**Impact Criterion #2, Air Quality Standard: Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?**

Impact 3.2-1

Construction activities associated with development of the Sonoma Mountain Village project could generate substantial dust emissions. This would be a significant impact under Impact Criterion #2 regarding the substantial contribution to an existing or projected air quality violation.

(S)

Mitigation Measure 3.2-1(a)

Prior to construction, the project sponsor shall implement recommended dust control measures. To reduce particulate matter emissions during project excavation and construction phases, the project contractor(s) shall comply with the dust control strategies developed by the BAAQMD. The project sponsor shall include in construction contracts the following requirements or measures shown to be equally effective.

(LS)

- Cover all trucks hauling soil, sand, and other loose construction and demolition debris from the site, or require all such trucks to maintain at least two feet of freeboard;
- Water all exposed or disturbed soil surfaces in active construction areas at least twice daily;
- Use watering to control dust generation during demolition of structures or break-up of pavement;
- Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved parking areas and staging areas;

<b>Legend:</b>	(S) Significant Adverse Impact	(SU) Significant, Unavoidable Adverse Impact	(PS) Potentially Significant Adverse Impact	(LS) Less-Than-Significant Adverse Impact
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**Table 1-1  
Sonoma Mountain Village Project DEIR Summary of Impacts and Mitigation Measures**

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
		<ul style="list-style-type: none"> <li>• Sweep daily (with water sweepers) all paved parking areas and staging areas;</li> <li>• Provide daily clean-up of mud and dirt carried onto paved streets from the site;</li> <li>• Enclose, cover, water twice daily or apply non-toxic soil binders to exposed stockpiles (dirt, sand, etc.);</li> <li>• Limit traffic speeds on unpaved roads to 15 mph;</li> <li>• Install sandbags or other erosion control measures to prevent silt runoff to public roadways;</li> <li>• Replant vegetation in disturbed areas as quickly as possible;</li> <li>• Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more);</li> <li>• Install wheel washers for all existing trucks, or wash off the tires or tracks of all trucks and equipment leaving the site;</li> <li>• Install wind breaks at the windward side(s) of construction areas;</li> <li>• Suspend excavation and grading activity when winds (instantaneous gusts) exceed 25 miles per hour over a 30-minute period or more; and</li> <li>• To the extent possible, limit the area subject to excavation, grading, and other dust-generating construction activity at any one time.</li> </ul>	
<p><b>Legend:</b> (S) Significant Adverse Impact      (SU) Significant, Unavoidable Adverse Impact      (PS) Potentially Significant Adverse Impact      (LS) Less-Than-Significant Adverse Impact</p>			

**Table 1-1  
Sonoma Mountain Village Project DEIR Summary of Impacts and Mitigation Measures**

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
		<p><u>Mitigation Measure 3.2-1(b)</u></p> <p>Prior to grading, the project sponsor shall designate a dust control coordinator. To facilitate control of dust during construction and demolition phases, the project sponsor shall include a dust control coordinator in construction contracts. All construction sites shall have posted in a conspicuous location the name and phone number of a designated construction dust control coordinator who can respond to complaints by suspending dust-producing activities or providing additional personnel or equipment for dust control.</p> <p><u>Mitigation Measure 3.2-1(c)</u></p> <p>Reduce emissions from heavy-duty diesel-powered equipment. The project contractor(s) shall implement measures to reduce the emissions of pollutants generated by heavy-duty diesel-powered equipment operating at the project site during project excavation and construction phases. The project sponsor shall include in construction contracts the following requirements or measures shown to be equally effective.</p> <ul style="list-style-type: none"> <li>• Keep all construction equipment in proper tune, in accordance with manufacturer’s specifications;</li> <li>• Use late model heavy-duty diesel-powered equipment at the project site to the extent that it is readily available in the San Francisco Bay Area;</li> </ul>	

**Legend:** (S) Significant Adverse Impact (SU) Significant, Unavoidable Adverse Impact (PS) Potentially Significant Adverse Impact (LS) Less-Than-Significant Adverse Impact

**Table 1-1  
Sonoma Mountain Village Project DEIR Summary of Impacts and Mitigation Measures**

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
		<ul style="list-style-type: none"> <li>• Use diesel-powered equipment that has been retrofitted with after-treatment products (e.g., engine catalysts) to the extent that it is readily available in the San Francisco Bay Area;</li> <li>• Use low-emission diesel fuel for all heavy-duty diesel-powered equipment operating and refueling at the project site to the extent that it is readily available and cost effective in the San Francisco Bay Area (this does not apply to diesel-powered trucks traveling to and from the site);</li> <li>• Utilize alternative fuel construction equipment (i.e., compressed natural gas, liquid petroleum gas, and unleaded gasoline) to the extent that the equipment is readily available and cost effective in the San Francisco Bay Area;</li> <li>• Limit truck and equipment idling time to five minutes or less; and</li> <li>• Rely on the electricity infrastructure surrounding the construction sites rather than electrical generators powered by internal combustion engines to the extent feasible.</li> </ul>	

<b>Legend:</b>	(S) Significant Adverse Impact	(SU) Significant, Unavoidable Adverse Impact	(PS) Potentially Significant Adverse Impact	(LS) Less-Than-Significant Adverse Impact
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**Table 1-1  
Sonoma Mountain Village Project DEIR Summary of Impacts and Mitigation Measures**

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation	
<b>Impact Criterion #3, Substantial Air Pollutant Emissions: Would the project result in a substantial net increase in the emissions of any air pollutant for which the project region is problematic under applicable federal or state air quality standards or plans, including releasing pollutants which exceed established quantitative thresholds?</b>				
<u>Impact 3.2-2</u> Project operational activities would generate emissions of ozone precursors (ROG, NOx) and particulate matter (PM <sub>10</sub> ) (criteria pollutants), that would exceed BAAQMD quantitative emission thresholds of 80 pounds per day each. These would be significant and unavoidable impacts under Impact Criterion #3 regarding the release of substantial air pollutant emissions.	(SU)	<u>Mitigation Measure 3.2-2</u> Since operational criteria pollutant emissions of the Sonoma Mountain Village project would exceed the thresholds of significance recommended by the BAAQMD, the project sponsor shall include in the project design specifications the following minimum energy reduction measures or other measures shown to be equally effective: <ul style="list-style-type: none"> <li>• Use solar or low-emission water heaters in the residential and retail buildings;</li> <li>• Provide energy-efficient heating, cooling, and other appliances, such as cooking equipment, refrigerators, and dishwashers;</li> <li>• Provide energy-efficient and automated controls for air conditioning;</li> <li>• Install ozone destruction catalyst on air conditioning systems, in consultation with the BAAQMD;</li> <li>• Use light colored roof materials to reflect heat;</li> <li>• Where feasible and appropriate, use light colored parking surface materials;</li> <li>• Plant shade trees in parking lots to reduce evaporative emissions from parked vehicles;</li> </ul>	(SU)	
<b>Legend:</b>	(S) Significant Adverse Impact	(SU) Significant, Unavoidable Adverse Impact	(PS) Potentially Significant Adverse Impact	(LS) Less-Than-Significant Adverse Impact

**Table 1-1  
Sonoma Mountain Village Project DEIR Summary of Impacts and Mitigation Measures**

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
<p>The Sonoma Mountain Village project would require a General Plan Amendment and rezoning, which would significantly increase the site’s potential for the direct and indirect emission of air pollutants. Ozone precursor and particulate emissions from project-related stationary and mobile sources would exceed BAAQMD significance thresholds. Moreover, air pollutant emissions from the proposed project would be a relatively large proportion of the total Rohnert Park cumulative emissions.</p>	(S)	<ul style="list-style-type: none"> <li>• If fireplaces are provided in new residential uses, install the low-emitting commercial fireplaces available at the time of development;<sup>3</sup> and</li> <li>• Require that commercial landscapers providing services at the project site use electric or battery-powered equipment, or other internal combustion equipment that is either certified by the California Air Resources Board or is three-years-old or less at the time of use, to the extent that such equipment is reasonably available and competitively priced in the San Francisco Bay Area.</li> </ul> <p>Implement Project-Specific mitigation (see above).</p>	(SU)

<sup>3</sup> The project would be required to comply with Rohnert Park Municipal Code Chapter 8.26, *Installation of Wood-Burning Appliances*, which specifies use of Environmental Protection Agency certified wood heaters, prohibited fuels, etc.

<b>Legend:</b>	(S) Significant Adverse Impact	(SU) Significant, Unavoidable Adverse Impact	(PS) Potentially Significant Adverse Impact	(LS) Less-Than-Significant Adverse Impact
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**Table 1-1  
Sonoma Mountain Village Project DEIR Summary of Impacts and Mitigation Measures**

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
<b>3.3 Biological Resources</b>			
<b>Impact Criterion #1, <i>Habitat Modification</i>: Would the project adversely affect, either directly or through habitat modifications, any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?</b>			
<u>Impact 3.3-1</u>		<u>Mitigation Measure 3.3-1(a)</u>	
The project could result in the potential loss and/or degradation of rare plant populations.	(PS)	The project sponsor shall retain a qualified biologist to conduct focused surveys for special-status plant species including, but not limited to, Sonoma sunshine, fragrant fritillary, Burke’s goldfields, Sebastopol meadowfoam, and showy Indian clover during the appropriate time of year (generally February through July), prior to construction or issuance of a grading permit.  If no special-status plants are located during the surveys, no further mitigation would be required.	(LS)
		<u>Mitigation Measure 3.3-1(b)</u>	
		If any state or federally listed special-status plant species are found during the surveys in areas that cannot be avoided during construction, the project sponsor shall consult with the appropriate agency (i.e., USFWS, CDFG, or both) to obtain an incidental take permit for the removal of any state or federally listed plant populations in the project site area. Specific mitigation measures detailing replacement methods and ratios the project sponsor would be responsible for would be developed as required by the agency, but would likely include transplanting existing populations, collection of seed for planting at a mitigation site, and either purchase of mitigation lands where the lost plants will be	
<b>Legend:</b>	(S) Significant Adverse Impact	(SU) Significant, Unavoidable Adverse Impact	(PS) Potentially Significant Adverse Impact
			(LS) Less-Than-Significant Adverse Impact



**Table 1-1  
Sonoma Mountain Village Project DEIR Summary of Impacts and Mitigation Measures**

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation	
<u>Impact 3.3-2</u>	(PS)	<p>reestablished, or purchase of mitigation credits at an approved mitigation bank prior to issuance of a grading permit.</p> <p><u>Mitigation Measure 3.3-1(c)</u></p> <p>If any non-listed special-status plant species are found during the surveys in areas that cannot be avoided, the project sponsor shall notify CDFG within 24 hours so that an opportunity can be made available to salvage plants, soil or seed banks, for use in rare plant restoration in mitigation areas prior to issuance of a grading permit.</p> <p><u>Mitigation Measure 3.3-2(a)</u></p> <p>Prior to the issuance of a grading permit, the project sponsor and/or their representatives shall initiate an informal consultation with the USFWS to discuss measures to avoid a potential take of CTS during construction. Although details of these measures would be developed in consultation with the USFWS, they would likely include:</p> <ul style="list-style-type: none"> <li>• Retaining a qualified biologist to conduct a preconstruction survey of the project site area to ensure that no potential upland retreat habitat has been created (i.e., through ground squirrel activity) since the 2004 habitat assessment,</li> <li>• Seasonal restrictions on grading and construction to avoid the wet season dispersal period,</li> <li>• Installation of drift fences around the perimeter of the construction area to prevent any CTS from moving into the area,</li> </ul>	(LS)	
<b>Legend:</b>	(S) Significant Adverse Impact	(SU) Significant, Unavoidable Adverse Impact	(PS) Potentially Significant Adverse Impact	(LS) Less-Than-Significant Adverse Impact

**Table 1-1  
Sonoma Mountain Village Project DEIR Summary of Impacts and Mitigation Measures**

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
		<ul style="list-style-type: none"> <li>• Providing compensation for loss of CTS upland habitat, as required by the USFWS (either through avoidance, or purchase of mitigation credits at a USFWS approved bank), if any suitable habitat is found during the preconstruction surveys referenced above, and</li> <li>• Retaining qualified biologists to monitor the project site area during construction to ensure that no CTS would be harmed.</li> </ul> <p>Assuming complete avoidance can be achieved, no incidental take permit would be required. However, if CTS are discovered to be present in the project site area, and a “take” of the species cannot be avoided, Mitigation Measure 3.3-2(b) shall be required.</p> <p><u>Mitigation Measure 3.3-2(b)</u></p> <p>Prior to construction or issuance of a grading permit, the project sponsor and/or their representatives shall initiate consultation with the USFWS pursuant to Section 7 of the Federal Endangered Species Act to obtain an incidental take permit for loss of any individual CTS. Details of the requirements of the Incidental Take Permit would be developed during consultation with the USFWS, but would likely include (but not be limited to) the following.</p> <ul style="list-style-type: none"> <li>• Preparation of a Biological Assessment pursuant to Section 7 of the FESA for submission to the USFWS for their review.</li> <li>• Retaining qualified, permitted biologists to monitor for, and potentially move CTS outside of the project site area.</li> </ul>	
<p><b>Legend:</b> (S) Significant Adverse Impact (SU) Significant, Unavoidable Adverse Impact (PS) Potentially Significant Adverse Impact (LS) Less-Than-Significant Adverse Impact</p>			

**Table 1-1  
Sonoma Mountain Village Project DEIR Summary of Impacts and Mitigation Measures**

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation	
<p><u>Impact 3.3-3</u> Construction of the Project could result in the loss of burrowing owl individuals, a Species of Special Concern (eggs, nestlings, or juveniles).</p>	(S)	<p>• Payment of mitigation fees, and/or purchase of mitigation land to compensate for the loss of CTS and their habitat</p> <p><u>Mitigation Measure 3.3-3(a)</u> Prior to the issuance of a grading permit, the project sponsor shall hire a qualified biologist to conduct both nesting and wintering season surveys for burrowing owl to determine if the site is used by this species. The timing and methodology for the surveys are based on the CDFG/Burrowing Owl Consortium Survey Guidelines and are detailed below. CDFG may require that these surveys be repeated annually if project construction is expected to span over two or more years.</p> <ul style="list-style-type: none"> <li>• Winter Season (December 1 through January 31)—Four site visits on separate days, 2 hours before to 1 hour after sunset or 1 hour before to 2 hours after sunrise.</li> <li>• Nesting Season (February 1 to August 31)—Four site visits on separate days, 2 hours before to 1 hour after sunset or 1 hour before to 2 hours after sunrise. At least two of the surveys shall be conducted during the peak nesting season between April 15 and July 15.</li> </ul> <p>In addition to the wintering and nesting season surveys, pre-construction surveys shall be conducted by an experienced biologist within 30-days prior to the start of work activities where land conversions are planned in known or suitable habitat areas. If construction activities would be delayed for more than 30 days after the</p>	(LS)	
<b>Legend:</b>	(S) Significant Adverse Impact	(SU) Significant, Unavoidable Adverse Impact	(PS) Potentially Significant Adverse Impact	(LS) Less-Than-Significant Adverse Impact

**Table 1-1  
Sonoma Mountain Village Project DEIR Summary of Impacts and Mitigation Measures**

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
		<p>preconstruction surveys, then a new preconstruction survey would be required. All surveys shall be conducted in accordance with the CDFG/Burrowing Owl Consortium survey protocols (Burrowing Owl Consortium, 1993).</p> <p><u>Mitigation Measure 3.3-3(b)</u></p> <p>If burrowing owls are discovered in the project area, the project sponsor shall notify the City and CDFG. A qualified biologist shall implement a routine monitoring program and establish a fenced exclusion zone around each occupied burrow. No construction activities shall be allowed within the exclusion zone until such time that the burrows are determined to be unoccupied. The buffer zones shall be a minimum of 100 feet from an occupied burrow during the non-breeding season (September 1 through January 31), and a minimum of 160 feet from an occupied burrow during the breeding season (February 1 through August 31).</p> <p><u>Mitigation Measure 3.3-3(c)</u></p> <p>The project sponsor shall provide appropriate relocation mitigation for project-related effects on the burrowing owl in consultation with CDFG. Mitigation can be conducted either on the project site, or at an off-site location that is approved by the CDFG. Preference is for on-site within open space areas, if possible.</p> <p><u>Mitigation Measure 3.3-3(d)</u></p> <p>The CDFG shall be consulted regarding the implementation of avoidance or passive relocation methods. All activities that would result in a disturbance to burrows shall be approved by CDFG prior to</p>	
<p><b>Legend:</b> (S) Significant Adverse Impact (SU) Significant, Unavoidable Adverse Impact (PS) Potentially Significant Adverse Impact (LS) Less-Than-Significant Adverse Impact</p>			

**Table 1-1  
Sonoma Mountain Village Project DEIR Summary of Impacts and Mitigation Measures**

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
<p><u>Impact 3.3-4</u> The project could result in the direct loss or disturbance of nesting birds, including white-tailed kite, Cooper’s hawk, and other raptors (birds-of-prey).</p>	(PS)	<p>implementation.</p> <p><u>Mitigation Measure 3.3-4(a)</u> If construction is to occur between March 15 through August 30, the project sponsor, in consultation with the CDFG, shall conduct a pre-construction breeding-season survey of the project site within 30 days of when construction is planned to begin. The survey shall be conducted by a qualified biologist to determine if any birds are nesting on or directly adjacent to the project site.</p> <p>If the above survey does not identify any nesting raptor species on the project site, no further mitigation would be required. However, should any active bird nests be located, Mitigation Measure 3.3-3(b) shall be implemented.</p> <p><u>Mitigation Measure 3.3-4(b)</u> The project sponsor, as required by CDFG, shall avoid all birds nest sites located in the project site during the breeding season (approximately March 15 through August 30) while the nest is occupied with adults and/or young. This avoidance could consist of delaying construction to avoid the nesting season. Any occupied nest shall be monitored by a qualified biologist to determine when the nest is no longer used. If the construction cannot be delayed, avoidance shall include the establishment of a non-disturbance buffer zone around the nest site. The size of the buffer zone shall be approved by the CDFG. The buffer zone shall be delineated by highly visible temporary construction fencing.</p>	(LS)
<p><b>Legend:</b> (S) Significant Adverse Impact (SU) Significant, Unavoidable Adverse Impact (PS) Potentially Significant Adverse Impact (LS) Less-Than-Significant Adverse Impact</p>			

**Table 1-1  
Sonoma Mountain Village Project DEIR Summary of Impacts and Mitigation Measures**

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation	
<b>Impact Criterion #3, <i>Effect Federally Protected Wetlands</i>: Would the project adversely affect federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, etc.) through direct removal, filling, hydrological interruption, or other means.</b>				
<u>Impact 3.3-4</u> Construction of the Project could result in the loss of burrowing owl individuals, a Species of Special Concern (eggs, nestlings, or juveniles). This would be a potentially significant impact.	(PS)	<u>Mitigation Measure 3.3-4(a)</u> The project sponsor shall hire a qualified biologist to conduct both nesting and wintering season surveys for burrowing owl to determine if the site is used by this species. The timing and methodology for the surveys are based on the CDFG/Burrowing Owl Consortium Survey Guidelines and are detailed below. CDFG may require that these surveys be repeated annually if project construction is expected to span over two or more years.  <ul style="list-style-type: none"> <li>• Winter Season (December 1 through January 31)—Four site visits on separate days, 2 hours before to 1 hour after sunset or 1 hour before to 2 hours after sunrise.</li> <li>• Nesting Season (February 1 to August 31)—Four site visits on separate days, 2 hours before to 1 hour after sunset or 1 hour before to 2 hours after sunrise. At least two of the surveys shall be conducted during the peak nesting season between April 15 and July 15.</li> </ul> <p>In addition to the wintering and nesting season surveys, pre-construction surveys shall be conducted by an experienced biologist within 30-days prior to the start of work activities where land conversions are planned in known or suitable habitat areas. If construction activities would be delayed for more than 30 days after the</p>	(LS)	
<b>Legend:</b>	(S) Significant Adverse Impact	(SU) Significant, Unavoidable Adverse Impact	(PS) Potentially Significant Adverse Impact	(LS) Less-Than-Significant Adverse Impact

**Table 1-1**  
**Sonoma Mountain Village Project DEIR Summary of Impacts and Mitigation Measures**

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
		<p>preconstruction surveys, then a new preconstruction survey would be required. All surveys shall be conducted in accordance with the CDFG/Burrowing Owl Consortium survey protocols (Burrowing Owl Consortium, 1993).</p> <p>If the above survey does not identify any burrowing owls on the project site, no further mitigation would be required. However, should any individual burrowing owls or burrowing owl nests be located, Mitigation Measure 3.3-4(b), Mitigation Measure 3.3-4(c), and Mitigation Measure 3.3-4(d) shall be implemented.</p> <p><u>Mitigation Measure 3.3-4(b)</u></p> <p>If burrowing owls are discovered in the project area, the project sponsor shall notify the City and CDFG. A qualified biologist shall implement a routine monitoring program and establish a fenced exclusion zone around each occupied burrow. No construction activities shall be allowed within the exclusion zone until such time that the burrows are determined to be unoccupied. The buffer zones shall be a minimum of 100 feet from an occupied burrow during the non-breeding season (September 1 through January 31), and a minimum of 160 feet from an occupied burrow during the breeding season (February 1 through August 31).</p>	

**Legend:** (S) Significant Adverse Impact (SU) Significant, Unavoidable Adverse Impact (PS) Potentially Significant Adverse Impact (LS) Less-Than-Significant Adverse Impact

**Table 1-1  
Sonoma Mountain Village Project DEIR Summary of Impacts and Mitigation Measures**

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation	
<u>Impact 3.3-5</u>	(S)	<p><u>Mitigation Measure 3.3-4(c)</u> The project sponsor shall provide appropriate relocation mitigation for project-related effects on the burrowing owl in consultation with CDFG. Mitigation can be conducted either on the project site, or at an off-site location that is approved by the CDFG. Preference is for on-site within open space areas, if possible.</p> <p><u>Mitigation Measure 3.3-4(d)</u> The CDFG shall be consulted regarding the implementation of avoidance or passive relocation methods. All activities that would result in a disturbance to burrows shall be approved by CDFG prior to implementation.</p> <p><u>Mitigation Measure 3.3-5(a)</u> Prior to the issuance of a grading permit, the project sponsor shall retain a qualified biologist to conduct a re-verification of the 2002 wetland delineation at the site in accordance with the 1987 Manual. This delineation should also be expanded to include the northern half of the project area (i.e., to include the detention basin in the northwest corner of the site). The delineation report shall be updated and submitted to the Corps for re-verification prior to the commencement of construction. If it is determined by the Corps that these features are jurisdictional, then the project sponsor would have two options: avoidance, or removal and replacement mitigation. Due to the scope of the project which includes development of the entire site, avoidance is not assumed as an option in this case, although avoidance is the</p>	(LS)	
<b>Legend:</b>	(S) Significant Adverse Impact	(SU) Significant, Unavoidable Adverse Impact	(PS) Potentially Significant Adverse Impact	(LS) Less-Than-Significant Adverse Impact



**Table 1-1**  
**Sonoma Mountain Village Project DEIR Summary of Impacts and Mitigation Measures**

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
		<p>preferred option. Therefore, replacement mitigation shall be implemented for the project of any wetland determined to be jurisdictional such that there would be no net loss of wetland acreage.</p> <p><u>Mitigation Measure 3.3-5(b)</u></p> <p>Where avoidance of existing wetlands is not feasible, then mitigation measures shall be implemented for the project related loss of any existing wetlands on site, such that there is no-net loss of wetland acreage or habitat value. Wetland habitat acreage replacement can be greater than the acreage of wetlands that fall under the jurisdiction of the Corps and/or the RWQCB.</p> <p>(i) Wetland mitigation shall be developed as a part of the Section 404 CWA permitting process, or for non-jurisdictional wetlands, during permitting through the RWQCB and/or CDFG. Mitigation is to be provided prior to construction. Mitigation could include purchase of the appropriate amount of credits from a Santa Rosa Plain mitigation bank. The exact mitigation ratio is variable, based on the type and value of the wetlands that would be affected by the project, but agency standards typically require a minimum of 1:1 for preservation and 1:1 for the construction of new wetlands. In addition, a wetland mitigation and monitoring plan shall be developed that includes the following:</p> <ul style="list-style-type: none"> <li>• Descriptions of the wetland types, and their expected functions and values;</li> </ul>	

**Legend:** (S) Significant Adverse Impact (SU) Significant, Unavoidable Adverse Impact (PS) Potentially Significant Adverse Impact (LS) Less-Than-Significant Adverse Impact

**Table 1-1  
Sonoma Mountain Village Project DEIR Summary of Impacts and Mitigation Measures**

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
		<ul style="list-style-type: none"> <li>• Performance standards and monitoring protocol to ensure the success of the mitigation wetlands over a period of five to ten years;</li> <li>• Engineering plans showing the location, size and configuration of wetlands to be created or restored;</li> <li>• An implementation schedule showing that construction of mitigation areas will commence prior to or concurrently with the initiation of project construction; and</li> <li>• A description of legal protection measures for the preserved wetlands (i.e., dedication of fee title, conservation easement, and/or an endowment held by an approved conservation organization, government agency or mitigation bank).</li> </ul> <p>(ii) Prior to the issuance of grading permits by the City, the sponsor shall acquire all appropriate wetland permits. These permits include a Section 404 Wetlands Fill Permit from the U.S. Army Corp of Engineers, or a Report of Waste Discharge from the RWQCB, a Section 401 Water Quality Certification from the Regional Water Quality Control Board, and, if necessary, a Section 1601 Streambed Alteration Agreement from the California Department of Fish and Game.</p>	

**Legend:** (S) Significant Adverse Impact (SU) Significant, Unavoidable Adverse Impact (PS) Potentially Significant Adverse Impact (LS) Less-Than-Significant Adverse Impact

**Table 1-1  
Sonoma Mountain Village Project DEIR Summary of Impacts and Mitigation Measures**

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
<b>Impact Criterion #5, Local Policies or Ordinances: Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? (Impact Criterion #5)</b>			
<u>Impact 3.3-6</u> The project would result in the loss of existing trees within the project site boundaries that are protected by municipal codes. This would be a significant impact.	(S)	<u>Mitigation Measure 3.3-6</u> To insure the project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance under Impact Criterion #5, prior to the issuance of a grading permit, the project sponsor shall hire a licensed and certified arborist to inventory all non exempt trees on the project site slated to be removed and assess their value based on ISA standards including size, health, species and location. This evaluation shall be provided to the City of Rohnert Park Community Development Director or his/her designee for review. The project sponsor shall then comply with the provisions of the Tree Removal Permit issued by the Community Development Director, including tree replacement and the protection of any trees to be retained during construction.	(LS)

<b>Legend:</b>	(S) Significant Adverse Impact	(SU) Significant, Unavoidable Adverse Impact	(PS) Potentially Significant Adverse Impact	(LS) Less-Than-Significant Adverse Impact
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**Table 1-1  
Sonoma Mountain Village Project DEIR Summary of Impacts and Mitigation Measures**

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation	
<b>3.4 Cultural Resources</b>				
<b>Impact Criterion #2, <i>Archaeological Resources</i>: Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Section 15064.5?</b>				
<u>Impact 3.4-1</u> There is low to moderate sensitivity for prehistoric cultural resources existing on the project site. It is therefore reasonable to conclude that prehistoric cultural deposits could be found anywhere within or near the project site and could be disturbed or destroyed through vegetation-clearing, grading, and construction activities. Damage to archaeological sites would be considered a potentially significant impact.	(PS)	<u>Mitigation Measure 3.4-1</u> Prior to groundbreaking, the project sponsor shall provide construction specifications, inclusive of earth-disturbance required for the project, that instruct operators of site-grading and excavation equipment be instructed to be observant for unusual or suspect archaeological materials that may surface from below during site-grading and excavation operations. Archaeological materials include features such as concentrations of artifacts or culturally modified (darkened) soil deposits including trash pits older than fifty years of age.  In the event that unknown archaeological remains are discovered during subsurface excavation and construction, land alteration work in the vicinity of the find shall be halted and a qualified archeologist consulted. Prompt evaluations could then be made regarding the find and a resource management plan that is consistent with CEQA requirements could then be implemented. If prehistoric archeological deposits are discovered, local Native American organizations shall be consulted and involved in making resource management decisions. All applicable State and local legal requirements concerning the treatment of cultural materials and Native American burials shall be enforced.	(LS)	
<b>Legend:</b>	(S) Significant Adverse Impact	(SU) Significant, Unavoidable Adverse Impact	(PS) Potentially Significant Adverse Impact	(LS) Less-Than-Significant Adverse Impact

**Table 1-1**  
**Sonoma Mountain Village Project DEIR Summary of Impacts and Mitigation Measures**

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
		<p>If subsequent investigations result in the recording of prehistoric archeological sites that cannot be avoided and preserved, and the importance of the cultural deposits cannot be determined from surface evidence, then subsurface testing programs shall take place to make such determinations. Testing procedures shall be designed to specifically determine the boundaries of sites, the depositional integrity, and the cultural importance of the resources, as per CEQA criteria. These investigations shall be conducted by qualified professionals knowledgeable in regional prehistory. The testing programs shall be conducted within the context of appropriate research considerations and shall result in detailed technical reports that define the exact disturbance implications for important resources and present comprehensive programs for addressing such disturbances. Measures similar to the ones described below would also apply:</p> <ul style="list-style-type: none"> <li>• Avoidance of an archaeological site through modification of the roadway plan line that would allow for the preservation of the resource</li> <li>• Covering or “capping” sites with a protective layer of fill; this could be a good way of mitigating situations where public access may be increased as a result of development. Archaeological monitoring during the filling process would be recommended</li> </ul>	
<p><b>Legend:</b> (S) Significant Adverse Impact      (SU) Significant, Unavoidable Adverse Impact      (PS) Potentially Significant Adverse Impact      (LS) Less-Than-Significant Adverse Impact</p>			

**Table 1-1  
Sonoma Mountain Village Project DEIR Summary of Impacts and Mitigation Measures**

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
		<p>In circumstances where archaeological deposits cannot be preserved through avoidance or capping, data recovery through excavation would be the alternative. This measure would consist of excavating those portions of the site(s) that would be adversely affected. The work shall be accomplished within the context of detailed research and in accordance with current professional standards. The program should result in extraction of sufficient volumes of archaeological data so that important regional research considerations can be addressed. The excavation should be accomplished by qualified professionals and detailed technical reports should result.</p> <p>In considering subsurface testing and excavations of prehistoric archaeological sites, consultation with the local Native American community is essential; all aspects of the programs, including the treatment of cultural materials and particularly the removal, study and reinternment of Native American burials shall be addressed. All applicable State and local legal requirements concerning these issues shall be strictly adhered to.</p>	
<p><b>Impact Criterion #4, Human Remains: Would the project disturb any human remains, including those interred outside of formal cemeteries?</b></p>			
<p><u>Impact 3.4-2</u> It is possible, given the record of prehistoric use of the project area, that excavation or grading for the project could disturb human remains interred outside of formal cemeteries. This would be a potentially significant impact.</p>	(PS)	<p><u>Mitigation Measure 3.4-2</u> If human remains are discovered during any phase of project construction, all ground-disturbing activities within 50 feet of the remains shall be halted and the County coroner notified immediately. If the remains are determined by the County coroner to be Native American, the Native American Heritage Commission (NAHC) shall be notified within 24 hours, and the guidelines of the</p>	(LS)
<p><b>Legend:</b> (S) Significant Adverse Impact</p>	<p>(SU) Significant, Unavoidable Adverse Impact</p>	<p>(PS) Potentially Significant Adverse Impact</p>	<p>(LS) Less-Than-Significant Adverse Impact</p>

**Table 1-1  
Sonoma Mountain Village Project DEIR Summary of Impacts and Mitigation Measures**

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
		<p>NAHC shall be adhered to in the treatment and disposition of the remains. The project sponsor shall also retain a professional archaeologist with Native American burial experience to conduct a field investigation of the specific discovery site and consult with the Most Likely Descendant, if any, identified by the NAHC. As necessary, the archaeologist may provide professional assistance to the Most Likely Descendant, including excavation and removal of the human remains taking into account the provisions of State law, as set forth in CEQA Guidelines section 15064.5(e) and Public Resources Code section 5097.98, to the satisfaction of the City of Rohnert Park Planning Department. Mitigation Measure 3.4-3 shall be implemented prior to the resumption of ground-disturbing activities within 50 feet of where the remains were discovered.</p>	

### 3.5 Geology and Soils

No significant adverse project impacts are identified with respect to geology and soils. Buildings and facilities for human occupancy in Rohnert Park are required to be sited and designed in accordance with appropriate geotechnical and seismic guidelines and recommendations consistent with the Building Code. Adherence to relevant plans, codes, and regulations as required with respect to project design and construction would provide adequate levels of safety for the geotechnical and soils conditions at the site.

<b>Legend:</b>	(S) Significant Adverse Impact	(SU) Significant, Unavoidable Adverse Impact	(PS) Potentially Significant Adverse Impact	(LS) Less-Than-Significant Adverse Impact
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**Table 1-1  
Sonoma Mountain Village Project DEIR Summary of Impacts and Mitigation Measures**

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation	
<b>3.6 Hazards and Hazardous Materials</b>				
<b>Impact Criterion #2, Hazardous Materials Accidents: Would the project create a significant hazard to the public or the environment through reasonably-foreseeable upset and accident conditions involving the release of hazardous materials into the environment?</b>				
<u>Impact 3.6-1</u> Project construction activities could disturb any unknown or remaining contaminated areas in the surface and/or subsurface soils and inadvertently expose construction workers or the environment to a health risk. Based on the findings of the Phase I Site Assessments and regulatory file reviews as described in this EIR, this adverse impact is considered potentially significant.	(PS)	<u>Mitigation Measure 3.6-1</u> Prior to project grading, a Phase II Environmental Site Assessment shall be conducted in areas of known concern identified in the Phase I Environmental Site Assessment. These areas are near the chemical storage areas, near the existing diesel UST, near the historic diesel fuel spill site, near the nitrogen above ground storage tank and near the solvent pit tank. This investigation shall involve the collection and analysis of soil and groundwater samples. Sampling shall extend at least to depths proposed for site grading or excavation, and samples shall be tested for elevated levels of petroleum hydrocarbons, volatile organic compounds, or lead. This assessment shall be completed by a Registered Environmental Assessor, Registered Geologist, Professional Engineer, or similarly qualified individual prior to initiating any earth-moving activities at the project site. Soils with concentrations of hazardous substances above regulatory threshold limits shall be disposed of off-site in accordance with California hazardous waste disposal regulations (CCR Title 26) or shall be managed in place with approval of DTSC, Sonoma County of Public Health, or the Regional Water Quality Control Board (RWQCB).	(LS)	
<b>Legend:</b>	(S) Significant Adverse Impact	(SU) Significant, Unavoidable Adverse Impact	(PS) Potentially Significant Adverse Impact	(LS) Less-Than-Significant Adverse Impact



**Table 1-1  
Sonoma Mountain Village Project DEIR Summary of Impacts and Mitigation Measures**

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
		<p>In the event that residual or unknown contamination is visually discovered during site grading or excavation activities, further investigations shall be completed to verify the extent of contaminated soils and if any necessary remediation actions would be required. Because the contaminated materials could pose a potential health hazard to construction workers, if contaminated soil is confirmed, a comprehensive Site Safety and Health Plan would be required to keep occupational exposure within prescribed limits and to prevent the migration of contaminants beyond the site boundaries (a California Division of Occupational Safety and Health Administration requirement for work at hazardous waste sites).</p> <p>The plan would be prepared by a consultant specializing in the handling of hazardous materials in accordance with regulatory requirements and the Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities.<sup>4</sup> It would identify potential hazards, material handling procedures, dust suppression measures, necessary personal protective clothing and devices, and appropriate equipment. In addition to measures that protect on-site workers, the plan would include measures to minimize public exposure to contaminated soil or groundwater. Such measures would include dust control, appropriate site security, restriction of public access, perimeter air monitoring, posting of warning signs, and</p>	

<sup>4</sup> National Institute for Occupational Safety and Health, U.S. Occupational Health and Safety Administration, U.S. Coast Guard, and U.S. Environmental Protection Agency, *Occupational Safety and Health Guidance Manual for Hazardous Waste and Site Activities*, 1985.

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**Table 1-1  
Sonoma Mountain Village Project DEIR Summary of Impacts and Mitigation Measures**

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation	
<u>Impact 3.6-2</u>	(PS)	<p>would apply from the time of surface disruption throughout the completion of earthwork construction.</p> <p>If elevated levels of hazardous materials are detected, more effective dust control measures would need to be implemented including more frequent watering of excavated materials, or more frequent covering of material that is stockpiled at the point of excavation. If levels of detection at the construction site perimeter do not exceed allowable levels of exposure for workmen at the site, it is unlikely that pedestrians or other members of the general public would be subject to harmful exposures.</p> <p>The Safety and Health Plan would need to be implemented through the direction of a Site Safety Officer.</p>	(LS)	
<p>Structure and building component demolition, modification, and removal could disturb hazardous materials in the existing buildings proposed for adaptive reuse, resulting in increased risk of human or environmental exposure to hazardous materials. This would be a potentially significant impact.</p>		<u>Mitigation Measure 3.6-2</u>		
		<p>Prior to commencing the demolition, removal and/or remodeling or reconstruction of exterior or interior portions of existing buildings on the project site, the project sponsor shall retain a qualified environmental specialist (e.g., a Registered Environmental Assessor) to inspect the buildings. The specialist shall identify any asbestos, polychlorinated biphenyls, mercury, lead, or other hazardous materials present which would then be tested. If found at levels that would require special handling, these materials would need to be managed as required by law and according to federal and state regulations and guidelines, including those of the Bay Area Air Quality Management District, the California Division of Occupational Safety and Health Administration, and the California Department of Toxic</p>		
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Sonoma Mountain Village Project DEIR Summary of Impacts and Mitigation Measures**

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
Substances Control.			
<b>3.7 Hydrology and Water Quality</b>			
<b>Impact Criterion #3, Erosion/Siltation: 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 that would result in substantial erosion or siltation on or off site?</b>			
<u>Impact 3.7-1</u>	(PS)	<u>Mitigation Measure 3.7-1</u>	(LS)
Project implementation would result in site grading, drainage improvements, and development, thus increasing runoff potential that could contribute to erosion or siltation on or off site. This would be a potentially significant impact.		Prior to issuance of a grading permit, a Final Drainage Master Plan for all on- and off-site drainage facilities (including water quality facilities - BMPs) shall be prepared by the project sponsor and submitted to the City of Rohnert Park's Department of Public Works and the Community Development Department for review and approval. The Final Drainage Plan shall be prepared by a Registered Civil Engineer and shall be in conformance with the City of Rohnert Park Storm Drain Design Standards, Municipal Code 16.16.020 C. Storm Drains and General Plan goals and policies in Section 7.2 Drainage, Erosion, Stormwater, and Flooding and Section 6.3 Water Quality. The Final Drainage Plan shall include a comparative analysis of stormwater runoff peak flow rate and volume from the site for flow events important to stream geomorphology conditions and flood flow conveyance. The Final Drainage plan shall be prepared in accordance with the SCWA and SUSUMP Design Standards and shall include design measures and BMPs that demonstrate that peak flows from under project buildout conditions would not result in a net increase over pre-development conditions in either a 2 year or 10 year storm event. The Final Drainage Plan shall include at a minimum, written text addressing existing conditions, the	
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**Table 1-1  
Sonoma Mountain Village Project DEIR Summary of Impacts and Mitigation Measures**

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
		<p>effects of project improvements, all appropriate calculations, a watershed map, potential increases in downstream flows and volumes, proposed on-site and off-site improvements, on-site water quality facilities, effectiveness of water quality BMPs, operation and maintenance responsibilities, inspection schedules, reporting requirements and shall include specifics regarding the timing of implementation. Grading permits shall be issued following City approval of the proposed Final Drainage Plan. Prior to issuance of a grading permit, a Final Drainage Master Plan for all on- and off-site drainage facilities (including water quality facilities - BMPs) shall be prepared by the project sponsor and submitted to the City of Rohnert Park's Department of Public Works and the Community Development Department for review and approval. The Final Drainage Plan shall be prepared by a Registered Civil Engineer and shall be in conformance with the City of Rohnert Park Storm Drain Design Standards, Municipal Code 16.16.020 C. Storm Drains and General Plan goals and policies in Section 7.2 Drainage, Erosion, Stormwater, and Flooding and Section 6.3 Water Quality. The Final Drainage Plan shall include a comparative analysis of stormwater runoff peak flow rate and volume from the site for flow events important to stream geomorphology conditions and flood flow conveyance. The Final Drainage plan shall be prepared in accordance with the SCWA and SUSUMP Design Standards and shall include design measures and BMPs that demonstrate that peak flows from under project buildout conditions would not result in a net increase over pre-development conditions in</p>	
<p><b>Legend:</b> (S) Significant Adverse Impact (SU) Significant, Unavoidable Adverse Impact (PS) Potentially Significant Adverse Impact (LS) Less-Than-Significant Adverse Impact</p>			

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Sonoma Mountain Village Project DEIR Summary of Impacts and Mitigation Measures**

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation	
		<p>either a 2 year or 10 year storm event. The Final Drainage Plan shall include at a minimum, written text addressing existing conditions, the effects of project improvements, all appropriate calculations, a watershed map, potential increases in downstream flows and volumes, proposed on-site and off-site improvements, on-site water quality facilities, effectiveness of water quality BMPs, operation and maintenance responsibilities, inspection schedules, reporting requirements and shall include specifics regarding the timing of implementation. Grading permits shall be issued following City approval of the proposed Final Drainage Plan. The Drainage Plan shall be coordinated in its development with the Water Quality Management Plan to maximize the efficiency of BMPs for both stormwater detention and water quality treatment.</p>		
<p><b>Impact Criterion #6, Stormwater Pollutants: Would the project introduce typical stormwater pollutants into ground or surface waters?</b></p>				
<p><u>Impact 3.7-2</u></p>	(PS)	<p><u>Mitigation Measure 3.7-2(a)</u></p>	(LS)	
<p>Project implementation would alter land uses and increase the amount of typical stormwater pollutants into surface water and potentially groundwater. This would be a potentially significant impact.</p>		<p><i>Water Quality Management Plan with Targeted Pollutant Removal Rates.</i> The project sponsor shall prepare and implement a site-specific Water Quality Management Plan (WQMP) with Best Management Practices (BMPs) targeted to reduce post-construction pollutant loads by the values listed in Table 3.7-4a and Table 3.7-4b, Scenario 1 or Scenario 2, depending upon the final drainage and storage designs.</p> <p>This WQMP shall identify specific stormwater BMPs for reducing potential pollutants in stormwater runoff. Each BMPs or suite of BMPs shall be selected to target removal</p>		
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Sonoma Mountain Village Project DEIR Summary of Impacts and Mitigation Measures**

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation	
		<p>rates equal to at least the “Required Load Reduction for LTS” values in Table 3.7-5a and Table 3.7-5b Scenario 1 (no water quantity controls), or Scenario 2 (water quantity controls), depending upon the final drainage and storage designs. BMP location, size, design and operation criteria, and pollutant removal rates expected shall be referenced, documented, and incorporated into the WQMP. The WQMP must be approved by a qualified engineer or stormwater management professional of the Rohnert Park Public Works Department prior to the beginning of grading and/or construction activities.</p> <p>The WQMP shall include the following BMPs along with selected BMPs to target pollutant removal rates:</p> <ul style="list-style-type: none"> <li>• Waste and materials storage and management (design and construction of outdoor materials storage areas and trash and waste storage areas, if any, to reduce pollutant introduction).</li> <li>• Spill prevention and control.</li> <li>• Slope protection.</li> <li>• Water efficient irrigation practices (Municipal Code 14.52 Water Efficient Landscape; water efficient guidelines and Conceptual Landscape Plan).</li> <li>• Permanent erosion and sediment controls (e.g., hydroseeding, mulching, surface covers).</li> <li>• Routine source control BMPs and activity restrictions to prevent the introduction of pollutants to stormwater runoff. These shall include street sweeping practices, landscape management practices, other operations and maintenance practices,</li> </ul>		
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Sonoma Mountain Village Project DEIR Summary of Impacts and Mitigation Measures**

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation	
		<p>tenant/owner use restrictions, and others. Conditions, Covenants, and Restrictions (CCRs) or lease restrictions shall be defined and implemented as part of deed restrictions or lease agreements. The project sponsor shall prepare the CCRs and lease restrictions and shall be responsible for tenant/home owner education and enforcement of restrictions until such responsibilities are formally transferred to a Property Owners' Association (POA) or similar authority.</p> <p>The project sponsor is encouraged to consider the following BMPs:</p> <ul style="list-style-type: none"> <li>• Minimize directly connected impervious area, including: pervious concrete or other pervious pavement for parking areas (e.g., turf block), pervious pavement for paths and sidewalks, and direction of rooftop runoff to pervious areas.</li> <li>• Incorporation of rain gardens or cisterns to reuse runoff for landscape irrigation.</li> <li>• Wet vaults for subsequent landscape irrigation.</li> <li>• Sand filters for parking lots and rooftop runoff.</li> <li>• Frequent and routine street and parking lot sweeping.</li> <li>• Media filter devices for roof top drain spouts (including proprietary devices).</li> <li>• Biofiltration devices (bioretention features, swales, filter strips, and others).</li> <li>• Drain inlet filters.</li> </ul>		
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Sonoma Mountain Village Project DEIR Summary of Impacts and Mitigation Measures**

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation	
		<ul style="list-style-type: none"> <li>• Pet waste stations.</li> </ul> <p>Unless sufficient objective studies and review are available and supplied with the WQMP to correctly size devices and to document expected pollutant removal rates the WQMP shall not include:</p> <ul style="list-style-type: none"> <li>• Hydrodynamic separator type devices as a BMP for removing any pollutant except trash and gross particulates.</li> <li>• Oil and Grit separators.</li> </ul> <p>The WQMP shall not include infiltration BMPs unless they comply with design guidelines and requirements specified in TC-1: Infiltration Basins in the <i>California Stormwater Quality Association Stormwater Quality BMPs Handbook for New Development and Significant Redevelopment (2003)</i> and shall meet NPDES Phase 2 General Permit Attachment D minimum requirements including adequate maintenance, and that the vertical distance from the base of any infiltration device to the seasonal high groundwater mark shall be at least 10 feet. Furthermore, prior to infiltration, stormwater should be pre-treated through a system such as a biofilter to minimize potential groundwater pollution.</p> <p>The WQMP shall also identify the responsible party for operations and maintenance of structural BMPs and implementation of non-structural BMPs and compliance with any management or monitoring plans. The responsible party, project sponsor, or POA shall prepare an annual report to the City of Rohnert Park documenting the BMP operations and maintenance activities,</p>		
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Sonoma Mountain Village Project DEIR Summary of Impacts and Mitigation Measures**

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
		<p>implementation of routine source control BMPs, and compliance with any management and monitoring plans. The City of Rohnert Park or their designee shall review the annual reports for compliance with the WQMP and implement enforcement actions as necessary.</p> <p>During the design review process, a qualified stormwater management professional shall review and approve site plans for assuring the effectiveness of stormwater quality BMPs in removing pollutants according to the target pollutant removal rate guidelines noted in Table 3.7-4a and Table 3.7-4b. BMPs will be installed and maintained as stipulated in the City of Rohnert Park SWMP and NPDES Phase 2 General Permit.</p> <p><u>Mitigation Measure 3.7-2(b)</u> <i>Chemical Application Management Plan.</i> The project sponsor shall prepare and implement a site-specific Chemical Application Management Plan for both public and private properties to control pesticide and nutrient applications within the proposed project area, including identification of the responsible party for ensuring implementation of the Chemical Application Management Plan, and its incorporation into the WQMP. The Chemical Application Management Plan shall provide guidelines and rates for chemical controls and applications within the Sonoma Mountain Village project area. The emphasis on the Chemical Application Management Plan shall be to minimize use through the correct application and use of chemicals less likely to migrate to the aquatic environment.</p>	

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Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
		<p>Synthetic, quick-release fertilizer use shall be restricted through homeowners' associations and leasing agreements. Compost and naturally-derived fertilizers shall be encouraged and slow-release synthetic fertilizers shall be allowed, but their use shall not be encouraged.</p> <p>Pesticide use shall be restricted and label requirements followed. Diazinon use shall not be allowed. The Chemical Application Management Plan shall include homeowner education and guidance to prevent misuse and overuse of pesticides and chemicals.</p> <p>All public area and homeowner association landscape maintenance personnel shall be properly trained in the Chemical Application Management Plan and shall have an appropriate applicator license for restricted-use chemicals that might be applied.</p> <p>Pool and spa treatment methods, chemicals, and drainage restrictions, based on preferred treatment and procedures that minimize environmental degradation shall be incorporated into homeowner association and leasing agreements.</p> <p>Informational guidance and restrictions associated with the Chemical Application Management Plan shall be supplied to homeowners and tenants.</p>	

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**Table 1-1  
Sonoma Mountain Village Project DEIR Summary of Impacts and Mitigation Measures**

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
<b>Impact Criterion #9, Water Quality: Would the project alter groundwater or surface water quality, temperature, dissolved oxygen, or turbidity?</b>			
<u>Impact 3.7-3</u>		<u>Mitigation Measure 3.7-3</u>	
Implementation and operation of the proposed project could adversely alter surface water quality, temperature, dissolved oxygen, and turbidity. This would be a potentially significant impact.	(PS)	<p><i>Water Temperature Management Measures.</i> Water temperature mitigation for the proposed project shall be implemented using one of the following management measures:</p> <ul style="list-style-type: none"> <li>• Stormwater runoff storage may be located in below-ground storage devices where feasible to minimize potential heating during storage.</li> <li>• Any surface water storage area for stormwater may be shaded by trees (preferred) or artificial shading.</li> <li>• Water conservation shall be practiced to limit the amount of stored water or “nuisance” (uncontrolled) runoff water from entering the storm drain systems. Homeowners’ Association and leasing agreements shall include restrictions on water use activities that cause or contribute to nuisance flows.</li> <li>• Discharge water temperature monitoring shall be periodically conducted in accordance with a Temperature Monitoring Plan prepared by the project sponsor in consultation with the City of Rohnert Park and the RWQCB. Temperature Monitoring Plan shall be approved by the City of Rohnert Park prior to issuance of a Certificate of Occupancy. Results of the Temperature Monitoring Plan shall be reported annually to the City of Rohnert Park and RWQCB. If project site discharges are determined to have the potential to substantially</li> </ul>	(LS)
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Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
		<p>affect in-stream water temperatures, by either the City of Rohnert Park or the RWQCB, the project sponsor shall consult with the RWQCB, SCWA, and City of Rohnert Park to develop a riparian restoration plan to restore riparian vegetation and trees along a portion or portions of the affected stream. Riparian vegetation would serve to provide shade and mitigate potential increases in water temperature. The City- and RWQCB-approved Temperature Monitoring Plan shall be incorporated into the WQMP.</p> <p>The final determination of the appropriate water temperature management implementation measure will be made by the project sponsor and approved by City staff prior to submittal of final grading plans.</p>	

**3.8 Land Use**

No significant adverse land use impacts are identified with respect to the proposed Sonoma Mountain Village project.

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**Table 1-1  
Sonoma Mountain Village Project DEIR Summary of Impacts and Mitigation Measures**

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation	
<b>3.9 Noise</b>				
<b>Impact Criterion #1, Noise Standards: Would the project expose persons to, or generate noise levels in excess of, standards established in the General Plan or noise ordinance, or applicable standards of other agencies?</b>				
<u>Impact 3.9-1</u>		<u>Mitigation Measure 3.9-1</u>		
Residential uses fronting Camino Colegio (between Manchester Avenue and Mitchell Drive) and residential uses fronting East Railroad Avenue east of Old Redwood Highway would be exposed to exterior traffic noise levels that exceed City standards. This would be a potentially significant impact for residences fronting Camino Colegio and a significant and unavoidable impact for residences fronting East Railroad Avenue.	(PS/SU)	Construct a seven- to eight-foot-high solid concrete/masonry wall along the property line facing Camino Colegio between Manchester Avenue and Mitchell Drive. This would reduce Impact 3.9-1 for residents along Camino Colegio to a less-than-significant level. No mitigation measure is available to reduce the noise impact for residences facing East Railroad Avenue.	(LS/SU)	
<b>Impact Criterion #2, Groundborne Vibration/Noise: Would the project expose persons to or generate excessive ground-borne vibration levels?</b>				
<u>Impact 3.9-2</u>		<u>Mitigation Measure 3.9-1</u>		
Project construction would impact future residents		The project sponsor shall inform future on-site residents of the possibility of disruption of sleep due to vibration from ongoing on-site construction activity associated with project development.	(LS)	
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Sonoma Mountain Village Project DEIR Summary of Impacts and Mitigation Measures**

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation	
<b>Impact Criterion #3, Ambient Noise Levels: Would the project cause substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?</b>				
<u>Impact 3.9-2</u> Residential uses fronting Camino Colegio (between Manchester Avenue and Mitchell Drive) and East Railroad Avenue east of Old Redwood Highway could be exposed to permanent increases in exterior traffic noise levels above accepted standards. This would be a potentially significant impact for residences fronting Camino Colegio and a significant unavoidable impact for residences fronting East Railroad Avenue.	(PS/SU)	<u>Mitigation Measure 3.9-2</u> Implement Mitigation Measure 3.9-1 to ensure that exterior noise levels in the backyards of the homes located along Camino Colegio between Manchester Avenue and Mitchell Drive do not increase substantially. This would reduce the incremental impact to the residences along Camino Colegio to a less-than-significant level. No mitigation measure is available to reduce the noise impact for residences facing East Railroad Avenue.	(LS/SU)	
<b>Impact Criterion #4, Ambient Noise Levels: Would the project cause a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?</b>				
<u>Impact 3.9-3</u> Construction activities associated with Sonoma Mountain Village could generate substantial temporary or periodic increases in noise levels potentially annoying residents. This would be a potentially significant impact.	(PS)	<u>Mitigation Measure 3.9-3</u> Reduce noise levels associated with construction activities and heavy-duty construction equipment. The project contractor(s) shall implement measures to reduce noise levels generated by construction equipment operating at the project site during project grading and construction phases. The project sponsor shall include in construction contracts the following requirements or measures shown to be equally effective: <ul style="list-style-type: none"> <li>• Stationary construction equipment that generates noise levels in excess of 65 dBA <math>L_{eq}</math> shall be located as far away from existing residential areas as possible. If required to minimize potential noise conflicts, the equipment shall be shielded from noise sensitive receptors by using temporary walls, sound</li> </ul>	(LS)	
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Sonoma Mountain Village Project DEIR Summary of Impacts and Mitigation Measures**

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
Future cumulative increases in exterior noise levels at existing residential uses facing East Cotati Avenue would exceed the applicable City of Cotati standards of 65 dBA Ldn. Cumulative traffic would likely cause interior noise levels in some of the closest and oldest of the residential units along East Cotati Avenue to increase further above the 45 dBA L <sub>dn</sub> standards set by Title 24 and the City of Cotati.	S	<p>curtains, or other similar devices</p> <ul style="list-style-type: none"> <li>• Heavy-duty vehicle storage and start-up areas shall be located a minimum of 150 feet from occupied residences where feasible</li> <li>• An information sign shall be posted at the entrance to each construction site that identifies the permitted construction hours and provides a telephone number to call and receive information about the construction project or to report complaints regarding excessive noise levels</li> <li>• The project sponsor shall inform future on-site residents of the possibility of noise disruption due to ongoing construction activity associated with project development.</li> </ul> <p>Implement Project-Specific mitigation (see above).</p>	SU

**3.10 Planning Policy and Relationship to Plans**

The proposed Sonoma Mountain Village project has been found to be generally consistent with the Goals and Policies of the Rohnert Park General Plan. The project application includes a request for specified General Plan Amendments. The General Plan Amendments include graphic and text changes including but not limited to the General Plan Diagram: a change in the site designation from “Industrial” to “Mixed Use,” “Public/Institutional”, and “Parks/ Recreation” in accordance with the Final Development Plan.

If approved by the City Council, the Rohnert Park General Plan Diagram would be amended to include the Sonoma Mountain Village plan project site and change the General Plan Diagram to more accurately reflect the configuration of land uses (road layout, and size and configuration of the Residential,

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Mixed Use, Office, Commercial, Public/Institutional, Parks and Open Space land uses) as represented within the Final Development Plan text and graphic. These adjustments would not reflect any substantive departure from existing general plan goals and policies, but would further the existing goals and policies by providing greater land use specificity and an updating of the General Plan Diagram to be consistent with any approvals of the Sonoma Mountain Village project.				
<b>3.11 Population and Housing</b>				
Impact 3.11-1 Development of the proposed project would directly generate an unanticipated residential population increase within the City of Rohnert Park.	S	None available.	SU	
<b>3.12 Public Services</b>				
No significant adverse public services impacts are identified with respect to the proposed Sonoma Mountain Village project.				
<b>3.13 Traffic and Circulation</b>				
<b>Impact Criterion #1, Traffic Volumes and Level of Service (LOS): Would the project cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system?</b>				
<b>Intersection Impact Analysis (Baseline + Project Conditions)</b>				
<u>Impact 3.13-1</u> Under Baseline Conditions, the addition of project traffic would cause LOS to degrade, and delay to reach unacceptable levels at the Petaluma Hill Road/East Railroad Avenue intersection (Sonoma County jurisdiction) during both AM and PM peak hours. As a direct result of the addition of project traffic, the intersection would meet the requirements of the MUTCD Peak Hour Volume Signal Warrant. This would be a significant impact.	(S)	<u>Mitigation Measure 3.13-1</u> As the Petaluma Hill Road/East Railroad Avenue intersection would meet the requirements of the MUTCD Peak Hour Volume Signal Warrant after project trips have been added, signalization of this intersection is required. The signal shall be built to current Sonoma County standards. After implementation of this measure, the intersection would operate at an acceptable LOS B during both peak hours.	(LS)	
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Sonoma Mountain Village Project DEIR Summary of Impacts and Mitigation Measures**

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
<p><u>Impact 3.13-2</u> Under Baseline Conditions, the addition of project traffic would cause unacceptable LOS at the Petaluma Hill Road/Adobe Road intersection (Sonoma County jurisdiction) during the PM peak hour. This would be a significant impact.</p>	(S)	<p><u>Mitigation Measure 3.13-2</u> As acknowledged in the Rohnert Park General Plan, traffic congestion presently exists in the Penngrove community at the Petaluma Hill Road/Adobe Road intersection during AM and PM peak hours. The buildout of the Rohnert Park General Plan would result in additional traffic in this area. One design solution at the Petaluma Hill Road/Adobe Road intersection would be to widen and reconfigure the intersection. The northbound approach could be reconfigured to include one shared through-left turn lane, and one shared through-right turn lane. The eastbound approach could be reconfigured to include a left-turn lane and a shared through-right turn lane. The westbound approach could be reconfigured to include a shared through-left turn lane, and an overlapped right-turn lane. It should be noted that although limited pedestrian facilities are available, pedestrian conditions are of utmost concern at this intersection; especially considering that there is a school located at the northwest corner of the intersection. Thus, the right-of-way acquisition required to complete the necessary widening would need to include space for full pedestrian facilities.</p>	(SU)

**Legend:** (S) Significant Adverse Impact      (SU) Significant, Unavoidable Adverse Impact      (PS) Potentially Significant Adverse Impact      (LS) Less-Than-Significant Adverse Impact

**Table 1-1  
Sonoma Mountain Village Project DEIR Summary of Impacts and Mitigation Measures**

<b>Impacts</b>	<b>Impact Significance without Mitigation</b>	<b>Mitigation Measures</b>	<b>Impact Significance with Mitigation</b>
<p><u>Impact 3.13-3</u> Under Baseline Conditions, the addition of project traffic would cause LOS to degrade, and delay to reach unacceptable levels at the Old Redwood Highway/East Railroad Avenue intersection (Sonoma County jurisdiction) during the PM peak hour. As a direct result of the addition of project traffic, the intersection would meet the requirements of the MUTCD Peak Hour Volume Signal Warrant. This would be a significant impact.</p>	(S)	<p><u>Mitigation Measure 3.13-3</u> As the Old Redwood Highway/East Railroad Avenue intersection would meet the requirements of the MUTCD Peak Hour Volume Signal Warrant after project trips have been added, signalization of this intersection is required. The signal would subject to current Sonoma County standards. Implementation of this measure would allow the intersection to operate at an acceptable LOS B during the PM peak hour.</p>	(SU)
<p><u>Impact 3.13-4</u> Under Baseline Conditions, the addition of project traffic would cause unacceptable LOS at the Old Redwood Highway/East Cotati Avenue intersection (City of Cotati jurisdiction) during the PM peak hour. This would be a significant impact.</p>	(S)	<p><u>Mitigation Measure 3.13-4</u> One design solution at the Old Redwood Highway/East Cotati Avenue intersection would be to reconfigure the southbound and westbound approaches to the intersection (without widening), and updated the traffic signal phasing. The southbound through lane shall be reconfigured into a shared through-left turn lane, and the northbound-southbound signal phasing shall be changed from protected phasing to split phasing. The westbound through-right turn lane shall be reconfigured into an exclusive right turn lane. This reconfigured right turn lane shall be overlapped with the southbound split phase.</p>	(SU)
<p><u>Impact 3.13-5</u> Under Baseline Conditions, the addition of project traffic would cause unacceptable LOS at the LaSalle Avenue/East Cotati Avenue intersection (City of Cotati jurisdiction) during the PM peak hour. With and without the addition of project traffic, the intersection would meet the requirements of the MUTCD Peak Hour Volume Signal Warrant. This would be a significant impact.</p>	(S)	<p><u>Mitigation Measure 3.13-5</u> As the LaSalle Avenue/East Cotati Avenue intersection would meet the requirements of the MUTCD Peak Hour Volume Signal Warrant with and without the addition of project trips, signalization of this intersection is required. Implementation of this measure would improve intersection operations to an acceptable LOS B during the PM peak hour.</p>	(SU)
<p><b>Legend:</b> (S) Significant Adverse Impact (SU) Significant, Unavoidable Adverse Impact (PS) Potentially Significant Adverse Impact (LS) Less-Than-Significant Adverse Impact</p>			

**Table 1-1  
Sonoma Mountain Village Project DEIR Summary of Impacts and Mitigation Measures**

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
<b>Intersection Impact Analysis (Cumulative + Project Conditions)</b>			
<p><u>Impact 3.13-6</u> Under Cumulative Conditions, the addition of project traffic would cause LOS to degrade, and delay to reach unacceptable levels at the Petaluma Hill Road/East Railroad Avenue intersection (Sonoma County jurisdiction) during both AM and PM peak hours. As a direct result of the addition of project traffic, the intersection would meet the requirements of the MUTCD Peak Hour Volume Signal Warrant. This would be a significant impact.</p>	(S)	<p><u>Mitigation Measure 3.13-6</u> To mitigate the project’s contribution to the Cumulative impact at the Petaluma Hill Road/East Railroad Avenue intersection, Mitigation Measure 3.13-1 shall be implemented. This mitigation measure shall signalize the Petaluma Hill Road/East Railroad Avenue intersection. However, it should be noted that although the implementation of Mitigation Measure 3.13-1 would mitigate the project’s contribution to the Cumulative impact, the intersection would continue to operate at unacceptable conditions due to cumulative development.</p>	(SU)
<p><u>Impact 3.13-7</u> Under Cumulative Conditions, the addition of project traffic would cause delay to reach unacceptable levels at the Petaluma Hill Road/Adobe Road intersection (Sonoma County jurisdiction) during both peak hours. This would be a significant impact.</p>	(S)	<p><u>Mitigation Measure 3.13-7</u> To restore acceptable operating conditions at the Petaluma Hill Road/Adobe Road intersection, Mitigation Measure 3.13-2 shall be implemented.</p>	(SU)
<p><u>Impact 3.13-8</u> Under Cumulative Conditions, the addition of project traffic would cause delay to reach unacceptable levels at the Old Redwood Highway/U.S. 101 Ramps intersection (City of Petaluma jurisdiction) during the PM peak hour. This would be a significant impact.</p>	(S)	<p><u>Mitigation Measure 3.13-8</u> In order to mitigate transportation impacts at the Old Redwood Highway/US 101 ramp intersection proposes to widen the westbound approach (U.S. 101 northbound off-ramp) to include an additional right turn lane.</p>	(SU)
<p><b>Legend:</b> (S) Significant Adverse Impact      (SU) Significant, Unavoidable Adverse Impact      (PS) Potentially Significant Adverse Impact      (LS) Less-Than-Significant Adverse Impact</p>			

**Table 1-1  
Sonoma Mountain Village Project DEIR Summary of Impacts and Mitigation Measures**

<b>Impacts</b>	<b>Impact Significance without Mitigation</b>	<b>Mitigation Measures</b>	<b>Impact Significance with Mitigation</b>
<u>Impact 3.13-9</u> Under Cumulative Conditions, the addition of project traffic would cause delay to reach unacceptable levels at the Old Redwood Highway/East Railroad Avenue intersection (Sonoma County jurisdiction) during the PM peak hour. This would be a significant impact.	(S)	<u>Mitigation Measure 3.13-9</u> To mitigate the project’s contribution to the Cumulative impact at the Old Redwood Highway/ East Railroad Avenue intersection, Mitigation Measure 3.13-3 shall be implemented. This mitigation measure would signalize the intersection.	(SU)
<u>Impact 3.13-10</u> Under Cumulative Conditions, the addition of project traffic would cause delay to reach unacceptable levels at the Old Redwood Highway/East Cotati Avenue intersection (City of Cotati jurisdiction) during both peak hours. This would be a significant impact.	(S)	<u>Mitigation Measure 3.13-10</u> To restore acceptable operating conditions at the Old Redwood Highway/East Cotati Avenue intersection, Mitigation Measure 3.13-4 shall be implemented.	(SU)
<u>Impact 3.13-11</u> Under Cumulative Conditions, the addition of project traffic would cause delay to reach unacceptable levels at the LaSalle Avenue/East Cotati Avenue intersection (City of Cotati jurisdiction) during the PM peak hour. This would be a significant impact.	(S)	<u>Mitigation Measure 3.13-11</u> To mitigate the project’s contribution to the Cumulative impact at the Old Redwood Highway/East Railroad Avenue intersection, Mitigation Measure 3.13-5 would be implemented. This mitigation measure would signalize the intersection.	(SU)
<b>Freeway Segment Impact Analysis (Baseline + Project Conditions)</b>			
<u>Impact 3.13-12</u> Under Baseline Conditions, the addition of project traffic would cause the U.S. 101 freeway segment north of Rohnert Park Expressway and the segment between Washington Street and Petaluma Boulevard to operate at unacceptable conditions during both peak hours. This would be a significant and unavoidable impact.	(S)	<u>Mitigation Measure 3.13-12</u> To mitigate the project’s impact along U.S. 101, the project sponsor shall contribute funding to the proposed Marin-Sonoma Narrows HOV 101 Widening Project. The City of Rohnert Park shall cooperate with the appropriate agencies to determine a fair-share portion of funds to improve freeway operation, and if deemed appropriate, collect a fair-share allocation from the developers of the Sonoma Mountain Village Project. Also, future residents	(SU)
<b>Legend:</b>	(S) Significant Adverse Impact	(SU) Significant, Unavoidable Adverse Impact	(PS) Potentially Significant Adverse Impact
			(LS) Less-Than-Significant Adverse Impact

**Table 1-1  
Sonoma Mountain Village Project DEIR Summary of Impacts and Mitigation Measures**

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation	
<b>Freeway Segment Impact Analysis (Cumulative + Project Conditions)</b>				
<u>Impact 3.13-13</u>				
Under Cumulative Conditions, the addition of project traffic would cause the U.S. 101 freeway segment north of Rohnert Park Expressway and the segment between Washington Street and Petaluma Boulevard to operate at unacceptable conditions during both AM and PM peak hours. This would be a significant impact.	(S)	<u>Mitigation Measure 3.13-13</u> To mitigate the project's impact along U.S. 101, the project sponsor shall contribute funding to the proposed Marin-Sonoma Narrows HOV 101 Widening Project. The City of Rohnert Park shall cooperate with the appropriate agencies to determine a fair-share portion of funds to improve freeway operation, and if deemed appropriate, collect a fair-share allocation from the developers of the Sonoma Mountain Village Project. Also, future residents and employees of the Project shall contribute to freeway projects through payment of Sonoma County's quarter-cent sales tax for transportation improvements.	(SU)	
<b>Construction Period Traffic</b>				
<u>Impact 3.13-14</u>				
During the construction period, temporary and intermittent traffic delays would result from truck movements as well as construction worker vehicles traveling to and from the project site. This construction-related traffic would result in a temporary reduction to the capacities of project area streets because of the slower movements and larger turning radii of construction trucks compared to passenger vehicles. Truck traffic that occurs during the peak commute hours (7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 6:00 p.m.) could result in worse levels of service and higher delays at local	(PS)	<u>Mitigation Measure 3.13-14</u> Prior to the issuance of each major building permit, the project sponsor and construction contractor shall develop a construction traffic management plan for review and approval by City staff. Construction traffic management strategies to reduce, to the maximum extent feasible, traffic congestion and the effects of parking demand by construction workers shall be provided for in the Plan, which shall include at least the following items and requirements: <ul style="list-style-type: none"><li>• A set of comprehensive traffic control measures,</li></ul>	(LS)	
<b>Legend:</b>	(S) Significant Adverse Impact	(SU) Significant, Unavoidable Adverse Impact	(PS) Potentially Significant Adverse Impact	(LS) Less-Than-Significant Adverse Impact

**Table 1-1  
Sonoma Mountain Village Project DEIR Summary of Impacts and Mitigation Measures**

<b>Impacts</b>	<b>Impact Significance without Mitigation</b>	<b>Mitigation Measures</b>	<b>Impact Significance with Mitigation</b>
<p>intersections than during off-peak hours. Also, parking of construction workers' vehicles would temporarily increase parking occupancy levels in the area. This would be a potentially significant impact.</p>		<p>including scheduling of major truck trips and deliveries to avoid peak traffic hours, detour signs if required, lane closure procedures, signs, cones for drivers, and designated construction access routes.</p> <ul style="list-style-type: none"> <li>• Notification procedures for adjacent property owners and public safety personnel regarding when major deliveries, detours, and lane closures would occur.</li> <li>• Location of construction staging areas for materials, equipment, and vehicles (shall be located on the project site).</li> <li>• Identification of haul routes for the movement of construction vehicles that would minimize impacts on vehicular and pedestrian traffic, circulation and safety.</li> <li>• Provisions for monitoring surface streets used for truck routes so that any damage and debris attributable to the trucks can be identified and corrected.</li> <li>• Subject to City review and approval, and prior to start of construction, a construction worker transportation demand management (TDM) program shall be implemented to encourage construction workers to carpool or use alternative transportation modes in order to reduce the overall number of vehicle trips associated with construction workers.</li> <li>• A process for responding to, and tracking, complaints pertaining to construction activities, including the identification of an onsite complaint manager.</li> </ul>	
<p><b>Legend:</b> (S) Significant Adverse Impact (SU) Significant, Unavoidable Adverse Impact (PS) Potentially Significant Adverse Impact (LS) Less-Than-Significant Adverse Impact</p>			

**Table 1-1  
Sonoma Mountain Village Project DEIR Summary of Impacts and Mitigation Measures**

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation	
<b>Impact Criterion #2, Hazards: Would the project generate hazards to safety from design features?</b>				
Impact 3.13-15 No internal traffic or circulation features have been identified as specific hazards with respect to vehicular, bicycle, and pedestrian safety.	(LS)	<u>Mitigation Measure 3.13-15</u> The project sponsor shall: <ul style="list-style-type: none"> <li>• Design all internal roadways in accordance with Fire Department standards; provide adequate Fire Department turning radii at all intersections;</li> <li>• Provide adequate access for trash collection vehicles;</li> <li>• Avoid dead-end streets, or provide a turnaround at any dead-end street terminus;</li> <li>• Minimize vehicle connections to Camino Colegio. Focus traffic on internal roadways to the two primary intersections;</li> <li>• Avoid acute angle intersections;</li> <li>• Avoid off-set intersections; and</li> <li>• Provide adequate sight distance at all intersections in accordance with City Public Works Department standards.</li> </ul>	(LS)	
Cumulative Development. A number of local intersections and US 101 would be impacted.	S	Implement Project-Specific mitigation (see above).	SU	
<b>3.14 Utilities and Service Systems</b>				
No significant adverse utilities and service systems impacts are identified with respect to the proposed Sonoma Mountain Village project.				
<b>3.15 Global Climate Change</b>				
No significant adverse global climate change impacts are identified with respect to the proposed Sonoma Mountain Village project.				
<b>Legend:</b>	(S) Significant Adverse Impact	(SU) Significant, Unavoidable Adverse Impact	(PS) Potentially Significant Adverse Impact	(LS) Less-Than-Significant Adverse Impact

## **Alternatives**

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The purpose of the discussion of alternatives is to focus on project solutions which may be capable of avoiding or substantially lessening any significant environmental effects of a project, even if those alternatives would impede to some degree the attainment of the project objectives or would be more costly. The range of alternatives is to include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects.

Among the factors that may be taken into account when addressing the feasibility of alternatives for inclusion in an EIR are site suitability, economic viability, availability of infrastructure, general plan consistency, or other plans or regulatory limitations, including jurisdictional boundaries. The significant effects of the alternatives are to be discussed, but in less detail than the significant effects of the project as proposed. The EIR addresses five project alternatives that attempt to mitigate potentially significant impacts generated by the project. The EIR will address the following project alternatives:

### **No Project/No Development Alternative**

Under CEQA, the No Project/No Development Alternative must consider the effects of foregoing the project. The purpose of analyzing the No Project/No Development Alternative is to allow decision-makers to compare the impacts of the proposed project versus no project. The No Project/No Development Alternative describes the environmental conditions that exist at the time that the environmental analysis is commenced (CEQA Guidelines, section 15126.6(e)(2)). Under the No Project/No Development Alternative, the industrial buildings, outbuildings, parking spaces, and grassland areas would remain and the site would not be developed. However, the continuation of current zoning would enable 700,000 sf of re-development for industrial uses. There would be no changes to the surrounding circulatory roads and there would be no internal infrastructure improvements.

Because no development would occur, no new environmental impacts would occur as a result of the No Project Alternative. However, the No Project alternative would not meet the project objectives to provide housing and job opportunities as identified in Chapter 2.

### **No Project/General Plan Buildout Alternative**

Under the No Project alternative, the project site would continue in its current zoning of Light Industrial and would be redeveloped as an industrial/office campus under the site's Limited Industrial zoning. The alternative would not add acres; however, it would increase existing building area and add more industrial space. Assuming expansion conditions would be met under this alternative, as originally projected by Hewlett-Packard, who owned the site before Agilent Technologies, there would be up to 8,000 workers under this alternative compared to about 1,700 workers for the project as proposed. There would be no introduction of new land uses to the project site consisting of residences, retail and commercial space, hotel, health club, space dedicated to civic building use, new park and recreation space. Accordingly, there would be a significant increase in daily worker in-commuting and



out-commuting compared to the project as proposed with increased traffic and noise impacts on the local street network. Because housing would not be provided under this alternative, workers would not be able to live on the project site. This would undermine one of the project goals of maintaining a jobs/housing balance that would reduce out-commuting. Additional site grading, building construction, provision of additional utility services to the project site, changes in site drainage or changes in visual conditions could be allowed consistent with the current zoning.

Because of the intensity of industrial development potential significant air quality, global climate change, noise, and traffic impacts could occur as a result of the No Project/General Plan Buildout Alternative. Efforts by the project sponsor to implement the objectives of creating a model of sustainable development, and reducing greenhouse gas emissions through incorporating energy efficiency and carbon reduction measures into the project may still occur, but would not be expected to be as successful for the project as proposed due to the high contribution of vehicular traffic to greenhouse gas emissions. No significant advantage from an environmental standpoint is identified for the No Project General Plan Buildout Alternative. In addition, the No Project/General Plan Buildout alternative would not meet the project objectives to provide a mixture of housing and job opportunities as identified in Chapter 2.

### **All Residential Development**

The All Residential Development alternative would include up to 2,100 single-family detached units developed in accordance with standard subdivision design. Under the All Residential Development, there would not be condominium/townhouse units, a shopping center, a hotel, a movie theater, a health club, or other commercial uses. Daily in- and out-commuting during the AM and PM peak hours would be proportionately less than the Sonoma Mountain Village project as proposed, which would lead to decreased traffic and noise on the local street network.

However, project operational activities would continue to generate emissions of ozone precursors and particulate matter that would exceed BAAMD quantitative emission thresholds. This alternative would avoid the significant unavoidable noise impacts respecting residences on East Railroad Avenue. With an approximate 30 percent decrease in traffic, the 3 dBA threshold increase in noise levels used to determine impact significance would not be exceeded. Even with decreased peak hour traffic, this alternative would not be expected to reduce the U.S. 101 peak hour impacts to a less-than-significant level.

### **Reduced Density Alternative**

Under the Reduced Density alternative, the project would be scaled back to the point where there would be no project-induced significant traffic impact on U.S. 101 service levels. Under this scenario, the project would contain 101 single-family units and 64,500 sq. ft. of office space with the project's civic and commercial/retail components remaining as proposed to serve the residents of Rohnert Park. This would be a reduction of 1,791 residential units and 218,993 sq. ft. of office space. Because of its reduced density and therefore reduced level of intensity of development, this alternative would also avoid the significant unavoidable noise impacts regarding residences on East Railroad Avenue. Because

this alternative retains the project's civic and commercial/retail components, the air quality emissions exceeding BAAQMD standards would still occur.

With development of the project site as envisioned in this alternative, as with the All Technology Campus and All Residential Development alternatives, other impacts requiring mitigation measures to reduce those impacts to less-than-significant levels as identified in this EIR would be expected, similar to the project as proposed, only to a lesser degree because of the reduced size of the project.

It is questionable as to whether the reduction in residential units to a total of 101 units coupled with existing residential development in the area would be able to support the civic and commercial/retail components of the project as originally envisioned (theater, health club, grocery, hotel, etc.).

### **High Density Residential/Open Space Alternative**

This alternative would also involve the conversion office uses to multi-family residential. Assuming an average residential unit size of 800 sf, the proposed Reduced Area Alternative would develop approximately 2,600 units and provide increased open space opportunities along the western boundary and along existing view corridors for the Sonoma Mountains. The remaining land uses, as identified in the project description would remain the same and would result in many of the same impacts related to construction and operation emissions, services and utilities, and transportation as described in Chapter 6. However, the impacts would be reduced when compared to the proposed project due to the increased residential density and area of the project, as well as the additional open space along the western boundary of the project and throughout portions of the lower 76.93 acres. The characteristics of the increased residential and the reduced office could reduce traffic and noise impacts associated with the operation of the project.

### **Environmentally Superior Alternative**

Under CEQA, an EIR is required to identify the environmentally superior alternative (see CEQA Guidelines, section 15126 (e)). If the environmentally superior alternative to a project is the "no project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives (CEQA Guidelines, section 15126.6 (e) (2)).

Among the alternatives considered and evaluated in this EIR, the environmentally superior alternative is the No Project/No Development Alternative, due to the lack of environmental impacts associated with this alternative. However the No Project/No Development Alternative does not achieve any of the project's objectives.

Taking into consideration the rest of the alternatives identified above, it is concluded the Reduced Density alternative is the Environmentally Superior Alternative. The Reduced Density alternative would avoid significant noise impacts projected to occur along East Railroad Avenue and would be sufficiently limited in size so as to avoid project induced Level of Service impacts anticipated for specified segments of U.S. 101. Among the other alternatives, the Reduced Density Alternative would

be the environmentally superior alternative in that it would reduce the identified impacts in the vicinity project site.

Additional alternatives were considered during the scoping process but were rejected due to their infeasibility. The complete analysis can be found in Chapter 6, Alternatives.

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## 1.4 PROJECT SCHEDULING

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The Sonoma Mountain Village project would be constructed over six phases and would require between 12 and 20 years to reach buildout. The project phasing schedule is included below in Table 1-2 below. Project construction would ultimately depend on the City’s implementation of the Growth Management Program of the *Rohnert Park Municipal Code*. The Program assures that the rate of population growth would not exceed the average annual growth rates established in the General Plan, with the objective of ensuring that new residential development and mixed-use developments with a residential component occurs concurrently with the necessary infrastructure and public service improvements, and maintain an average population growth rate of one percent per year. As result of the Growth Management Program, the jobs/housing rate per phase would be generally consistent with the overall jobs/housing rate for the project. Other factors influencing the rate of project buildout would include market conditions and the demand for housing, office, and commercial space in the Rohnert Park/central Sonoma County area.

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**Table 1-2  
Project Phasing**

Land Use	Phase 1A	Phase 1B	Phase 1C	Phase 1D	Phase 2	Phase 3
Acres	45.3	32.1	17.3	15.3	33.1	31.9
Single Family Residential	189	94	11	82	153	214
Second Dwelling Unit	44	28	0	8	61	57
Multi Family Residential	439	225	275	12	0	0
Total Residential	672	347	286	102	214	271
Office	285,978	0	10,000	130,000	0	
Retail/Grocery	149,224	1,667	35,910	1,666	1,667	1,667
Movie Theater	25,000	0	0		0	0
Promenade	11,528	0	0	0	0	0
Hotel	0	0	91,000	0	0	0
Daycare	15,000	0	0	0	0	0
Health Club	30,000	0	0	0	0	0
Civic	0	0	0	0	0	0
Total Nonresidential	516,730	1,667	136,910	131,666	36,667	1,667

*Source:* Sonoma Mountain Village LLC, 2009

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## 1.5 REQUIRED APPROVALS

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### City of Rohnert Park

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**Project EIR:** Further consideration regarding the Sonoma Mountain Village project would occur by City of Rohnert Park officials after certification of the Sonoma Mountain Village EIR. The EIR must be certified by the Rohnert Park City Council as complete and adequate under CEQA prior to further considering the project, General Plan amendments, and rezoning. The City will use the EIR in its decision making on requested project entitlements as well as development agreements, subdivision maps, and site-specific land use approvals.

**General Plan Amendments:** If approved by the City Council, the Rohnert Park General Plan Diagram would be amended to include the Sonoma Mountain Village plan project site and change the General Plan Diagram to more accurately reflect the configuration of land uses (road layout, and size and configuration of the Residential, Mixed Use, Office, Commercial, Public/Institutional, Parks and Open Space land uses) as represented within the Final Development Plan text and graphic. A detailed description of the proposed General Plan Amendments can be found in Appendix L.

**Rezoning:** The project would require a rezoning of the project site from “I-L” (Limited Industrial) to “P-D” (Planned Development), which is intended to accommodate a wide range of residential and commercial, land uses that are mutually supportive and compatible with existing and proposed development on surrounding properties. The project Final Development Plan proposes the “P-D” zoning via the SmartCode and Zoning/Regulating Plan. If adopted by the City of Rohnert Park as proposed, the Zoning/Regulating Plan and SmartCode text and graphic would become the public document which establishes the amount, type, and location of urban development to be permitted on the project site. The Zoning/Regulating Plan together with the SmartCode would become the guiding documents that provide the development standards and design guidelines for development within the project site area. The City of Rohnert Park would use the Zoning/Regulating Plan and SmartCode in conducting specific design review of the project and for conformance with the provisions of the General Plan as the various phases of the project are designed in detail

**Development Agreement:** The City Council would be responsible for approving a Development Agreement with the project sponsor, the purpose of which is to “encourage private participation in comprehensive planning, and reduce the economic costs of development.” In reviewing an application for a Development Agreement, the Planning Commission and City Council shall give consideration to the following factors: other approved projects; traffic and parking; public services; visual conditions and other impacts of a proposed project upon abutting properties; the ability of the project sponsor to fulfill public facilities financing plan obligations; the relationship of the project to the City's growth management program; the improvement of land accessible for public use; economic effects to the City; and its contribution to meeting the City's housing needs.

**Project Plan Review:** The project Final Development Plan proposes the “P-D” zoning via the SmartCode and Zoning/Regulating Plan. If adopted by the City of Rohnert Park as proposed, the

Zoning/Regulating Plan and SmartCode text and graphic would become the public document which establishes the amount, type, and location of urban development to be permitted on the project site. The Zoning/Regulating Plan together with the SmartCode would become the guiding documents that provide the development standards and design guidelines for development within the project site area. The City of Rohnert Park would use the Zoning/Regulating Plan and SmartCode in conducting specific design review of the project and for conformance with the provisions of the General Plan as the various phases of the project are designed in detail.

### **Sonoma County Water Agency**

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The Sonoma County Water Agency would review project design plans for compliance with County Flood Control Design Criteria to ensure that a project would not increase the potential for flooding.

### **Regional Water Quality Control Board (RWQCB)**

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Regulations pertaining to stormwater discharges associated with construction activity issued by the U.S. Environmental Protection Agency in 1999 became effective in March 2003. The regulations prevent the pollution of stormwater through the control of erosion, sedimentation and toxic or hazardous materials at construction sites. These regulations are administered by the Regional Water Quality Control Boards (North Coast Region) through the National Pollution Discharge Elimination System (NPDES) Program. The City of Rohnert Park administers the NPDES permits within the City limits. A permit is required for construction projects that are greater than one acre in extent and would apply to the proposed project.

### **U.S. Army Corps of Engineers (USACE)**

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USACE regulates activities in waters of the United States under Section 10 of the Rivers and Harbors Act, and Section 404 of the Clean Water Act (“Section 10” and “Section 404” permits). Authorization and pre-construction notification under USACE permit program would be required where drainages are determined to be “waters of the U.S.” The USACE would need to issue a Section 404 Permit under the Clean Water Act and a Section 10 Permit under the Rivers and Harbors Act for any alterations to wetlands.

### **California Department of Fish and Game (CDFG)**

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Because the project would require the removal of wetlands, a Section 1601 Streambed Alteration Agreement would likely be required from CDFG to alter the banks of streams channels. Also, in general DFG allows the USFWS to take the lead in the management of sensitive species but reviews any needed permits to ensure compliance with the State Endangered Species Act.

### **Caltrans**

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Caltrans would review any of the proposed transportation mitigation measures that would involve the redesign of roads or installation of signalization within their jurisdiction to ensure the feasibility of implementation. Any determination regarding the contribution of fair share payments for completion of

the proposed mitigation measures would be the responsibility of Caltrans in coordination with the City of Rohnert Park and the project sponsor Caltrans reserves the right to propose an alternate design mitigation measure in order to reduce impacts to the identified intersection



# Chapter 2

## Project Description

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### 2.1 PROPOSED PROJECT

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#### Purpose of the Draft Environmental Impact Report

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This Draft EIR has been prepared pursuant to the California Environmental Quality Act (CEQA) of 1970 (as amended) to evaluate the environmental impacts associated with the construction and operation of the Sonoma Mountain Village Project.

CEQA requires that a local agency prepare an EIR on any project it proposes to approve that may have a significant effect on the environment. The purpose of an EIR is not to recommend approval or denial of a project, but to provide decision-makers, public agencies, and the general public with an objective and informational document that fully discloses the potential environmental effects of a proposed project. The EIR process is specifically designed to objectively evaluate and disclose potentially significant direct, indirect, and cumulative impacts of a proposed project; to identify alternatives that reduce or eliminate a project's significant effects; and to identify feasible measures that mitigate significant effects of a project. In addition, CEQA requires that an EIR identify those adverse impacts that remain significant after mitigation.

This EIR serves as a Program EIR under CEQA Guidelines section 15168. As a Program EIR, this document provides a comprehensive analysis of those project elements that are proposed as part of the project, as fully described in this Chapter. No entitlements for tentative map(s) are being requested by the project sponsor as a part of this project. All future tentative map applications will be subject to CEQA review. Further environmental review to address tentative map applications or off-site improvements may be required when adequate information is known and preliminary designs are submitted to the City. This EIR provides the environmental analysis for future entitlement requests to the greatest extent possible. Any new impacts associated with entitlements that are not fully evaluated within the scope of this EIR may require further environmental analysis.

#### Project Location, Access, and Size

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Codding Enterprises (the project sponsor), has submitted a Planned Development application to the City of Rohnert Park proposing to construct a multiple use project called Sonoma Mountain Village on an approximately 175 acre site located immediately west of the intersection of Valley House Drive and Bodway Parkway in southeast Rohnert Park. The Sonoma Mountain Village project site is the former location of an Agilent Technologies research and development



campus.<sup>1</sup> Agilent Technologies is a company that provides instrumentation, supplies, software and services to life science and chemical analysis markets.<sup>2</sup> The site is currently owned by Sonoma Mountain Village LLC and houses existing business operations. Figure 2-1, Regional Location Map, illustrates the project site location with respect to cities and highways within the San Francisco Bay Area. Figure 2-2, Site Location Map, shows the location of the project site with respect to the Rohnert Park City Limits, Urban Growth Boundary, and Sphere of Influence.<sup>3</sup>

Access to the project site is provided by Camino Colegio on the north and Valley House Drive where Valley House Drive intersects Bodway Parkway on the east. The project site is therefore bounded by Camino Colegio on the north and Bodway Parkway on the east (see Figure 2-2). East Railroad Avenue is situated immediately south of the project site but at the current time does not provide direct vehicular access to the site. The former Northwestern Pacific Railroad right-of-way defines the west margin of the site. The railroad right-of-way is now owned by North Coast Railroad Authority and has been the focus of studies to implement a Sonoma County/Marin County commuter rail line known as the SMART project.<sup>4</sup>

The project site is trapezoidal in shape with the north and south site margins parallel to each other. The site consists of four parcels as shown in Figure 1-2 (046-051-040, 046-051-041, 046-051-042, and 046-051-045). The four parcels consist of 98.3 acres of developed land on the north side of the project site and 76.9 acres of grassland on the southern portion of the site for a total of 175 acres (see Figure 2-3). Five former Agilent Technologies campus buildings, containing about 700,000 square feet (sf) of floor area, are located on the north parcel, along with parking lots, roads, pedestrian trails, a wetland mitigation area, and landscaping that were developed as part of the Agilent campus complex. The south parcel is vacant and consists mostly of grasslands.

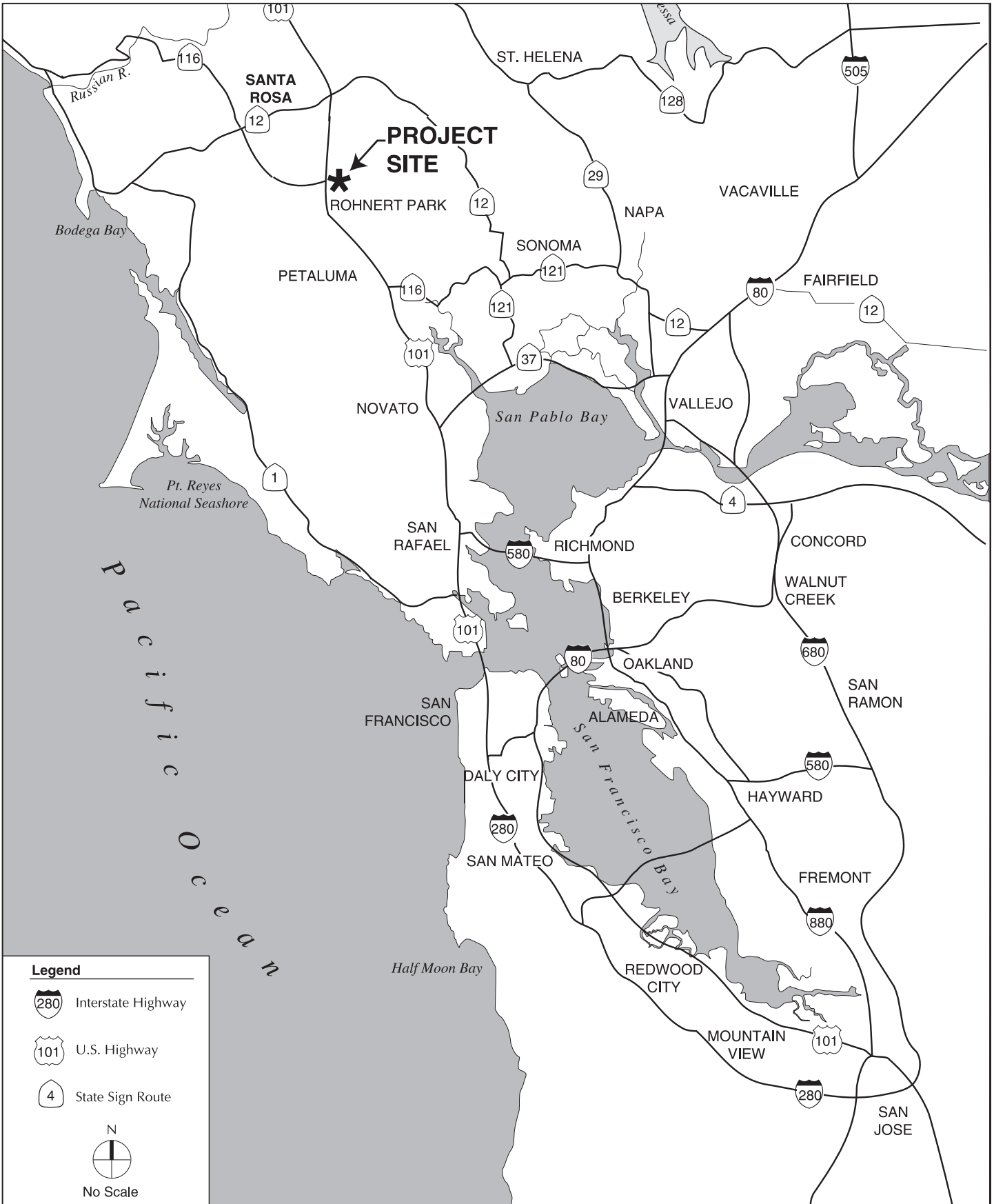
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<sup>1</sup> For additional information regarding the history of prior project site ownership and development, refer to Appendix A of this EIR, Brief Historical Profile of Project Site Development.

<sup>2</sup> The Agilent Technologies website indicates the company finds its origins with the Hewlett-Packard Company. The website states: “The company operates two primary businesses - electronic measurement, and life sciences and chemical analysis - supported by a central research group, Agilent Technologies.” The company businesses are involved in applying measurement technologies to develop products that sense, analyze, display and communicate data. Further information regarding Agilent Technologies may be found on the company website: <http://www.chem.agilent.com/scripts/PHome.asp>

<sup>3</sup> The City Limits define the incorporated limits of the City of Rohnert Park, the Sphere of Influence describes the ultimate service area of the City, and the Urban Growth Boundary is the line within which all urban development is to be contained as provided for in the current Rohnert Park General Plan.

<sup>4</sup> Further information regarding SMART and potential future rail transit in Sonoma and Marin Counties may be found on the SMART website at: [www.sonomamarintrain.org](http://www.sonomamarintrain.org). The railroad right-of-way and SMART project is discussed further in Section 3.8 of this Draft EIR, Land Use and Planning.



Source: PBS&J, 2009

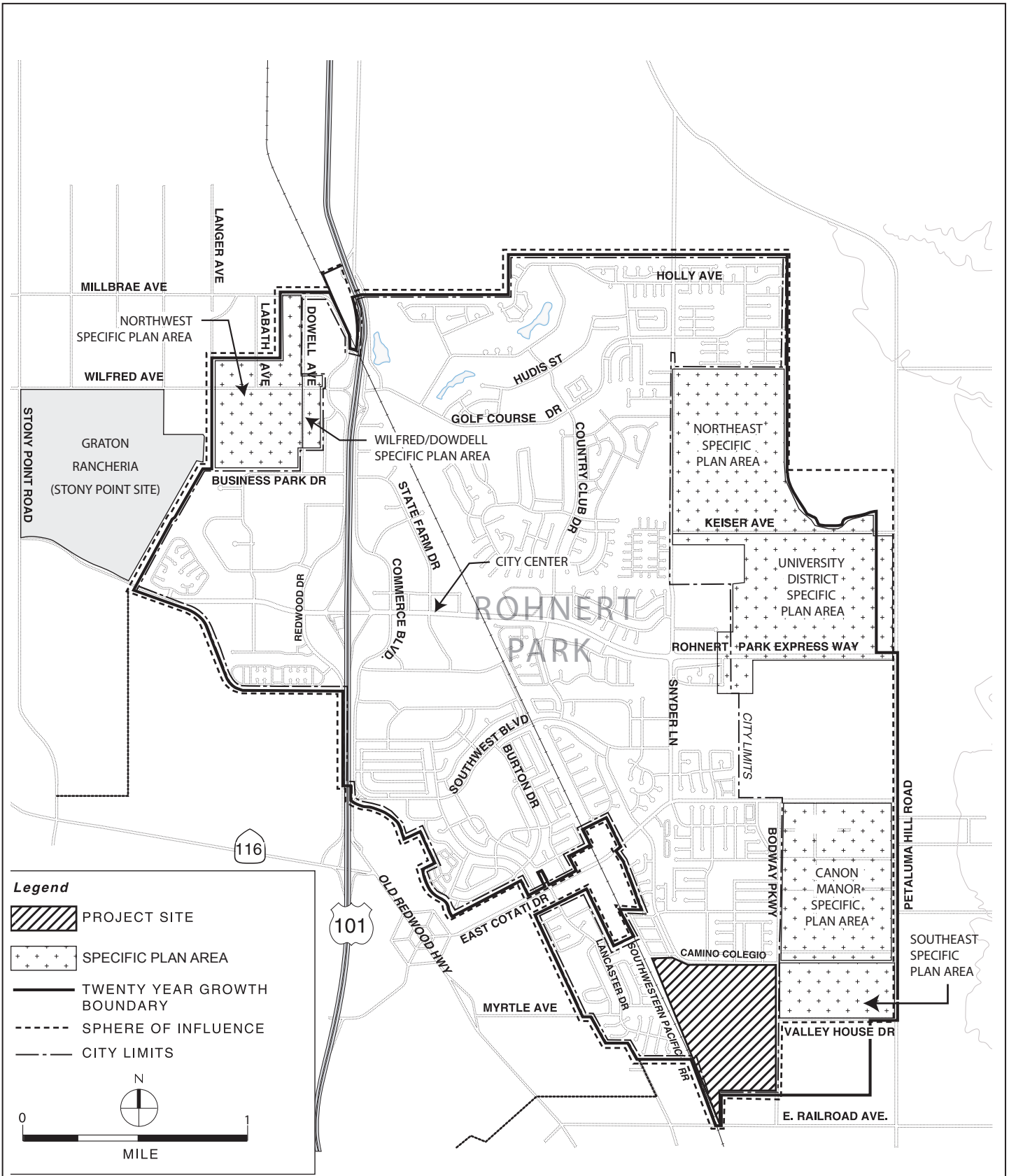
**FIGURE 2-1  
Regional Location Map**



D41336.00

Sonoma Mountain Village

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Source: City of Rohnert Park, PBS&J, 2009



**FIGURE 2-2**  
**Site Location Map**

D41336.00

Sonoma Mountain Village





Source: Google Earth Pro, basemap, 2009



**FIGURE 2-3  
Existing Conditions**

D41336.00

Sonoma Mountain Village



Between the south margin of the project site and East Railroad Avenue is located an additional 25.2 acres owned by Sonoma Green, LLC and K.D.R.P., LLC which falls within the jurisdiction of Sonoma County. The 25.2 acres south of the site is not proposed for development as part of the Sonoma Mountain Village project.

## **Overview of Proposed Project**

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The project is proposed to include a maximum of 1,694 residential units (not including up to 198 accessory dwelling units), 425,978 gross sf of office space, 107,329 gross sf of retail space, a 91,000 sf 100 room hotel, a 45,000 sf grocery store space, a 15,000 sf daycare space, a 39,472 sf restaurant space, a 30,000 square foot health club, a 25,000 square foot cinema, 35,000 sf of civic building use, covered structure parking for 800 cars, and 27.3 acres of parks and open space as defined further below. This development profile includes adaptive reuse of the substantial Agilent Technologies buildings to contain a mix of residential, office and retail/commercial uses. A plan view of the project as proposed is shown on Figure 2-4, Proposed Final Development Plan Rendering. Figure 2-4 provides a graphic overview of project development including street layout, the positioning of building structures with respect to the street system, existing Agilent structures, parks, and landscape trees.

The project is proposed for a Planned Development Zoning District incorporating multiple land uses. As outlined in the City of Rohnert Park Zoning Code, Chapter 17.06 Land Use Regulations, Article VII, Section 17.06.250 Procedure, a Planned Development Zoning District process entails two primary phases.

First is the preparation and submission of a Preliminary Development Plan for review by the Planning Commission. A Preliminary Development Plan for the Sonoma Mountain Village project was submitted by the project sponsor and approved by the Planning Commission on May 11, 2006 and is filed under application No. P12005-047PD.

Second is preparation of a Final Development Plan. A Final Development Plan has been prepared by the project sponsor in accordance with Section 17.06.250. The Final Development Plan incorporates the information contained in the Preliminary Development Plan application as well as subsequent refinement of the Plan concepts and feedback from City Representatives.<sup>5</sup> As stated by the project sponsor: “The purpose of this Plan consistent with the aim of the zoning code is to provide a method of ensuring that this area of the City is planned and phased in a way consistent with the vision for the area; compatible with the existing community and responsive to the overall vision of the General Plan.”<sup>6</sup>

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<sup>5</sup> Sonoma Mountain Village Final Development Plan April 2009.

<sup>6</sup> *Ibid.*



**FIGURE 2-4**  
**Proposed Final Development Plan Rendering**

Source: Codding Enterprises/Fisher & Hall, Urban Design, Inc., 2009

D41336.00

Sonoma Mountain Village



## Project Objectives

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**Project Sponsor:** As noted by the project sponsor, the project “provides for a mixed-use -- based upon site constraints and opportunities together with housing and commercial needs of the region.” The project is also intended to “address the need for job generation and sustainable development --” and “implements the policies, goals, themes and objectives of the Rohnert Park 2000 General Plan.”<sup>7</sup>

The concept as expressed in the Final Development Plan prepared for the project is stated as follows: “The purpose of this plan consistent with the aim of the zoning code is to provide a method of ensuring that this area of the city is planned and phased in a way consistent with the vision for the area; compatible with the existing community; and responsive to the overall vision of the General Plan.”<sup>8</sup> Overall, project objectives as stated by the project sponsor include the following as summarized:<sup>9</sup>

- To Help Fulfill the City of Rohnert Park’s Redevelopment and Responsible Growth Goals
- To Reduce Greenhouse Gas Emissions as Compared to Standard Development Practice
- To Reduce Water Use and Impacts as Compared to Standard Development Practice
- To Create a Replicable Model for Sustainable Development
- To Create Jobs in Diverse Sectors Including Green Jobs
- To Increase Revenues to the City
- To Improve Public Safety
- To Provide Community Retail and Services
- To Create a Local Village Square that serves as a community gathering place
- To Enhance Housing Opportunities
- To Encourage a Local Balance Between Jobs and Housing
- To Provide Parks and Recreational Facilities
- To Restore Creeks and Waterway
- To Provide a Range of Housing Types and Affordability Levels
- To Provide Pedestrian-Friendly Neighborhoods and Access to Transit

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<sup>7</sup> *Ibid.*

<sup>8</sup> *Ibid.*, p. 2 (unnumbered).

<sup>9</sup> Data provided by Codding Enterprises 7/31/07, *Sonoma Mountain Village Project Description*, pp. 7 through 9.

- To Invite and Adopt Community Input

**City of Rohnert Park:** The Rohnert Park General Plan provides a foundation for the proposed Sonoma Mountain Village project and includes the following relevant goals, policies and objectives:<sup>10</sup>

- Increase housing affordability and diversity.
- Encourage local jobs and maintain the jobs/housing balance.
- Build and maintain infrastructure in anticipation of growth.
- Encourage socioeconomic diversity.
- Increase pedestrian and bike access.
- Provide a framework for design standards that reflect these objectives.

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## 2.2 PROJECT CHARACTERISTICS AND COMPONENTS

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### Urban Village Concept

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As noted in the Sonoma Mountain Village Final Development Plan submittal, the project sponsor is proposing an “urban village that incorporates a mix of housing types and affordability, interconnected and pedestrian-oriented public streets, civic buildings and a civic square, a variety of parks, and vertically-integrated mixed-use buildings in the village square.”<sup>11</sup> The discussion in the Final Development Plan goes on to note the character of the village is intended to be based on “-- narrow, pedestrian-friendly streets, a wide variety of mixed-use buildings, civic buildings and civic spaces adjacent to neighborhoods of apartments, cottages and mansions.”

To accomplish this development profile, the project would require amendments to specific text and graphic exhibits of the Rohnert Park General Plan and a change in project site zoning.

### General Plan Amendments

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The project application includes a request for specified General Plan Amendments including but not limited to text and graphic amendments as follows on pages 2-9 through 2-46:

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<sup>10</sup> Rohnert Park 2020 General Plan (Fourth Edition), adopted by the Rohnert Park City Council, July, 2000, section 1.4, Objectives and Themes, General Plan Objectives p. 1-6.

<sup>11</sup> Sonoma Mountain Village at Rohnert Park, SmartCode P-D Zoning district, Final Development Plan Submittal, November 22, 2006, prepared by Fisher & Hall, Urban Design Inc., p. 2.



## AMENDMENTS TO PAGE 1-1, 5TH PARAGRAPH

### City's Comment:

Page 1-1 5<sup>th</sup> paragraph "Major employers include Hewlett-Packard located within an industrial campus in the southeast corner of the city,"

### Proposed Amendment:

In conjunction with residential growth, Rohnert Park also attracted commercial and industrial development and acquired a sizeable job base of almost 22,000 employees by 1999. Commercial and industrial uses are concentrated west of the railroad tracks and north of Copeland Creek. Major employers include ~~Hewlett-Packard, located within an industrial campus in the southeast corner of the city,~~ State Farm Insurance, and SSU. The Double Tree Hotel, Rohnert Park Municipal Golf Course, and the Sonoma County Wineries Association make Rohnert Park a popular hospitality center. In addition, numerous businesses operate at Sonoma Mountain Village, an adaptive reuse development located on a former Hewlett-Packard industrial campus in the southeast corner of the city.

Rohnert Park's limited Sphere of Influence (SOI) includes the Wilfred-Dowdell Specific Plan area (24 acres in size; plans for which were developed in 1999) and Canon Manor, where further development is hindered by the need for public facility improvements and the ongoing debate about how to fund the improvements. SSU is located outside the City's SOI.

## AMENDMENTS TO PAGE 2-3, LAND USE DISTRIBUTION AND TABLE 2.1-1

### City's Comments:

Page 2-3, Land Use Distribution Revise the paragraph to reflect the reduction in industrial land and the addition of residential land.

Table 2.1-1 Revise the table to reflect the reduction in industrial land and the addition of residential land.

### Proposed Amendment:

The 1999 City limits encompass an area of approximately 4,400 acres (6.9 square miles). Table 2.1-1 shows the distribution of this total area by land use. Residential is the predominant land use, occupying about 44 percent of the area. About a quarter of the remaining developed land has industrial, commercial, or office use, with the balance in public and institutional uses or rights-of-way. Only 192 acres of land are currently vacant.

**Table 2.1-1:  
Land Uses Inside City limits, 1999**

	<i>Gross Acres</i>
Residential	1,971
Professional/Office	47
Commercial	332
Industrial	<del>545</del> 340
<u>Mixed Use (incl. residential)</u>	<u>175</u>
Parks/Recreation	467
Public	223
Streets	643
Vacant	192
Total	4,390

Source: Dyett & Bhatia and Sonoma Mountain Village.

## AMENDMENTS TO PAGE 2-5

### **City's Comments:**

Page 2-5 First paragraph Hewlett-Packard, another major employer, is located at the southeastern corner of Rohnert Park.

### **Proposed Amendment:**

The city's industrial centers is are located north of the Rohnert Park Expressway (adjacent to the US 101 corridor) and west of the Northwestern Pacific railroad right-of-way. State Farm Insurance, a major employer, is located in this area. Hewlett-Packard Sonoma Mountain Village, another major employment center, is located at the southeastern corner of Rohnert Park.

### **City's Comments:**

Page 2-5 Parks and Recreation Amend the number of parks and facilities.

### **Proposed Amendment:**

In 1999, the City operated 32 recreational facilities and parks, including 14 neighborhood parks and nine mini-parks that total 116 acres. In addition, there are currently nine playgrounds on school sites. Upon the full buildout of Sonoma Mountain Village, additional recreational facilities and parks (including one neighborhood park nine mini-parks, two open space parks, one plaza park and two special purpose parks) will be operated by the City, bringing total City park acreage to 739 acres. A more detailed description of City parks, as well as park policies, appear in Chapter 5: Open Space, Parks, and Public Facilities.

### **City's Comments:**

Page 2-5 City Building and Land Is there going to be any dedications of land to the City for municipal services?

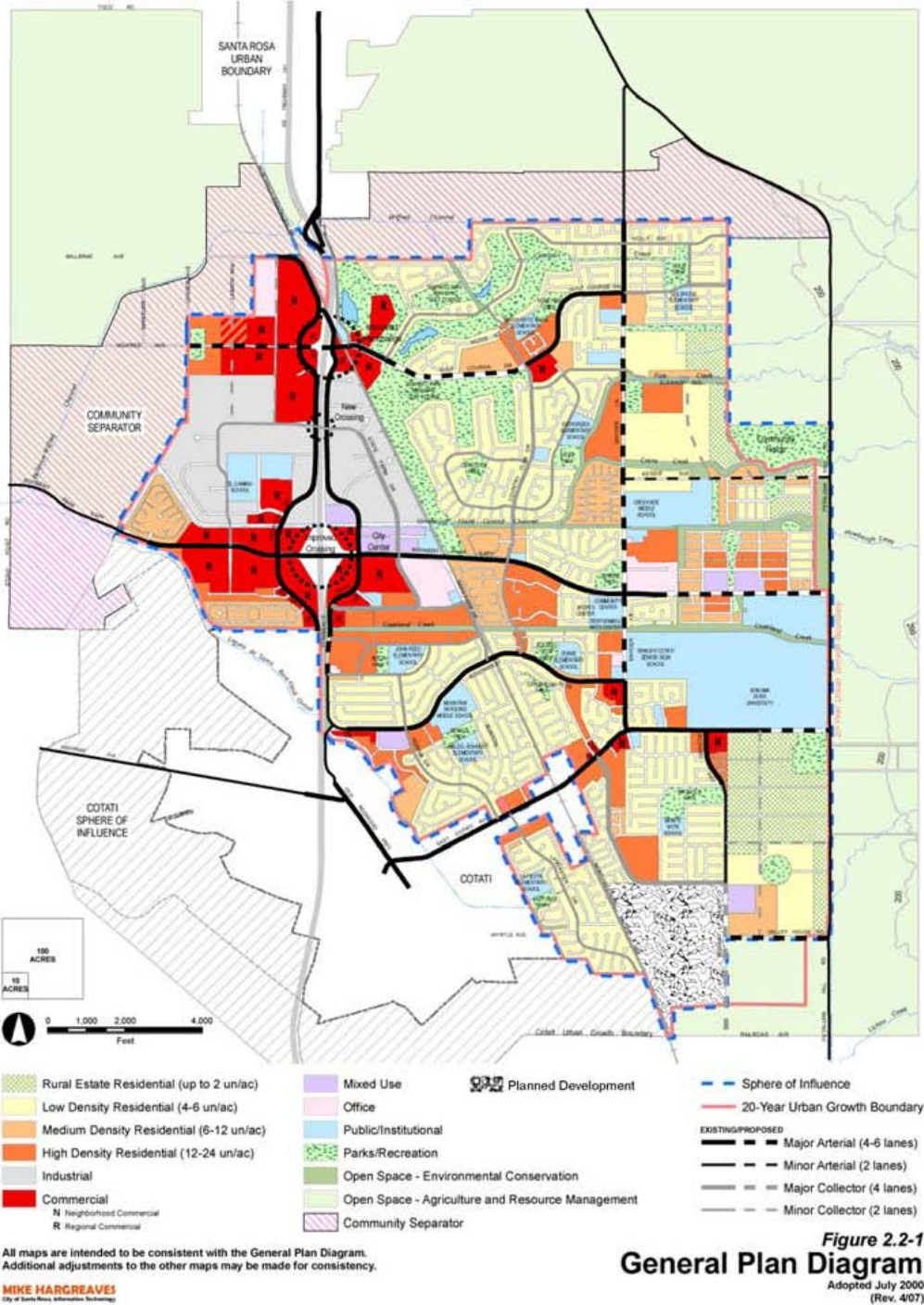
### **Proposed Amendment:**

The City owns and/or operates several other significant facilities. There are 84 City buildings which include offices, public safety facilities, and recreation buildings. The City also entered into partnerships to provide facilities such as the Wine and Visitors Center, the Library, and the Rohnert Park Municipal Golf Course. Sonoma Mountain Village P-D is planned for dedication of 1.3 acres for municipal buildings and uses, an additional 1.3 acres of civic parking, and 21.5 acres of civic parkland. The City owns three significant parcels of land:

## AMENDMENTS TO FIGURE 2.2-1, GENERAL PLAN DIAGRAM

### City's Comment:

Figure 2.2-1 GP Diagram As required.



## AMENDMENTS TO PAGE 2-15

### City's Comment:

Page 2-15 Designation of mixed-use and pedestrian-oriented activity centers. Add SMV.

### Proposed Amendment:

and provide a mixed-use residential and commercial center to meet the needs of students, faculty, visitors, as well as city residents.

- *Increased connectivity between and within neighborhoods.* New streets are designated to result in increased connectivity. In addition, policies for locating local streets are included to ensure neighborhood-level connections while providing flexibility to project developers.
- *Designation of mixed-use and pedestrian-oriented activity centers.* ~~Three~~ pedestrian oriented mixed-use centers are designated: the University District, ~~and~~ the City Center, ~~and~~ Sonoma Mountain Village. In addition, mixed-use or multi-use development is encouraged at three other sites: the northwest growth area, southwest of Adrian Drive/Southwest Boulevard, and a center in the southeast.
- *Variety of housing and mix of housing types in all neighborhoods.* The General Plan provides for a variety of housing types, including Estate Residential, a housing type currently not found in Rohnert Park, as well as higher density housing to meet the needs of students, and mobile home subdivisions to provide for affordable housing. The General Plan Diagram illustrates neighborhoods with integrated housing types, designed to locate a larger share of residences close to transit and neighborhood centers.
- *Protection of creeksides and provision of a network of trails and parks.* The Diagram illustrates a network of open space along creeks that will be realized over time. These open space areas will also facilitate development of a network of bikeways and pedestrian trails.
- *Land use pattern to maximize accessibility to parks and commercial centers.* All high density residential uses are located adjacent to parks/greenways or mixed-use centers to ensure that recreational and everyday shopping facilities are within walking distance of most residents.

**AMENDMENTS TO PAGE 2-17, TABLE 2.2-1, STANDARDS FOR DENSITY**

**City’s Comment:**

Page 2-17 Table 2.2-1 Need to discuss how to accommodate the SMV project given the maximum permitted FAR.

**Proposed Amendment:**

**Table 2.2-1:  
Standards for Density and Development Intensity**

<i>Land Use Designation</i>	<i>Residential Density (units/gross acre)<sup>1</sup></i>	<i>Assumed Average for Buildout Calculations</i>	<i>Maximum Permitted FAR<sup>2</sup></i>
Residential			
Estate	up to 2.0	2.0	
Low Density	4.0-6.0	6.0	
Medium Density	6.1-12.0	12.0	
High Density	12.1-24.0	21.0	
Office	-		1.0
Commercial			
Neighborhood/Community/Regional	-		0.4
Hotels	-		1.5
Industrial			0.5 <sup>3</sup>
Mixed-use Development <sup>4</sup>		1.5 for commercial and office mixed use areas, 2.0 for residential uses mixed with office or commercial, <b>OR, as defined by a Planned Use Development Agreement<sup>5</sup>.</b>	

1. 25 percent bonus is available for projects meeting State criteria for bonus for affordable housing (Government Code § 65915). 10 percent discretionary bonus (cannot be combined with 25 percent affordable housing bonus) is available upon Planning Commission approval only, and only for projects undertaking off-site improvements (such as streetscape improvements) that further the City’s community design objectives.

2. Parking structures and garages are excluded from FAR calculations for non-residential and mixed-use developments.

3. Discretionary increases may be permitted up to a total FAR of 1.0, subject to review and approval for development meeting specific standards included in the Zoning Ordinance.

4. FARs for mixed-use classifications are for combined residential and non-residential development; no separate residential density limitations are specified.

5. [Maximum FAR for Sonoma Mountain Village ranges from 1.8 to 6.3, depending on the sub-zone category.](#)

Source: City of Rohnert Park, Dyett & Bhatia

## AMENDMENTS TO PAGE 2-22, MIXED USE DESCRIPTION

### City's Comment:

Page 2-22 Mixed Use SMV proposes an automotive (gasoline station). We need to discuss how the maximum permitted FAR calculations can be amended to allow for SMV.

### Proposed Amendment:

#### **Mixed-Use**

This designation accommodates a variety of compatible businesses, stores, institutions, service organizations, and residences in a pedestrian-oriented setting. Allowable uses include multifamily residences, retail shops, financial, business and personal services, and restaurants. Automotive (for example, motor vehicle sales, motor vehicle part sales, and gasoline stations) and drive-through establishments are ~~not permitted~~prohibited except in the Sonoma Mountain Village P-D area. Plan policies and/or the Zoning Ordinance may require certain uses – such as ground-level retail – in some or all portions of a site with this designation. In general, the maximum FAR for developments with a non-residential mix of uses is 1.5 and for residential and non-residential uses combined is 2.0; however, within the Sonoma Mountain Village P-D area, the maximum FAR for developments ranges from 1.8 to 6.3, depending on the sub-zone category. Separate residential density limitations are not established; however, minimum unit size requirements established in the Zoning Ordinance will result in maximum density limitations. In addition, limitations on the size and location of parking, coupled with building orientation and design standards, as specified in Chapter 3: Community Design and/or the Zoning Ordinance will ensure that a pedestrian-oriented environment is created.



## AMENDMENTS TO PAGE 2-24, 2-25, TABLE 2.3-1, GENERAL PLAN BUILDOUT

### City's Comment:

Page 2-24 and 2-25 Table 2.3-1, Figure 2.3-1 Net acreage of new development table and figures need to be amended.

**Proposed Amendment:** Because the current General Plan relies on a 1999 baseline, and because we do not have access to all of the data required to produce an updated Figure 2.3-1, we propose to work with the City to either obtain the necessary data or to provide the City with the required information to update it.

Text in Page 2-24 will need to be revised to conform with data in the revised Table. Page 2-24, with revision to Table 2.3-1, is as follows:

### 2.3 GENERAL PLAN BUILDOUT

Table 2.3-1 shows the buildout acreage of the General Plan Diagram. Approximately 1,260 net acres would be developed within the UGB, including infill sites. An additional 50 acres would be developed for community fields outside the UGB. The table breaks out acreage by area of the city: areas inside the 1999 City limits and three areas outside the 1999 City limits, the eastside (north of the SSU campus), Canon Manor and southeast (south of the SSU campus), and the west side (west of Dowdell Avenue). Most areas that are planned for new development are residential in use, totaling about 620 acres. An additional 550 acres outside the UGB and inside the SOI would be used for parks and open space. Figure 2.3-1 compares land uses in 1999 to those resulting from full buildout of the General Plan.

**Table 2.3-1:  
General Plan Buildout: Net Acreage of New Development**

	Inside 1999 City Limits	Eastside	Canon Manor & Southeast	Westside	Total
Residential					
Estate	0	60	210	0	270
Low Density	0	140	70	0	210
Medium Density	0	60	20	0	80
High Density	0	40	0	45	85
Mixed Use	<del>20</del> 195	30	10	0	<del>60</del> 235
Commercial	40	0	0	60 <sup>1</sup>	100
Industrial	120	0	0	55	175
Office	10	0	0	20	30
Public/Institutional	0	10	0	0	10
Parks/Open Space <sup>2</sup>	2	155	30	3	190
Total	<del>192</del> 367	495	340	183	<del>1,240</del> 1,385

1. Includes 24 acres in the Wilfred/Dowdell specific plan area.

2. Includes neighborhood parks, linear parks, community fields, and creek corridors. The community fields (approximately ~~50~~53 acres), are located inside the Sphere of Influence, but outside the Urban Growth Boundary, except for the 3-acre international-size soccer field at Sonoma Mountain Village, which is located inside the 1999 City Limits and inside the Urban Growth Boundary.

Note: This table is for informational purposes only, and does not represent adopted City policy related to buildout. Total buildout of the General Plan is neither anticipated by nor specified in the General Plan.

Source: Dyett & Bhatia and Sonoma Mountain Village



## AMENDMENTS TO PAGE 2-26, 2-27, TABLE 2.3-2 AND 2.3-3, JOBS

### City's Comment:

Page 2-26 and 2-27; Table 2.3-2 and 2.3-3 population and jobs need to be amended.

**Proposed Amendment:** The chart has been supplemented with the data *in the DEIR administrative draft* concerning planned units and jobs figures attributable to the project. The administrative draft (reviewed on October 7, 2008) described housing and employment estimates for SMV project, as follows:

### Population:

Total SMV Population:	4,438
2035 Projected Pop. without SMV:	49,900
<b><u>New 2035 Projected Pop. (with SMV)*:</u></b>	<b><u>54,338</u></b>

\*Based on creation of 1,694 household units where population estimate is 2.62/household unit.

### Permanent Jobs/Employment:

<u>Agilent Employment at Full Buildout:</u>	<u>3,818 jobs</u>
<u>SMV Employment at Full Buildout:</u>	<u>3,774 jobs</u>
<b><u>Employment Lost Due to SMV*:</u></b>	<b><u>44 jobs</u></b>

\*Note: Figures for Sonoma Mountain Village include the impacts of the non-profit small business incubator, but do not include any of the estimated 640 construction jobs.

**[revisions to p. 2-26 and Table 2.3-2 appear below]**

Table 2.3-2 shows the total number of housing units estimated at buildout of all General Plan policies.

**Table 2.3-2:  
Estimated Housing Units at Buildout**

Existing Units	
Inside 1999 City Limits	15,430
Canon Manor	110
Subtotal	15,540
New Units	
Inside 1999 City Limits	<u>2,102,102</u>
Eastside	2,440
Westside	850
Cannon Manor and Southeast	950
Subtotal	<u>4,450,342</u>
Grand Total	<u><del>19,990</del>21,882</u>

*Note: This table is for informational purposes only, and does not represent adopted City policy related to buildout. Total buildout of the General Plan is neither anticipated by nor specified in the General Plan.*

Source: Dyett & Bhatia and Sonoma Mountain Village

**[revisions to pp. 2-26 to 27 and Table 2.3-3 appear below]**

Table 2.3-3 summarizes the buildout population and employment under the General Plan. Population and employment are based on estimates of housing units and non-residential building floor area, which are derived from the acreage estimates in Table 2.3-1. Population is expected to increase at an average annual rate of 1.0 percent between 1999 and 2020. Approximately ~~9,400~~13,838 residents will be added to the city, reaching a total buildout population of approximately ~~50,400~~54,838. Whereas, jobs are planned to increase at a yearly rate of 1.9 percent under the General Plan, reaching a total buildout of ~~31,600~~32,125 jobs. Because jobs will increase at a faster rate than population, the ratio of jobs to employed residents is expected to increase from 1.04 to 1.22.

**Table 2.3-3:  
General Plan Buildout: Population and Jobs<sup>1</sup>**

	<i>Estimated 1999</i>	<i>1999-Increase to Buildout</i>	<i>Buildout</i>
<b>Population</b>			
Total	41,000		
Annual Growth Rate	8,400	1.0%	54,838 <sup>4</sup>
Housing Units	15,540	4,450	21,882
<b>Jobs</b>			
Total	21,900	5,408	27,333
Annual Growth Rate		1.9%	
Building Area <sup>3</sup> (sf)	n.a.	2,742,000	n.a.
Employed Residents	21,200	2,675	24,400
Jobs/Employed Residents	1.04		1.14

*n.a. – not available*

*s.f. – square feet*

1. Buildout estimates do not include on-campus population or employment for SSU.

2. California Department of Finance, Official State Estimates (January 1999) for Rohnert Park and estimate for Canon Manor; includes 1,466 mobile home units

3. Includes commercial, industrial, office, and mixed-use development. Also, includes development in the City Center and Wilfred-Dowdell Specific Plan Area.

4. Assumes 1999 group quarters population of 660 to stay the same at buildout. Thus, at buildout, the household population will be 49,740 (5054,400838-660)

Note: This table is for informational purposes only, and does not represent adopted City policy related to buildout. Total buildout of the General Plan is neither anticipated by nor specified in the General Plan.

Source: Dyett & Bhatia [and Sonoma Mountain Village](#)

## AMENDMENTS TO PAGE 2-30, LAND USE PATTERN POLICIES

### City's Comment:

Page 2-30 Perhaps policy LU-5 may be expanded to include SMV mixed use area and that would allow us to handle the FAR limitation.

### Proposed Amendments:

#### **Land Use Pattern**

#### ***Mixed-use, Commercial, Office, and Industrial Development***

- LU-3 Develop the University District as a mixed-use, pedestrian-oriented center.

*Permitted uses are stipulated in the land use classifications in Section 2.2, and specific policies and land use program are included later in this section.*

- LU-4 Develop the City Center as a mixed-use, pedestrian-oriented center.

*Permitted uses are stipulated in the land use classifications in Section 2.2.*

- LU-5 Develop Sonoma Mountain Village as a mixed-use, pedestrian oriented center.

*Permitted uses are stipulated in the land use classifications in Section 2.2.*

- LU-6 Encourage development of the northwest growth area along Wilfred Avenue and on the area designated as Mixed Use on Bodway Parkway, south of Canon Manor, as mixed-use centers (that is, with different uses at different levels in a building), while permitting single- or multi-use (that is more than one use on the site, but in separate buildings) development.

*Encouragement for mixed-use development is built into the General Plan Land Use Classification system, which permits an FAR of 2.0 for mixed-use development that include residential uses, and FAR of 1.5 for projects with a non-residential mix (such as retail and offices). Projects with single use buildings would be subject to the FAR for these individual uses, as included in Section 2.2, which are lower than the FARs stipulated for mixed-use developments. Further incentives would result from reduced parking requirements for mixed-use development that may be included in the City's Zoning Ordinance.*

- LU-67 Locate new Medium and High Density Residential development adjacent to parks, creekways or other open space, in order to maximize residents' access to recreational uses, or adjacent to a Mixed Use or Neighborhood Commercial Center, to maximize access to services.

- LU-78 Encourage new neighborhood commercial facilities and supermarkets to be located to maximize accessibility to all residential areas.

*The intent is to ensure that convenience shopping facilities such as supermarkets and drugstores are located close to where people live and facilitate access to these on foot or bicycles. Also, because Rohnert Park's residential population can support only a limited number of supermarkets, this policy will encourage dispersion of supermarkets rather than their clustering in a few locations.*

## AMENDMENTS TO PAGE 2-32 THROUGH 2-54, LAND USE POLICIES & GOALS

### City's Comments:

Page 2-32 Specific Plans and Other Areas Amend to include SMV

Page 2-32 through 2-54 Amend so that the GP reads "specific plan *"and similar areas"*".

### Proposed Amendments:

- households, as defined in Section 50105 of the Health and Safety Code, or (3) 50 percent of the total dwelling units of a housing development for qualifying residents, as defined in Section 51.3 of the Civil Code. Other provision of the Government Code, such as those relating to affordability, shall also apply.
- 10 percent bonus, upon discretionary approval only, and only for projects undertaking elective off-site improvements (such as streetscape improvements) that further the City's community design and/or open space objectives. This bonus shall not be combinable with affordable housing bonus. Off-site improvements directly resulting from a project's impacts, as specified in the Zoning Ordinance, may still be required; the bonus is for improvements that go beyond the required minimum.

### **Specific Plan, Planned Development, and Other Areas**

*The new growth areas of the City have been divided into five specific plan areas – Northwest, Northeast, University District, Canon Manor, and Southeast; and one two Planned Development areas – Sonoma Mountain Village and the Stadium Area Master Plan. Policies have been developed that pertain to the individual specific plan/planned development areas, as well as for the City Center area, for which a Concept Plan exists. Boundaries for specific plan/planned development areas are demarcated in Figure 2.4-1. For policies related to design issues, please see Chapter 3: Community Design.*

LU-10A Coordinate the adoption of each specific plan and planned development in a manner that provides for the systematic implementation of the General Plan, as is consistent with the growth management and public facilities goals and policies of this General Plan. In order to carry out this policy, the City Council may elect to adopt one specific plan and/or planned development at a time, determine priorities for the adoption of each specific plan/planned development, initiate the preparation of a specific plan and/or planned development, or otherwise take action to ensure that the adoption of specific plans and planned developments adhere to the growth management and public facilities goals and policies of this General Plan.

Require that all specific plans and planned developments prepared pursuant to this General Plan include the following components:

- A land use program as specified for each Specific Plan and Planned Development area in the General Plan, including the maximum and minimum development for each land use type; and
- A detailed traffic study, prepared by a City-approved traffic/transportation planner, and reasonable mitigation measures to mitigate traffic impacts resulting from the development; and
- The proposed location and capacity of major infrastructure components, including wells, sewage, water, drainage, solid waste, disposal, energy, and other essential facilities proposed to be located within the area covered by the Specific Plan/Planned Development; and

*Policy GM-9 also requires preparation of a Public Facilities Financing Plan.*

- A site-specific biological assessment of wetlands, habitat areas, and creeksides by a City-approved biologist and a program for conservation/mitigation to the extent feasible; and
- Survey for California tiger salamander, both in breeding habitat and adjacent upland estivation habitat, with appropriate mitigation, including avoidance and minimization measures; and
- Program for conservation of the natural resources along creeks and standards for the conservation, development, and utilization of natural resources where applicable; and
- Park and open space in accordance with the General Plan designation, including access and connections to the bicycle system shown in Figure 4-3; and
- Hydrology and drainage for the area, with a goal to minimize runoff, and drainage practices to be incorporated as part of individual projects to meet the ~~the~~ Specific Plan/Planned Development objectives; and
- Plan to prevent stormwater pollution, including measures to be incorporated as part of development on individual sites; and
- Demonstration of adequate water supply; and

*This demonstration of adequacy should be consistent with policies PF-11 through PF-14, relating to water supply.*

- LU-10B Include within each sSpecific pPlan and Planned Development, standards and criteria by which development will be phased and standards for the conservation, development, and utilization of natural resources.
- LU-10C Permit hospitals, schools, police and fire stations, parks and other facilities that serve a vital public interest, subject to findings and necessary environmental review, to be located in a sSpecific pPlan/ Planned Development area, even if a sSpecific pPlan or Planned Development for the area has not been adopted.
- LU-10D As part of development of sSpecific pPlans and Planned Developments, through site planning and other techniques, ensure adequate transitions between incompatible uses, while promoting the General Plan intent of integrated development of compatible uses.

***[Specific Plan Areas (pp. 2-34-2-40): omitted – no changes to those sections]***

### **Sonoma Mountain Village Planned Development Area**

LU-34 Require preparation of a Planned Development prior to approval of any development in the Sonoma Mountain Village area.

LU-35 Ensure that land uses are dispersed in accordance with the principles of the Sonoma Mountain Village Planned Development SmartCode, as follows (see also SMVPD SmartCode):

- Encourage infill and redevelopment
- Include a framework of transit, pedestrian, and bicycle systems that provide alternatives to the automobile.
- Develop neighborhoods that are compact, pedestrian-oriented and contain mixed uses.
- Ensure that ordinary activities of daily living occur within walking distance of most dwellings, allowing independence to those who do not drive.
- Design interconnected networks of thoroughfares to disperse and reduce the length of automobile trips.
- Offer a range of housing types and price levels to accommodate diverse ages and incomes.
- Provide appropriate building densities and land uses within walking distance of transit stops.
- Embed civic, institutional, and commercial activities in neighborhoods rather than isolating them in remote single-use complexes.



- Distribute a range of open space including parks, squares, and playgrounds within the neighborhood.

The built environment within Sonoma Mountain Village shall conform with the following policies:

- Require that buildings and landscaping contribute to the physical definition of thoroughfares as civic places.
- Accommodate automobiles while respecting the pedestrian and the spatial form of public space.
- Reinforce safe environments, but not at the expense of accessibility.
- Provide building inhabitants with a clear sense of geography and climate through energy efficient methods.
- Locate civic buildings and public gathering places to reinforce community identity and support self-government.
- Design civic buildings to be distinctive and appropriate to a role that is more important than the other buildings that constitute the fabric of the City.

LU-36 Ensure that the land use program is within the ranges indicated on Table 2.4-1, including the minimum and maximum number of units for each residential land use classification.

**Table 2.4-5: Land Use Program: Sonoma Mountain Village Planned Development Area**

	<u>Gross Acreage</u>	<u>Housing Units Minimum-Maximum</u>	<u>Building Area (1,000 s.f.) Minimum-Maximum</u>
<u>Rural Estate Residential</u>	<u>0</u>	<u>0</u>	<u>0</u>
<u>Low Density Residential</u>	<u>0</u>	<u>0</u>	<u>0</u>
<u>Medium Density Residential</u>	<u>0</u>	<u>0</u>	<u>0</u>
<u>High Density Residential</u>	<u>0</u>	<u>0</u>	<u>0</u>
<u>Mixed Use</u>	<u>147.8</u>	<u>0 - 1,892</u>	<u>3,295</u>
<u>Parks</u>	<u>8.7</u>	<u>0</u>	<u>0</u>
<u>Plaza</u>	<u>1.0</u>	<u>0</u>	<u>0</u>
<u>Open Space</u>	<u>13.7</u>	<u>0</u>	<u>0</u>
<u>Habitat Conservation</u>	<u>3.8</u>	<u>0</u>	<u>0</u>
<u>Total</u>	<u>175.0</u>	<u>0 – 1,892</u>	<u>3,295</u>

*\*Note: Maximum housing numbers include 198 second dwelling units.*

LU-37 As part of the project approval process, require development of the non-residential component of the land use program as a condition of residential development, with phasing and intermediate check points to ensure that land uses are balanced at intermediate stages in the development process.

LU-38 Require the Planned Development to incorporate a plan for pedestrian, bicycle, and auto connections from adjacent thoroughfares and to integrate with the surrounding community.

## **Outside the Urban Growth Boundary**

LU-~~3439~~ Areas in the City Planning area, outside the Urban Growth Boundary, should be maintained in agricultural and open space uses consistent with the land use designation in the Sonoma County General Plan.

**[pp. 2-41 – 2-45, GROWTH MANAGEMENT, appear below]**

**NOTE:** Although City's comments discuss changing pages 2-41 through 2-45, there are **no changes** to make in that section until page 2-44. Page 2-44, with recommended revisions, appears below:

obligations for the preservation, improvement, and development of housing. This measure establishing a UGB is consistent with the objectives of the City's Housing Element and with the other mandatory elements of the City's General Plan. It is fully expected that the policies and programs in the City's Housing Element, including the sites identified therein for housing, will allow the City of Rohnert Park to meet the requirements of State law to provide housing opportunities for all economic segments of the community. This measure allows the City Council to bring land into the UGB without a public vote for very low and low income housing only, in recognition of the fact that sometimes it is necessary for a local government to take special steps to provide opportunities for very low and low income housing.

- 1.5 The UGB outlines the area within which the City generally projects that development will occur within the next twenty years. However, the General Plan of the City of Rohnert Park Growth Management Policies prohibit growth from commencing, if the necessary public facilities – streets, water, wastewater, solid waste, and parks – are not in place when the growth is completed. In addition, the General Plan of the City of Rohnert Park Specific Plan **and Planned Development** Policies require that new growth will not be permitted unless and until the specific plan **or planned** development for the area in which the growth is proposed, has been adopted.

**[no further changes until p. 2-47; p. 2-47]**

In order to manage development within the UGB in a manner that is consistent with these community goals, a growth management program shall be adopted that includes each of the following components:

- 3.2.1 An annual standard to determine the number of residential development approvals that are consistent with the goals and policies

of the City's General Plan.

- 3.2.2 A requirement to implement the growth management program, including the annual standard in a manner that is consistent with the goals, objectives, obligations and policies of the City's Land Use and Housing Elements.
- 3.2.3. An average approximate one percent (1%) annual population growth rate.
- 3.2.4. An annual review by the City Council to determine the consistency of each of the components of the growth management program with the goals, plans, and policies of the General Plan and State housing, planning, and zoning law.
- 3.2.5 A requirement to coordinate the development in each of the specific plan and planned development areas with the growth management ordinance. Housing that is affordable to very low and low income households shall be exempt from the growth management program.

***[no further changes until p. 2-49, appearing below]***

- GM-7 Encourage applicants to enter into development agreements with the City, which would also grant vested development rights, including against any changes that may result from the City Council annual policy review (GM-4), to develop a site over a multi-year period. Do not enter into any development agreement for a project until a specific plan or planned development has been prepared and adopted by the City.

***[no further changes until p. 2-51; p. 2-51]***

#### **Adequate Public Facilities**

- GM-9 Require that each specific plan and planned development include a Public Facilities Financing Plan that explains how streets, water, wastewater, solid waste, and parks, all meeting City standards, will be provided to the project. The Plan must demonstrate, to the satisfaction of the City Manager, based upon criteria developed in the Growth Management Ordinance, that completion of all necessary public facilities concurrently with completion of the specific plan or planned development is economically, physically, and legally feasible.

***[no further changes until p. 2-52, appearing below]***

*Assessment districts include all property that would receive a special benefit from a capital improvement and then imposes assessments on each parcel of property. The amount of the assessment reflects the cost of the proportional special benefit conferred on the parcel.*

*The City already uses assessment districts in certain areas for roadway improvements, as along Redwood Drive. Assessment districts can be considered not only for roadway improvements, but also for sewer and water line improvements, and other necessary infrastructure. Expansion of sewer lines east of the existing City limits will probably be necessary in order to accommodate new development. In addition to infrastructure improvements, assessment districts can be used to assign the cost of maintenance of open spaces and parkways. The cost of additional service above existing costs can be determined by estimating the amount of additional personnel and equipment necessary to maintain response times and service levels.*

GM-14 Require new development to dedicate land to the City in the appropriate amount and location for parks and recreational space, in accordance with the General Plan Diagram, the Specific Plan and/or Planned Development for the area, and the City's park dedication requirements. *The Open Space, Parks, and Public Facilities Element establishes standards for the amount of parkland per 1,000 residents and discusses the relevant provisions of the Quimby Act.*

***[no further changes until p. 2-53; pp. 2-53 – 2-54]***

### **Land Use Balance**

GM-16 As part of preparation and approval of specific plans and any other implementing ordinances, regulations and development agreements, and allocation of development entitlements for areas of new development, balance non-residential development with residential development over the different phases and require that the contemplated balance of housing types is attained at buildout.

*The land use program for each area, including housing units by density range, is included in Section 2.4.*

### **Annexation**

GM-17 Consider initiating annexation of Canon Manor Specific Plan Area only if the following conditions are met:

- Adequate public facilities, meeting Rohnert Park's Rural Estate Residential standards established for the area, established either separately or as a part of the Specific Plan, are installed prior to annexation, or a program do so, with secure funding sources, is established to the City's satisfaction;
- No facility improvement costs are borne by the City of Rohnert Park; and
- All land in Canon Manor is included in the annexation.

*Canon Manor shall be deemed to have provided the adequate public facilities when all sites within Canon Manor meet established standards for water, wastewater, streets, lighting, fire hydrants, and other public facilities and services.*

GM-18 Explore the feasibility of annexation of the Sonoma State University campus.

*Land uses and growth areas in the General Plan have been designated to foster a close relationship between the City and SSU. Implementation of the General Plan should result in close physical integration of the campus with the City's neighborhoods; extension of City limits to reflect the extent of contiguous urban limits is only natural. The City currently provides water and wastewater to the campus.*

*SSU remains perhaps the only campus in the California State University system that is not a part of the surrounding community. Annexation will not alter the University's ability to pursue its development efforts; however, the City would moderately benefit by getting a small share of the existing taxes on retail sales at the campus.*

GM-19 Consider initiating annexation of the 25.2-acre parcel adjacent to Sonoma Mountain Village's southern boundary, if the following conditions are met:

- If annexation is necessary in order to satisfy federal, state, or local requirements for preservation of habitat for threatened or endangered species, or for preservation of wetlands; and
- A habitant and/or wetlands preserve, conservation easement, or similar instrument is established on the land to be annexed, in accordance with federal and/or state requirements.

### **Inter-Agency Coordination**

GM-~~19~~20 Work with Sonoma State University to establish a planning group to coordinate access and development.

*Coordination will become increasingly important as urban development embraces the campus' northern edge. The location of campus entryways needs to be coordinated with the City's nearby access improvements, including new streets, roadway and intersection improvements, parks, pedestrian walkways, bicycle routes. Also, long-range planning and development on the SSU campus, including potential expansion of the SSU campus, should be coordinated with land use policies and development in adjacent areas. The timing of on-campus housing development, if any, also needs to be coordinated with adjacent off-campus housing development.*

GM-~~20~~01 Work with Sonoma County to ensure that all land in the

Planning Area outside Rohnert Park's Urban Growth Boundary is preserved as open space.

GM-242 Request that the County allow City review and comment on development proposals submitted to the County on unincorporated land in the Rohnert Park Planning Area.

GM-223 Encourage Santa Rosa to designate land within the Wilfred Channel Community Separator and adjacent to it as open space. *Santa Rosa's current General Plan (in 1999) permits development of land within the separator to the north of Wilfred Channel and up to approximately one mile north, as well as the "triangle" immediately north of the channel between the Northern Pacific Railroad and US 101, with Very Low Density Residential uses (up to two housing units per acre).*

GM-234 Continue joint city / county efforts, such as the Policy-Makers Working Group, to address the Community Separator mitigation issue.

### **Implementation Monitoring**

GM-245 Undertake periodic review to monitor General Plan implementation, with the first review scheduled to occur within three years of Plan adoption.

*The components of the review are spelled out in detail on page 1-13. This review, which is in addition to the annual report required by the State, should incorporate use of Performance Indicators – such as average trip time, total vehicle hours traveled, jobs/housing balance, park space per resident.*

## AMENDMENTS TO PAGE 3-15, NEIGHBORHOODS AND FOCUS AREAS

### City's Comment:

None. This section is not addressed in the City's comments, but should be revised in order to ensure the General Plan is consistent with the SMV project elements as proposed.

### Proposed Amendments:

## 3.2 NEIGHBORHOODS AND FOCUS AREAS

While policies related to views and edges have implications that extend beyond individual neighborhoods, this section addresses the design and character at a neighborhood scale. Focused policies for certain areas (including specific plan areas) are also included.

### NEIGHBORHOODS

Neighborhoods are Rohnert Park's building blocks. Up until 1999, Rohnert Park's neighborhood structure has been, in many cases, characterized by homes clustered around a school and a park. Neighborhood areas are shown in Figure 3.2-1. Key aspects of Rohnert Park's current ~~(1999)~~ neighborhood structure include:

- *Use Pattern.* While Rohnert Park has a defined neighborhood development pattern, design of neighborhoods to be responsive to the context—such as by creating greenways that traverse neighborhoods, locating parks adjacent to creeks, and locating uses and activities in relationship to institutions such as SSU and physical conditions such as urban edges—can help in creating neighborhoods that are responsive to the landscape and lead to greater identity and diversity.
- *Street and Block Patterns.* Neighborhood A, one of the original Rohnert Park neighborhoods, has the greatest number of through streets, blocks, and access points. It is characterized by long internal blocks, connecting local streets, and few cul-de-sacs, complemented by mature trees and landscaped front yards, making it easy and comfortable to bike or walk. Numerous access points provide connections to adjacent areas. In subsequently developed neighborhoods, fewer street connections and intersections, more cul de sacs, and larger blocks make it difficult to reach destinations via walking or biking.
- *Canon Manor* – a County subdivision originally platted in the 1950s – has rural residential development with rectilinear streets, very large blocks, and large lots, in contrast to Rohnert Park's curvilinear streets and cul-desacs.

- Sonoma Mountain Village – a sustainable community in the southeast area of the City, is subject to “smart growth” development requirements which may differ substantially from the street-and-block pattern of neighborhoods in other areas in the City. Sonoma Mountain Village is typified by mixed use development, combining residential, retail, and other land uses; and by street widths which may differ from standard streets in the City, intended to encourage pedestrian and bicycle traffic.
- *Streets.* Rohnert Park has a hierarchical system of streets that separates high-speed through traffic (along arterials and collectors) from low-speed local traffic (along local streets). Chapter 4: Transportation provides a detailed description of the city’s street pattern and outlines roadway classifications. Safety, convenience, and comfort for pedestrians and bicycles are an important issue for Rohnert Park residents in 1999.
- Streets in Rohnert Park have a distinctive character. Major arterials such as the Rohnert Park Expressway as well as recent residential arterials such as Snyder Lane have a planted median strip and flanking greenways with pedestrian paths and bikeways. Such streets contribute to the city’s image as a place where residential neighborhoods are integrated with parks and where open space surrounds the city. Some streets also have views of the eastern ridgeline. The visual character of new streets is addressed by goals and policies in this section.



## AMENDMENTS TO PAGE 3-19, FOCUS AREAS

### City's Comment:

Page 3-19 Focus Areas SMV should be added.

### Proposed Amendments:

#### FOCUS AREAS

In addition to policies that apply across the city, this section of the General Plan includes policies targeted at design issues specific to certain parts of the city. These are:

- University District;
- City Center;
- Northeast Area;
- Northwest Specific Plan Area; ~~and~~
- Sonoma Mountain Village; and
- Southeast Area.

#### GOALS: NEIGHBORHOODS AND FOCUS AREAS

CD-G Encourage development of diverse and distinctive neighborhoods that build on the patterns of the natural landscape and are responsive in their location and context.

*This General Plan encourages development of neighborhoods to be responsive to their location and context, rather than being based on a uniform design formula.*

CD-H Promote a mix of uses and a variety of housing types and sizes within residential neighborhoods.

*The General Plan Diagram establishes a mix of uses within areas of new development and promotes a mix of housing types by allowing a range of residential densities within the same areas. This goal and the subsequent policies build on the overall direction established in the diagram.*

CD-I Ensure that neighborhood streets provide an attractive physical environment for motorists, pedestrians, and cyclists.

CD-J Maintain the character of existing neighborhoods while undertaking streetscape and signage improvements in selected areas.

***[no further changes to p. 3-19]***

## AMENDMENTS TO PAGES 3-26 THROUGH 3-39, AREA DEVELOPMENT

### City's Comment:

Page 3-26 and 3-39 Add SMV to the discussion.

### Proposed Amendments:

- Reduced parking requirements for senior housing;
- Reduced off-street parking requirements for residential sites adjacent to the linear park, where on-street parking is more available;
- Reduced parking requirements for development with a mix of uses, to account for differences in peak hour parking demand between the uses.
- As of 2000, the Zoning Ordinance requires sites with more than one use to provide parking that equals the sum of the number of spaces required for each individual use.
- Reduced parking requirements in areas designated as Mixed Use, where mix of uses and compact development favors pedestrian and bicycle access.
- Allowing on-street parking to count toward parking requirements for development in mixed use areas.

CD-30 Encourage development of parking assessment districts for the mixed-use areas. Upon establishment and participation in such a district, do not require parking on individual sites.

*This policy allows flexibility in the arrangement of parking within mixed-use areas. Onstreet or off-street parking can be located off-site, allowing more compact development.*

### **Specific Plan, Planned Development, and City Center Areas**

Policies in this section refer to the individual specific plan and planned development areas, and to the City Center, as defined in Chapter 2: Land Use and Growth Management.

[*Specific Plan Areas (pp. 3-26 – 3-36) omitted– no changes to those section*]

**Sonoma Mountain Village Planned Development Area**

CD-53 All development and land use to occur in conformance with the Sonoma Mountain Village Planned Development SmartCode, which shall serve the same purpose as a “Concept Plan” in guiding community design within Sonoma Mountain Village.

**Existing Neighborhoods**

CD-5~~3~~4 Ensure that new development in existing neighborhoods is respectful of the character of existing uses and causes minimal design intrusion.

*The General Plan does not seek to alter the character of existing neighborhoods, which have played and will continue to play an important role in the future success of Rohnert Park as a community.*

CD-5~~4~~5 In cooperation with merchants, undertake a streetscape program for Commerce Boulevard that provides high branching trees that permit the stores to be seen but provide a canopy to the street. Provide shrubs to screen parking from the streets.

## AMENDMENTS TO CHAPTER 4

**City's Comment:** Chapter 4 of the City's General Plan addresses Transportation. The City has provided nine comments on this subject, as follows:

1. Chapter 4 Not sure that we can amend the GP to address the projected traffic flows. Discuss.
2. Page 4-15, Table 4.1-4 Roadway improvements: East Cotati (Bodway to PH Rd); Valley House (Bodway to PH Rd); Bodway (Camino Colegio RR Ave); discuss the soft sweeper at E. RR and Petaluma Hill Road consistent with the So County General Plan.
3. Page 4-3 Figure 4.1-1 Master Street Plan
4. Page 4-5 Projected Traffic Flows Update the roadway segments experiencing congested conditions.
5. Page 4-7 Figure 4.1-2 Traffic Levels of Service Under General Plan Buildout Revise the figure to match new General Plan Buildout levels of service
6. Page 4-13 Table 4.1-3 Update the Roadway Classifications to match the project.
7. Page 4-15 Table 4.1-4 Update the Roadway Improvements to match the project.
8. Page 4-20 Table 4.1-5 Intersection Improvements update as needed.
9. Page 4-36 Figure 4.4-1 Update.

**Response:** These comments provide little direction on what changes the City is seeking for the Transportation element in the General Plan. We would like to meet to discuss specifics.

## AMENDMENTS TO CHAPTER 5, OPEN SPACE, PARKS AND PUBLIC FACILITIES

**City's Comment:** Chapter 5 of the City's General Plan addresses Open Space, Parks, and Public Facilities. The City has provided six comments on this subject, as follows:

1. **Page 5-1 Entire Chapter** Will the southerly 25 acres be needed for wetland or open space conservation? Policy OS-4C requires that permanent open space be granted in fee title or easement with a provision for open space maintenance.

**Response:**

SMV has determined that the southerly 25-acre parcel (located outside Rohnert Park city limits) will **not** be part of the project. Therefore, this need not be addressed in the General Plan.

2. **Page 5-11 Parks** Need to add *Parks and Neighborhood Recreation Centers*

**Response:**

Both this comment and Comment #3 appear to be misreadings of the current General Plan, as the referenced pages and table (pages 5-11 and 5-12; Table 5.2-1) reflect the status of City parks and recreations centers ***in existence at the time the General Plan was adopted*** (in 1999). Changes to these pages are inappropriate, with the exception of the following change to the last paragraph of Page 5-12:

**[amendment to p. 5-12, last paragraph, appears below]**

~~Five-Six~~ new neighborhood and linear parks are proposed in the General Plan, along with two open space parks and two special purpose parks. Mini parks, greenways and plaza parks are not included in this summary. These parks are located in areas where new residential development is proposed. The total amount of proposed parkland ranges from 79 to 114 acres, as shown in Table 5.2-2. Existing ~~and proposed~~ parks are shown in Figure 5.2-1.

**Table 5.2-2:  
New Parks Under the General Plan<sup>1</sup>**

	<i>Acres</i>
University District Linear Park <sup>2</sup>	12-15
South Eastside Park	5-8
North Eastside Park	8
North Eastside Linear Park <sup>2</sup>	4
Community Fields	27-50
Westside Park	2-4
<u>Sonoma Mountain Village P-D</u>	<u>23</u>
Infill Park	2
<b>Total</b>	<b><u>7960-94114</u></b>

1. Excluding mini-parks, plazas, and greenways.

2. Although geographically linear, these would be neighborhood parks.

Source: Dyett & Bhatia [and Sonoma Mountain Village](#)

3. **Page 5-12 Table 5.2-1** Update the Parks, Recreation facilities table to match the project.

**Response:**

See #2, above.

4. **Page 5-15 Figure 5.2-1 Parks and Schools**

**Response:**

See map of proposed parks attached. No public schools are proposed for the site, however, schools are an allowed use, and it is possible that a school will be proposed in the future.

5. **Page 5-21 Table 5.3-1 Estimated School Enrollment**

**Response:**

Given the proportion of young families expected to make up the demographic of new home buyers at Sonoma Mountain Village, the Applicant estimates that a total of 836 K-12 students in the year 2020, with gradual linear increase from 0 in 2010.

6. **Page 5-27 Table 5.4-2 Estimated Wastewater Flows in RP**

**Response:**

SMV estimated total increase in sewerage as compared with the Agilent full build-out scenario is an increase of 117 acre-feet per year = 0.104 MGD. The Agilent build-out scenario is based on the 30.8 gal/day/employee provided in Table 5.4-2 City of Santa Rosa wastewater estimate. For details on this figure, see Appendix C of the Project Description.

## AMENDMENTS TO CHAPTER 9, HOUSING

**City's Comment:** Chapter 9 of the City's General Plan addresses Housing. The City has provided two comments on this subject, as follows:

1. Page 9-29 Table 9.2-1 Project Growth
2. Page 9-58 3rd paragraph Add SMV discussion

**Response:**

These comments do not conform with the City's newly-revised Housing Element. The revised housing element addresses Sonoma Mountain Village, as follows:

***Sonoma Mountain Village***

Sonoma Mountain Village (SMV) is located at the southwest corner of Bodway Parkway and Camino Colegio. The developer is seeking to make SMV a sustainably designed community based on the "One-Planet Living" ecological footprint principle. The development area is the former site of the Agilent Campus, and contains several existing buildings. In total, the final development plan comes to approximately 175 acres. The land currently carries an Industrial General Plan land use designation. The developer is seeking to rezone the land as a planned development (PD), with development being a combination of residential, retail, and office/business, and commercial uses. In total, 1,892 housing units are proposed for the development, about 450 of which would be affordable units. SMV is currently not shown on the City's General Plan Land Use Diagram and is still awaiting entitlements, so it is not listed in Table 9.5-1.

As indicated, Sonoma Mountain Village's housing contributions are **not** included in the revised Housing Element, and SMV is **not** depicted on the Housing Element's map of potential housing sites. This appears to be in disaccord with the Housing Element law, which permits a city to include in its Housing Element an "inventory of land suitable for residential development ... to identify sites that can be developed for housing."<sup>1</sup> Among the categories of land that are deemed "suitable for residential development" are "[s]ites zoned for nonresidential use that can be redeveloped for, and as necessary, rezoned for, residential use."<sup>2</sup> Sonoma Mountain Village would appear to fall squarely within this provision, since the site is not residentially zoned, but lies entirely within a redevelopment project area and may be rezoned for residential use in conjunction with the General Plan Amendment.

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<sup>1</sup> Gov't Code § 65583.2(a).

<sup>2</sup> Gov't Code § 65583.2(a)(4).



Rather than revise the information in the current General Plan, we present comments to the current Housing Element revision. For example, the foregoing paragraph could be revised as follows:

**[amendments to draft Housing Element (2007-2014),<sup>3</sup> p. 9.5-6]**

**Sonoma Mountain Village**

Sonoma Mountain Village (SMV) is located at the southwest corner of Bodway Parkway and Camino Colegio. ~~The developer SMV is being seeking to make SMV developed as~~ a sustainably designed community based on the “One-Planet Living” ecological footprint principle. The development area is the former site of the Agilent Campus, and contains several existing buildings, along with 77 acres of vacant land which will be devoted to residential, mixed use, and other compatible land uses. In total, the final development plan comes to approximately 175 acres. The land ~~currently formerly carries~~ an Industrial General Plan land use designation but, by the adoption of this Housing Element and a pending General Plan Amendment, the land will be re-designated for its intended future use, which will include a significant residential component. In conjunction with the General Plan redesignation, The developer is seeking to rezone the land the land will be rezoned as a ~~p~~Planned ~~e~~Development (P-D), with development being a combination of residential, retail, and office/business, and commercial uses. In total, 1,892 housing units are proposed for the development, about 450 of which would be affordable units.

SMV lies entirely within the Rohnert Park Redevelopment Project Area, and is still awaiting entitlements, so it is therefore not listed in Table 9.5-1 pursuant to Government Code Section 65583.2(a)(4).

Potential residential development within SMV includes:

- Approximately 51.5 acres of High Density Residential development, resulting in the potential development of up to 1,008 units.
- Medium Density Residential development (approximately 74.2 acres), resulting in the potential development of up to 621 units plus up to 147 second dwelling units.
- Low Density Residential development (approximately 17.8 acres), resulting in the potential development of up to 65 units plus up to 51 second dwelling units.

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<sup>3</sup> The current housing element in the City of Rohnert Park General Plan expired in 2006. Pursuant to the Housing Element Law (Gov't Code § 65580, *et seq.*), the Housing Element must be updated every ten years.

Other parts of the Housing Element should also be revised to include SMV as a potential source for meeting the City's housing obligations. This would include amendment to Table 9.5-2 as indicated on ATTACHMENT 2 to this document.



## ATTACHMENT 1

### Revised Table for Roadway Improvements

**Table 4.1-4  
Roadway Improvements**

<i>Segment</i>	<i>From</i>	<i>To</i>	<i>Improvement</i>
<b><i>Infill</i></b>			
Rohnert Park Expwy US 101	Commerce Blvd	Redwood Dr	Widen to 6 lanes
US 101 Crossing	State Farm Dr	Business Park Dr	New Minor Arterial
US 101 Underpass	Golf Course Dr	Wilfred Dr	New Major Arterial
Snyder Ln	Southwest Blvd	Hinebaugh Creek	Upgrade to Major Arterial (widen to 4 lanes)
Seed Farm Dr	Enterprise Dr	Rohnert Park Expwy	New Minor Collector
Commerce Blvd	Copeland Creek	Arlen Dr	Upgrade to Major Arterial (widen to 4 lanes)
Golf Course Dr	Fairway Dr	Country Club Dr	Upgrade to Major Arterial (widen to 4 lanes)
<b><i>Eastside</i></b>			
Snyder Ln	North side of Creekside Middle School	South side of G Section Neighborhood	Upgrade to Major Arterial (widen to 4 lanes)
Rohnert Park Expwy	Snyder Ln	Petaluma Hill Rd	Upgrade to Major Arterial (widen to 4 lanes)
Petaluma Hill Rd	1,500 feet north of Keiser Ave	Railroad Avenue	Upgrade with Intersection improvements and turn lanes (remains as 2 lanes, with designation as Minor Arterial).
Eleanor Ave	1999 City Limits	Rohnert Park Expwy	New Minor Collector
Keiser Ave	Snyder Ln	Petaluma Hill Rd	Upgrade to Minor Arterial or Major Collector
New Linear Park Rd	Eleanor Rd	North side of SSU	New Minor Collector
<b><i>Canon Manor and Southeast</i></b>			
East Cotati Ave	Bodway Pkwy	Petaluma Hill Rd	Upgrade to Major Arterial (widen to 4 lanes)
Valley House Dr	Bodway Pkwy	Petaluma Hill Rd	Upgrade to Major Arterial (widen to 4 lanes)
Bodway Pkwy	Camino Collegio	Railroad Ave	New Major Collector
Alice Dr	Bodway Pkwy	Petaluma Hill Rd	Upgrade to Minor Collector

Sturdevant Dr	Valley House Rd	East Cotati Ave	Upgrade to Minor Collector (north of Alice Dr) New Minor Collector (south of Alice Dr)
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***Westside***

Wilfred Ave	1999 City Limits	Urban Growth Boundary	Upgrade to Major Arterial (widen to 4 lanes)
Dowdell Ave	Business Park Dr	Millbrae Ave	Upgrade to Minor Collector
Labath Ave	Business Park Dr	Urban Growth Boundary	Upgrade to Minor Collector (north of Wilfred Ave) New Minor Collector (south of Wilfred Ave)

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## ATTACHMENT 2

Revised Table for Housing Element – Potential Growth Areas  
(attached)

## ATTACHMENT 2

### Amendments To Be Added To Housing Element Table

**Table 9.5-2: Potential Residential Development – Growth Areas (~~outside of 1999 Sphere of Influence~~Within 1999 City Limits)**

<u>Specific Plan/P-D</u>	<u>APN No.</u>	<u>Zoning</u>	<u>Allowable Density (per acre)</u>	<u>General Plan Designation</u>	<u>Acres</u>	<u>Realistic Unit Capacity</u>	<u>Existing Use</u>	<u>Infrastructure Capacity(Y/N)</u>	<u>On Site Constraints (Y/N)</u>	<u>Approved/Constructed/Potential?</u>
<a href="#">SMV</a>	<a href="#">046-051-039</a>	<a href="#">Industrial</a>	<a href="#">Varies<sup>1</sup></a>	<a href="#">Industrial</a>	<a href="#">98</a>		<a href="#">Mixed UseIndustrial</a>	<a href="#">Y</a>	<a href="#">Y</a>	<a href="#">P</a>
<a href="#">SMV</a>	<a href="#">046-051-040</a>	<a href="#">Industrial</a>	<a href="#">Varies<sup>2</sup></a>	<a href="#">Industrial</a>	<a href="#">77</a>		<a href="#">Undeveloped</a>	<a href="#">N</a>	<a href="#">N</a>	<a href="#">P</a>

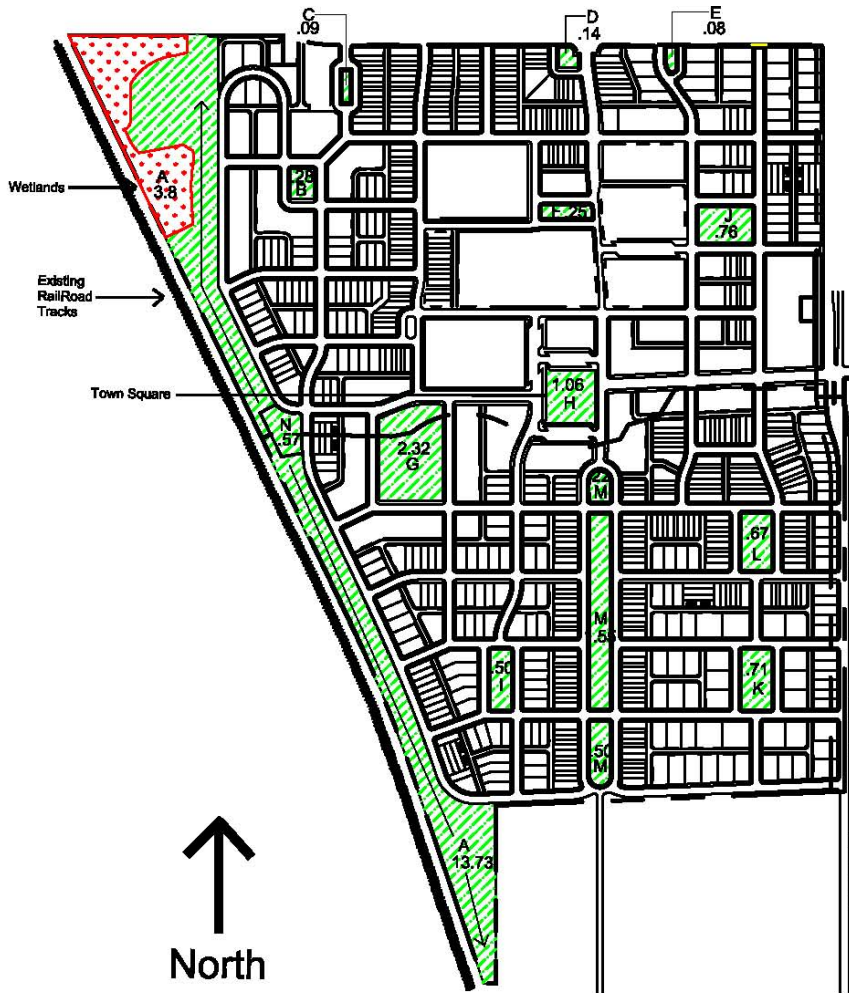
1. [Allowed densities vary from a minimum of 10 D.U. per acre to a maximum of 70 D.U. per acre, depending on the sub-zone.](#)
2. [Allowed densities vary from a minimum of 2 D.U. per acre to a maximum of 70 D.U. per acre, depending on the sub-zone.](#)

[...After Approvals](#)

**Table 9.5-2: Potential Residential Development – Growth Areas (Within 1999 City Limits)**

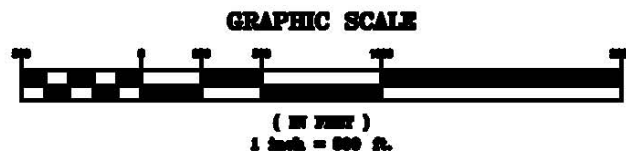
<u>Specific Plan/P-D</u>	<u>APN No.</u>	<u>Zoning</u>	<u>Allowable Density (per acre)</u>	<u>General Plan Designation</u>	<u>Acres</u>	<u>Realistic Unit Capacity</u>	<u>Existing Use</u>	<u>Infrastructure Capacity(Y/N)</u>	<u>On Site Constraints (Y/N)</u>	<u>Approved/Constructed/Potential?</u>
<a href="#">SMV</a>	<a href="#">046-051-039</a>	<a href="#">Mixed-Use</a>	<a href="#">Varies<sup>1</sup></a>	<a href="#">Mixed-Use</a>	<a href="#">98</a>	<a href="#">1,121</a>	<a href="#">Industrial</a>	<a href="#">Y</a>	<a href="#">Y</a>	<a href="#">A</a>
<a href="#">SMV</a>	<a href="#">046-051-040</a>	<a href="#">Mixed-Use</a>	<a href="#">Varies<sup>2</sup></a>	<a href="#">Mixed-Use</a>	<a href="#">77</a>	<a href="#">771</a>	<a href="#">Undeveloped</a>	<a href="#">N</a>	<a href="#">N</a>	<a href="#">A</a>

3. [Allowed densities vary from a minimum of 10 D.U. per acre to a maximum of 70 D.U. per acre, depending on the sub-zone.](#)
4. [Allowed densities vary from a minimum of 2 D.U. per acre to a maximum of 70 D.U. per acre, depending on the sub-zone.](#)



 = Parkland to be dedicated

Park Acreage	
A	17.53
B	.28
C	.09
D	.14
E	.08
F	.25
G	2.32
H	1.06
I	.50
J	.76
K	.71
L	.67
M	2.27
N	.57
<b>TOTAL</b>	<b>27.23</b>



→ 24/10/10  
→ 00000

## SONOMA MOUNTAIN VILLAGE PARKLAND ACREAGE CALCULATIONS

The project site currently is designated for Industrial land use on the Rohnert Park General Plan Diagram.<sup>12</sup> According to the Land Use and Growth Management Element of the General Plan, the Industrial designation “accommodates campus-like environments for corporate headquarters, research and development facilities, offices, light manufacturing and assembly, industrial processing, warehousing, storage and distribution and service commercial uses. Retail is permitted as an ancillary use only. Maximum FAR is 0.5, but discretionary increases may be permitted up to a total FAR of 1.0.”<sup>13</sup>

On the other hand, the General Plan Mixed Use designation as requested “accommodates a variety of compatible businesses, stores, institutions, service organizations, and residences in a pedestrian-oriented setting. Allowable uses include multifamily residences, retail shops, financial, business and personal services, and restaurants.” The Public/Institutional designation provides for schools, government offices, transit sites and other facilities that have a unique public character, while the Parks/Recreation designation provides for parks for active and passive recreation, recreation complexes, community fields, golf courses, arboretums and greenways. Project proposed General Plan land use designations are shown on Figure 2-5, Proposed General Plan Land Use Designations. Figure 2-5 shows the existing General Plan Industrial and (off-site) Open Space land use designations, and proposed land use designations of Mixed Use, Public/Institutional, and Parks.

## **Project Site Rezoning and the SmartCode**

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**Rezoning:** In order to maintain consistency with the requested General Plan amendments, the project includes a proposal to rezone the project site from “I-L” (Limited Industrial) to “P-D” (Planned Development). The “I-L” Limited Industrial District allows for campus-like environments for corporate headquarters, research and development facilities, offices, light manufacturing and assembly, industrial processing, warehousing and storage, and service-commercial uses with retail activities limited to those that support the industrial type uses.

The “P-D” Planned Development District is intended to accommodate a wide range of residential, commercial and industrial land uses which are mutually supportive and compatible with existing and proposed development on surrounding properties. P-D zoning districts encourage the use of flexible development standards to integrate a project into its natural and/or man-made surroundings and is typically intended for projects that provide for a mix of land uses to serve identified community needs.

According to Rohnert Park Municipal Code Chapter 17.06, Land Use Regulations, Article VII, Planned Development Zoning District, each P-D zoning district is to include specific development standards designed for that particular district, including minimum lot sizes, setbacks and open space requirements, architectural and landscaping guidelines, and maximum building heights and lot coverage. Modifications to these standards may be made by the City as appropriate. Varying residential

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<sup>12</sup> Rohnert Park 2020 General Plan (Fourth Edition), adopted by the Rohnert Park City Council, July, 2000, Figure 2.2-1, p. 2-13.

<sup>13</sup> FAR: Floor Area Ratio. The ratio of the gross floor area of a structure on a site as compared to the gross area of the site. A building with a floor area of 100,000 sf on a 50,000 square-foot lot would have a FAR of 2.0.



**FIGURE 2-5**  
**Proposed General Plan Land Use Designations**

Source: Codding Enterprises/Fisher & Hall, Urban Design, Inc., 2007

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densities may be established for specific areas within each district. Once approved, all standards, densities and other requirements are to remain tied to that plan and to the property designated by that district, unless formally amended by City Council action.

A P-D zoning district may include a combination of residential, and commercial uses within either the same or adjacent buildings within the district, so long as such mixed uses are consistent with the General Plan. Commercial and residential components within the same P-D district are to share a similar or compatible architectural theme that maximizes pedestrian access between the two.

**SmartCode:** In accordance with the provisions of the P-D District as noted above, the project sponsor is proposing project development according to the provisions of the SmartCode. The SmartCode is a document that establishes design criteria for streets, blocks, open spaces and buildings based on geographic location ranging from a rural location to an urban core.<sup>14</sup> This is done through the use of a transect which, as defined in the SmartCode, is a geographical cross-section of a region used to reveal a sequence of environments. The objective is to identify a series of conditions that vary by level and intensity of urban character or use that ranges from rural to urban. For planning purposes, the range of environments as defined becomes the basis for organizing the land use components of project development.

The transect is divided into a range of Transect Zones (T-Zones), each with its own definition and character. There are six T-Zones: T-1 Natural, T-2 Rural, T-3 Sub-Urban, T-4 General Urban, T-5 Urban Center and T-6 Urban Core. The SmartCode is promoted by its authors as available for all scales of planning, from the region to the community to the block and building. Thus, the SmartCode is essentially a set of design guidelines that establishes development procedures and standards by zone. Zones proposed to be implemented by the Sonoma Mountain Village project include T-3 through T-6.

The SmartCode authors view the SmartCode as a replacement for standard zoning ordinances that may tend to segregate land uses into specific areas (i.e., residential, commercial, etc.) in the effort to foster integrated land use communities. The project development profile, arranged by Transects T-3 through T-6 and CS (Civic Space Reserve), CP (Civic Parking Reserve) and CB (Civic Building Reserve) is proposed to govern project site development as various portions of the project site are built out. The SmartCode contains a number of details relating to each Transect including building function; building configuration and height; setbacks from streets; density of development; lot coverage; parking requirements; architectural standards inclusive of materials, exterior finishes, use of balconies and porches, fences, windows and shutters, openings, roofs and corner treatments, etc.; landscape development standards; use of signage; sound level limits; and other requirements and standards which vary by Transect. There are also design requirements for “Thoroughfare Assemblies” consisting of boulevards, avenues, commercial streets, roads, rear alleys, bicycle lanes, paths, transit routes, etc. with specific right-of-way widths, pavement widths, traffic lanes, parking lanes, curb radii, design speeds, pedestrian crossing times, and other factors as prescribed.

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<sup>14</sup> For further information regarding the SmartCode, source, definition and applications, refer to: [www.tndtownpaper.com/images/SmartCode6.5.pdf](http://www.tndtownpaper.com/images/SmartCode6.5.pdf).



The SmartCode is generally in keeping with the principles of New Urbanism wherein the neighborhood is the basic unit of urban form. The concept of New Urbanism in and of itself encompasses a number of subject areas including community development, design and appearances, land use, circulation, development density, and related issues. Basically, New Urbanism is a reaction to “sprawl”, that is, development patterns that require more land and the extension of utility and service systems to outlying areas in order to accommodate growth.<sup>15</sup>

As stated in the Sonoma Mountain Village Final Development Plan submittal, the SmartCode for the project is intended by the project sponsor “to be used both as a guide for builders, to allow them to understand from the outset the parameters that the community has set for development, and also as a framework and systematic checklist for the City’s use as it plans its investment in capital projects and evaluates the design of proposed building projects.”

Figure 2-6, Proposed Zoning/Regulating Plan, illustrates the location of each of the Transect Zones proposed under the SmartCode “P-D” District classification.

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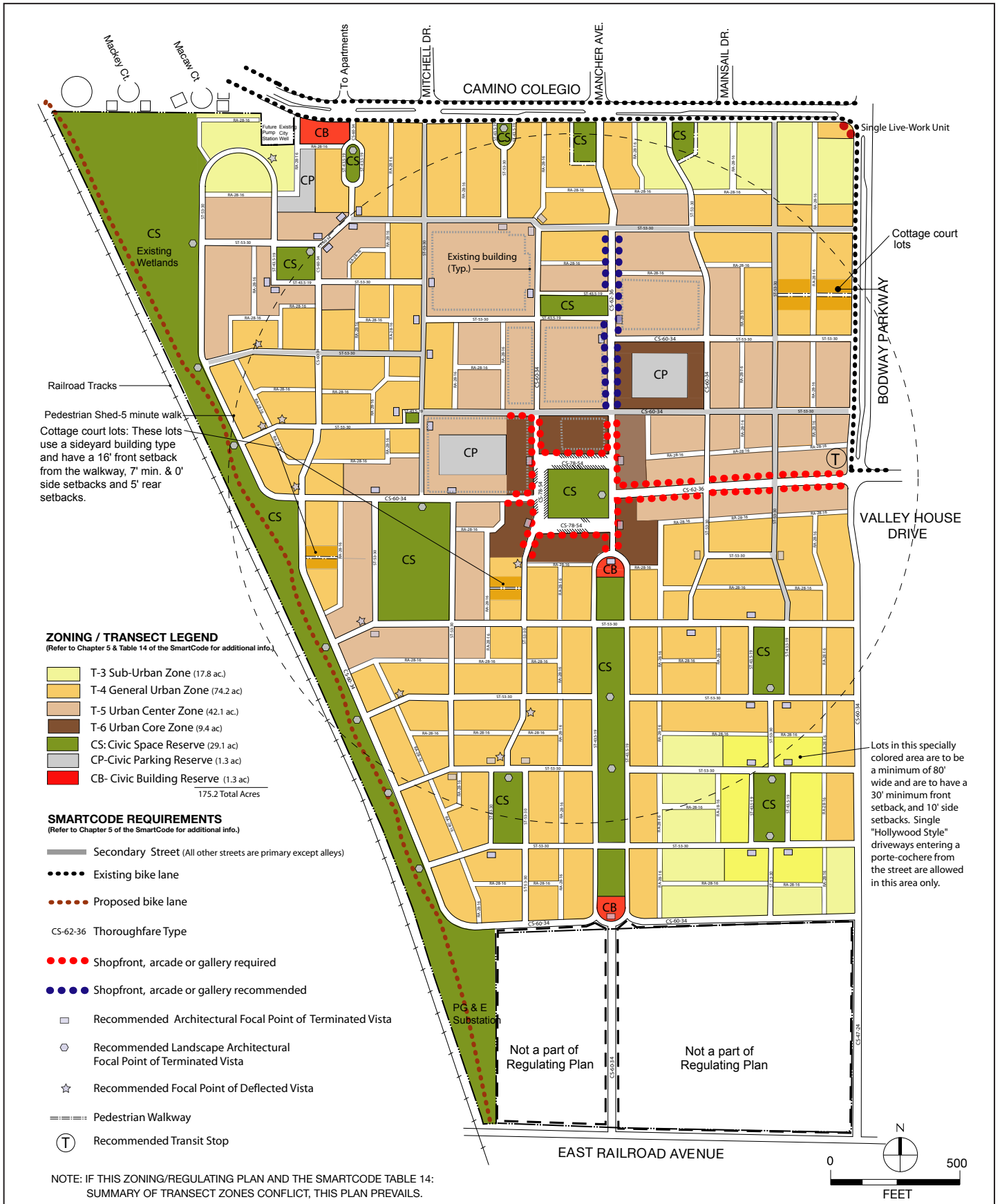
<sup>15</sup> New Urbanism is based on principles of community planning and design that work together to create human-scale communities that include the facilitation of pedestrian movement, among other considerations. New urbanists take a wide variety of approaches — some work exclusively on infill projects, others focus on transit-oriented development. Others are attempting to transform suburbs, and many are working in all of these categories.

New Urbanism includes traditional planners and designers and those with modernist sensibilities. All, however, believe in the power and ability of traditional neighborhoods to restore functional, sustainable communities.

The trend in New Urbanism had its roots in the work of community planners in the 1970s and 1980s. The trend is beginning to have an influence in current community planning. This includes new communities and neighborhoods, and small-scale new urban infill projects in reestablishing walkable streets and blocks. One example includes parking lots, traditionally the most prominent feature of conventional commercial districts, which are accommodated to the side and the rear of New Urban businesses. The sizes of parking lots are reduced through shared parking, on-street parking, and shifts to other modes of transportation.

New Urbanism attempts to promote the creation and restoration of diverse, walkable, compact, mixed-use communities composed of the same components as conventional development, but assembled in a more integrated fashion in the form of complete communities. Such communities may contain housing, work places, shops, entertainment, schools, parks, and civic facilities normal to the daily lives of the residents, all within easy walking distance of each other. New Urbanism promotes the increased use of trains and light rail, instead of more highways and roads. In its highest form, New Urbanism embodies place-making, and is essentially a re-ordering of the built environment into the form of complete cities, towns, villages, and neighborhoods.

The principles of New Urbanism can be applied to new development and projects at a range of scales from a single building to an entire community. These principles include **pedestrian convenience** (destinations within a 10-minute walk of home and work, pedestrian friendly street design); **connectivity** (an interconnected circulation network that disperses traffic & eases walking); **mixed use and diversity** (a mix of shops, offices, apartments, and homes on a given site); **mixed housing** (a range of types, sizes and prices in close proximity to each other); **architecture and urban design** (emphasis on appeal, aesthetics, human comfort, and creating a sense of place); **traditional neighborhood structure** (discernable center and edge, public open space); **convenient transportation** (public transportation, pedestrian-friendly design); and **sustainability** (minimal environmental impact, eco-friendly technologies, respect for value of natural systems), not to the exclusion of other principles.



**FIGURE 2-6**  
**Proposed Zoning/Regulating Plan**

Source: Codding Enterprises/Fisher & Hall, Urban Design, Inc., 2007

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**Project Development Profile:** Thus, in accordance with the proposed General Plan Amendments and Rezoning, the project Final Development Plan and SmartCode specify how and where specific land use types may be developed on the project property. These documents establish the P-D zoning district. The SmartCode, as a zoning and regulating plan, describes the nature, character and location of all development contemplated within the project property. The Final Development Plan engineering drawings delineate the roadway and utility network needed to support the proposed development including roads, alleys, sewers, potable water distribution, reclaimed water distribution, storm drainage, grading and communications (dry utility) systems. While there are no Tentative Map applications at this time, it is considered that maps would be submitted in the future as the various land use designs for each phase of the project are developed in greater detail.

Table 2-1, Summary of Development Standards, provides details regarding proposed project development including a description of each SmartCode Transect, the amount and type of each land use envisioned for the project by Transect, and details of maximum building height and lot occupation based on the SmartCode by Transect.

As noted previously, five building structures of the former Agilent Technologies campus containing about 700,000 sf of floor area are located on the north portion of the project site. A key component of the proposed project is adaptive reuse of the existing buildings to consist of a mix of office, retail, and residential uses.

As indicated in Table 2-1, the proposed project would contain the following development features arranged by SmartCode Transect as follows:

- **Transect Zone T-3, Sub-Urban:** 17.8 acres containing 65 detached single family dwellings with up to an additional 51 accessory dwellings.
- **Transect Zone T-4, General Urban:** 74.2 acres containing 259 single family dwellings and 362 attached (rowhouse) dwellings with up to an additional 147 accessory dwellings.
- **Transect Zone T-5, Urban Center:** 42.1 acres containing 893 attached dwellings, 425,978 sf of office space and 91,801 sf of retail space and a 45,000 sf grocery space.
- **Transect Zone T-6, Urban Core:** 9.4 acres containing 115 attached dwellings and 100,000 sf of retail space, a 25,000 sf theater, a 100 room hotel and a 30,000 sf 24-hour health club.
- **Transect Zone CS, Civic Space Reserve:** 29.1 acres containing public land permanently dedicated to open space use.
- **Transect Zone CP, Civic Parking Reserve:** 1.3 acres dedicated to municipal parking or transit use.
- **Transect Zone CB, Civic Building Reserve:** 1.3 acres dedicated to 35,000 sf of civic building use operated by not-for-profit entities for culture, education, government or other municipal use.

**Table 2-1  
Sonoma Mountain Village  
Summary of Development Standards**

Zone	SmartCode Transect Zone Description <sup>a</sup>	Gross Acres	General SmartCode Building Functions <sup>b</sup>	Project Building Types or Land Uses Allowed	No. of Res. Units or Square Feet of Office/Retail/Other Use <sup>c</sup>			Building Height <sup>d</sup>	Lot Occupation/ Res. Density (units per acre)	Landscape Standards	
					Res. Units	Office (sf)	Retail (sf)				Other (units/sf or uses)
<b>T-3</b> Sub-Urban	Low density suburban residential, allowing home occupations. Planting is naturalistic with setbacks relatively deep. Blocks may be large and the roads irregular to accommodate natural conditions.	17.8	Restricted residential, restricted lodging, restricted office, and restricted retail.	Detached single family dwellings.	65 detached dwellings.	—	—	Up to an additional 51 accessory dwelling units permitted. <sup>e</sup>	Principal building 3 stories max; accessory structure 2 stories max. Specially designated area in NW corner of site is limited to 1 story max for both Principal and Accessory buildings.	60 ft. width min, 120 ft. max; 60% coverage max./min. 2 units per acre, max. 5 units per acre. Specially designated area in SE corner of site has 80 ft. width min.	Minimum of one tree for each 30 feet of street frontage.
<b>T-4</b> General Urban	Mixed-use, primarily urban residential. Consists of a wide range of building types: single, sideyard and rowhouses. Setbacks and landscaping are variable. Streets typically define medium-sized blocks.	74.2	Limited residential, limited lodging, limited office, and restricted retail.	Detached single family dwellings; zero lot line <sup>f</sup> dwellings; townhouses, <sup>g</sup> rowhouses, live/work units. <sup>h</sup> Includes office and retail space.	362 attached (rowhouse) dwellings, 259 detached dwellings.	—	—	Up to an additional 147 accessory dwelling units permitted.	Principal building 3 stories max, 2 stories minimum; accessory structure 2 stories max.	18 ft. width min, 96 ft. max; 70% coverage max./min. 10 units per acre, max 30 units per acre.	Minimum of one tree for each 30 feet of street frontage.
<b>T-5</b> Urban Center	Higher density mixed-use buildings that accommodate retail, offices, rowhouses and apartments. Consists of a tight (compact) network of streets with wide sidewalks, with street trees and narrow street frontages.	42.1	Residential, lodging, office and retail.	Zero lot line buildings, townhouses, rowhouses, live/work units; townhouses over flats; flats and flats over flats. <sup>i</sup> Includes office, retail, and grocery.	893 dwellings .	425,978 sf	91,801 sf	Total retail shown includes 45,000 sf grocery.	Principal building 5 stories max, 2 stories minimum; accessory structure 2 stories max.	18 ft. width min, 180 ft. max <sup>j</sup> 80% coverage max. or 100% with structured parking/min. 15 units per acre, max 45 units per acre.	Minimum of one tree for each 30 feet of street frontage.
<b>T-6</b> Urban Core	High density with a variety of uses including civic buildings. Consists of larger blocks and street trees and narrow street frontages.	9.4	Residential, lodging, office, and retail.	Townhouses, rowhouses, live/work units; townhouses over flats; flats and flats over flats. Includes retail space and community theater.	115 multi-family dwellings.	—	100,000 sf	Project also includes a 25,000 sf theater, a 100 room hotel, 15,000 sf daycare, and a 30,000 sf health club. <sup>k</sup>	Principal building 7 stories max, 3 stories minimum.	18 ft. width min, 700 ft. max; 90% coverage max. or 100% coverage with structured parking/min. 25 units per acre, max. 70 units per acre.	—
<b>CS:</b> Civic Space Reserve	Public site permanently dedicated to open space use.	29.1	—	Site use and design determined on an individual basis by Use Permit. Includes office and retail space.	—	—	—	—	—	—	—
<b>CP:</b> Civic Parking Reserve <sup>l</sup>	Site dedicated to municipal parking and/or transit.	1.3	—	Civic parking to be governed by local codes.	—	—	—	—	—	—	—
<b>CB:</b> Civic Building Reserve <sup>m</sup>	Site dedicated to buildings generally operated by not-for-profit entity for culture, education, government or other municipal use.	1.3	Civic/municipal use.	Site use and design determined on an individual basis by Use Permit.	—	—	—	35,000 sf of Civic Building use.	—	—	—
<b>Project Total:</b>	—	175.2	—	—	1,694 units (not including up to 198 accessory units).	425,978 sf	191,801 sf	Additional uses include up to 198 accessory dwelling units, a 25,000 sf theater, a 100 room hotel, a 30,000 sf health club, and 35,000 sf of Civic Building use.	—	—	—

**Notes:**

- Text abbreviated here, but generally as referenced in SmartCode P-D Zoning District Table 1, page 38, for Sonoma Mountain Village, November 22, 2006. The SmartCode P-D Zoning District, Final Development Plan Submittal of March 2009 is available for public inspection at the City of Rohnert Park Planning Department, 130 Avram Ave., Rohnert Park, CA 94928.
- Restrictions on density and various parking requirements apply to each land use. See Table 11, page 50 of the proposed SmartCode P-D Zoning District.
- Basic data provided by Coddling Enterprises, May 2009, and Sonoma Mountain Village SmartCode P-D Zoning District.
- The vertical extent of a building is measured by the number of stories, not including a raised basement or inhabited attic. Heights are measured from the average grade of the frontage line to the eave of a pitched roof or to the surface of a flat roof.
- Accessory Unit: Often referred to as a “Granny Unit,” either attached to the main dwelling unit or located within the living area of the main dwelling unit. Half of the accessory units are planned for rent, the other half would be for low income residents.
- Zero lot line building: a single family dwelling which occupies on side of the lot, with the primary yard to the other side, shared with ancillary building in the rear yard.
- A townhouse or rowhouse is a single family dwelling that shares a party wall with another of the same type and occupies the full frontage line. Similarly, a multi-family unit is a structure with two or more dwellings sharing a common floor/ceiling.
- As defined for the Sonoma Mountain Village project, a live/work unit is a fee-simple dwelling that contains a commercial component anywhere in the unit. Similarly, a work/live unit is a fee-simple mixed use unit with a substantial commercial component that may accommodate employees and a walk-in trade.
- A flat could be a single story condominium or loft dwelling.
- 125 ft. for courtyard type structures.
- The health club would be open to the public and available for use on a 24-hour basis.
- Civic Parking would consist of a parking structure or lot within a quarter-mile of the site served. Space may be leased or bought from the Reserve to satisfy specific parking requirements.
- Because a civic building would be designed for a civic function, civic buildings under the Sonoma Mountain Village project would not be subject to the requirements of the SmartCode development standards. The design would be determined by City requirements under a Variance.



In sum, the project as proposed at buildout would include up to:

- 1,892 residential dwelling units, including:
  - 324 detached units (single-family)
  - 419 attached units (single family)
  - 951 multifamily for rent
  - 198 accessory residential dwelling units<sup>16</sup>
- 825,307 sf of non residential, including:
  - 425,978 sf of office space
  - 107,329 sf of retail
  - 45,000 sf of grocery space
  - 15,000 sf of daycare space
  - 39,472 sf of restaurant space
  - 35,000 sf of civic building space
  - 25,000 sf theater (1,263 seats)
  - 30,000 sf health club
  - a 100 room hotel (91,000 sf)
  - a 11,528 sf Promenade
  - 800 structure (garaged) parking spaces

**Design and Development Concepts:** The following provides information regarding the project's proposed design, development concepts and details. This discussion does not include information and data as contained in the SmartCode, but is intended to provide a general description of concepts relating to site design and development as described in the project sponsor's *Final Development Plan* submittal of November 22, 2006,<sup>17</sup> and as augmented with material developed by Codding Enterprises entitled *The Community Vision* (no date) and *Project Description*,<sup>18</sup> which elaborates on various design and development concepts for overall project development.

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<sup>16</sup> Accessory unit, often referred to as a "secondary unit," may be either attached to the main dwelling or located within the living area of the main dwelling. The project goal is for one-half of the accessory units to be rental units and the other half to be for low-income residents.

<sup>17</sup> The project *Final Development Plan* of November 22, 2006, and SmartCode are available for public inspection at the Planning Department offices of the City of Rohnert Park, 130 Avram Avenue, Rohnert Park, CA 94928. Further information about the project available to the general public may be found at <http://www.sonomamountainvillage.com/home.htm>.

<sup>18</sup> Codding Enterprises, *Sonoma Mountain Village Project Description*, pp. 15 and 16, July 31, 2007.

- **Housing:** Housing, a major project component, is planned to encompass a diverse cross section of lot sizes, home sizes and prices. The homes would include a combination of single family, mixed-use, live/work, and attached units, as well as high, medium and low density development. To facilitate public transit use, a significant number of high and medium density units would occur in the area around the Village Square to capitalize on the public transport stops located nearby. Lower density housing would occur further from the Village Square area, but would be within a 5 minute walk to the Village Square. Adaptive reuse of the existing buildings would include provision for mixed-use functions wherein residential uses would be combined with office and retail uses. Housing would include a mix of both rental and for-sale units with a range of pricing to assist in affordability requirements.

Housing styles are planned to include a mix of design formats. The housing component of the project is also planned to include accessory dwellings or “secondary” units to provide homeowners with the choice of using them as a home office, an income-generating rental unit, or for accommodating a larger family including the care of parents or a relative.

- **Village Square:** The Village Square is proposed as a central gathering space within the project around which would be clustered a variety of functions and uses. Shopping, community events and entertainment functions are envisioned, accessible to residents throughout the project site via bicycle and pedestrian connections. The provision of local goods and services is planned for emphasis as a convenience to residents. Surrounding buildings would range from three to seven stories in height. The street level building plan is proposed to offer a hotel, multi-screen cinema, restaurants, farmers market specializing in organic locally-grown goods, coffee houses, personal services and shops. Upper building levels are proposed to contain single- and multi-story lofts and condominiums with balconies overlooking the square, commercial office uses and services.
- **Open Space, Parks and Public Facilities:** The project includes a proposal for approximately 27.3 acres of parkland, including various locally accessible park spaces throughout the project site. Public parks and amenities would be offered for dedication to the City and maintenance by the City, while other open area and community facilities would be maintained by homeowners associations. There would be a trail corridor along the western portion of the site (see the discussion below under Bike Trails). An all-weather soccer field is planned for public use with maintenance proposed to be provided by the City of Rohnert Park. The 25.2 acre unincorporated area south of the project site and north of East Railroad Avenue is not included in project development, however, may ultimately be used for a public park or community garden.
- **Civic Building Reserve:** A site currently occupied by a City well which fronts Camino Colegio is reserved as a future fire/police station and is located adjacent to the northwest portion of the project site. To the west of the City well site also fronting Camino Colegio is a site that is reserved for the newly installed sewer pump station has already been dedicated to the City and is not included in the project as proposed.
- **Transportation:** Rohnert Park General Plan Diagram Figure 2.2-1 shows Bodway Parkway as a proposed four lane major collector from Camino Colegio to East Railroad Avenue. The

project proposal is for residential uses fronting Bodway Parkway with the Parkway consisting of two 10-foot wide travel lanes with a parallel-parking lane along the curb on the west side of the existing median north of Valley House Drive. The project proposal also is for a downsized Parkway consisting of single 10-foot wide north and southbound travel lanes with a curbside parallel-parking lane on the west side of the road south of Valley House Drive. If requested, the project sponsor would install a Class 1 bike lane along the southern portion of Bodway Parkway, although the southernmost section of the Parkway that connects to East Railroad Avenue is outside of the development area.

The project Final Development Plan recognizes the former Northwestern Pacific Railroad right-of-way along the west margin of the project site as a possible future rail commute corridor which is now controlled by the North Coast Rail Authority and SMART, with a potential station located about 0.5 miles away along a proposed bike trail and about 1.0 miles away by road, northwest of the project site at Cotati Avenue and Industrial Road. Should a commute corridor come to fruition, pedestrian and bicycle access as proposed throughout the site would include signage to emphasize connections north to the commuter station (for additional information, see Section 3.13 of this EIR, Traffic and Circulation).

- **Street Network:** The project is planned to characterize “small block perimeter design” to create an interconnected street network and encourage pedestrian travel. Street design is proposed as detailed in the SmartCode for each T-Zone and shall conform with City requirements regarding street widths to ensure adequate access and turning radii for fire prevention vehicles. The project street grid is offset with respect to Mainsail Drive at the north margin of the site to reduce traffic crossing Camino Colegio. The street network is designed to align with other existing streets in the project area and the new streets in the Southeast Specific Plan.
- **Bike Trails:** The project is proposed to establish linkages to off-site locations via a bike trail proposed along the east side of the former Northwestern Pacific Railroad right-of-way, and (if requested) the addition of a Class 1 bike lane along the southern portion of Bodway Parkway on the east side of the property. A Class 1 bike trail crossing of the Northwestern Pacific Railroad right-of-way is proposed in the Sonoma County Transportation Authority’s Proposed and Existing Bicycle and Pedestrian Facilities for the City of Rohnert Park and Vicinity, dated April 20, 2006.
- **Parking:** Parking for each T-Zone is proposed to be in accordance with the SmartCode (see Appendix J). Parking spaces in the Civic Parking Reserve may be leased or bought from the Reserve to satisfy parking requirements for future individual or collective lot owners. Funding mechanisms for the construction of these parking reserves is to be determined. Parking requirements for various land uses (including sharing) is proposed to be as detailed in the SmartCode (Table 3) to reduce parking requirements in mixed-use buildings. No parking impacts are anticipated.
- **Public Improvements:** The Development Plan civil drawings, which are based on the SmartCode Zoning/Regulating Plan, delineate proposed sewer, water, and storm drain



improvements as well as streets and alleys. All streets and utilities in the project are proposed to be public improvements. A more detailed discussion can be found in Section 3.14.

- **Adaptive Reuse:** Up to about 700,000 gross sf of existing former Agilent Technologies building space is slated for adaptive reuse. This means the interior spaces of existing buildings would be reconfigured to accommodate a variety of uses including office, commercial/retail, educational, residential, entertainment, and parking. The exterior appearance of the structures as exists today would also be modified to reflect the form and function of interior building space adaptive reuse as planned for the project.

Existing and proposed buildings are shown on Figure 2-4, Proposed Final Development Plan Rendering. The *Innovation Center* building currently houses incubator industry offices. The entire building would be dedicated to office use. The adjacent *Codding Enterprises* building currently houses the offices of Codding Enterprises (the project sponsor) and will include offices of other enterprises and businesses, condominiums, educational facilities, retail and provides interior parking space. The *Wellness Center* building is planned to be primarily used for offices with a health component set aside for senior citizens, and may include some retail and services. The *Theater* building is planned to house a multi-screen cinema with townhomes placed around the north, west and south sides of the building. Interior parking for theater goers and residents would also be provided in the Theater building. To the immediate east of the Theater building are planned mixed retail uses. A new building immediately south of the Wellness Center would contain offices with interior parking to serve the uses contained in the other buildings described in this paragraph. Total enclosed parking would amount to 800 spaces. Uses included in the Civic, Office, and Retail categories are planned to be further detailed as specific applications for phased project development are provided to the City.

- **Resource Conservation:** The project sponsor plans to incorporate green building and sustainable development practices into project construction and operation. The objective is to seek compliance with Leadership in Energy and Environmental Design for Neighborhood Development (LEED-ND) certification and One Planet Communities Living certification to document a commitment to sustainable development.<sup>19</sup> This includes the provision of

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<sup>19</sup> LEED, [www.usgbc.org/DisplayPage.aspx?CategoryID=19](http://www.usgbc.org/DisplayPage.aspx?CategoryID=19):

**What is LEED?** The Leadership in Energy and Environmental Design (LEED) Green Building Rating System™ is the nationally accepted benchmark for the design, construction, and operation of high performance green buildings. LEED gives building owners and operators the tools they need to have an immediate and measurable impact on their buildings' performance. LEED promotes a whole-building approach to sustainability by recognizing performance in five key areas of human and environmental health: sustainable site development, water savings, energy efficiency, materials selection, and indoor environmental quality. LEED provides a roadmap for measuring and documenting success for every building type and phase of a building lifecycle."

**What is LEED Certification?** The first step to LEED certification is to Register your project. A project is a viable candidate for LEED certification if it can meet all prerequisites and achieve the minimum number of points to earn the Certified level of LEED project certification. To earn certification, a building project must meet certain prerequisites and performance benchmarks ("credits") within each category. Projects are awarded Certified, Silver, Gold, or Platinum certification depending on the number of credits they achieve. This comprehensive approach is the reason LEED-certified buildings have reduced operating costs, healthier and more productive occupants, and conserve our natural resources." According to information provided by

infrastructure to support shared residences and business parking, implementing a rideshare program, and a program to promote bicycling.

Energy efficiency and conservation is planned for the project by capitalizing on photovoltaic power and potential purchase of Green-E certified off-site renewable power. The existing buildings are planned to be retrofit over time targeting substantial reductions in existing energy use. In 2007, the project sponsor completed the installation of 90,000 sf of photovoltaic solar panels on the roof of existing building #3 (proposed theater building with parking garage) capable of generating 1.14 megawatts of power for up to 1,000 homes.<sup>20</sup>

- **Water Use:** A Water Plan developed for the project includes the use of reclaimed water in new buildings, graywater collection for subsurface landscape irrigation, rainwater catchment and reclaimed water use for landscape irrigation, and use of water efficient fixtures in bathrooms. Provisions for the control, detention, and potential use of stormwater including bio-swales and detention areas are planned to be included into the project's site drainage system. Reclaimed water as noted above would be used for landscape irrigation to conserve treated domestic water (stormwater retention and the use of reclaimed water are discussed further in EIR Sections 3.7, Hydrology and Water Quality, 3.14, Utilities and Service Systems, Appendix E, Water Plan, and Appendix G, Water Supply Assessment). The unincorporated acreage south of the project site and north of East Railroad Avenue that is not included in project development could ultimately be used for stormwater detention/infiltration basins, or stormwater storage for project site irrigation purposes.

Sustainability, inclusive of resource conservation as noted above, is a proposed key component of the project. A Sustainability Action Plan has been prepared by the project sponsor.<sup>21</sup> The Action Plan addresses a number of subject areas regarding resource conservation and includes procedures, plans, devices, and features to be incorporated into the project. The following quotes summarize the topics included in the Plan:

1. Zero Carbon: All buildings must be energy efficient and supplied by renewable energy.
2. Zero Waste: Strive to ensure at least 70 percent of waste by weight to be reclaimed, recycled or composted and no more than 2 percent to landfill by 2020.
3. Sustainable Transportation: Strive to reduce CO<sub>2</sub> emissions for travel to, from and within the community relative to a regional benchmark and work toward resolving any shortcoming or offset the portion of all unavoidable CO<sub>2</sub> emissions out of compliance with that goal using a certified carbon sequestration scheme.

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Codding Enterprises, the company believes it can achieve Platinum level certification for the Sonoma Mountain Village project.

<sup>20</sup> Solar collector information verified by Don Codding, Codding Enterprises, email to Ted Adams, PBS&J, July 13, 2007.

<sup>21</sup> Sonoma Mountain Village, *One Planet Living Sustainability Action Plan*, July 20, 2007. This document is on file and available for public inspection at the Rohnert Park Planning Department, 130 Avram Avenue., Rohnert Park, CA 94928. An abstract of the document is contained in Appendix B of this EIR.

4. Sustainable Materials: Use of local, reclaimed, renewable, recycled and low environmental impact materials in construction and property management should be increased and optimized.
5. Local and Sustainable Food: Healthy diets should be promoted and minimum targets achieved for supply of organic, low-environmental impact food and local sourcing.
6. Sustainable Water: Water efficiency and recycling must be promoted in line with country-specific best practice.
7. Natural Habitats and Wildlife: Local biodiversity and natural resource stocks must be increased.
8. Culture and Heritage: Valuable aspects of local culture and heritage must be maintained, enhanced or revived.
9. Equity and Fair Trade: Targets must be set to boost the local economy, notably in disadvantaged areas, and to ensure a set ratio of imported goods are fair trade certified.
10. Health and Happiness: Health and happiness of residents must be promoted based on emerging findings from 'happiness' research and periodic residents' surveys.

For informational purposes, Appendix B of this EIR contains excerpts from the Sustainability Action Plan indicating the general approach to be undertaken in implementing the Plan.

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## **2.3 PROJECT SCHEDULING**

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The scheduling of project design and construction has not been established in detail at this time. However, project phasing is discussed in the Final Development Plan, which notes that the creation of development parcels and construction would occur after project approvals and the filing of Tentative and Final Maps. Therefore, if the necessary approvals were given to the project, the initial Phase IA filing of Tentative and Final Maps would be expected to occur in about the end of 2009 with the first construction activities to occur toward the beginning of 2010. The following points regarding phasing are as noted in the Final Development Plan:<sup>22</sup>

- Each project phase is proposed as a portion of the total project to be implemented individually, but is to support the entire project in its completed form.
- Project phasing is planned to be based on market conditions, the timing of approvals, project housing absorption and corresponding need for and timing of utility installation. The intent is to allow the project to proceed while balancing the construction of infrastructure with market absorption of the project elements (housing, commercial space).
- The implementation of each phase is to support funding for subsequent phases.

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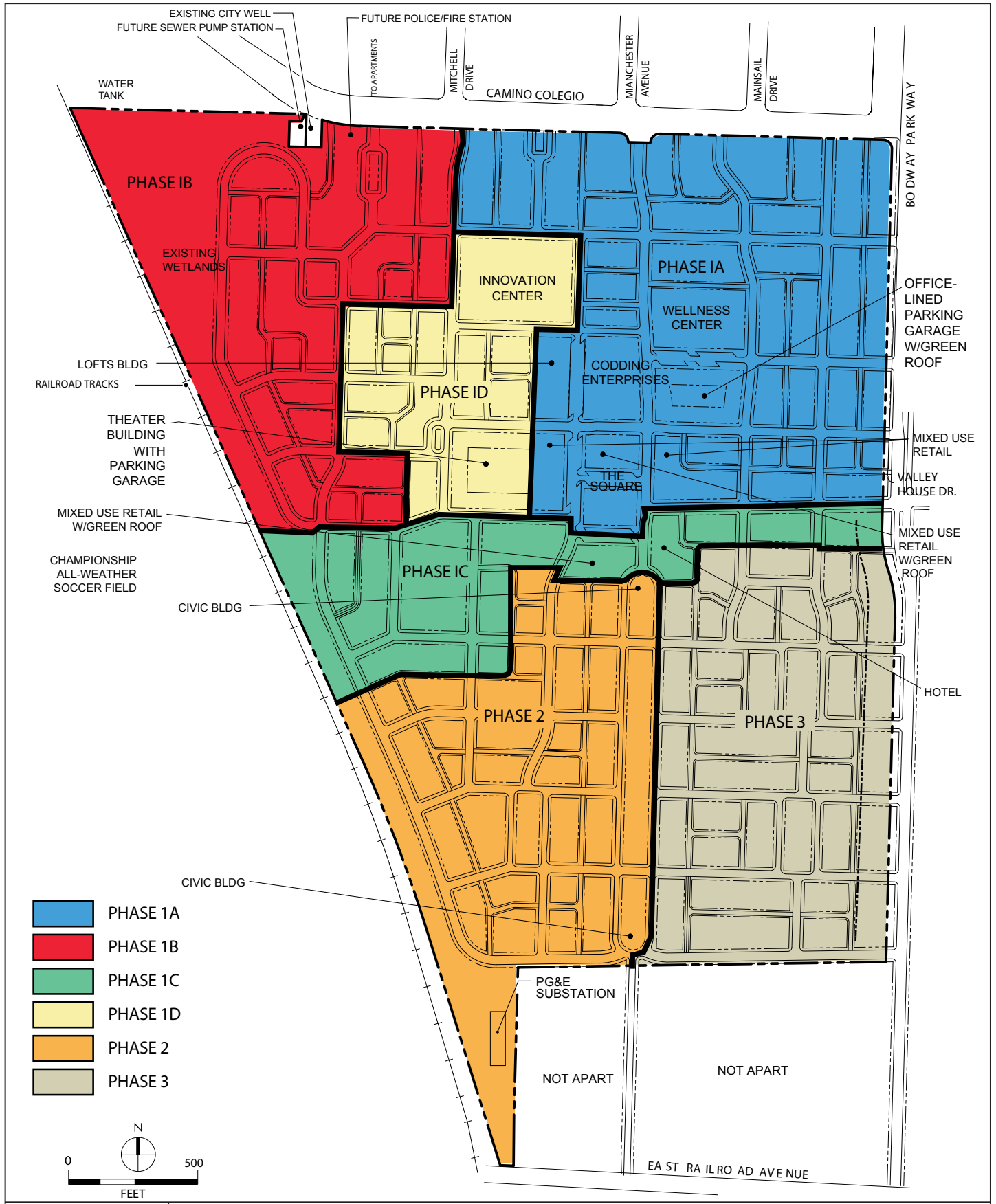
<sup>22</sup> Sonoma Mountain Village Final Development Plan (text as Revised November 22, 2006), Section B.1.g. (pages unnumbered).

- The necessary public improvements for phased implementation are to be included in a Development Agreement with the City (see discussion below under *Project Approvals* regarding a Development Agreement).
- Development phasing is to be based on the City's Growth Management Ordinance which requires controlled development pursuant to the criteria that each development phase have the financial capability to fund the necessary infrastructure.

A proposed project Phasing Plan is shown on Figure 2-7. The Phasing Plan is superimposed over the proposed Final Development Plan showing the location of proposed roads and development areas. The Phasing Plan graphically indicates the general location of each development phase and overall sequence of project site development, although some overlap of phases is anticipated. Figure 2-7 also illustrates the major project components to be included in each Phase. Table 2-2, Summary Phasing Plan, provides additional detail not included in the descriptions of the phases below regarding the project features to be included in each phase of project development (i.e., number of residential units, amount of office space, etc. and various considerations regarding project scheduling). Phase 1 is broken down into four parts:

- **Phase 1A** includes approximately 45.2 acres in the northeast portion of the northerly 98.3 acre project site parcel bounded by Camino Colegio on the north and Bodway Parkway on the east. Phase 1A focuses on adaptive reuse of three of the existing five former Agilent Technologies buildings, including the Coddling Enterprises building, the Wellness Center, and a portion of the Theater building. Phase 1A also includes creation of job centers, a movie theater, restaurants, shops, a grocery store, residential units, and the Village Square and the construction of 628 homes and 44 accessory units. The planned estimated construction period for Phase 1A is up to five years.<sup>23</sup>
- **Phase 1B** includes approximately 32.1 acres in the northwest portion of the northerly 98.3 acre project site parcel bounded by Camino Colegio on the north and encompasses the existing field on the west. This phase includes the construction of up to 319 homes and 28 accessory units. Phase 1B would also include construction of a proposed joint police and fire facility. Due to the proximity to the SMART right-of-way a large number of multi-family units are included in this phase. The planned estimated construction period for Phase 1B would be between three and five years.
- **Phase 1C** includes a 17.3 acre strip of land across the center of the center of the project site encompassing portions of the north 98.3 acre parcel and south 76.9 acre parcel. This phase includes the construction of up to 286 homes and the all-weather soccer field. The planned estimated construction period for Phase 1C would be between one and three years.
- **Phase 1D** includes 15.4 acres of land situated between Phases 1A and 1B and is focused around the Sonoma Mountain Business Center buildings 2 and 3. This phase includes the construction of up to 94 homes and eight accessory units. The planned estimated construction period for Phase 1D is one year.

<sup>23</sup> Coddling Enterprises, *Sonoma Mountain Village Project Description*, p. 12, July 31, 2007.



**FIGURE 2-7**  
**Proposed Final Development Plan with Phasing Overlay**

Source: Codding Enterprises/Fisher & Hall, Urban Design, Inc., 2007

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Sonoma Mountain Village



**Table 2-2  
Sonoma Mountain Village  
Summary Phasing Plan**

Phase	Phase Location (See Figures 2-6)	Gross Acres	No. of Residential Units or Square Feet of Office/Retail/Other Use				Comments (See Figure 2-6 for Phase Locations)
			Res. Units	Office (sf)	Retail (sf)	Other (units/sf or uses)	
1 A	Northeast portion of north parcel.	45.3	17 60' wide lots, single family detached 27 40' wide lots, single family detached 14 30' wide lots, single family detached 12 cottages 25' wd x 50' dp 46 18' wide attached rowhouses 51 25' wide attached rowhouses 22 townhouses 105 apartments 334 condo/loft/flats 44 second dwelling units <b>672 total units</b>	285,978	149,224	25,000 sf – theater 45,000 sf – grocery store (incl. in total retail) 11,528 sf – promenade 15,000 sf – daycare 30,000 sf – health club	Phase I A focuses on adaptive reuse of existing structures, build out of the Village Square, new retail buildings, parking structures, health club, and residential units.
1 B	Northwest portion of north parcel.	32.1	10 60' wide lots, single family detached 18 40' wide lots, single family detached 24 30' wide lots, single family detached 18 18' wide attached rowhouses 24 25' wide attached rowhouses 60 apartments 165 condo/loft/flats 28 second dwelling units <b>347 total units</b>		1,667		Phase I B major features include a possible Fire/Police station, land ≈ 1 acre, to be dedicated to the City of Rohnert Park. Opportunity exists for transportation-oriented housing due to proximity to SMART Cotati station.
1 C	Median strip between north and south parcels.	17.3	5 30' wide lots, single family detached 6 cottages 25' wd x 50' dp 50 apartments 225 condo/loft/flats <b>286 total units</b>	10,000	35,910	91,000 – hotel	Phase I C major features include an all-weather (artificial turf) international soccer field, retail development and a 100-room hotel.
1 D	Northwest center portion of north parcel.	15.3	8 40' wide lots, single family detached 12 30' wide lots, single family detached 17 18' wide attached rowhouses 24 25' wide attached rowhouses 21 townhouses 5 apartments 7 condo/loft/flats 8 second dwelling units <b>102 total units</b>	130,000	1,666		Phase I D focuses on adaptive reuse of existing structures to build a parking structure and townhomes.
2	West portion of south parcel.	33.1	61 40' wide lots, single family detached 33 30' wide lots, single family detached 6 cottages 25' wd x 50' dp 24 18' wide attached rowhouses 29 25' wide attached rowhouses 61 second dwelling units <b>214 total dwelling units + 61 accessory units</b>		1,667	35,000 sf – Civic Building	Phase 2 major features include 35,000 sf of Civic Building use and a north-south linear park focused on a civic building.
3	East portion of south parcel.	31.9	4 100' wide lots, single family detached 10 80' wide lots, single family detached 24 60' wide lots, single family detached 33 40' wide lots, single family detached 64 18' wide attached rowhouses 79 25' wide attached rowhouses 57 second dwelling units <b>271 total units</b>		1,667		Phase 3 would be comprised mainly of residential construction.
<b>Project Total</b>	—	<b>175.1</b>	<b>1,694 dwelling units + up to 198 accessory units</b>	<b>425,978 sf</b>	<b>191,801 sf</b>	<b>Additional uses include up to 198 accessory dwelling units, a 25,000 sf theater, a 100 room hotel, a 30,000 sf health club, a 45,000 sf grocery store (included in Retail sf column), 35,000 sf of Civic Building use, 800 parking spaces, and 27.3 acres of park area.</b>	<b>Because the project supports existing uses, features adaptive reuse of existing buildings and is planned as a mixed use community, phasing sequences may be subject to amendment and consequent adjustment. In addition, part of a phase as planned may not be completed by the time a subsequent phase is started. Infrastructure continuity is planned to be maintained in accordance with the provisions as included in a Development Agreement with the City.</b>



- **Phase 2** includes 33.1 acres of land on the west portion of the southerly 76.9 acre half of the project site bounded by Phase 3 to the east, unincorporated Sonoma County land to the south and Northwestern Pacific Railroad right-of-way to the west. Up to 153 homes and 61 accessory units are planned for construction in Phase 2. Phase 2 properties would border the SMART Rail line on the west and would contain a higher number of single family housing units. The planned estimated construction period for Phase 2 is between one and two years.
- **Phase 3** includes 31.9 acres of land on the east portion of the southerly 76.9 acre half of the project site bounded by Phase 2 to the west, unincorporated Sonoma County land to the south and the proposed southerly extension of Bodway Parkway to the east. Up to 214 homes and 57 accessory units are planned for construction in Phase 3. The planned estimated construction period for Phase 3 is between one and four years.

In sum, the Sonoma Mountain Village construction timetable to the point of buildout could encompass between 12 and 20 years. Project construction phasing would ultimately depend on the PFFP's schedule and the City's implementation of Chapter 17.19, Title 17, Zoning, the Growth Management Program of the *Rohnert Park Municipal Code*.<sup>24</sup> The Program is to assure that the rate of population growth would not exceed the average annual growth rates established in the General Plan and as further described in the Program (with certain exceptions noted). An objective is to ensure new residential development and mixed-use developments with a residential component occur concurrently with the necessary infrastructure and public service improvements, and maintain an average population growth rate of one percent per year. Other factors influencing the rate of project buildout would include market conditions, as noted previously, and the demand for housing, office, and commercial space in the Rohnert Park/central Sonoma County area. The Development Agreement shall ensure that all appropriate improvements are in accordance

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<sup>24</sup> The General Plan Growth Management Element calls for the preparation and adoption of a Growth Management Ordinance that implements the various growth management policies of the General Plan. Toward this end Ordinance No. 667 adding Chapter 17.66, the Growth Management Program to the Rohnert Park Municipal Code was adopted by the City Council on July 24, 2001. The actual Program is contained in Chapter 17.19 of the Zoning Code. One of the many purposes of the Program as expressed in the Program is to ensure that development is coordinated with the provisions of the Program itself. The Program contains a formula for applying a "Trigger Cap" which is the threshold at which a cap on residential development will be established. Its purpose is to maintain an average population growth rate of one percent per year. The Program goes on to note that the City Council may establish priority development areas, after calculating the Trigger Cap and determining the need for a residential development cap based on policies in the Land Use and Growth Management Element of the General Plan. The City's Growth Management Allocation System (GMAS) is to be implemented through development agreements with the developer of each property that chooses to participate in the GMAS. It should be noted that the Trigger Cap calculation under Section 17.19.040 does not include residential infill projects or portions thereof that are adaptive reuse projects (i.e., the redevelopment of an existing property from a non-residential use to a residential use), live/work projects, residential projects developed on commercial properties that have mixed-use components or are under five acres in size or one hundred units or less, or special needs residential units (i.e., single-family units designed for disabled residents).



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## 2.4 REQUIRED APPROVALS

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### City of Rohnert Park

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**Program EIR:** Further consideration regarding the Sonoma Mountain Village project would occur by City of Rohnert Park officials after certification of the Sonoma Mountain Village EIR. The EIR must be certified by the Rohnert Park City Council as complete and adequate under CEQA prior to further consideration of the project, General Plan amendments and rezoning. Upon completion of environmental review under CEQA, the project as proposed would come before the Rohnert Park Planning Commission and City Council for review and public hearings. The City will use the EIR in its decision making on requested project entitlements as well as development agreements, subdivision maps and site-specific land use approvals.

**General Plan Amendments:** The project application includes a request for specified General Plan amendments as listed previously. If approved by the City Council, the Rohnert Park General Plan Diagram would be amended to include the Sonoma Mountain Village plan project site and more accurately reflect the configuration of land uses (road layout, and size and configuration of the Residential, Mixed Use, Office, Commercial, Public/Institutional, Parks and Open Space land uses) as represented within the Final Development Plan text and graphic. These adjustments would not reflect any substantive departure from existing general plan goals and policies, but would further the existing goals and policies by providing greater land use specificity and an updating of the General Plan Diagram to be consistent with any approvals of the Sonoma Mountain Village project.

**Rezoning:** As mentioned previously, in order to maintain consistency with the requested General Plan amendments, the project would require a rezoning of the project site from “I-L” (Limited Industrial) to “P-D” (Planned Development). The “P-D” District is intended to accommodate a wide range of residential, commercial and industrial land uses which are mutually supportive and compatible with existing and proposed development on surrounding properties. The “P-D” District also encourages the use of flexible development standards to integrate a project into its natural and/or man-made surroundings and is typically intended for projects that provide for a mix of land uses to serve identified community needs. Once approved, all standards, densities and other requirements would remain tied to the property designated by the District, unless formally amended by City Council action.

If the SmartCode P-D Zoning District is adopted by the City’s decision makers, the SmartCode would essentially replace the General Plan Community Design Element respecting details of site and neighborhood development on the project site. However, the goals and policies as contained in the Community Design Element would still generally apply to the project. The Community Design Element is a chapter within the General Plan that establishes goals and policies directed toward “protecting and enhancing Rohnert Park’s physical and visual character.”<sup>25</sup>

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<sup>25</sup> Rohnert Park General Plan, Community Design Element, pp. 3-1 through 3-44.

**Development Agreement:** City staff and the project sponsor may negotiate the terms of a Development Agreement to ensure that the developer and the City understand their respective rights related to the project and to ensure that the growth management triggers and the associated provision project amenities and infrastructure are adequately addressed by both parties. Pursuant to Title 17 of the Zoning Code, Chapter 17.21, the purpose of a Development Agreement is to “encourage private participation in comprehensive planning, and reduce the economic costs of development.” In reviewing an application for a Development Agreement, the Planning Commission and City Council are to give consideration to other approved projects; traffic and parking; public services; visual conditions and other impacts of a proposed project upon abutting properties; the ability of the project sponsor to fulfill public facilities financing plan obligations; the relationship of the project to the City’s growth management program; the improvement of land accessible to public use; economic effects to the City; and contribution to meeting the City’s housing needs.

**Project Plan Review:** A Preliminary Development Plan was previously submitted, reviewed and approved by the City Planning Commission. The Final Development Plan, now submitted, proposes the P-D zoning via the SmartCode and Zoning/Regulating Plan. If adopted by the City of Rohnert Park as proposed, the Zoning/Regulating Plan SmartCode text and graphics would become the public document which establishes the amount, type and location of urban development to be permitted on the project site. The Zoning/Regulating Plan, together with the SmartCode, would become the guiding documents that provide the development standards and design guidelines for development within the project site area. The City of Rohnert Park would use the Zoning/Regulating Plan and SmartCode in conducting specific design review of the project and for conformance with the provisions of the General Plan as the various phases of the project are designed in detail.

A master conditional use permit would be required as a part of the Final Development Plan approval. The purpose of a Master Conditional Use Permit is to provide a system within the development review process which allows flexibility in the application of use regulations in a manner consistent with the policies of General Plan and the Final Development Plan. The “P-D” ordinance requires issuance of a Conditional Use Permit for each development phase. In authorizing subsequent Conditional Use Permits during each phase, special conditions may be attached to the permit by the City to prevent undesirable effects of the proposed use and/or to assure consistency of the project with the Final Development Plan.

The project sponsor ultimately would file for Tentative Maps and Final Maps for the creation of phased development parcels and project construction. The phased portions of the project would be subject to further review by the City for consistency with the Zoning/Regulating Plan and SmartCode. City approval of Tentative and Final Maps for the phased portions of the project would be required.

Design and construction plans would be reviewed and/or amended and approved by the City in accordance with Article III, Section 17.25.030 of the Zoning Ordinance for *Site Plan and Architectural Review* and the adopted mitigation measures as specified in the Mitigation Monitoring and Reporting Program prepared for the project prior to issuing grading and construction permits. No construction drawings will be included as a part of the SmartCode. Further, conformance with Ordinance No. 677

(Municipal Code Chapter 17.70), regarding the provision of affordable housing would be required. Ordinance 677 requires that at least 15 percent of all new dwelling units in a residential development of five or more units shall be affordable to low- and moderate- income households, or that equivalent housing in-lieu fees be paid prior to the issuance of a building permit.<sup>26</sup> The project would be subject to Chapter 3.36 of the Municipal Code, the Affordable Housing Linkage Fee, to provide affordable housing for new residents generated by nonresidential development.

The project would also be required to conform with the City’s Green Building Ordinance, Ordinance No. 782, adopted by the Rohnert Park City Council on March 27, 2007 regulating the use of green building practices in compliance with specified thresholds as adopted. For LEED projects, a list of possible LEED points is to be submitted as a part of the pre-permitting documentation.<sup>27</sup>

**Tree Removal:** In accordance with City Ordinance No. 769 adopted by the City Council on April 24, 2007, the removal of existing non-exempt trees on the project site would require a permit under Chapter 17.15, Tree Preservation and Protection, of Title 17, Zoning, of the *Rohnert Park Municipal Code*. Exempt trees include Acacia, Ailanthus, Eucalyptus, Ligustrum, Liquidambar, Monterey Pine and Poplars. Native species are non-exempt. As shown in Table 2-3, the project aims to replace all removed trees on-site at a minimum ratio of 3:1.

<b>Phase</b>	<b>Trees</b>	
	<b>Existing</b>	<b>Proposed</b>
Phase 1A	493	1371
Phase 1B	248	563
Phase 1C	330	450
Phase 1D	88	233
Phase 2	62	571
Phase 3	11	782
<b>Total</b>	<b>1,232</b>	<b>3,971</b>

*Source:* Sonoma Mountain Village, LLC 2009.

<sup>26</sup> Municipal Code Chapter 17.70 establishes “a Housing Trust Fund and an inclusionary requirement or an in-lieu fee on developers of residential development projects to mitigate the impacts caused by these development projects on the rising land prices for a limited supply of available residential land. The fees will be used to defray the costs of providing affordable housing for very low-, low-, and moderate- income households in the City of Rohnert Park.”

<sup>27</sup> The purpose of Ordinance No. 782 which added Chapter 14.50 to the Rohnert Park Municipal Code is intended to raise the level of construction in the City in order to encourage water resource conservation, reduce waste generated by construction projects, increase energy efficiency in buildings, provide durable buildings that are efficient and economical to operate, and promote health and productivity.

Any proposed tree removal as part of a larger project is to be processed along with the primary entitlement request submitted for the project.

### **Sonoma County Water Agency**

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The Sonoma County Water Agency would review project design plans for compliance with County Flood control Design Criteria to ensure that a project would not increase the potential for flooding.

### **Regional Water Quality Control Board (RWQCB)**

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Regulations pertaining to stormwater discharges associated with construction activity issued by the U.S. Environmental Protection Agency in 1999 became effective in March 2003. The regulations prevent the pollution of storm water through the control of erosion, sedimentation and toxic or hazardous materials at construction sites. These regulations are administered by the RWQCBs (North Coast Region) through the National Pollution Discharge Elimination System (NPDES) Program. The City of Rohnert Park administers the NPDES permits within the City limits.

Pollution reduction design is required as part of the permanent drainage system for the post-construction period as well as for the construction phases of a project. A permit is required for construction projects that are greater than one acre in extent and would apply to the proposed project. A Storm Water Pollution Prevention Plan is required that identifies the potential sources of sediment and other potential pollutants, and ensures the reduction of sediment and other pollutants in the storm water discharged from a construction site. A monitoring program is required to aid the implementation of, and assure compliance with the Pollution Prevention Plan. A certification under Section 401 of the Clean Water Act (CWA) would also be required from the RWQCB for activities that would affect wetland habitat subject to the jurisdiction of the U.S. Army Corps of Engineers (USACE). Additionally, the RWQCB has jurisdiction over wetlands where a proposed project does not require a federal permit, but involves removal or placement of material into Waters of the State. In these cases, the project must receive a permit for Waste Discharge Requirements or a Waiver of Waste Discharge Requirements from the RWQCB.

### **U.S. Army Corps of Engineers**

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The USACE regulates activities in waters of the United States under Section 10 of the Rivers and Harbors Act of 1899, and Section 404 of the CWA (“Section 10” and “Section 404” permits). Authorization and pre-construction notification under the USACE permit program would be required where drainages are determined to be “waters of the U.S.” The USACE would need to issue a Section 404 Permit under the CWA and a Section 10 Permit under the Rivers and Harbors Act for any alterations to wetlands (these subjects are discussed further in Section 3.3 of this EIR, Biological Resources).

## **California Department of Fish and Game (CDFG)**

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The CDFG prepares streambed alteration agreements for all projects involving work in streams. Because the project would require the removal of wetlands, a Section 1601 Streambed Alteration Agreement may be required from CDFG to alter the banks of streams channels. The CDFG is also responsible for protecting plant and wildlife populations, and is responsible for overseeing the California Endangered Species Act. In general, CDFG allows the U.S. Fish and Wildlife Service to take the lead in the management of sensitive species but reviews any needed permits to ensure compliance with the State Endangered Species Act.

## **Caltrans**

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Caltrans would review any of the proposed transportation mitigation measures that would involve the redesign of roads or installation of signalization within their jurisdiction to ensure the feasibility of implementation. Any determination regarding the contribution of fair share payments for completion of the proposed mitigation measures would be the responsibility of Caltrans in coordination with the City of Rohnert Park and the project sponsor. Caltrans reserves the right to propose an alternate design mitigation measure in order to reduce impacts to the identified intersection.

# Chapter 3

## Environmental Setting, Impacts, and Mitigation Measures

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### 3.0 INTRODUCTION TO THE ENVIRONMENTAL ANALYSIS

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#### Organization of this Chapter

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This chapter of the Draft EIR presents an analysis of environmental factors that may be affected by the Sonoma Mountain Village project. The environmental analysis has been prepared consistent with Sections 15125 and 15126 through 15126.4 of the CEQA Guidelines, which provide directions on describing the environmental setting, and considering and discussing environmental impacts, respectively. For each issue, the following information is presented:

- **Setting:** This section describes existing baseline conditions, including the environmental context and regulatory background. In accordance with CEQA Guidelines section 15125, the setting consists of the physical environmental conditions in the vicinity of the project site, as they exist at the time the Notice of Preparation (NOP) is published. The NOP for this Draft EIR was published on May 14, 2007.
- **Impacts and Mitigation Measures:** This section has two subsections. The first addresses the methodology used and identifies standards of significance determining the degree to which the project could affect the baseline conditions. The second is the project evaluation subsection; it enumerates potential impacts and corresponding mitigation measures designed to avoid or minimize those impacts identified as significant in accordance with CEQA Guidelines section 15126 and 15126.2. Per the CEQA Guidelines section 15126.4, aside from minimizing significant adverse impacts, mitigation measures must be fully enforceable through permit conditions, agreements, or other legally binding instruments.

Alternatives to the Proposed Project are identified and analyzed in Chapter 6.

#### Classification of Impacts

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The impact assessment portion for each particular environmental resource includes an impact statement that highlights the environmental consequences of the proposed action with regard to that environmental topic. An explanation of each impact and an analysis of its significance follow the impact statement.

As described in the Introduction, a significance statement is made after each impact and is defined as follows:

- **No Impact:** This level of significance is used where circumstances indicate there would clearly be no adverse impact.

- **Less-than-Significant Impact:** This level of significance is used where circumstances indicate there would be an impact, but the degree of impact would not meet or exceed the identified thresholds of significance.
- **Less-than-Significant Impact with Mitigation Incorporated:** This level of significance is used where circumstances indicate there would be an impact that would meet or exceed the identified thresholds of significance but would be reduced to a less-than-significant level through the implementation of mitigation measures.
- **Significant and Unavoidable Impact:** This level of significance is used where circumstances indicate mitigation to reduce the identified impact to a less-than-significant level would not be available or feasible.

Thresholds or significance criteria are used to classify an impact into one of the above categories. These significance criteria are defined for each environmental topic, based on Impact Criteria standards set by the City of Rohnert Park or by CEQA Guidelines, Appendix G. These significance criteria provide the basis for determining the significance of an impact.

For each impact identified as significant (S) or potentially significant (PS), the EIR considers whether feasible mitigation measures are available to avoid or minimize the impact. If the mitigation measures would reduce the impact to a less-than-significant (LTS) level, this conclusion is stated in the EIR. If available mitigation measures would not reduce the impact to a less-than-significant level or if no feasible mitigation measures have been identified, the EIR classifies the impact as significant and unavoidable (SU).

## **Enumeration of Impacts and Mitigation**

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Each impact topic is listed using a numerical system that identifies the environmental issue by subsection. For example, Impact 3.3-1 denotes the first impact discussion in the Biological Resources subsection. It should be noted that the order of presentation of EIR technical issues is provided in alphabetical order to be consistent with CEQA Guidelines Appendix G and the City of Rohnert Park's list of Standards of Impact Significance that are used throughout all EIRs prepared for the City. The following numbers are used to identify the environmental issues discussed in this section:

- |   |  |
|---|--|
| • 3.1 – Aesthetics and Urban Design     | • 3.8 – Land Use and Planning          |
| • 3.2 – Air Quality                     | • 3.9 – Noise                          |
| • 3.3 – Biological Resources            | • 3.11 – Population and Housing        |
| • 3.4 – Cultural Resources              | • 3.12 – Public Services               |
| • 3.5 – Geology and Soils               | • 3.13 – Traffic and Circulation       |
| • 3.6 – Hazards and Hazardous Materials | • 3.14 – Utilities and Service Systems |
| • 3.7 – Hydrology and Water Quality     | • 3.15 – Global Climate Change         |

Mitigation measures are numbered to correspond to the impacts they address; e.g., Mitigation Measure 3.7-2a refers to the second mitigation for Impact 2 in the Hydrology and Water Quality subsection. A brief title is included to easily identify the mitigation measure.

## **CEQA Methodological Requirements**

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CEQA Guidelines section 15151 describes standards for the preparation of an adequate EIR. Specifically, the standards under section 15151 are listed below.

- An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes into account environmental consequences;
- An evaluation of the environmental impacts of a project need not be exhaustive; rather, the sufficiency of an EIR is to be reviewed in light of what is reasonably feasible; and
- Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts.

In practice, the above points indicate that EIR preparers should adopt a reasonable methodology upon which to estimate impacts. This approach means making reasonable assumptions using the best information available. In some cases, typically when information is scarce or where there are possible variations in project characteristics, EIR preparers will employ a reasonable “worst-expected-case analysis” in order to capture the largest expected potential change from existing baseline conditions that may result from implementation of a project.

## **Environmental Setting (Baseline)**

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An EIR must describe the physical conditions and environmental resources within the project site and in the project vicinity, and evaluate all potential effects on those physical conditions and resources (see CEQA Guidelines section 15125):

An EIR must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, from both a local and regional perspective. This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant.

Furthermore, CEQA Guidelines section 15126.2(a) explains that:

In assessing the impact of a proposed project on the environment, the lead agency should normally limit its examination to changes in the existing physical conditions in the affected area as they exist at the time the notice of preparation is published, or where no notice of preparation is published, at the time environmental analysis is commenced.



The environmental setting used for purposes of this EIR considers the current state of the property as of May 14, 2007, the publication date for the NOP, as a baseline for comparison of new conditions that would be generated by the Sonoma Mountain Village project: increased vehicle trip generation (and related noise and air quality impacts), demand for services and utilities, and other potential environmental effects. As properly measured against the existing environmental setting, impacts from the project include the net new effects of development, plus temporary impacts associated with construction.

## **Types of Effects and Impacts**

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Pursuant to CEQA Guidelines section 15126.2, consideration of direct and indirect physical impacts of a project is required in determining the significance of the project's impacts. The types of physical impacts associated with the Sonoma Mountain Village project are listed below, together with examples of how these impacts are calculated.

### **Physical Impacts**

**Footprint Impacts.** The land area occupied by the proposed new structures comprises the project's building footprint. The building footprint plus the land to be occupied or disturbed during construction of the project comprise the project footprint. From the size and location of the project footprint, the EIR identifies whether the project would encroach into biologically sensitive areas, areas subject to flooding or severe groundshaking, impact highly scenic view corridors, or disturb cultural resources, for example. These so-called "footprint impacts" are derived from analysis of the areas to be disturbed by construction activities and/or then covered by structures or pavement on the project site.

**Impacts to Ambient Conditions.** "Ambient conditions" refer to the background transportation, air quality, and noise conditions surrounding the project footprint. Transportation impacts are those that involve changes to the flow or service levels of access ways within and around a project site. Transportation impacts are dependent on the level of activity within the project footprint, points of ingress and egress of a project site, and the location and number of outsiders traveling to, from, and past a project site. Projections of transportation impacts during project construction and operation are particularly important considerations in estimating the projected change to ambient air quality and noise levels around the project site. The air quality and noise analyses also consider the impacts of construction activities, and the impacts of projected future activities associated with proposed land uses.

**Consumption/By-Products Impacts.** Because the Sonoma Mountain Village project would involve increased development, utilities, public services, hazardous materials usage, and the generation of hazardous waste could change from existing levels. For the purposes of this EIR, increased utilities and public services demand, hazardous materials usage, and waste generation are assumed to be correlated to the net increase in developed floor space or the number of occupants, unless other information has been provided by the project sponsor.

**Cumulative Impacts.** Cumulative impacts refer to "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental effects"

(CEQA Guidelines section 15355). An EIR is required to analyze cumulative impacts and propose feasible options for mitigating or avoiding the project's contribution to any significant cumulative impacts, if the project's contribution is "cumulatively considerable" (Public Resources Code section 21083; CEQA Guidelines section 15130).<sup>1</sup> The discussion of cumulative impacts should reflect the severity of the impacts and their likelihood of occurrence. CEQA Guidelines section 15130(b) states that an EIR's analysis of cumulative impacts should be based on either a list of past, present, and probable future projects producing related impacts or a summary of projections contained in an adopted general plan or related planning document. When using a list, factors to consider in determining whether to include a related project include the nature of each environmental resource that is being examined, the location of the project and its type (CEQA Guidelines section 15130(b)(2)).

### **Economic and Social Impacts**

Under CEQA, economic and social effects of a proposed project are not required to be evaluated. However, if the social or economic effects would lead to physical environmental effects, then such effects would need to be analyzed and addressed in the EIR. Section 15131 of the CEQA Guidelines states the following specific ways that economic or fiscal effects may be considered as part of the EIR:

- Economic or social effects of a proposed project shall not be treated as significant effects on the environment. An EIR may trace a chain of cause and effect from a proposed decision on a proposed project through anticipated economic or social changes resulting from the proposed project to physical changes caused in turn by the economic or social changes. The intermediate economic or social changes need not be analyzed in any detail greater than necessary to trace the chain of cause and effect. The focus of the analysis shall be on the physical changes.
- Economic or social effects of a proposed project may be used to determine the significance of physical changes caused by the proposed project.
- Economic, social, and particularly housing factors shall be considered by public agencies together with technological and environmental factors in deciding whether changes in a proposed project are feasible to reduce or avoid the significant effects on the environment identified in the EIR.

### **Environmental Effects Not Found to Be Significant**

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During preparation of the EIR, the issue areas of agricultural resources and mineral resources were found not to result in significant impacts and therefore are not addressed in detail in this EIR. Pursuant to CEQA Guidelines section 15128, the reasons these issues were determined not to be significant are described below.

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<sup>1</sup> 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." CEQA Guidelines, Section 15065(a).

## **Agricultural Resources**

The Project site has been developed since the 1960s and has served as offices, and a research and development facility for several decades. Based on site visits and the history of development in the area, there are no agricultural resources located on or near the Project Site.

The project area does not contain Prime Farmland, Unique Farmland, or Farmland of Statewide Importance as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency within the Project Site. According to the “Sonoma County Important Farmland 2006” map, the project area is considered “urban and built-up land,” which contains no agricultural resources. No Williamson Act contracts have been executed on the project site or in the vicinity. The proposed project would not include any alterations to the existing environment that could result in conversion of farmland to non-agricultural uses (as there is no farmland located within the Proposed Project area). Thus, there would be no impact due to conversion of farmlands, no impact due to a conflict with an existing agricultural use or a Williamson Act contract, and no impact would occur related to conversion of agricultural uses to non-agricultural activities. This topic will not be addressed further in the Draft EIR.

## **Mineral Resources**

Mining activities in California are regulated by the Surface Mining and Reclamation Act (SMARA) of 1975. Based on guidelines adopted by the California Geological Survey (CGS – formerly known as the Division of Mines and Geology), areas known as Mineral Resource Zones (MRZs) are classified according to information about the presence or absence of significant deposits. There are no known mineral resources on the project site. The CGS Mineral Land Classification Map for the Rohnert Park area classifies the Project Site as MRZ-1, which constitutes an area “where adequate information indicates that no significant mineral deposits are present, or where little likelihood exists for their presence.” According to the CGS maps, the nearest mineral deposit classified area is Sector F, which is approximately 3 miles west of the project site and contains Sonoma Volcanics Basalt and Petaluma Formation Sand-Stonypoint. Since there are no known significant mineral deposits at the site and the nearest classified area is located approximately 3 miles from the project area, the proposed project would not impact mineral resources. This topic will not be discussed further in the Draft EIR.

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## 3.1 AESTHETICS AND URBAN DESIGN

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### Introduction

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This section of the EIR examines the aesthetic (visual quality) and urban design aspects of constructing the Sonoma Mountain Village project. A description of the existing setting is provided followed by a discussion of impacts and mitigation measures as required to mitigate any identified significant adverse impacts. Anticipated changes in visual character, conditions, and/or visual quality of the site and its surroundings as a result of changes in physical appearances with the project fully implemented are examined. Descriptions of the physical form of buildings and the layout of structures and open spaces consistent with the Proposed Final Development Plan Rendering (Figure 2-4) and Proposed Zoning/Regulating Plan (Figure 2-6) are included in the analysis. It is recognized that the perception of aesthetic or visual conditions and the assessment of visual impact would vary depending on the mindset of the viewer and individual sense of aesthetics as explained further herein. However, the thresholds of impact significance adopted by the City of Rohnert Park are provided on which to base the assessment of aesthetic impact.

### Setting

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#### Project Site Surroundings

The Sonoma Mountain Village project site is located in the most southeasterly portion of Rohnert Park, within the City's Sphere of Influence and Urban Growth Boundary. The southeast portion of Rohnert Park, inclusive of the project site as a whole, is visually diverse because of the mixture of undeveloped and developed areas that currently exist.

Petaluma Hill Road, a primary north-south two-lane roadway east of the project site, provides vehicular and pedestrian views of the existing semi-rural landscape setting. The terrain adjacent to the roadway is generally level to the eye with scattered homes and associated appurtenant structures. Undeveloped and/or managed agricultural land exists throughout the area. Evidence of an occasional residential structure under construction comes into the motorist's view. Much of the project site is not readily visible from vehicles traveling along Petaluma Hill Road due to the slightly higher elevation of the west side of the roadway and intervening vegetation and occasional structures.

Older agricultural structures and single-family residences widely spaced on large land parcels in the general area provide reminders of local agricultural history and activities that in the past predominated throughout the greater Rohnert Park area. The dominant land form in the area consists of the oak and grass-covered, north-south trending Sonoma Mountains about six miles east of the project site. Views of the Sonoma Mountain hillsides and ridgelines to the east take on added importance in the field of view where there are fewer trees and buildings to obstruct regional views. Sonoma Mountain rises to an elevation of about 2,300 feet and is located six and one-half miles directly east of the project site. The Sonoma Mountains serve as the principal scenic background feature in the region. Because of their

height, the Sonoma Mountains essentially terminate eastward views from Rohnert Park and the project area, and provide visual contrast to the flat terrain that includes the City of Rohnert Park as a whole.

Valley House Drive is an east-west two-lane roadway connecting the project site to Petaluma Hill Road. Valley House Drive serves as the primary entry to the project site where it meets Bodway Parkway on the east margin of the site. This main entry for the westbound traveler along Valley House Drive reveals a curvilinear road entering the site bordered by substantial stands of redwood trees that guide and direct vision and movement through the project site.

Bodway Parkway is a four-lane arterial with landscaped edges and a center median bordering the west margin of the project site. Recent residential development predominates on the west side of Bodway Parkway north of the project area. To the east between Bodway Parkway and Petaluma Hill Road, is approximately 80 acres of undeveloped land known as the Southeast Specific Plan area for which approximately 500 residential units are planned.<sup>1</sup> Immediately north of the Southeast Specific Plan area is the 237-acre Canon Manor Specific Plan area, which is partially developed for residential use but for which no specific plan has been prepared.

East Railroad Avenue, a primary two-lane east-west corridor is located about 700 feet south of the southern margin of the site (the southwest portion of the site extends down to meet East Railroad Avenue). The project site is visible from East Railroad Avenue with grasslands visible in the foreground. Background views encompass prominent vertical elements of poplar and redwood trees along the project entry road extending into the site from Valley House Drive. The trees serve as a visual shield to the estimated 40 to 50-foot high Agilent Technologies structures to be found on the north portion of the project site.

The former Northwestern Pacific Railroad right-of-way which is now controlled by the North Coast Rail Authority and Sonoma Marin Area Rail Transit (SMART) defines the west margin of the site extending north from East Railroad Avenue. An approximate 12- to 15-foot high earth berm separates the railroad right-of-way from the site and the site is not visible from the right-of-way throughout much of its length. The earth berm provides a visual edge to the west margin of the site, generally obstructing views further west beyond the site where residential neighborhoods predominate. Conversely, existing stands of eucalyptus trees and the earth berm along the railroad right-of-way restrict or block views to the site from residences to the west.

Camino Colegio is a heavily landscaped four-lane arterial along the north portion of the project site. Camino Colegio provides access to the site's north entry as well as provides the principal access to single- and multiple-family residential neighborhoods immediately to the north. Due to an approximate six- to eight-foot high earth berm planted with numerous sycamore trees, views into the project site are substantially screened except at the site's entry point where views into the site interior and existing building structures may be seen. The earth berm and tree plantings along both sides of the roadway and within the road median form a visual barrier between the site and neighborhood areas to the north.

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<sup>1</sup> City of Rohnert Park, *Southeast Specific Plan, Final Draft*, Parsons, 2003.

Camino Colegio intersects Bodway Parkway at the northeast corner of the project site. Bodway Parkway forms the east margin of the site as noted above and terminates further south at the intersection of Valley House Drive and the site's east entry. Similar to Camino Colegio, a six- to eight-foot high earth berm separates Bodway Parkway from the project site. Views to the site's interior from Bodway Parkway are restricted due to the height of the earth berm and ornamental trees planted on the berm.

Views of existing 40- to 50-foot high buildings on the site are visible from most directions. However, due to extensive plantings of poplars, redwoods and sycamore trees throughout the north portion of the project site, the existing buildings remain screened from view from numerous off-site locations and thus do not overpower the view or assume a physical dominance that could be considered out of character with the setting.

At the current time, excluding the residential community immediately north of the project site surrounding Magnolia Park, other lands surrounding the project site do not provide a strong sense of “place” or contain well defined entry points. Excluding the Sonoma Mountain Range three miles east of the project site, the project area is predominantly flat. At nearby off-site locations there are no slopes or variations in the terrain to provide visual interest. There are earth mounds surrounding and within the project site as noted previously, but these earth forms are not natural, and serve specific purposes such as screening and controlling views into the project site or otherwise are intended to provide visual interest on the Agilent Technologies campus.

Accordingly, the landscape surrounding the project site east of the railroad right-of-way tends to retain the suggestion of a land area in a state of transition because of location between the urban, developed areas of Rohnert Park to the west and north, and semi-rural landscape to the east and south. The appearance of the area in a state of transition is reinforced due to a sense of partial enclosure provided by the construction of residential subdivisions west and north of the site within the City Limits. Past agricultural activities on currently sparsely developed or undeveloped lots are evident in the assorted structures that remain today, and some agricultural activities continue at this time as indicated previously, including the harvesting of hay on the Southeast Specific Plan project site on the east side of Bodway Parkway.

On a more regional level, the project site is visible when viewed from upland elevations two to three miles east of the site in the Sonoma Mountain area, such as Crane Creek Regional Park or hillside residential areas above Cold Springs Road. Hillside slopes, residences and vegetation do obstruct views to the site from various hillside locations, but the project site can be seen where there is no blockage of the view. Because much of the landscape below the hillsides is flat with scattered developed and undeveloped areas, the project site as a whole tends to blend with conditions of the setting. The site is identified principally by the Agilent Technologies building structures. Because of their mass, the Agilent structures are noted as larger than other structures in the area, which are primarily residential with a two story maximum height. However, because of distance to the hillside viewpoint locations as noted, the project site does not assume a significant visual presence within the setting and thus does not signal an importance that may overshadow other land uses in the area. Further, haze noted on a typical day may obscure visual access to the site and items of interest within the field of view.

## **Project Site Features & Conditions**

In many ways the project site reflects the visual character of its surroundings while adding a new dimension in visual makeup to conditions of the setting. For example, the southern 76.9 acres of the site are undeveloped with grassland mowed on an annual basis. The only visible structure on the site is a small PG&E electrical substation located in the most southwesterly portion of the site on the north side of East Railroad Avenue. This location is also visually identified by virtue of the grove of eucalyptus trees that screen views of the substation from the north. The earth berm located along the west margin of the site mentioned above restricts outward views from the southerly 76.9 acres toward residential areas further west, thus reinforcing the sense of undeveloped open land as seen from surrounding areas to the north, east, and south. This undeveloped landscape is particularly evident from East Railroad Avenue because there are no earth berms or trees to obstruct the field of view from the roadway.

Excess earth as a result of excavating for campus development appears to have been deposited on portions of the south portion of the site, but is not significantly noticeable within the field of view from off-site locations. Other than remaining as a relatively open, mostly undeveloped parcel of land, the south portion of the project site retains no substantial visual significance because it lacks any unique landscape features, such as oak woodland, as may be found in more distant off-site areas, specimen trees, earth contouring, or other features of substantial visual interest.

When the Agilent Technologies campus was constructed, substantial groupings of poplar and redwood trees were installed along the main entry road extending west from the juncture of Valley House Drive and Bodway Parkway. Today, the trees have attained significant stature and clearly separate the south undeveloped 76.9 acres of the site from the north developed 98.3 acres of the site. The developed campus area is readily identified through the stands of poplar and redwood tree groupings as seen from outlying areas, particularly East Railroad Avenue.

Existing structures on the site, ranging up to 50 feet in height, exhibit substantial scale in contrast with the pedestrian environment because of their large mass, as expressed by their length, width, and height. The five existing buildings may be seen from areas surrounding the site because of their relatively greater mass. However, because of their spacing and resulting open spaces between buildings, the existing structures do not appear as objectionable forms or appear out of character with the site. This is because of the earth contouring, tree plantings, and turf that surround the developed campus area that screen views, relate the scale of the constructed environment to a more natural condition, and add visual interest to the setting. The six- to ten-foot earth berms located between the project site and Camino Colegio and Bodway Parkway as mentioned previously substantially screen views to the project site interior and existing buildings from off-site viewpoints.

Major parking areas are located within west, north and east portions of the project site on the north 98.3-acre parcel. However, the actual aerial extent of these parking areas is not apparent due to the use of earth berms and tree plantings that screen views to the parking areas. Major green, or grassland, areas are located on the west portion of the site and include a baseball diamond and soccer field. Other grassland areas are found on the rolling berms located along the north and east margins of the site and

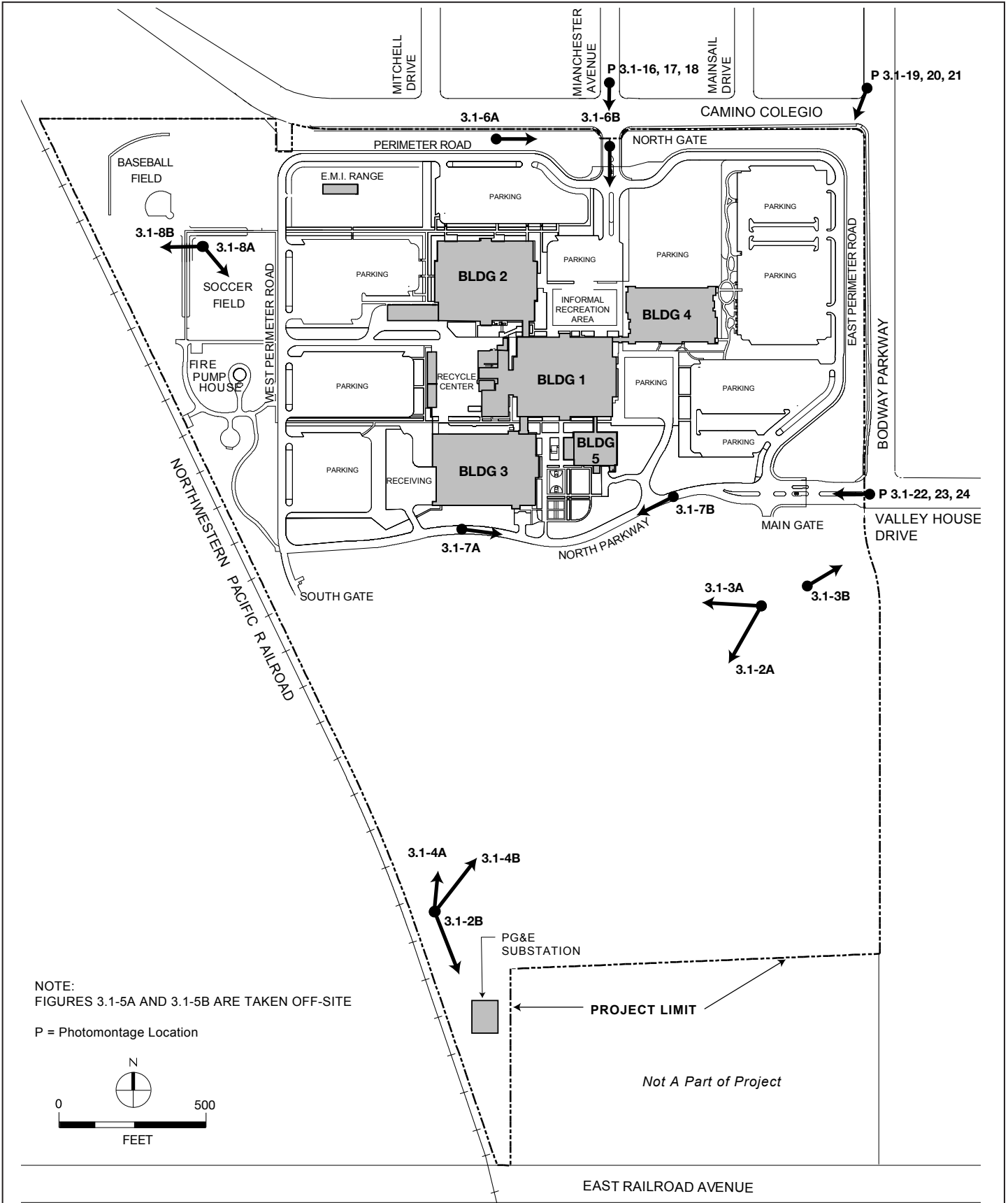
along the entry road extending west from Valley House Drive. Overall, the extent of building mass and parking area that currently exists when viewed from any single location is not readily apparent to the observer due to landscape development that surrounds the campus as a whole and finds its way to interior portions of the site.

## Site Photography

To illustrate visual conditions within and surrounding the project site, a series of photographs are provided on Figure 3.1-2 through Figure 3.1-8. The viewpoint locations are illustrated on Figure 3.1-1, Photograph Location Map. All photographs were taken with a 50 mm lens which approximates what would be seen by the unaided eye. The following summarizes what is shown in the photographs:

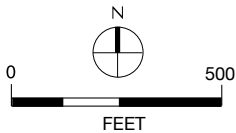
- Figure 3.1-2A is a view in a southwest direction across the south 76.9-acre portion of the project site toward the PG&E electrical substation. The substation is indicated through the dark image of the eucalyptus trees in the center of the photograph. The 12- to 15-foot high earth berm separating the former Northwestern Pacific Railroad right-of-way and the project site with dense vegetation in the background may be seen on the right side of the photograph. The photograph location is on top of an earth mound suspected to have resulted from constructing the Agilent Technologies campus.
- Figure 3.1-2B is a close in view of the PG&E substation at East Railroad Avenue in the southwest portion of the site. The eucalyptus trees are a major vertical feature in the immediate area. The earth berm parallel to the Northwestern Pacific Railroad right-of-way may be noted on the right side of the photograph.
- Figure 3.1-3A is a photograph taken from the same location as Figure 3.1-2A looking directly west. The 12- to 15-foot high earth berm separating the former Northwestern Pacific Railroad right-of-way and the project site with dense vegetation in the background may be seen throughout in the background.
- Figure 3.1-3B is a photograph taken from near the same location as Figures 3.1-2A and 3.1-3A. The view is east-northeast toward the Sonoma Mountains with Valley House Drive leading west to the project site's east entry. Excluding the Sonoma Mountains, the flat terrain of the area landscape is evident in the photograph.
- Figure 3.1-4A is a view north-northeast across the south 76.9 acres of the project site to the north 98.3 acre parcel. The viewpoint location is on top of the earth berm immediately north of the PG&E substation shown on Figure 3.1-2B. Figure 3.1-4A clearly shows the stands of poplar and redwood trees that line the project site entry road extending west from the intersection of Valley House Drive and Bodway Parkway.
- Figure 3.1-4B is similar to Figure 3.1-4A but is directed further to the east to illustrate a continuation of the redwood tree plantings along the project site entry road and view of the Sonoma Mountains in the background as a point of reference.





NOTE:  
 FIGURES 3.1-5A AND 3.1-5B ARE TAKEN OFF-SITE

P = Photomontage Location

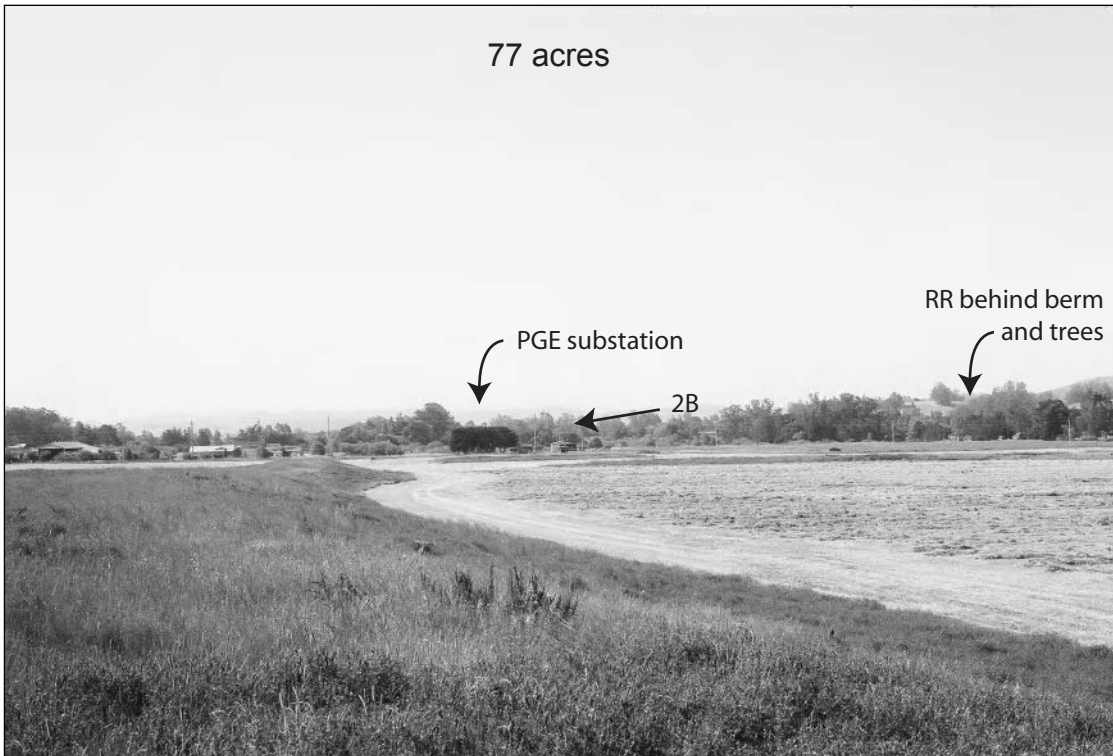


**FIGURE 3.1-1**  
**Photo Location Map**

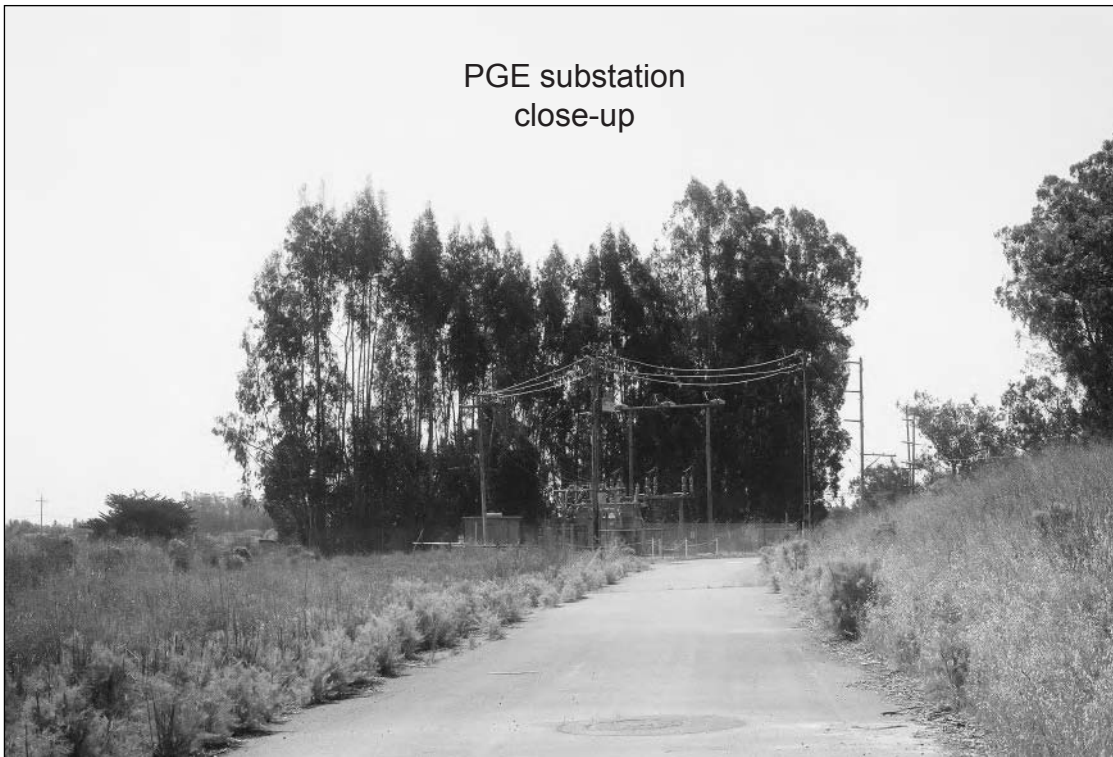
Source: Codding Enterprises; PBS&J, 2007

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Sonoma Mountain Village



A. VIEW SOUTHWEST ACROSS SOUTH PORTION OF PROJECT SITE.



B. PG&E SUBSTATION AREA, SOUTHWEST PORTION OF SITE.



A. VIEW WEST ACROSS SOUTH PORTION OF PROJECT SITE.



B. VIEW NORTHEAST TOWARD SONOMA MOUNTAINS.





A. VIEW NORTH/NORTHEAST ACROSS SOUTH PORTION OF PROJECT SITE.



B. VIEW EAST-NORTHEAST ACROSS SOUTH PORTION OF PROJECT SITE.



A. VIEW WEST TOWARD PROJECT SITE FROM SUSAN LANE.



B. VIEW NORTHWEST TOWARD PROJECT SITE FROM RAILROAD AVENUE.





A. VIEW EAST ALONG CAMINO COLEGIO, NORTH SIDE OF PROJECT SITE.



B. VIEW SOUTH INTO PROJECT SITE AT NORTH ENTRY.





A. VIEW EAST ALONG NORTH PARKWAY.



B. VIEW WEST ALONG NORTH PARKWAY.



A. VIEW SOUTH/SOUTHEAST ACROSS SOCCER FIELD TOWARD CAMPUS AREA.



B. VIEW SOUTH/SOUTHWEST ACROSS WETLAND AREA.



- Figure 3.1-5A is a view to the west of the project site and surrounding area from Susan Lane in the lower portion of the Sonoma Mountains. The site is not readily visible from the viewpoint location shown due to distance. At the time of taking the photograph, the project site buildings were visible, but did not stand out as primary elements within the field of view. Haze conditions hinder clarity of the view.
- Figure 3.1-5B is a view northwest across lands adjacent to the project site and south portion of the project site as seen from East Railroad Avenue near the intersection of East Railroad Avenue and Petaluma Hill Road. Redwood tree groupings along the project site entry road as seen in the distance clearly identify the project site.
- Figure 3.1-6A is a view east along Camino Colegio near the project site's north entry at Manchester Avenue. The earth berm on the right screens views into the site, as do the extensive tree plantings that provide variety in light, shadow, form, and texture along the roadway edge. The visual effect is to essentially create a park-like setting along Camino Colegio and Bodway Parkway around the edge of the project site.
- Figure 3.1-6B is a view of the southbound entry to the project site from Camino Colegio opposite Manchester Avenue. Although major buildings of the campus may be seen in this view, extensive parking areas to the east and south are screened from view due to earth berms and tree plantings situated around the parking areas.
- Figure 3.1-7A is a view the eastbound motorist perceives while traveling the main road, called North Parkway. North Parkway leads east to the intersection of Bodway Parkway and Valley House Drive. The existing plantings of redwood trees and rolling earth forms provide visual interest, justify the curvilinear configuration of the roadway, and guide the line of sight.
- Figure 3.1-7B is a view the westbound motorist perceives while traveling the main road, North Parkway, which leads to the west portion of the project site. Substantial redwood tree growth shields views of the existing buildings and helps to bring the overall mass of the structures into the scale of the pedestrian environment.
- Figure 3.1-8A is a view south-southeast from a viewpoint looking over the soccer field in the northwest portion of the project site. Large parking areas surrounding existing buildings are shielded from view due to earth mounds and ornamental plantings.
- Figure 3.1-8B is a view northwest across a wetland area in the northwest portion of the site toward existing residential development. The Northwestern Pacific Railroad right-of-way is located immediately east (this side) of the existing housing structures.

### **Applicable Plans and Policies**

Although the project site lies within the Rohnert Park city limits and not in unincorporated Sonoma County, there are aspects of the City's General Plan as well as the County General Plan that are applicable with respect to the analysis of aesthetics and community character.

**Rohnert Park General Plan:** The Community Design Element of the Rohnert Park General Plan established goals and policies directed toward “protecting and enhancing Rohnert Park’s physical and visual character.” As explained in Chapter 2 of this EIR, Project Description, development of the Sonoma Mountain Village project is proposed under a site specific “P-D” Zoning District. The Final Development Plan for Sonoma Mountain Village would implement and augment the General Plan Community Design Element. The project’s relation to the goals and policies of the Rohnert Park General Plan are more fully defined in Section 3.10 of this EIR, Planning Policy and Relationship to Plans.

**Sonoma County General Plan:** The Sonoma County General Plan Schematic Map of Designated Scenic Resource Areas (Figure OS-2) shows Petaluma Hill Road extending north-south through central Sonoma County as a Scenic Corridor. In addition, much of the area comprising the Sonoma Mountains east of Rohnert Park is designated as a Scenic Landscape Unit.<sup>2</sup> A Scenic Corridor is defined as “a strip of land of high visual quality along a certain roadway.” A Scenic Landscape Unit is defined as “a landscape of special scenic importance in Sonoma County which provides important visual relief from urban densities.”

The County General Plan goes on to note: “Preservation of these scenic resources is important to the quality of life of County residents and the tourists and agricultural economy. ---- As the county urbanizes, maintenance of the openness of these areas provides important visual relief from urban densities.”<sup>3</sup> County Open Space Goal OS-3 states: “Identify and preserve roadside landscapes which have a high visual quality as they contribute to the living environment of local residents and to the county’s tourism economy.”

## **Impacts and Mitigation Measures**

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### **Introduction**

Visual conditions surrounding and within the Sonoma Mountain Village project site result from the interplay of developed and undeveloped conditions, which vary considerably from point to point depending on viewer location as indicated on the photographs provided in this section of the EIR. The future appearance (and thus visual quality and community character), of the Sonoma Mountain Village project site would be the result of existing conditions plus future development as time passes, as governed by the conditions of the “P-D” District..

### **Proposed Project**

The Sonoma Mountain Village project is proposed to be built out in accordance with the provisions of the “P-D” District as noted previously. The project development profile, arranged by Transects T-3 through T-6 and CS, CP and CB (see Chapter 2 of this EIR, Project Description, for a definition of the

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<sup>2</sup> Sonoma County General Plan, Open Space Element, Figure OS-2, Schematic Map of Designated Scenic Resource Areas.

<sup>3</sup> *Ibid.*, page 179.

SmartCode and Transects), is proposed to govern project site development as various portions of the project site are built. The SmartCode includes numerous development standards for each Transect zone regarding building size and height, building appearances, lot coverage, setbacks, and use of open space, landscape development, lighting, and other factors of site development including street widths.

Basic concepts for the location of project elements by Transect are shown on Figure 2-5, Proposed Zoning/Regulating Plan, in Chapter 2 of this EIR, Project Description. Figures 3.1-9 through 3.1-14 are illustrations of the anticipated architectural character and appearances of the various commercial and housing types as envisioned in the Final Development Plan submitted to the City of Rohnert Park. A major component of the project is adaptive reuse of the existing Agilent Technologies buildings which means a basic structural organization of building space has already been established on the north portion of the project site as indicated in Figures 3.1-6 through 3.1-8.

As noted in Section VII of the Development Plan as submitted, Architectural Description – Commercial, “The architecture of the urban core will be eclectic. The architecture is not based on any particular historical theme or a blend of different classical styles. --- the architecture will employ many colors, shapes and proportions.” The following summarizes proposed architectural design concepts as illustrated on Figure 3-1-9 through Figure 3.1-14. These illustrations are provided for informational purposes and may be referenced to Figure 2-3, Proposed Final Development Plan Rendering, for location.

- Figure 3.1-9A is a single-family home containing up to five bedrooms. A variety of styles are envisioned such as the New England style as illustrated with shingle siding and covered porch. Figure 3.1-9B illustrates two single-family residences. The concept includes a detached garage for each residence accessed from an alley. The residence on the left indicates lap siding with board and batten accents with a covered porch on the first level. The residence on the right indicates shingle siding in the “Craftsman” tradition, also with a covered porch on the first level.
- Figure 3.1-10A illustrates other proposed styles of single-family homes with two bedrooms with a detached garages access from an alley. A combination of exterior materials is envisioned including lap siding, stucco, board and batten, and composition shingle and metal roofs. Full-width porches on the first level are shown. One unit contains an upper level balcony. Figure 3.1-10B illustrates a two-story/Mansard roof row house arrangement with detached garages to be accessed from an alley. This illustration shows a combination of exterior surfacing materials including stucco, brick, and wood with metal roofs. The exhibit as produced by the project sponsor states the mix of materials “will give these townhouses an eclectic mix of neo-classical, Italianate, and gothic revival styles reminiscent of the East-Coast brownstones.”<sup>4</sup>
- Figure 3.1-11 indicates a four-story structure located at the soccer field that would contain ground floor retail space with residential units provided in the upper three floors.

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<sup>4</sup> Graphic exhibits (unnumbered) as attached to the SmartCode P-D Zoning District, Final Development Plan Submittal, November 22, 2006, Fisher and Hall, Urban Design, Inc.



A. SINGLE-FAMILY RESIDENCE



B. SINGLE-FAMILY RESIDENCES



A. SINGLE-FAMILY RESIDENCES



B. ROWHOUSE

**FIGURE 3.1-10**  
**Architectural Concepts**

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Source: Codding Enterprises / Farell Faber & Associates, Inc., 2007

Sonoma Mountain Village



**FIGURE 3.1-11**  
**Architectural Concepts - Soccer Field, Shops, and Restaurants**

*Source:* Coddling Enterprises / WIX Architecture, 2007

D41336.00

Sonoma Mountain Village





A. ELEVATION



B. NIGHTTIME VIEW PERSPECTIVE



A. BUILDING ELEVATION



B. NIGHTTIME VIEW PERSPECTIVE





**FIGURE 3.1-14**  
**Architectural Concepts - Aerial Perspective of Town Square, Nighttime View**

Source: Coddig Enterprises, 2007

D41336.00

Sonoma Mountain Village

- Figure 3.1-12A illustrates a “lofts” structure to be located west of the Codding Enterprises Building (the existing Building #1 would include a promenade “Farmer’s Market” area). The building's east elevation shown in Figure 3.1-12A would have four floors with vertical and horizontal/window accents as indicated. Figure 3.1-12B is a nighttime view perspective of the east side of the structure.
- Figure 3.1-13A illustrates a proposal for adaptive reuse of existing structures on the project site. The building shown is the Codding Enterprises Building (existing Building #1). The building's east elevation is shown in Figure 3.1-13A. Figure 3.1-13B is a nighttime view perspective of the east facing side of the structure.
- Figure 3.1-14 is an aerial (bird's eye) perspective view of the town square as the town square would appear at night. The theater marquee on the Theater Building (existing Building #3) is intended to visually terminate the vista when entering the project site east from Valley House Drive.

## Standards of Significance

Visual quality is the perceived aesthetic value of an area and is based on a combination of inherent natural features and physical conditions, either natural, man-made or both. The analysis of visual quality considers many elements that establish the character of the scene. These include topography and the shape of the land, existing vegetation, structural elements, open spaces, color, light, and texture among other physical factors. In addition, the alteration or disturbance of the existing landscape over time is to be considered. Finally, changes resulting from a proposed action or series of actions are to be evaluated. Aspects of community character or what a community appears to represent or signify to the observer result from the interplay of the physical elements that lead to the judgment of visual quality.

Visual quality and the aesthetic value of a given location either as it exists or may exist in the future is also a subjective judgment by the observer. The standards for determining the significance of visual impact from development are based on professional judgments and commonly accepted planning and design principles as generally expressed in the CEQA Guidelines and approved by the Rohnert Park City Council. A development project would normally have a significant adverse visual impact if the project would:

- **Impact Criterion #1:** Have a substantial adverse effect on a scenic vista.
- **Impact Criterion #2:** Substantially degrade the existing visual character or quality of the site and its surroundings.
- **Impact Criterion #3:** Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

Visual impact would be measured by the amount of visual change adversely affecting an area’s perceived aesthetic value or conditions of the setting. A highly visible change resulting from constructing a project that is incompatible with the setting or is not pleasing to look at would contribute

to generating a significant adverse visual impact because it would degrade the existing visual character or quality of the site and its surroundings (Impact Criterion #2). Factors to be considered include the physical layout of constructed elements with respect to each other and existing structures, the open and closed spaces so defined between structural elements, the density or intensity of development, scale relationships between existing and proposed structures, site landscaping design, physical linkages for pedestrians and vehicles, and other features of development. For example, significant differences in building mass or form, or lack of open space transitions between the constructed and natural environment would be expected to generate adverse visual impacts under normal circumstances.

## **Project Evaluation**

In considering the visual impact of implementing the Sonoma Mountain Village project, viewpoint location with respect to the project site would influence visual impact perception. The elements of building height, color, density of building placement, open space, lighting, paving design, and associated pedestrian amenities would have the greatest visual influence from close-in viewpoints. As the observer moves away from the site, specific details regarding the physical elements of the project would become less important in defining visual impact, while building mass, street alignments and view corridors would remain of importance.

### **Impact Criterion #1**

**Scenic Vistas:** *Would the project have a substantial adverse effect on a scenic vista?*

#### **Impact 3.1-1**

*In the absence of detailed plans illustrating the planned height of buildings on all portions of the project site, it cannot be confirmed that the project would not obstruct east facing views of the Sonoma Mountains, a Sonoma County designated Scenic Landscape Unit, from properties immediately west of the project site. The obstruction of views to the Sonoma Mountains would be a significant impact.*

The project proposes to develop approximately 175 acres of the project site into a mixed-use community, which would include residential uses; commercial/retail uses; hotel, and public facilities such as parks, open space; street right of ways, and infrastructure. The proposed residential uses would include both single- and multi-family, attached and detached, and single- and multiple-story units. The Sonoma Mountain Village Sustainability Action Plan and Final Development Plan, through the use of the SmartCode, provide the vision, framework, and standards for development of the project site. While the Sustainability Action Plan establishes the ten primary principles of the project, it is the Final Development Plan that clearly establishes a tangible vision for the community's urban form and development patterns, and outlines the community's land uses, street network, prototypical building types, and a system of parks and trails and provides conceptual design guidelines in order to facilitate the execution of the vision. The Final Development Plan includes descriptions of each of the proposed land uses, zoning areas, housing prototypes, building height ranges, frontage design and streetscape design guidelines.

The City of Rohnert Park' General Plan Community Design Element Goal CD-D establishes an aim to preserve and enhance views of the eastern ridgeline. According to the Rohnert Park General Plan views of the Sonoma Mountain Ranges to the east constitute scenic vistas from virtually any location. Specifically, project views of the ridgeline from Valley House Drive are described as scenic corridors offering "panoramic views." The northern portion of the site currently obstructs views of the scenic ridgeline due to the presences of the existing building structures and mature tree-lined areas within the existing landscaping plan. Views from the northern portion of the site are also partially obstructed by existing scattered trees within Canon Manor. The presence of vacant grasslands on the southern portion of the project site provides an unobstructed view of the Sonoma Mountains to the east of the project. Development of proposed project land uses in combination with proposed landscaping improvements (See Figure 3.1-1) could obstruct views of the Sonoma Mountains to residents west of the project or on-site.

The SmartCode T-4 General Urban Zone transect predominates along the west margin of the project site as indicated on the Proposed Zoning/Regulating Plan (Figure 2-5). Buildings within the T-4 transect may be up to three stories in height with each story not exceeding 14 feet measured to the eave or surface of a flat roof. Therefore, with a pitched roof, the maximum building height permitted under the SmartCode within the T-4 transect would be up to about 56 feet including a pitched roof. Given a maximum 56-foot building height and minimum 170-distance between the project site and nearest property line to the west, the potential for project buildings obscuring views to the Sonoma Mountains from adjacent properties under a maximum building height scenario cannot be ruled out.

Views toward the Sonoma Mountains would also be obstructed from interior portions of the site where new building structures with a maximum height allowance of 7 stories (see the Final Development Plan) would fill the field of view. While direct east/west alignment of the project's proposed street grid system would facilitate long range views of the Sonoma Mountains from road segments south of Valley House Drive, views from west of the proposed village square would be obstructed along the identified scenic corridor by multi-story structures.

While there are no formally designated scenic overlooks or vistas within the project footprint, the development of new structures associated with the project would have a substantial adverse effect on designated scenic vistas to the east prior to mitigation.

#### Mitigation Measure 3.1-1

- 3.1-1 Prior to submittal of a detailed grading permit, the project sponsor shall prepare a view corridor analysis in order to determine whether revised maximum building setback and height limits should be established within the T-4 General Urban Zone transect, so as not to obstruct views of the Sonoma Mountains from existing properties immediately west of the project site. The revised building height and setback restrictions should be limited to the extent lines of sight to the Sonoma Mountains from properties immediately west of the project site would not be obstructed by new buildings on the project site. Storey-poles should be erected in the field prior to building construction to demonstrate that existing views would not

be adversely affected. If required, the revised height and setback restrictions would be included as a Condition of Approval and would apply only to the affected properties.

Maintaining existing views to the Sonoma Mountains from properties immediately west of the project site would reduce Impact 3.1-1 to a less-than-significant level under Impact Criterion #1 regarding an adverse impact on a scenic vista.

## **Impact Criterion #2**

**Visual Character and Appearances:** *Would the project substantially degrade the existing visual character or quality of the site and its surroundings?*

This portion of the analysis addresses two aspects of the project under Impact Criterion #2. The first is 1) the project as it would appear in its completed form, and the second 2) is the process of project construction.

### ***1). Project Appearance in Completed Form***

**Proposed Project:** Buildout within the project site would result in (a) conversion of the 76.9 acre undeveloped south portion of the site to urban development, and (b) intensify development in the Agilent Technologies campus area on the north 98.3 acre portion of the site.

- a) Converting the 76.9 acre southern portion of the project site would introduce new buildings for residential, commercial and civic open space/building use ranging from a maximum of 60 percent residential lot coverage for the T-3 Sub-Urban Transect zone, to 100 percent lot coverage for the T-5 Urban Center Transect zone. Structures would range up to three stories in height in the T-3 Transect zone and up to five stories in height in the T-5 Transect zone. According to the Zoning/Regulating Plan (Figure 2-5), the south portion of the site would also contain about 12 acres of (CS) Civic Space Reserve or parkland. About an acre would be reserved for (CB) Civic Building Reserve. According to grading plans prepared for the project, the linear earth mound just south of the Valley House Drive entry where photographs 3.1-2A, 3A, and 3B were taken would be removed to allow for project construction.<sup>5</sup> The linear earth berm between the former Northwestern Pacific Railroad tracks and the project site would remain in place.

Site development on the south 76.9 acre parcel would be most visible to westbound travelers along Valley House Drive. Most apparent would be residential structures fronting Bodway Parkway both north and south of Valley House Drive because they would form the east edge of the project. The structures would also restrict views toward interior portions of the site. The currently undeveloped landscape south of Valley House Drive would appear as a developed site with project buildout. Site development would also be readily apparent to travelers along East

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<sup>5</sup> BKF, *Sonoma Mountain Village, Conceptual Grading Plan*, sheet C.19, November 10, 2006, BKF Job No. 20065064.10.

Railroad Avenue, particularly in a westbound direction where much of the south portion of the site is currently visible.

- b) In addition to adaptive reuse of the existing structures on the 98.3-acre north portion of the project site, new buildings for residential, commercial and civic open space/ building uses ranging from a maximum of 60 percent residential lot coverage for the T-3 Sub-Urban Transect zone to 100 percent lot coverage for the T-6 Urban Core Transect zone would be implemented. Structures would range up to three stories in height in the T-3 Transect zone and up to seven stories in height in the T-6 Transect zone. According to the Zoning/Regulating Plan, the north portion of the site would also contain about 17 acres of (CS) Civic Space Reserve or parkland and about one-third acre would be reserved for (CB) Civic Building Reserve. The north portion of the site would also contain 1.3 acres of (CP) Civic Parking Reserve to compliment the higher intensity uses of the T-6 Urban Core Transect zone. Clearly, with higher density adaptive reuse of existing structures in the T-5 Urban Center Transect zone coupled with higher density land uses of the T-6 Urban Core Transect zone, the north 98.3 acre portion of the project site would be more intensively developed than the south 76.9-acre portion of the project site.

Also, according to grading plans prepared for the project, the linear earth berm between the project site and Camino Colegio (see Figure 3.1-6A) and Bodway Parkway would be removed to allow for project construction.<sup>6</sup> Trees currently situated on the earth berm would likewise be removed. The poplar and redwood trees along North Parkway (See Figure 3.1-1) through the center of the site would be removed to allow for project development that includes a revised street grid. Tree replacement would occur with project implementation as specified in the “P-D” District, with the intent as conceptually shown on the Final Development Plan Rendering (Figure 2-3).

Under the project as proposed, more intensive development in the north portion of the project site as compared to the south portion of the project site would be in keeping with prior use and development of the site. The existing buildings on the north portion of the project site would remain in place with infill development provided around the existing structures. Because of the approximate 700,000 square feet of floor area available within the existing structures, adaptive reuse would accommodate multiple uses (residential, office, commercial) within the existing building envelopes. The appearances of the buildings would change due to differing forms of fenestration (window treatments), exterior wall modifications and the use of differing surfacing materials and colors, but the general shape of the structures including their length, width and height would be expected to remain generally the same.

Taller buildings of the project as provided for in the T-5 Urban Center and T-6 Urban Core Transects would be generally clustered around or near the existing Agilent buildings in the north portion of the site. In this way, a transition in building bulk from the center of the site outward to the edges of the site would be achieved providing a more harmonious appearance to the community as a whole. Removal of the earth berm along Camino Colegio and Bodway

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<sup>6</sup> *Ibid.*

Parkway would allow greater visual access to buildings near streets surrounding the project site. However, the Final Development Plan Rendering (Figure 2-4), indicates substantial tree plantings would be provided to enhance visual interest along Camino Colegio and Bodway Parkway.

Overall, buildout of the Sonoma Mountain Village project, in accordance with the provisions of the “P-D” District as proposed, would tend to reflect a residential community scale and character as may be found north and northwest of the project site encompassing much of eastern Rohnert Park. This residential community character would be supplemented with commercial land uses in support of the local resident population as discussed previously.

**Photomontages:** To illustrate the general appearance of the Sonoma Mountain Village project as it would be constructed, photomontages from three vantage points have been prepared as shown on Figure 3.1-16 through Figure 3.1-24 (see Figure 3.1-1 for photomontage viewpoint location). A photomontage is a photograph with an image of a project accurately superimposed over the photograph through the use of computer imaging techniques.

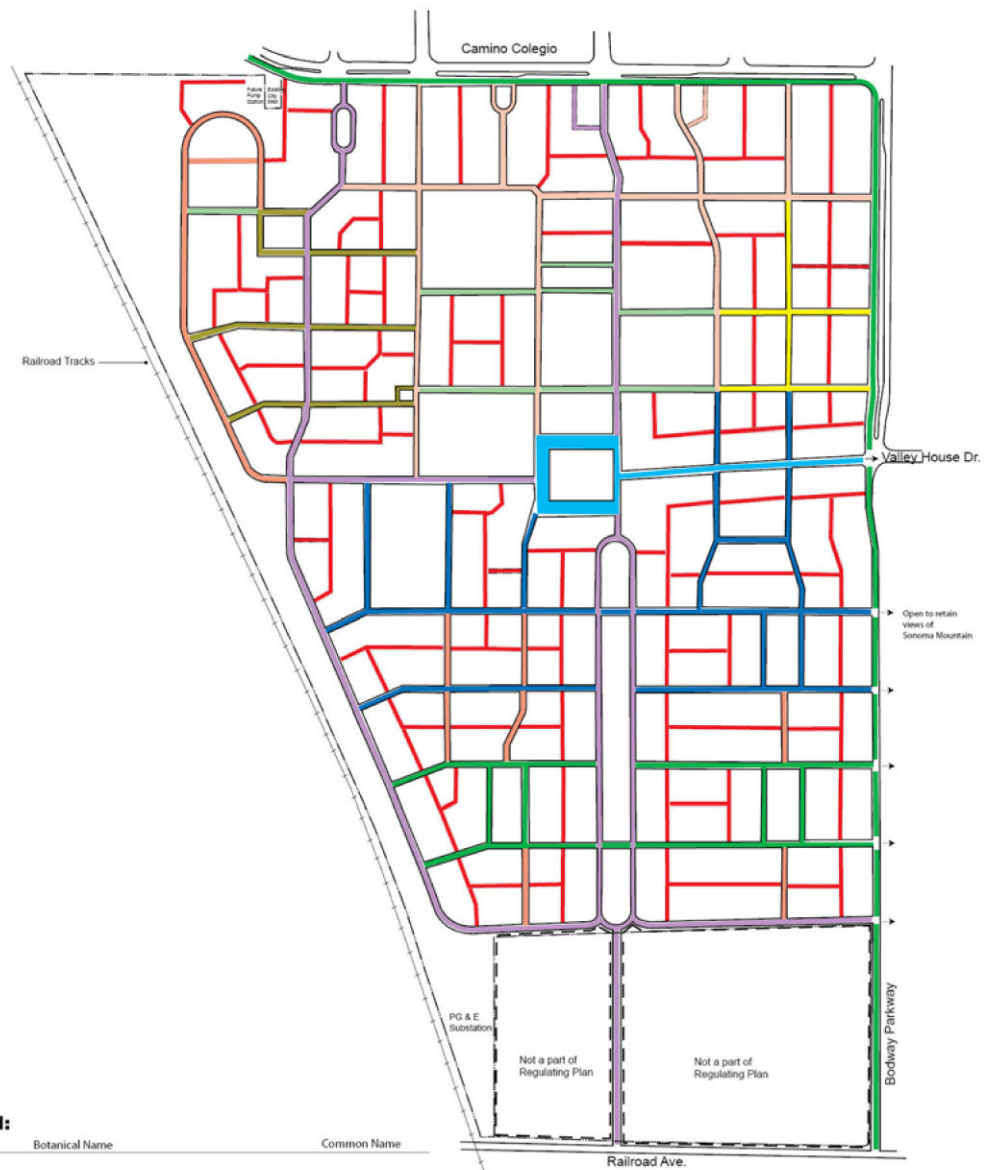
First, from each photomontage location, a photograph of the site as it exists today is shown. Second, from each photomontage location, the project buildings as proposed are indicated. The buildings are shown in a solid-shaded fashion, which means that windows, doors, porches, roof projections, surface textures and ornamentation as may be included in the building architecture are not shown. The intent is to show building massing and location as would exist with project completion. Third, trees as proposed for the project are superimposed on each photomontage, assuming a profile after about five to eight years of growth. The planned tree species include the following: trident maple, red maple, strawberry tree, European hackberry, eastern redbud, moraine ash, ginkgo, southern magnolia, cary island date palm red oak, and zelkova. The tree species are expected to vary throughout the site.

Prior to preparing the photomontages, field investigations were conducted to determine those locations that would offer important visual exposure of the proposed Sonoma Mountain Village project. In this work, it was noted that it would be difficult to see into much of the project site’s interior from surrounding roadways due to new development that would reach out the edge of the project site. The photomontage locations selected include the following as listed below. As noted above, both before (without project) and after (with project) visual depictions are presented. Project development including landscaping is based on the Final Development Plan Rendering (Figure 2-4) and the “P-D” District. All photomontage locations are as shown on Figure 3.1-1, Photo Location Map.

- **Figures 3.1-16, 3.1-17, and 3.1-18:** Project Site North Entry opposite Manchester Avenue

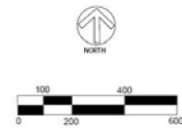
Figure 3.1-16 is a view south into the project site at the north project site entry opposite the south end of Manchester Avenue. Existing buildings located behind (south of) the existing earth berm and ornamental trees shown include Agilent Technologies Building 4 (to the left), Building 1 directly ahead, and Building 2 to the right which is screened from view by the existing trees.





**Legend:**

Botanical Name	Common Name	
	<i>Acer buergerianum</i>	Trident Maple
	<i>Acer rubrum</i> 'Bowhall'	Red Maple
	<i>Arbutus marina</i>	Strawberry Tree
	<i>Celtis australis</i>	European Hackberry
	<i>Cercis canadensis</i>	Eastern Redbud
	<i>Fraxinus holotricha</i> 'Moraine'	Moraine Ash
	<i>Ginkgo biloba</i> 'Princeton Sentry' (male)	Ginkgo
(Not shown)	<i>Magnolia grandiflora</i>	Southern Magnolia (Parking lot tree)
	<i>Phoenix canariensis</i>	Canary Island Date Palm
	<i>Quercus rubra</i>	Red Oak
	<i>Zelkova serrata</i>	Zelkova







**FIGURE 3.1-16**  
**Project Site North Entry Opposite Manchester Avenue (Before Project)**



Source: SquareOne Productions, 2007

**FIGURE 3.1-17**  
**Photomontage - Project Site North Entry Opposite Manchester Avenue (After Project, No Landscaping)**

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Sonoma Mountain Village





Source: SquareOne Productions, 2007

**FIGURE 3.1-18**  
**Photomontage - Project Site North Entry Opposite Manchester Avenue (After Project, With Landscaping)**

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Sonoma Mountain Village





**FIGURE 3.1-19**  
**Camino Collegio at Bodway Parkway (Before Project)**





**FIGURE 3.1-20**  
**Photomontage - Camino Collegio at Bodway Parkway (After Project, No Landscaping)**

**Source:** SquareOne Productions, 2007

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Sonoma Mountain Village



Source: SquareOne Productions, 2007

**FIGURE 3.1-21**  
**Photomontage - Camino Collegio at Bodway Parkway (After Project, With Landscaping)**

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Sonoma Mountain Village





**FIGURE 3.1-22**  
**Project Site East Entry at Valley House Drive (Before Project)**

D41336.00

**Source:** SquareOne Productions, 2007



Source: SquareOne Productions, 2007

**FIGURE 3.1-23**  
**Photomontage - Project Site East Entry at Valley House Drive (After Project, No Landscaping)**

D41336.00

Sonoma Mountain Village





**FIGURE 3.1-24**  
**Photomontage - Project Site East Entry at Valley House Drive (After Project, With Landscaping)**

*Source:* SquareOne Productions, 2007

D41336.00

Sonoma Mountain Village

Figure 3.1-17 shows the project structures (buildings are solid-shaded), as they would appear after project completion without street trees (landscaping). The mass and positioning of the structures is as proposed and shown on Figure 2-3, Proposed Final Development Plan Rendering. The photomontage indicates that most of the existing buildings on the site would be screened from view because of the intermediate (foreground) location of the new structures placed near Camino Colegio.

As shown on Figure 3.1-17, the new structures would range from 10- to 30-feet in height, assuming ten feet per floor. The buildings would be predominately single and multi-story residential structures with a maximum of three stories. There are currently no structures where new construction would be undertaken as shown. Thus, project development as shown in the photomontage would generate a greater intensity of land use over existing conditions and greater extent of urban development on the project site. No significant views to established landmarks of importance to the community would be obstructed by the project in this south facing view.

Figure 3.1-18 indicates that street tree plantings would screen views to the new building structures and enhance the pedestrian environment. The trees would provide a green foreground to the project buildings and offer shadow for pedestrians. The trees would increase in size over time and thus progressively screen building area from view. The trees would assist in relating the mass and height of the structures to the pedestrian environment as the trees increase in size over time. Further visual interest would be enhanced through the color, texture and light and shadow effects provided by the trees.

- **Figures 3.1-19, 3.1-20, and 3.1-21: Camino Colegio at Bodway Parkway**

Figure 3.1-19 is a view southwest at the corner of Camino Colegio and Bodway Parkway. Existing Agilent Technologies buildings located behind (southwest of) the existing earth berm and ornamental trees are considerably screened from view by the trees.

Figure 3.1-19 shows the bulk and height of project structures as they would fill the field of view after project completion without street trees (landscaping). The mass and positioning of the structures is as proposed and shown on Figure 2-4, Proposed Final Development Plan Rendering. The photomontage indicates that none of the existing buildings on the site would be within the field of view because of the new buildings that would block views to interior portions of the site.

As shown on Figure 3.1-20, the new structures would range up to 20 feet in height, not including the roof. The roof would add 10 feet to the building height as shown for a total of 30 feet, assuming ten feet per floor. The buildings would be predominately two-story residential structures (single live-work units) with commercial shop fronts to be constructed at ground level as shown on Figure 2-6, Proposed Zoning/Regulating Plan. The corner building in finished form would appear as a café with outdoor seating and an awning fronting Camino Colegio and Bodway Parkway.

There are currently no existing structures where new construction would be undertaken. Thus, as shown in Figures 3.1-17 and 3.1-18, project development would generate a greater intensity of land use as compared to existing conditions and a greater extent of urban development on the project site. No significant views to established landmarks of importance to the community would be obstructed by the project in this southerly facing view.

Figure 3.1-21 indicates that street tree plantings would screen views to the new building structures and enhance the pedestrian environment. The trees would provide a green foreground to the project buildings and offer shadow for pedestrians. The trees would increase in size over time and thus progressively screen building area from view. The trees would assist in relating the mass and height of the structures to the pedestrian environment as the trees increase in size over time. Further visual interest would be enhanced through the color, texture and light and shadow effects provided by the trees.

- **Figures 3.1-22, 3.1-23, and 3.1-24:** Project Site East Entry at Valley House Drive and Bodway Parkway

Figure 3.1-22 is a view west into the project site from the west end of Valley House Drive. The viewpoint location is the existing east entry to the Agilent Technologies campus. As shown, the east entry leads to North Parkway which bisects the site into north and south segments. North Parkway proceeds through the stands of redwood trees shown in the background. Portions of Building 4 may be seen in the middleground to the right. The view is broad and open because there are no buildings or trees in the foreground to obstruct views into the project site.

Figure 3.1-23 shows the bulk and height of project structures as they would fill the field of view after project completion without street trees (landscaping). The mass and positioning of the structures is generally as visualized on Figure 2-4, Proposed Final Development Plan Rendering. The photomontage indicates that none of the existing buildings on the site would be within the field of view because of the new buildings that would block views to interior portions of the site. The photomontage indicates there would be a substantial change in appearances with the project fully implemented compared to the open field of view as currently exists.

The buildings would be predominately multi-story residential structures with commercial uses that include shop fronts, arcades or galleries to be constructed at ground level as shown on Figure 2-6, Proposed Zoning/Regulating Plan. Retail uses would primarily face Valley House Drive and extend into the interior of the site. The retail uses would transition to residential units north and south of Valley House Drive along Bodway Parkway.

As shown on Figure 3.1-23, the new structures would range from 32- to 52-feet in height, assuming 12 feet for the first floor as a commercial use and ten feet per floor for residential use. There are currently no existing structures where new construction would be undertaken. Thus, project development as shown in the photomontage would generate a greater intensity of land use as compared to existing conditions and a greater extent of urban development on the project site. No significant views to established landmarks of importance to the community would be obstructed by project buildings in this westerly facing view.

As shown previously in Figures 3.1-18 and 3.1-21, Figure 3.1-24 indicates that street tree plantings would screen views to the new building structures and enhance the pedestrian environment. The trees along the east-facing building walls would provide a green foreground to the project buildings and offer shadow for pedestrians. The palm trees framing the main road entry into the site would provide emphasis through their verticality and repetition. The trees would increase in size over time and thus progressively screen building area from view. The trees would assist in relating the mass and height of the structures to the pedestrian environment as the trees increase in size over time. Further, visual interest would be enhanced through the color, texture and light and shadow effects provided by the trees.

In sum, the photomontages clearly show there would be a change in visual conditions both on and off the project site. From any location that offers views of the site, the change in visual conditions and community character would be evident, particularly to those currently familiar with existing community form, structure, and land use. The proposed project would have a more demonstrated effect on existing visual aspects of the southern portion project site by replacing the open land portions of the project area with a developed environment. However, the majority of the project site is currently developed and surrounded by existing development areas to the north and to the west. This would make the change in land use less dramatic as viewed from these areas. As landscaping proposed as part of the project matures, the new buildings would become even less visible from various vantage points, including Petaluma Hill Road, Valley House Road, and Valley House Road.

Also, based on the photomontage massing study as presented, it is considered that the project would not necessarily be incompatible with the existing setting or displeasing to look at upon implementation of the Final Development Plan. In envisioning the entire project in its completed form, factors to be considered in judging visual impact and changes in community character include the physical layout of constructed elements with respect to each other and existing structures, the open and closed spaces so defined between structural elements, the density or intensity of development, scale relationships between existing and proposed structures, site landscaping design, physical linkages for pedestrians and vehicles, and other features of development as explained previously. The photomontages, when considered in combination with the project as shown on the Final Development Plan Rendering, do not indicate significant lack of continuity or harmony among these respective project elements.

In view of the above, no significant adverse impacts are identified under Impact Criterion #2 regarding visual character and appearances.

## ***2. Project Construction***

### **Impact 3.1-2**

***Project construction would require site grading, construction materials stockpiling and storage, and the use of construction equipment in varying intensity as the various phases of the project are built. As a change from current site conditions during periods of construction, and with the presence of adjacent residential communities, this is considered a potentially significant visual impact. This construction impact would be localized and short-term however, lasting intermittently during the***

*actual phased periods of construction at specific locations within the project site construction areas during each phase of project construction.*

#### Mitigation Measure 3.1-2

3.1-2 Upon approval of grading permits, the stockpiling and storage of construction materials and equipment prior to installation and use, as future phases of the project would be implemented, shall be minimized to the extent practicable by the project sponsor. Although construction staging areas have not been designated at this time, such staging areas shall be located internal to the project site. The staging areas shall be located away from Camino Colegio and Bodway Parkway, and as close to or within the areas of construction as possible, out of the way of community traffic, pedestrian use, and local views.

Mitigation Measure 3.1-2 would apply to the installation of roads, utility services, the construction of building structures and landscaping, and would reduce Impact 3.1-2 to a less-than-significant level under Impact Criterion #2 regarding degrading existing visual character.

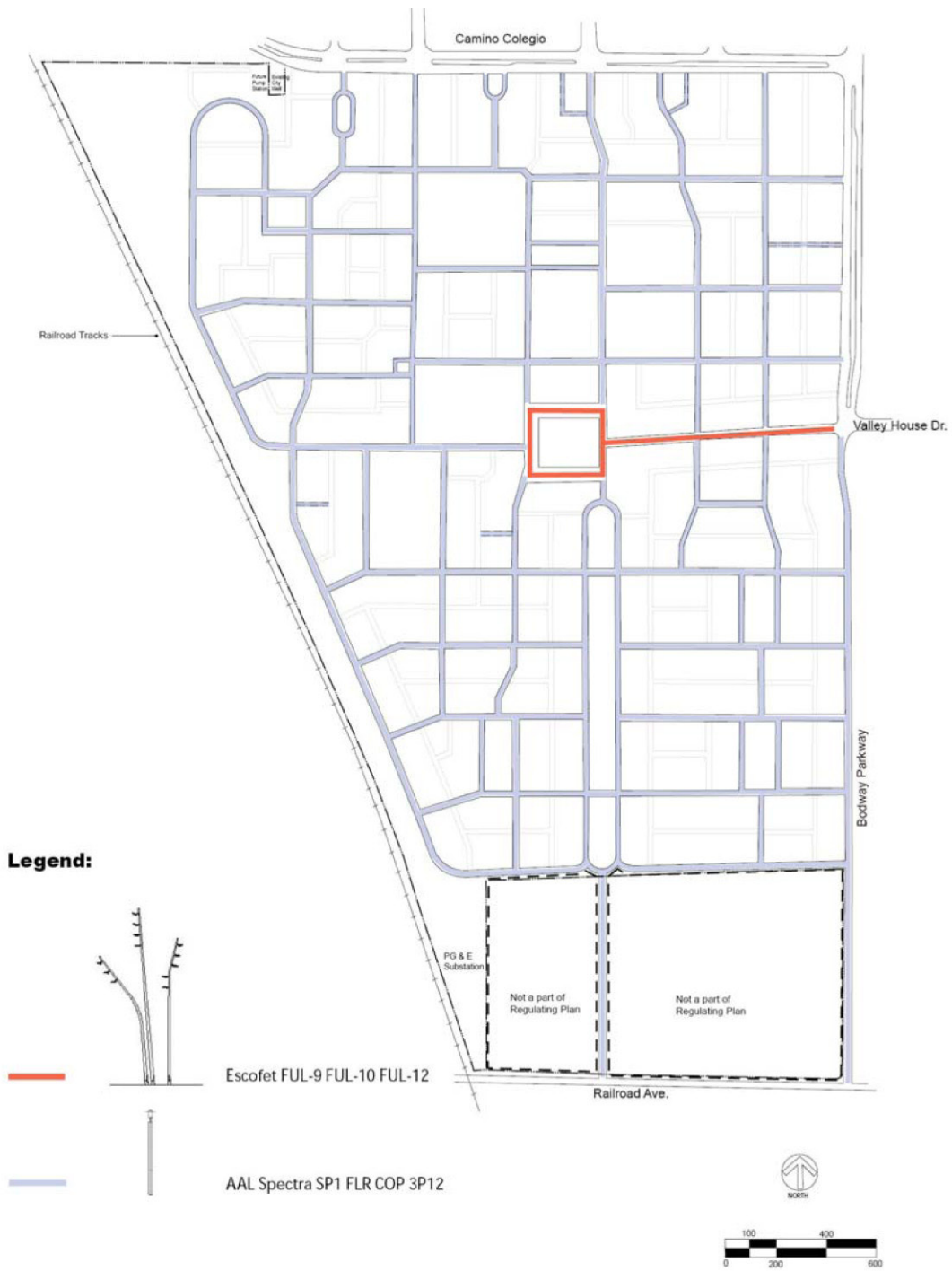
#### Impact Criterion #3

**Project Lighting:** *Would the project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?*

#### Impact 3.1-3

*Project lighting of parking areas, buildings, and streets could form point sources of light interfering with nighttime views from off-site locations, including local roadways and residences both on and off the project site. This would be a potentially significant impact.*

The northern portion of the 175 acre project site is currently developed with office uses, which include low levels of artificial lighting in the form of building lights, street lights, and other typical business park outdoor lighting. However, the southern portion of the site is undeveloped and devoid of artificial light. A site street lighting plan has been designed for the project (refer to Figure 3.1-25). The SmartCode provides project specific lighting standards and guidelines for the Sonoma Mountain Village “P-D” District. For example, average lighting levels measured at a building front in the T-3 Sub-Urban Transect zone are not to exceed a specified level of intensity. Average lighting levels measured at a building front in the T-4 General Urban Transect zone are not to exceed a specified level of intensity that is greater than that permitted in the T-3 zone, with a similar increase specified for the T-5 Urban Center zone. No illumination levels are prescribed for the T-6 Urban Core zone or the CS (Civic Space), CP (Civic Parking) or CR (Civic Reserve) zones. The project proposes a mixed-use development that includes residential, commercial, parks, open space, and public facilities. New lighting typical of a mixed use community would include exterior lighting fixtures and street lights which could spill over onto the surrounding landscape.



The change from a primarily undeveloped area to a developed environment would also introduce traffic to the area, which would result in increased vehicle lights. Areas to the north, west, and south would be most affected by the light from traffic, because Petaluma Hill Road, Valley House Drive, and Camino Colegio would provide the main access to the site.

The addition of new light could result in increased sky glow which could negatively affect views of the nighttime sky in the area. Glare would also increase in the area with the addition of building glass and paved surfaces. Low E glass is typically used in the construction of new residential and commercial buildings and would therefore be used in any proposed new buildings. This type of glass is energy efficient and also reduces the reflective qualities of the building, reducing the amount of glare resulting from the proposed project. While the majority of the project site is already developed, the proposed project would result in an increase of artificial lighting on the site beyond what was anticipated under existing conditions due to increased acreage and project density. This increase in artificial lighting and new construction would result in a potentially significant impact with relation to light and glare impacts.

#### Mitigation Measure 3.1-3

In order to reduce the impact of night lighting along Sonoma Mountain Village streets, the following mitigation measures shall be implemented:

- 3.1-3(a) All new street and other public area lighting shall include fixtures that focus the light downward and include shields to prevent light spill to surrounding properties, sky glow, and glare, to the extent feasible.
- 3.1-3(b) Reflective surfaces in public areas shall be kept to a minimum by using non-reflective material wherever possible. The use of non reflective paints, solar treatments, and finishing materials will be encouraged during the development process.

By providing light fixtures that are face downward and/or are shielded and controlled to avoid glare and point sources of light interfering with the vision of on- and off-site residents and motorists on local roadways, the project will immediately reduce impacts to existing receptors. Night lighting for streets would need to minimally conform to City standards regarding street lighting. A specialist in lighting design should be consulted during project design to determine light source locations, light intensities, and type of light source.

New lighting levels provided as future phases of the project would also be implemented should be compatible with general illumination levels in existing residential areas to avoid a noticeable contrast in light emissions, consistent with the need to provide for safety and security. The overall objective would be to establish area lighting that would be adequate for safety and surveillance, but minimize the potential effects on nighttime views from locations around and within the Sonoma Mountain Village project site area. Conformance with Mitigation Measure 3.1-3 would reduce Impact 3.1-3 to a less-than-significant level such that the project would not create an adverse light or glare impact under Impact Criterion #3.

## Cumulative Development

The discussion of cumulative development impacts is as described in the *Introduction* section of this EIR under the title Cumulative Impact Assessment and includes collectively the Sonoma Mountain Village project and cumulative development projects as noted therein.

Development of the various Specific Plan areas within Rohnert Park (and potential future residential development within the nearby Canon Manor Specific Plan area), would be required to be consistent with General Plan Goals and Policies respecting development as illustrated on the General Plan Diagram. As noted above, development of the Sonoma Mountain Village project is proposed to be built out in accordance with the provisions of the “P-D” District, which is intended by the project sponsor to replace the General Plan Community Design Element respecting development of the project. This would require rezoning to the P-D, Planned Development Zoning District.

The implementation of the aforementioned mitigation measures would reduce the potential visual impacts that the proposed project would have on the visual environment. Implementation of these mitigation measures would not, however, eliminate the adverse viewshed impacts of the proposed project within a cumulative context. As discussed in the General Plan EIR, patterns of new residential development would provide greater connections between neighborhoods and stronger orientation to open space and creek corridors and this could be a beneficial impact (Impact 4.2a). Development of the mixed-use, pedestrian-oriented community could result in a beneficial change in community character. However, the development of such communities in a cumulative context could block existing views of the eastern ridgeline from points along the eastern edge of Rohnert Park – a significant and adverse impact (Impact 4.2-c) – General Plan policies have been established to mitigate the impact of such visual impacts, and would be implemented as part of the prescribed mitigation.

Notwithstanding the beneficial aspects of the proposed project discussed above, and the potential mitigation of certain negative impacts by imposition of the aforementioned mitigation measures, the proposed project would still develop have an adverse impact on viewsheds within a cumulative context. The proposed project would allow construction of a relatively dense residential and commercial project in the place of approximately 77 acres of fallow land with an open field of vision toward the Sonoma Mountain range. As the project would produce significant visual barriers to existing and anticipated future views on an individual basis prior to mitigation, so this project would have a more significant and unavoidable impact on visual resources from a cumulative perspective, namely, when the project’s visual impacts are considered in light of other development anticipated in the surrounding region. These impacts could only be eliminated by the elimination of the entire proposed project and many of the surrounding projects. Therefore, the proposed Sonoma Mountain Village project as indicated above, the project would contribute to significant and unavoidable adverse aesthetic or urban design impacts on scenic views under Impact Criterion #1.

While the planning and design of other projects in Rohnert Park may not be subject to the provisions of the SmartCode, those projects, including the Specific Plan projects, must conform to the provisions regarding neighborhood and community design as contained within the General Plan Community Design Element. As each Specific Plan area would be built out in conformance with the goals and



policies of the General Plan Community Design Element, the potential for adverse lighting and community character impacts would be expected to be avoided. Further, because no significant and unavoidable adverse aesthetic or urban design impacts have been identified for the Impact Criterion #2 and 3.

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## **3.2 AIR QUALITY**

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### **Introduction**

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This section of the EIR evaluates the potential impacts on air quality resulting from construction and operation of the proposed Sonoma Mountain Village project. This includes the potential for the project to conflict with or obstruct implementation of an applicable air quality plan, to violate an air quality standard or contribute substantially to an existing or projected air quality violation, to result in a net increase of any criteria pollutant for which the project region is non-attainment, to expose sensitive receptors to substantial pollutant concentrations, or to create objectionable odors. The City of Rohnert Park adopted thresholds of impact significance are provided on which to base the assessment of air quality impacts. Mitigation measures intended to reduce identified air quality impacts are included in the analysis.

### **Setting**

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#### **Air Quality Background**

The City of Rohnert Park is located within the San Francisco Bay Area Air Basin; named so because its geographical formation is that of a basin, with the surrounding mountains trapping the air and its pollutants in the valleys or basins below. This area includes all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, the western half of Solano and the southern half of Sonoma counties. The regional climate within the Bay Area is considered semi-arid and is characterized by warm summers, mild winters, infrequent seasonal rainfall, moderate daytime onshore breezes, and moderate humidity. The air quality within the Bay Area is primarily influenced by a wide range of emissions sources—such as dense population centers, heavy vehicular traffic, industry, and meteorology.

Air pollutant emissions within the Bay Area are generated by stationary, area-wide, and mobile sources. Stationary sources can be divided into two major subcategories: point and area sources. Stationary sources occur at an identified location and are usually associated with manufacturing and industry. Examples are boilers or combustion equipment that produce electricity or generate heat. Area-wide sources are widely distributed and produce many small emissions. Examples of area-wide sources include residential and commercial water heaters, painting operations, lawnmowers, agricultural fields, landfills, and consumer products such as barbeque lighter-fluid and hairspray. Mobile sources refer to emissions from motor vehicles, including tailpipe and evaporative emissions, and are classified as either on-road or off-road. On-road sources may be legally operated on roadways and highways. Off-road sources include aircraft, ships, trains, racecars, and self-propelled construction equipment. Air pollutants can also be generated by the natural environment, such as when fine dust particles are pulled off the ground surface and suspended in the air during high winds.

Both the federal and State governments have established ambient air quality standards for outdoor concentrations of various pollutants in order to protect public health. The national and State ambient air quality standards have been set at levels where concentrations could be generally harmful to human health and welfare, and to protect the most sensitive persons from illness or discomfort with a margin of safety. Applicable standards are identified below.

The air pollutants for which national and state standards have been promulgated and which are most relevant to air quality planning and regulation in the Bay Area include ozone, carbon monoxide (CO), respirable particulate matter (PM<sub>10</sub>), fine particulate matter (PM<sub>2.5</sub>), sulfur dioxide (SO<sub>2</sub>), and lead. In addition, toxic air contaminants (TACs) are of concern in the Bay Area. Each of these is briefly described below.

- *Ozone* is a gas that is formed when reactive organic gases (ROG) and nitrogen oxides (NO<sub>x</sub>)—both by-products of internal combustion engine exhaust—undergo slow photochemical reactions in the presence of sunlight. Ozone concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are conducive to its formation.
- *Carbon Monoxide* (CO) is a colorless, odorless gas produced by the incomplete combustion of fuels. CO concentrations tend to be the highest during the winter morning, with little to no wind, when surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines—unlike ozone—and motor vehicles operating at slow speeds are the primary source of CO in the Bay Area, the highest ambient CO concentrations are generally found near congested transportation corridors and intersections.
- *Respirable Particulate Matter* (PM<sub>10</sub>) and *Fine Particulate Matter* (PM<sub>2.5</sub>) consists of extremely small, suspended particles or droplets 10 microns and 2.5 microns or smaller in diameter. Some sources of particulate matter, like pollen and windstorms, are naturally occurring. However, in populated areas, most particulate matter is caused by road-dust, diesel-soot, combustion products, abrasion of tires and brakes, and construction activities.
- *Sulfur dioxide* (SO<sub>2</sub>) is a colorless, extremely irritating gas or liquid. It enters the atmosphere as a pollutant mainly as a result of burning high sulfur-content fuel oils and coal, and from chemical processes occurring at chemical plants and refineries.
- *Nitrogen Dioxide* (NO<sub>2</sub>) is a reactive, oxidizing gas capable of damaging cells lining the respiratory tract and is an essential ingredient in the formation of ozone. It is emitted as a by-product of fuel combustion.
- *Toxic Air Contaminants* (TACs) is a general term for a diverse group of air pollutants that can adversely affect human health, but have not had ambient air quality standards established for them. They are not fundamentally different from the pollutants discussed above, but lack ambient air quality standards for a variety of reasons (e.g., insufficient data on toxicity, association with particular workplace exposures rather than general environmental exposure, etc.). The health effects of TACs can result from either acute or chronic exposure; many types of cancer are associated with chronic TAC exposures.

Finally, an additional category of air pollutants have become the focus of international concern in recent years. Greenhouse gases (GHG) trap additional solar heat in the atmosphere and make the earth warmer than it otherwise would be. The most common GHG and the most influential in terms of the proportion of the total warming effect they produce are:

- *Carbon dioxide* (CO<sub>2</sub>) is an odorless, colorless gas with important natural sources (e.g., decomposition of organic matter; respiration of plants and animals; evaporation from oceans; and volcanic out gassing) and anthropogenic sources (e.g., burning coal, oil, natural gas, and wood).
- *Methane* (CH<sub>4</sub>) is the main component of natural gas. A natural source of CH<sub>4</sub> is the anaerobic decay of organic matter. Human activity is responsible for CH<sub>4</sub> emissions from landfills, fermentation of farm animal manure, etc.
- *Nitrous oxide* (N<sub>2</sub>O), more commonly known as “laughing gas”, is produced naturally by microbial processes in soil and water. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. It is used in rocket engines, racecars, and as an aerosol spray propellant.

Global atmospheric concentrations of the above-mentioned GHG have increased markedly as a result of human activities and now far exceed pre-industrial values. The accumulation of GHG in the atmosphere regulates the earth’s temperature. The evidence is now considerable that anthropogenic GHG emissions (i.e., from electricity production, motor vehicle use, etc.) have elevated the current global temperature and they are expected to have a much greater effect in the future if their emissions are not reduced. A detailed discussion regarding GHG emissions is included in Section 3.15, Global Climate Change.

### **Applicable Policies and Regulations**

Air quality in the Bay Area is addressed through the efforts of various federal, state, regional, and local government agencies. These agencies work jointly, as well as individually, to improve air quality through legislation, regulations, planning, policy-making, education, and a variety of programs.

**Federal.** The U.S. Environmental Protection Agency (US EPA) is responsible for setting and enforcing the federal ambient air quality standards for atmospheric pollutants. It regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain locomotives. The US EPA also has jurisdiction over emission sources outside state waters (outer continental shelf), and establishes various emission standards for vehicles sold in states other than California.

As part of its enforcement responsibilities, the US EPA requires each state with nonattainment areas to prepare and submit a State Implementation Plan (SIP) that demonstrates the means to attain the federal standards. The SIP must integrate federal, state, and local plan components and regulations to identify specific measures to reduce pollution, using a combination of performance standards and market-based programs within the timeframe identified in the SIP.

**State.** The California Air Resources Board (CARB), a part of the California Environmental Protection Agency, is responsible for the coordination and administration of both federal and State air pollution control programs within California. In this capacity, the CARB conducts research, sets California Ambient Air Quality Standards, compiles emission inventories, develops suggested control measures, provides oversight of local programs, and prepares the SIP. The CARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hair spray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions.

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

Assembly Bill 1807 (AB 1807), enacted in September 1983, sets forth a procedure for the identification and control of TACs in California. CARB is responsible for the identification and control of TACs, except in their pesticide use. AB 1807 defines a TAC as an air pollutant that may cause or contribute to an increase in mortality or an increase in serious illness, or which may pose a present or potential hazard to human health. CARB prepares identification reports on candidate substances under consideration for listing as TACs. The reports and summaries describe the use of and the extent of emissions in California resulting in public exposure, together with their potential health effects. Also, through its Air Quality and Land Use Handbook: A Community Health Perspective (April 2005), CARB has identified major TAC sources (e.g., freeways, large warehouses/distribution centers, rail yards, etc.) and recommends specific “buffer zones” to protect nearby sensitive receptors.

**Regional.** The Bay Area Air Quality Management District (BAAQMD) is the primary agency responsible for comprehensive air pollution control in the entire San Francisco Bay Area Air Basin, including the southwestern area of Sonoma County. To that end, the BAAQMD, a regional agency, works directly with the Association of Bay Area Governments, the Metropolitan Transportation Commission, and local governments and cooperates actively with all federal and state government agencies. The BAAQMD develops rules and regulations, establishes permitting requirements for stationary sources, inspects emissions sources, and enforces such measures through educational programs or fines, when necessary.

The BAAQMD is directly responsible for reducing emissions from stationary (area and point), mobile, and indirect sources. It has responded to this requirement by preparing a sequence of Ozone Attainment Plans and Clean Air Plans that comply with the federal Clean Air Act and the California Clean Air

Act, accommodate growth, reduce the pollutant levels in the Bay Area, meet federal and state ambient air quality standards, and minimize the fiscal impact that pollution control measures have on the local economy. The Ozone Attainment Plans are prepared for the federal ozone standard, and the Clean Air Plans are prepared for the state ozone standards. The most recent Ozone Attainment Plan was adopted by the BAAQMD Board of Directors on October 2001, and demonstrates attainment of the federal ozone standard in the Bay Area by 2006. The current regional Clean Air Plan was adopted by the Board of Directors on December 20, 2000. It identifies the control measures that would be implemented through 2006, to reduce major sources of pollutants. These planning efforts have substantially decreased the population's exposure to unhealthful levels of pollutants, even while substantial population growth has occurred within the Bay Area. The Clean Air Plan predicts that regional ozone concentrations will decrease by 1.2 percent per year or 9.0 percent over the twelve years after it was adopted. Although no plans are currently required to demonstrate attainment of federal or state particulate matter standards, the Clean Air Plan discusses this pollutant since the health effects of particulates can be serious, and many of the measures identified in the Plan to reduce ozone precursor emissions will also reduce ambient concentrations of particulate matter.

The BAAQMD currently implements a variety of programs that reduce TAC emissions and exposures. The BAAQMD's Air Toxics "Hot Spots" program is designed to identify industrial and commercial emitters of TACs and encourage reductions in these emissions.<sup>1</sup> The BAAQMD also has a Community Air Risk Evaluation (CARE) program to estimate health risks associated with exposure to outdoor TACs in the Bay Area.<sup>2</sup>

**Local.** Local jurisdictions, such as the City of Rohnert Park, have the authority and responsibility to reduce air pollution through its police power and decision-making authority. Specifically, the City is responsible for the assessment and mitigation of air emissions resulting from its land use decisions. The City of Rohnert Park is also responsible for the implementation of transportation control measures as outlined in the Clean Air Plan. Examples of such measures include bus-turnouts, energy-efficient streetlights, and synchronized traffic signals.

City of Rohnert Park environmental plans and policies recognize community goals for air quality. Chapter 6.4 of the Rohnert Park General Plan identifies goals and policies that help the City contribute to regional air quality improvement efforts. The Rohnert Park General Plan is considered to be consistent with the Clean Air Plan.

Sonoma County has also developed a Community Climate Action Plan, which presents a package of solutions that, when implemented, will meet Sonoma County's goal for reducing GHG emissions. This plan is discussed further in Section 3.15, Climate Change. However, because the plan would reduce

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<sup>1</sup> The most recent Air Toxic Contaminant Program Annual Report 2002 and references, including the inventory of TACs and their sources in Sonoma County and Rohnert Park can be found at [http://www.baaqmd.gov/pmt/air\\_toxics/annual\\_reports/index.htm](http://www.baaqmd.gov/pmt/air_toxics/annual_reports/index.htm).

<sup>2</sup> In Phase I of the CARE program, the BAAQMD developed a preliminary emissions inventory of TAC, compiled demographic and health statistics data, and developed mitigation strategies that benefit communities with significant TAC exposures. The Phase 1 report can be found at [http://www.baaqmd.gov/CARE/documents/care\\_p1\\_findings\\_recommendations\\_v2.pdf](http://www.baaqmd.gov/CARE/documents/care_p1_findings_recommendations_v2.pdf).

vehicle and area source emissions, it would also result in reduced emissions of criteria pollutants, including ozone and PM<sub>10</sub>.

## Existing Air Quality

The average daily criteria pollutant emissions inventory for the entire Bay Area and Sonoma County under baseline conditions is summarized in Table 3.2-1. As shown, exhaust emissions from mobile sources generate the majority of ROG, NO<sub>x</sub>, and CO in the Bay Area. Stationary sources generate the most SO<sub>x</sub> and area-wide sources generate the most airborne particulates.

**Table 3.2-1  
2008 Estimated Average Daily Emissions**

Emissions Source	Emissions in Tons per Day					
	ROG	NO <sub>x</sub>	CO	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>San Francisco Bay Area Air Basin</b>						
Stationary Sources	106.6	50.6	44.3	45.9	16.3	12.1
Area-Wide Sources	87.9	16.9	161.9	0.6	175.5	52.9
Mobile Sources	183.1	380.5	1541.5	14.9	20.3	16.3
<b>Total Emissions</b>	<b>377.6</b>	<b>448</b>	<b>1747.7</b>	<b>61.5</b>	<b>212.1</b>	<b>81.3</b>
<b>Sonoma County</b>						
Stationary Sources	9.7	0.8	1.0	0.1	0.8	0.4
Areawide Sources	7.0	1.1	22.1	0.1	15.7	7.1
Mobile Sources	13.2	21.2	114.8	0.1	1.2	0.9
<b>Total Emissions</b>	<b>30.2</b>	<b>23.1</b>	<b>137.9</b>	<b>0.3</b>	<b>17.6</b>	<b>8.4</b>

Source: California Air Resources Board, [www.arb.ca.gov/ei/emissiondata.htm](http://www.arb.ca.gov/ei/emissiondata.htm), 2009.

Measurements of ambient concentrations of the criteria pollutants are used by the US EPA and CARB to assess and classify the air quality of each regional air basin, county, or, in some cases, a specific urbanized area. The classification is determined by comparing actual monitoring data with national and state standards. If a pollutant concentration in an area is lower than the standard, the area is classified as being in “attainment” for that pollutant. If the pollutant concentration exceeds the standard, the area is classified as a “nonattainment” area. If there are not enough data available to determine whether the standard is exceeded in an area, the area is designated “unclassified.”

The US EPA and CARB use different standards for determining whether the Bay Area is an attainment area. Ambient ozone concentrations throughout the Bay Area have not exceeded national standards since the year 2000. In June 2004, the Bay Area was designated as a marginal nonattainment area of the national 8-hour ozone standard. US EPA lowered the national 8-hour ozone standard from 0.80 to 0.75 parts per million (ppm) effective May 27, 2008. US EPA will issue final designations based upon the new 0.75 ppm ozone standard by March 2010. The Bay Area is in attainment or designated as

unclassified for all other pollutants under national standards. Under State standards, the Bay Area is designated as a nonattainment area for ozone and PM<sub>10</sub>, and an attainment area for all other pollutants.

The BAAQMD monitors ambient air pollutant concentrations at monitoring stations located throughout the Bay Area. The nearest monitoring station is located approximately seven miles north of Rohnert Park in Santa Rosa. The ambient air pollution concentrations monitored at this location are considered to be representative of southern Sonoma County. Table 3.2-2 identifies the national and state ambient air quality standards for relevant air pollutants along with the ambient pollutant concentrations that have been measured at the Santa Rosa monitoring station through the period of 2004 to 2006.

### **Existing Local Land Uses and Air Pollutant Sources**

Existing uses surrounding the project site consist of residential, agricultural, educational uses, and undeveloped open space. The northern 98.3 acres of the project site comprises the former Agilent Technologies campus area (see Figure 2-2 for an aerial photograph of the site). The campus area is developed with five building structures with a maximum height of about 40 or 50 feet and of differing size. Substantial areas have been given over to parking space around the existing buildings in testimony to the large numbers of people who frequented the site on a daily basis when Agilent Technologies occupied the site. The southern 76.9 acres of the project site is undeveloped except for a PG&E electrical substation in the southwest corner of the site. This portion of the site may have historically been used for agriculture use, such as the production of hay.

Local air pollutant emissions are generated by a variety of stationary, area-wide and mobile sources, including space and water heating in existing buildings, landscape maintenance equipment (e.g., leaf blowers, lawnmowers), consumer product use by local residents, and automobile and truck traffic. Motor vehicles are the primary source of pollutants in the project site vicinity.

The project site is not located within the buffer zones of major TAC sources as identified by CARB's *Air Quality and Land Use Handbook*. In this area, the major TAC sources of concern would be US 101, from which the project site is setback greater than 500 feet (about 1.5 miles). Based on industrial source-specific TAC inventories provided to the BAAQMD, as required by AB 2588, and subsequent health risk assessments, no industrial TAC sources in Rohnert Park posed sufficient risk to their neighbors that would require notification as mandated by AB 2588. Most of the industrial TAC sources on the BAAQMD list in Rohnert Park are dry cleaning facilities, sources of the TAC perchloroethylene. Also on the list are the West & Associates Environmental Engineers (5600 State Farm Drive), which is a source of the TAC benzene. None of their TAC emissions are substantial enough to trigger AB 2588 notification requirements.



**Table 3.2-2  
Summary of Ambient Air Quality in the Project Vicinity**

Air Pollutants Monitored at the Santa Rosa Monitoring Station	Year		
	2006	2007	2008
<b>Ozone</b>			
Maximum 1-hour concentration measured	0.077 ppm	0.071 ppm	0.076 ppm
Days exceeding national 0.12 ppm 1-hour standard	0	0	0
Days exceeding state 0.09 ppm 1-hour standard	0	0	0
Maximum 8-hour concentration measured	0.058 ppm	0.060 ppm	0.065 ppm
Days exceeding national 0.08 ppm 8-hour standard	0	0	0
<b>Respirable Particulate Matter (PM<sub>10</sub>)</b>			
Maximum 24-hour concentration measured (national)	87.1 $\mu\text{g}/\text{m}^3$	36.6 $\mu\text{g}/\text{m}^3$	48.5 $\mu\text{g}/\text{m}^3$
No. of days exceeding national 150 $\mu\text{g}/\text{m}^3$ 24-hour standard	0	0	0
Maximum 24-hour concentration measured (state)	89.5 $\mu\text{g}/\text{m}^3$ <sup>b</sup>	37.2 $\mu\text{g}/\text{m}^3$	49.9 $\mu\text{g}/\text{m}^3$ <sup>b</sup>
Days exceeding state 50 $\mu\text{g}/\text{m}^3$ 24-hour standard	0	3	23.6
National annual arithmetic mean (AAM)	18.3 $\mu\text{g}/\text{m}^3$ <sup>c</sup>	16.7 $\mu\text{g}/\text{m}^3$ <sup>c</sup>	16.6 $\mu\text{g}/\text{m}^3$ <sup>c</sup>
Does measured AAM exceed national 50.0 $\mu\text{g}/\text{m}^3$ AAM standard?	No	No	No
<b>Fine Particulate Matter (PM<sub>2.5</sub>)</b>			
Maximum 24-hour concentration measured	59.0 $\mu\text{g}/\text{m}^3$	32.0 $\mu\text{g}/\text{m}^3$	30.8 $\mu\text{g}/\text{m}^3$
No. of days exceeding national 65 $\mu\text{g}/\text{m}^3$ 24-hour standard	0	0	0
National and state AAM	8.2 $\mu\text{g}/\text{m}^3$	7.6 $\mu\text{g}/\text{m}^3$	8.6 $\mu\text{g}/\text{m}^3$
Does measured AAM exceed national 15.0 $\mu\text{g}/\text{m}^3$ AAM standard?	No	No	No
Does measured AAM exceed state 12.0 $\mu\text{g}/\text{m}^3$ AAM standard?	No	No	No
<b>Carbon Monoxide (CO)</b>			
Maximum 8-hour concentration measured	1.70 ppm	1.71 ppm	1.49 ppm
Number of days exceeding national and state 9.0 ppm 8-hour standard	0	0	0
<b>Nitrogen Dioxide (NO<sub>2</sub>)</b>			
Maximum 1-hour concentration measured	0.044 ppm	0.046 ppm	0.049 ppm
Days exceeding state 0.25 ppm 1-hour standard	0	0	0
AAM	0.011 ppm	0.011 ppm	0.011 ppm
Does measured AAM exceed national 0.0534 ppm AAM standard?	No	No	No

Source: California Air Resources Board, <http://www.arb.ca.gov/aqd/aqdpag.htm>, 2009.

Notes:

- a. ppm = parts by volume per million of air.
- b.  $\mu\text{g}/\text{m}^3$  = micrograms per cubic meter.
- c. Data no longer applicable.

## Impacts and Mitigation Measures

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### Standards of Significance

Based on the City of Rohnert Park thresholds of significance, (which are identical to those contained in CEQA Guidelines, Appendix G), air quality impacts would be considered significant if one or more of the following conditions were created by implementation of the Sonoma Mountain Village project.

- **Impact Criterion #1:** Conflict with or obstruct implementation of the applicable air quality plan.
- **Impact Criterion #2:** Violate any air quality standard or contribute substantially to an existing or projected air quality violation.
- **Impact Criterion #3:** Result in a substantial net increase in the emissions of any air pollutant for which the project region is problematic under applicable federal or state air quality standards or plans, including releasing pollutants which exceed established quantitative thresholds.
- **Impact Criterion #4:** Expose sensitive receptors to substantial pollutant concentrations.
- **Impact Criterion #5:** Create objectionable odors affecting a substantial number of people.

The thresholds discussed below are currently recommended by the BAAQMD in the *BAAQMD CEQA Guidelines* to determine the significance of air quality impacts.

**Consistency with the 2000 Clean Air Plan.** Although the *BAAQMD CEQA Guidelines* identify specific significance thresholds for a project's emissions or concentrations of most criteria air pollutants (as specified below), there is no similar air quality-related threshold or methodology to determine whether a general development project would conflict with or obstruct implementation of the Clean Air Plan. The *BAAQMD CEQA Guidelines* specify that, in jurisdictions where the local general plan is consistent with the Clean Air Plan (as is Rohnert Park's General Plan), if a land use is consistent with the local general plan's land use designation, then it is consistent with the Clean Air Plan. In further discussion between the BAAQMD and the EIR analysts, the BAAQMD staff stated that a proposed general development project would not conflict with or obstruct implementation of the Clean Air Plan if it implements appropriate transportation control measures from the Clean Air Plan.<sup>3</sup>

**Construction Period Emissions.** The BAAQMD does not recommend any thresholds of significance for construction activity emissions. Instead, the BAAQMD bases the determination of significance on a consideration of the control measures to be implemented. If all appropriate emissions control measures recommended by the *BAAQMD CEQA Guidelines* are implemented for a project, then construction emissions are not considered significant. Currently these control measures only apply to emissions of fugitive dust. Emission controls are not required for the emissions generated by construction vehicle engines. Construction exhaust emissions are included in the regional emission inventory that is the

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<sup>3</sup> Interview with Henry Hilken, Principal Environmental Planner, Bay Area Air Quality Management District, June 24, 2004.

basis for regional air quality plans. Thus, the BAAQMD does not expect these emissions to impede attainment or maintenance of ozone, particulate or CO standards in the Bay Area.

**Operational Criteria Pollutant Emissions (specifically ROG, NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>).** To address significance criteria #2, #3, and #4, the BAAQMD currently recommends that projects with operational emissions that exceed any of the following thresholds be considered significant. These thresholds apply to the operational emissions associated with individual projects only; they do not apply to construction-related emissions. The operational emissions that are generated by individual projects and exceed these thresholds are also considered to be cumulatively considerable by the BAAQMD.

- 80.0 pounds per day (ppd) of ROG
- 80.0 ppd of NO<sub>x</sub>
- 80.0 ppd of PM<sub>10</sub> (There is no BAAQMD threshold for PM<sub>2.5</sub>)

Also, operational emissions of CO are considered significant if they cause or contribute to violations of the federal or State ambient air quality standards for CO (i.e., 35 ppm and 20 ppm, respectively, for one-hour averages; 9 ppm for eight-hour averages).

**Operational TAC Emissions.** The BAAQMD recommends that projects that could expose people to TACs that exceed the maximum individual cancer risk of 10 in one million or a hazard index greater than 1 be considered significant. According to CARB's *Air Quality and Land Use Handbook*, such exposures are likely if the identified major TAC sources (e.g., freeways, large warehouses/distribution centers, railyards, etc.) are located within the specific "buffer zones" identified therein.

*Cumulative Impacts.* According to the BAAQMD CEQA Guidelines, a project would have a potentially significant cumulative air quality impact if it had individually significant ozone or particulate air quality impacts and if it required a local general plan amendment or zoning change that would significantly increase the site's potential for generating ozone precursor or particulate emissions.

## **Project Evaluation**

### **Impact Criterion #1**

***Air Quality Plan: Would the project conflict with or obstruct implementation of the applicable air quality plan?***

The 2000 Clean Air Plan, discussed previously, was prepared to accommodate growth, reduce the pollutant levels in the Bay Area, meet federal and state ambient air quality standards, and minimize the fiscal impact that pollution control measures have on the local economy. Likewise, Chapter 6.4 of the Rohnert Park General Plan, discussed previously, identifies goals and policies that help the City contribute to regional air quality improvement efforts. General Plan air quality goals and policies that are applicable to the Sonoma Mountain Village are discussed in Section 3.9, Relationship to Plans and Planning Policy. The Rohnert Park General Plan is considered to be consistent with the Clean Air Plan

as noted previously and the Sonoma Mountain Village project would be consistent with the above-mentioned Rohnert Park General Plan goals and policies.

Chapter 4 of the *BAAQMD CEQA Guidelines* also identifies a number of measures that can be implemented to reduce the air quality impacts of new development projects. Several of these measures are included in the design of the proposed project and would help to reduce the emissions that would otherwise be generated by the project. Specific measures recommended in the *BAAQMD CEQA Guidelines* that are features of the Sonoma Mountain Village project include the following:

- Provide on-site shops and services for employees, such as cafeteria, bank/ATM, dry cleaners, convenience market, etc. (each of these are permitted under the proposed mixed-use land uses and could provide services for local residents, and employees.);
- Provide safe, direct access for bicyclists to adjacent bicycle routes;
- Provide direct, safe, attractive pedestrian access from project to transit stops and adjacent development;
- Provide neighborhood-serving shops and services within or adjacent to residential project; and
- Provide interconnected street network, with regular grid or similar interconnected street pattern.

In addition to these measures, the future environment around the Sonoma Mountain Village site would provide amenities that would help to encourage non-motor vehicle transportation by future residents, customers, and employees. These amenities include the following:

- Sidewalks and walking paths to most destinations in the surrounding area;
- Street trees that provide moderate coverage of the sidewalks and pedestrian paths;
- Most destinations within the vicinity accessible by pedestrians;
- Some streets to have enhanced safety for pedestrians (e.g., separations between streets and pedestrian paths);
- A moderate amount of visually interesting walking paths;
- Existing transit service within walking distance of the project area;
- Some bicycle routes to have paved shoulders to provide increased safety; and
- Safe bicycle routes to educational facilities in close proximity to the project area.

Based on this information, the Sonoma Mountain Village project would implement various transportation control and trip reduction measures that are consistent with the BAAQMD's goals for reducing regional air pollutants. Therefore, there would be no significant adverse air quality impact under Impact Criterion #1 regarding conflicting with or obstructing the implementation of an applicable air quality plan.

## Impact Criterion #2

**Air Quality Standard:** *Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?*

### Impact 3.2-1

*Construction activities associated with development of the Sonoma Mountain Village project could generate substantial dust emissions. This would be a significant impact under Impact Criterion #2 regarding the substantial contribution to an existing or projected air quality violation.*

The BAAQMD does not recommend any quantitative thresholds of significance for construction-related emissions. Instead, the BAAQMD bases the determination of significance on a consideration of the control measures to be implemented. At this time, the only construction-related control measures the BAAQMD recommends are those related to particulate emission controls, mainly through dust suppression. If all appropriate emissions control measures recommended by the *BAAQMD CEQA Guidelines* relating to dust suppression are implemented for a project, then construction emissions would be less than significant under Impact Criterion #2 regarding violating air quality standards.

Mitigation Measure 3.2-1(a) includes all appropriate dust control measures recommended by the BAAQMD. Mitigation Measure 3.2-1(b) is proposed to provide a resource for local residents to address air quality issues that may occur during construction. According to the South Coast Air Quality Management District's *CEQA Air Quality Handbook*, these types of measures would reduce by at least 50 percent the amount of fugitive dust generated by excavation and construction activities.<sup>4</sup> Therefore, construction-related air quality impacts would be reduced to a less-than-significant level. Mitigation Measure 3.2-1(c) would reduce even further the emissions generated by heavy-duty diesel-powered construction equipment operating at the project site.

#### Mitigation Measure 3.2-1

3.2-1(a) Prior to construction, the project sponsor shall implement recommended dust control measures. To reduce particulate matter emissions during project excavation and construction phases, the project contractor(s) shall comply with the dust control strategies developed by the BAAQMD. The project sponsor shall include in construction contracts the following requirements or measures shown to be equally effective.

- Cover all trucks hauling soil, sand, and other loose construction and demolition debris from the site, or require all such trucks to maintain at least two feet of freeboard;
- Water all exposed or disturbed soil surfaces in active construction areas at least twice daily;

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<sup>4</sup> South Coast Air Quality Management District, *CEQA Air Quality Handbook*, November 1993, pages 11-15 and 11-16.

- Use watering to control dust generation during demolition of structures or break-up of pavement;
- Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved parking areas and staging areas;
- Sweep daily (with water sweepers) all paved parking areas and staging areas;
- Provide daily clean-up of mud and dirt carried onto paved streets from the site;
- Enclose, cover, water twice daily or apply non-toxic soil binders to exposed stockpiles (dirt, sand, etc.);
- Limit traffic speeds on unpaved roads to 15 mph;
- Install sandbags or other erosion control measures to prevent silt runoff to public roadways;
- Replant vegetation in disturbed areas as quickly as possible;
- Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more);
- Install wheel washers for all existing trucks, or wash off the tires or tracks of all trucks and equipment leaving the site;
- Install wind breaks at the windward side(s) of construction areas;
- Suspend excavation and grading activity when winds (instantaneous gusts) exceed 25 miles per hour over a 30-minute period or more; and
- To the extent possible, limit the area subject to excavation, grading, and other dust-generating construction activity at any one time.

3.2-1(b) Prior to grading, the project sponsor shall designate a dust control coordinator. To facilitate control of dust during construction and demolition phases, the project sponsor shall include a dust control coordinator in construction contracts. All construction sites shall have posted in a conspicuous location the name and phone number of a designated construction dust control coordinator who can respond to complaints by suspending dust-producing activities or providing additional personnel or equipment for dust control.

3.2-1(c) Reduce emissions from heavy-duty diesel-powered equipment. The project contractor(s) shall implement measures to reduce the emissions of pollutants generated by heavy-duty diesel-powered equipment operating at the project site during project excavation and construction phases. The project sponsor shall include in construction contracts the following requirements or measures shown to be equally effective.

- Keep all construction equipment in proper tune, in accordance with manufacturer's specifications;
- Use late model heavy-duty diesel-powered equipment at the project site to the extent that it is readily available in the San Francisco Bay Area;
- Use diesel-powered equipment that has been retrofitted with after-treatment products (e.g., engine catalysts) to the extent that it is readily available in the San Francisco Bay Area;
- Use low-emission diesel fuel for all heavy-duty diesel-powered equipment operating and refueling at the project site to the extent that it is readily available and cost effective in the San Francisco Bay Area (this does not apply to diesel-powered trucks traveling to and from the site);
- Utilize alternative fuel construction equipment (i.e., compressed natural gas, liquid petroleum gas, and unleaded gasoline) to the extent that the equipment is readily available and cost effective in the San Francisco Bay Area;
- Limit truck and equipment idling time to five minutes or less; and
- Rely on the electricity infrastructure surrounding the construction sites rather than electrical generators powered by internal combustion engines to the extent feasible.

### **Impact Criterion #3**

**Substantial Air Pollutant Emissions:** *Would the project result in a substantial net increase in the emissions of any air pollutant for which the project region is problematic under applicable federal or state air quality standards or plans, including releasing pollutants which exceed established quantitative thresholds?*

### **Impact 3.2-2**

*Project operational activities would generate emissions of ozone precursors (ROG, NOx) and particulate matter (PM<sub>10</sub>) (criteria pollutants), that would exceed BAAQMD quantitative emission thresholds of 80 pounds per day each. These would be significant and unavoidable impacts under Impact Criterion #3 regarding the release of substantial air pollutant emissions.*

**Criteria Pollutant Emissions.** Operational emissions generated by both stationary and mobile sources would result from normal day-to-day activities at the Sonoma Mountain Village site as each development phase would be occupied. Stationary area source emissions would be generated by the consumption of natural gas for space and water heating devices, the operation of landscape maintenance equipment, and the use of consumer products. In addition, mobile emissions would be generated by the motor vehicles traveling within and to and from the site.

The analysis of daily operational emissions has been prepared utilizing the URBEMIS 2007 (Version 9.2.4) computer model with project land use specifications, development phasing and associated daily vehicle trip estimates, the latter including daily vehicle trip reductions (i.e., approximately 30 percent) that would result from internal trip capture/passby reductions associated with the mixed-use characteristics of project development. The estimated daily criteria pollutant emissions associated with each of the development stages of the proposed project are identified in Table 3.2-3; such emissions are shown over an approximate 12-year project buildout period in Figure 3.2-1 and Figure 3.2-2. The seasonal average daily emissions associated with the Sonoma Mountain Village project would equal or exceed the BAAQMD 80 ppd threshold of significance for ROG and PM<sub>10</sub> (which includes PM<sub>2.5</sub>) at every milestone stage of project development.

By way of comparison, as a worst case scenario, in the year 2010 a project would trigger the 80 ppd threshold for ROG if a project contained 500 single family detached residential units, or 300,000 sf of regional shopping center, or 800,000 sf of office park space. Similarly a project would trigger the 80 ppd threshold for PM<sub>10</sub> if a project contained 400 single family detached residential units, or 150,000 sf of regional shopping center, or 500,000 sf of office park space. The project as proposed would contain 1,694 residential dwelling units (including 324 single family detached units and 1,370 attached units plus up to 198 accessory units), 425,978 sf of office space, 191,801 sf of retail/commercial space, 35,000 sf of civic building space, and a 25,000 sf theater, a 30,000 sf health club, and a 100 room hotel.

#### Mitigation Measure 3.2-2

3.2-2 Since operational criteria pollutant emissions of the Sonoma Mountain Village project would exceed the thresholds of significance recommended by the BAAQMD, the project sponsor shall include in the project design specifications the following minimum energy reduction measures or other measures shown to be equally effective:

- Use solar or low-emission water heaters in the residential and retail buildings;
- Provide energy-efficient heating, cooling, and other appliances, such as cooking equipment, refrigerators, and dishwashers;
- Provide energy-efficient and automated controls for air conditioning;
- Install ozone destruction catalyst on air conditioning systems, in consultation with the BAAQMD;
- Use light colored roof materials to reflect heat;
- Where feasible and appropriate, use light colored parking surface materials;
- Plant shade trees in parking lots to reduce evaporative emissions from parked vehicles;

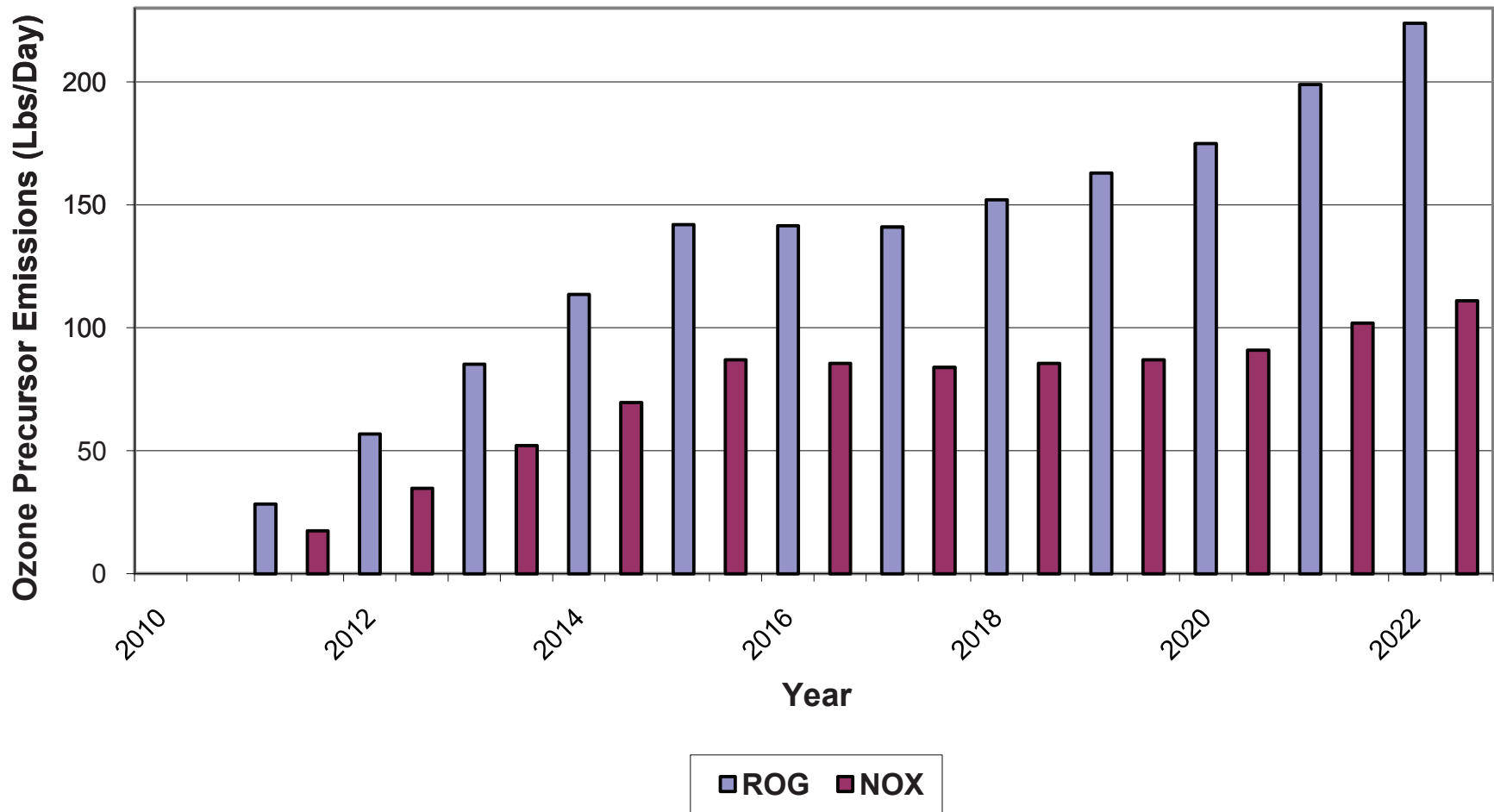


**Table 3.2-3  
Project Operational Criteria Pollutant Emissions**

Emission Source/Phase	Emissions (Pounds per Day)			
	ROG	NO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>End Phase 1A (Year 2015)</b>				
Area (i.e., heating, maintenance equipment, etc.)	62	11	84	80
Motor Vehicles	80	76	161	31
<b>Phase 1A Total Emissions:</b>	<b>142</b>	<b>87</b>	<b>245</b>	<b>111</b>
<b>End Phase 1B (Year 2017)</b>				
Area (i.e., heating, maintenance equipment, etc.)	63	12	84	80
Motor Vehicles	77	72	179	34
<b>Phase 1B Total Emissions:</b>	<b>141</b>	<b>84</b>	<b>263</b>	<b>114</b>
<b>End Phase 1C (Year 2019)</b>				
Area (i.e., heating, maintenance equipment, etc.)	80	16	107	103
Motor Vehicles	82	71	212	40
<b>Phase 1C Total Emissions:</b>	<b>163</b>	<b>87</b>	<b>319</b>	<b>143</b>
<b>End Phase 1D (Year 2020)</b>				
Area (i.e., heating, maintenance equipment, etc.)	87	18	115	111
Motor Vehicles	88	74	236	45
<b>Phase 1D Total Emissions:</b>	<b>175</b>	<b>91</b>	<b>351</b>	<b>156</b>
<b>End Phase II (Year 2021)</b>				
Area (i.e., heating, maintenance equipment, etc.)	101	20	133	128
Motor Vehicles	98	82	263	50
<b>Phase II Total Emissions:</b>	<b>199</b>	<b>102</b>	<b>396</b>	<b>178</b>
<b>End Phase III (Year 2022)</b>				
Area (i.e., heating, maintenance equipment, etc.)	118	22	155	149
Motor Vehicles	106	88	282	53
<b>Phase III Total Emissions:</b>	<b>224</b>	<b>111</b>	<b>437</b>	<b>203</b>

*Source:* PBS&J, 2009. Based on URBEMIS 2007 Version 9.2.4.

*Note:* Pollutant emissions displayed are the daily averages during seasons of the year when associated ambient concentrations are highest, specifically summer for ozone (and the precursors ROG and NO<sub>x</sub>) and winter for particulates.

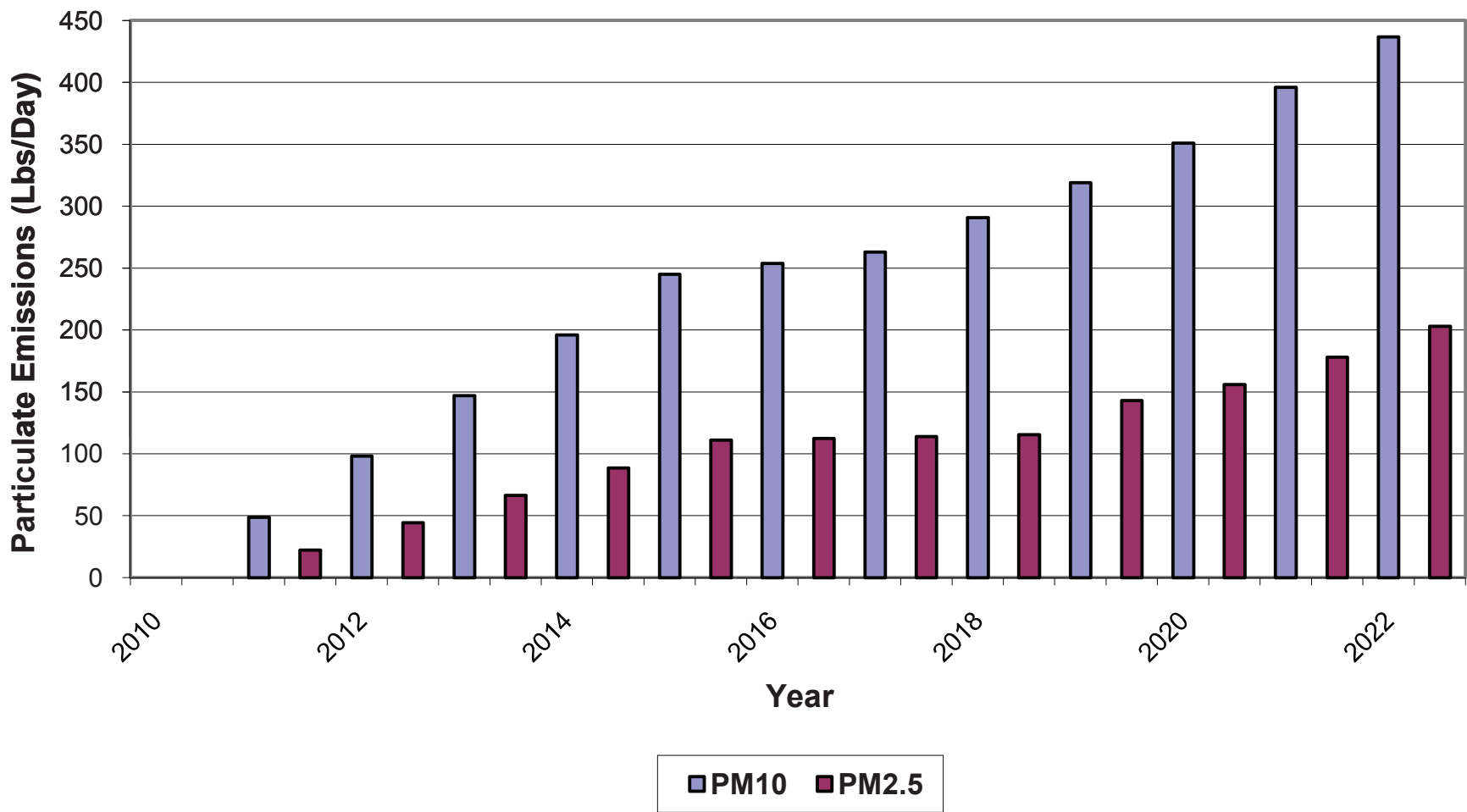


**FIGURE 3.14-1  
Ozone Precursor Emissions (Summer)**

Source: PBS&J, 2009

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Sonoma Mountain Village



**FIGURE 3.14-2  
Particulate Emissions (Winter)**

Source: PBS&J, 2009



D41336.00

Sonoma Mountain Village

- If fireplaces are provided in new residential uses, install the low-emitting commercial fireplaces available at the time of development;<sup>5</sup> and
- Require that commercial landscapers providing services at the project site use electric or battery-powered equipment, or other internal combustion equipment that is either certified by the California Air Resources Board or is three-years-old or less at the time of use, to the extent that such equipment is reasonably available and competitively priced in the San Francisco Bay Area.

However, even after the implementation of these energy reduction measures, project criteria pollutant emissions would be expected to remain significant and unavoidable under Impact Criterion #3 regarding the release of substantial air pollutant emissions.

#### **Impact Criterion #4**

**Pollutant Concentrations:** *Would the project expose sensitive receptors to substantial pollutant concentrations?*

#### **CO Exposures**

The CALINE4 model was used to estimate existing and predict future CO concentrations at the study-area intersections in the vicinity of the project site. The results of these calculations are provided in Table 3.2-4. As shown, future CO concentrations near these intersections would not exceed established national and state standards for CO. Therefore, implementation of the Sonoma Mountain Village project and cumulative development would not expose any sensitive receptors located in close proximity to these intersections to substantial pollutant concentrations. Therefore, there would be no significant adverse air quality impact under Impact Criterion #4 regarding the exposure of sensitive receptors to substantial criteria pollutant concentrations.

#### **TAC Exposures**

Diesel particulate (DPM) emissions, a known toxic air contaminant, would occur from delivery trucks traveling to and from the project site. To address DPM emissions, statewide programs and regulations are presently being developed and implemented by CARB and the U.S. EPA to reduce the risks of exposure to diesel exhaust. These programs include emission control requirements along with subsidies for upgrading older diesel engines to low-emissions models. In light of the available information, the effects of TAC emissions from existing and future vehicle operations in the Sonoma Mountain Village area are not expected to be substantial. Further, project plans do not include land uses that are known to be major sources of TACs, as identified in CARB's *Air Quality and Land Use Handbook*. Only small quantities of common forms of hazardous or toxic substances, such as cleaning

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<sup>5</sup> The project would be required to comply with Rohnert Park Municipal Code Chapter 8.26, *Installation of Wood-Burning Appliances*, which specifies use of Environmental Protection Agency certified wood heaters, prohibited fuels, etc.

**Table 3.2-4  
Carbon Monoxide Concentrations At Selected Locations**

Intersection	Receptor Location	One-Hour Average CO (ppm)			Eight-Hour Average CO (ppm)		
		Existing	Baseline + Project (2020)	Cumulative + Project (2030)	Existing	Baseline + Project (2020)	Cumulative + Project (2030)
Petaluma Hill/ Railroad Ave.	Sidewalk near intersection	4.8	4.1	3.9	2.5	2.1	2.0
Petaluma Hill/ Adobe Rd.	Sidewalk near intersection	4.9	4.1	4.0	2.6	2.1	2.0
Redwood/ Railroad Ave.	Sidewalk near intersection	4.4	3.8	3.8	2.3	1.9	1.9
Redwood/E. Cotati	Sidewalk near intersection	5.1	4.2	4.0	2.7	2.2	2.0

There are no violations of ambient CO standards at any of the receptor locations above.

CO Background: One-Hour Average -- 3.6 ppm Eight-Hour Average -- 1.8 ppm	Ambient CO Standards: One-Hour Average -- Federal: 35 ppm; State 20 ppm Eight-Hour Average -- Federal and State: 9 ppm
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Source: PBS&J, 2009.

agents, which are typically used or stored in conjunction with residential and commercial uses, would be present (for additional information, refer to Section 3.6 of this EIR, *Hazards and Hazardous Materials*). Most uses of such substances would occur indoors. Based on the common uses expected on the site (residential, commercial, office), any emission would be less than significant.

Therefore, there would be no significant adverse air quality impact under Impact Criterion #4 regarding the exposure sensitive receptors to substantial pollutant concentrations.

**Impact Criterion #5**

**Odors: Would the Project create objectionable odors affecting a substantial number of people?**

The occurrence and severity of potential odor impacts depends on numerous factors. The nature, frequency, and intensity of the source, the wind speeds and direction, and the sensitivity of the receiving location each contribute to the intensity of the impact. While offensive odors rarely cause any physical harm, they can be unpleasant and cause distress among the public and generate citizen complaints.

Construction activities occurring in association with the Sonoma Mountain Village would generate airborne odors associated with the operation of construction vehicles (i.e., diesel exhaust) and the application of architectural coatings. These emissions would occur during daytime hours only and would be isolated to the immediate vicinity of the construction site and activity. As such, they would not affect a substantial number of people.

Potential operational airborne odors could result from cooking activities associated with possible on-site restaurant facilities. These odors would be similar to those from existing restaurant uses in Rohnert Park and would be confined to the immediate vicinity of the new restaurant facilities. The other potential source of odors would be new trash receptacles at the new buildings and neighborhood park space planned for the project. The receptacles would have lids and be emptied on a regular basis, before potentially substantial odors have a chance to develop.

Therefore, there would be no significant adverse air quality impact under Impact Criterion #5 regarding the creation objectionable odors affecting a substantial number of people.

### **Cumulative Impact Assessment**

The discussion of cumulative development impacts is as described in the Introduction chapter of this EIR under the title *Cumulative Impact Assessment* and includes collectively the project site areas and projects as described therein.

The Sonoma Mountain Village project would require a General Plan Amendment and rezoning, which would significantly increase the site's potential for the direct and indirect emission of air pollutants. Ozone precursor and particulate emissions from project-related stationary and mobile sources would exceed BAAQMD significance thresholds. Moreover, air pollutant emissions from the proposed project would be a relatively large proportion of the total Rohnert Park cumulative emissions. Therefore, the proposed project's contribution to air pollutant emissions would be cumulatively considerable and its cumulative air quality impacts would be cumulatively significant and unavoidable.



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## 3.3 BIOLOGICAL RESOURCES

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### Introduction

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This section of the EIR assesses the project's potential impacts on biological resources. Potential impacts are assessed in accordance with adopted City of Rohnert Park impact significance criteria. Biological resources are defined as special-status plants and wildlife, their habitat, and wetland resources subject to state or federal regulations. The Setting discussion below includes applicable biological resources policies and regulations for the project site area, a description of the habitats present within the project boundaries, and a discussion of special-status plant and wildlife species potentially occurring within the project site. This section concludes with a discussion of potential project impacts on biological and wetland resources and the appropriate mitigation measures to reduce potential impacts to less-than-significant levels.

The goal of the project is to meet the applicant's development goals, while preserving, to the extent feasible, onsite diversity of biological resources. That being said, certain levels of development must be maintained for the project to remain financially feasible. The project site has received a high level of historic disturbance related to previous urban , and agricultural development that reduce its value to native plants and wildlife known from the region. Additionally, the project is located adjacent to existing development and at least 98 acres are currently developed.

This section of the EIR is primarily based on the reports titled *Delineation of Potential Jurisdictional Wetlands Under Section 404 of the Clean Water Act, Agilent Excess Land Sale Project Site, Rohnert Park, Sonoma County, California* by Wetlands Research Associates, Inc. August 2002; *Special-Status Plant Survey of Agilent Excess Land Sale Project Site, Rohnert Park, Sonoma County, California*, by Wetlands Research Associates, Inc. August 2002; *California Tiger Salamander Biological Assessment, Agilent Parcel, Sonoma County, California* July 2004; and the *California Tiger Salamander Drift Fence Survey Plan, Agilent Site, Rohnert Park, Sonoma County* by Wetlands Research Associates, September 16, 2004.

Additional information on project site area habitats, and special-status species was obtained from the California Department of Fish and Game's February 2006 Special Animals list; California Department of Fish and Game's Natural Diversity Database (CNDDDB); Rarefind 3 database program, California Department of Fish and Game, updated July 2009; the U.S. Fish and Wildlife Service's website updated July 2009; and a June 15, 2007 reconnaissance-level visit to the project site.

### Setting

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#### Biological Conditions

The project site is occupied by existing urban development and fallow agricultural fields with seasonal wetlands and drainage ditches. Also, ornamental landscaping and mowed ruderal grassland is present in



association with the urban development. A description of habitats found within or adjacent to the project site is provided in the following paragraphs.

**Fallow Agricultural Land.** The southern half of the project site area, and much of the surrounding land to the south and east consists of agricultural land, or fallow agricultural land. Plant species in the fallow agricultural areas of the site include wild oat (*Avena fatua*), ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), Italian ryegrass (*Lolium multiflorum*), Canary grass (*Phalaris canariensis*), yellow star thistle (*Centaurea solstitialis*), filaree (*Erodium botrys*), wild mustard (*Brassica* spp.) and wild radish (*Raphanus sativa*). Some native species were observed that included lupine (*Lupinus* sp.), clover (*Trifolium furcatum*), blue eyed grass (*Sisyrinchium bellum*), and harvest brodiaea (*Brodiaea elegans*).

Although this area has not been actively used for agriculture for many years, the area is still disked, and/or mowed on an annual to semi-annual basis (and had recently been mowed at the time of the June 15, 2007 survey). Due to this regular disturbance, the plant and wildlife species this habitat is capable of supporting is limited to those species which have adapted to regular disturbance regimes.

Wildlife species observed during the June 15, 2007 field survey included western fence lizard (*Sceloporus occidentalis*), American crow (*Corvus brachyrhynchos*), Brewer's blackbird (*Euphagus cyanocephalus*), house sparrow (*Passer domesticus*), American kestrel (*Falco sparverius*), and red-tailed hawk (*Buteo jamaicensis*). Other wildlife species expected to occur in the vicinity of the project site include western toad (*Bufo boreas*), Pacific tree frog (*Pseudacris regilla*), Pacific gopher snake (*Pituophis catenifer catenifer*), mourning dove (*Zenaida macroura*), northern mockingbird (*Mimus polyglottos*), western scrub jay (*Aphelocoma coerulescens*), house mouse (*Mus musculus*), black rat (*Rattus rattus*), Norway rat (*Rattus norvegicus*), striped skunk (*Mephitis mephitis*), opossum (*Didelphis virginiana*), raccoon (*Procyon lotor*) and coyote (*Canis latrans*).

**Ruderal.** The ruderal communities consist of introduced annual and perennial grasses and forbs associated with highly disturbed habitats. This community can be found in the northwest portion of the project site area adjacent to the baseball diamond and west parking lots. This area is kept closely mowed, but plant species observed in this community were generally identifiable, and included Canary grass (*Phalaris* spp.), Bermuda grass (*Cynodon dactylon*), wild radish (*Raphanus sativus*), wild mustard (*Brassica* spp.), prickly lettuce (*Lactuca serriola*), common knotweed (*Polygonum arenastrum*), field bindweed (*Convolvulus arvensis*), and English plantain (*Plantago lanceolata*). Wildlife species found in this habitat type would be similar to those found within agricultural habitats, though less abundant due to the greater level of disturbance.

**Urban.** The northern half of the project site area currently consists of urban development including commercial, office and light industrial buildings. In addition to the buildings, there is a series of roads, parking lots and other hardscape. Ornamental landscaping is also present throughout this area, and includes lawns, shrubs and shade trees. Vegetation in the landscaped areas include a variety of ornamental species such as coast redwood (*Sequoia sempervirens*), a California native species. Wildlife use of the urban area is limited to those species with a high tolerance of human activity including scrub jay, American crow, house sparrow, house mouse and black rat.

Potential Wetlands. A wetland delineation was conducted for the undeveloped portion of the project site area in 2002.<sup>1</sup> A total of 0.59 acres of potentially jurisdictional wetlands were delineated which included 21 shallow seasonal depressions, and three drainage ditches (see Figure 3.3-1 for location). The shallow seasonal depressions, that cover a total of approximately 0.35-acre, appear to be degraded vernal pools and contain a variety of common plant species typical of seasonally wet habitats. These species include willow herb (*Epilobium pygmaeum*), cuspidate downingia (*Downingia cuspidata*), annual semaphore grass (*Pleuropogon californicus*), meadow barley (*Hordeum brachyantherum*), and popcornflower (*Plagiobothrys* sp.). Seasonal wetlands on the site are filled primarily by direct precipitation, as the three drainage ditches divert runoff from adjacent areas away from the project site area.<sup>2</sup> These features are generally small and shallow, but would provide suitable habitat for a variety of aquatic insects and other invertebrates, and possibly Pacific tree frog. They are too small and short lived to support breeding sites for California tiger salamander.

The three drainage ditches reported in the wetland delineation cover approximately 0.24-acre. These features appear to have been excavated from upland habitat, as no clear connection to any navigable waters was observed.<sup>3</sup> Although these ditches were dry during both the 2002 wetland delineation,<sup>4</sup> and the June 15, 2007 survey of the site, wetland vegetation was prominent. Wetland plant species observed in these ditches included willow herb, pennyroyal (*Mentha pulegium*), and curly dock (*Rumex crispus*). Wildlife use of these features is expected to be similar to the seasonal wetlands described above.

This delineation was verified by the U.S. Army USACE of Engineers (USACE) in December of 2002, but the verification expired in 2005. Although it does not appear that any significant changes have occurred in the project area since that time, prior to the issuance of any permit for project related fill of potential wetlands, the USACE will need to re-verify the wetland delineations pursuant to the Clean Water Act (discussed further below) Section 404. An additional potential wetland, not included in the 2002 report, but observed during the June 15, 2007 survey occurs in the northwest corner of the project site area, adjacent to an existing baseball diamond. This feature is fenced, and appears to serve as a stormwater detention basin. It is densely vegetated with Canary grass, to the exclusion of almost all other species. This feature was not delineated and it appears to be less than 0.10-acre in size and would be avoided.

## Special Status Species

The potential occurrence of special-status plant and animal species within the project site and surrounding area has been determined through habitat information collected through a review of the CDFG's CNDDDB, the U.S. Fish and Wildlife Service's (USFWS) online species list database (see Appendix C), and the June 15, 2007 reconnaissance field survey.

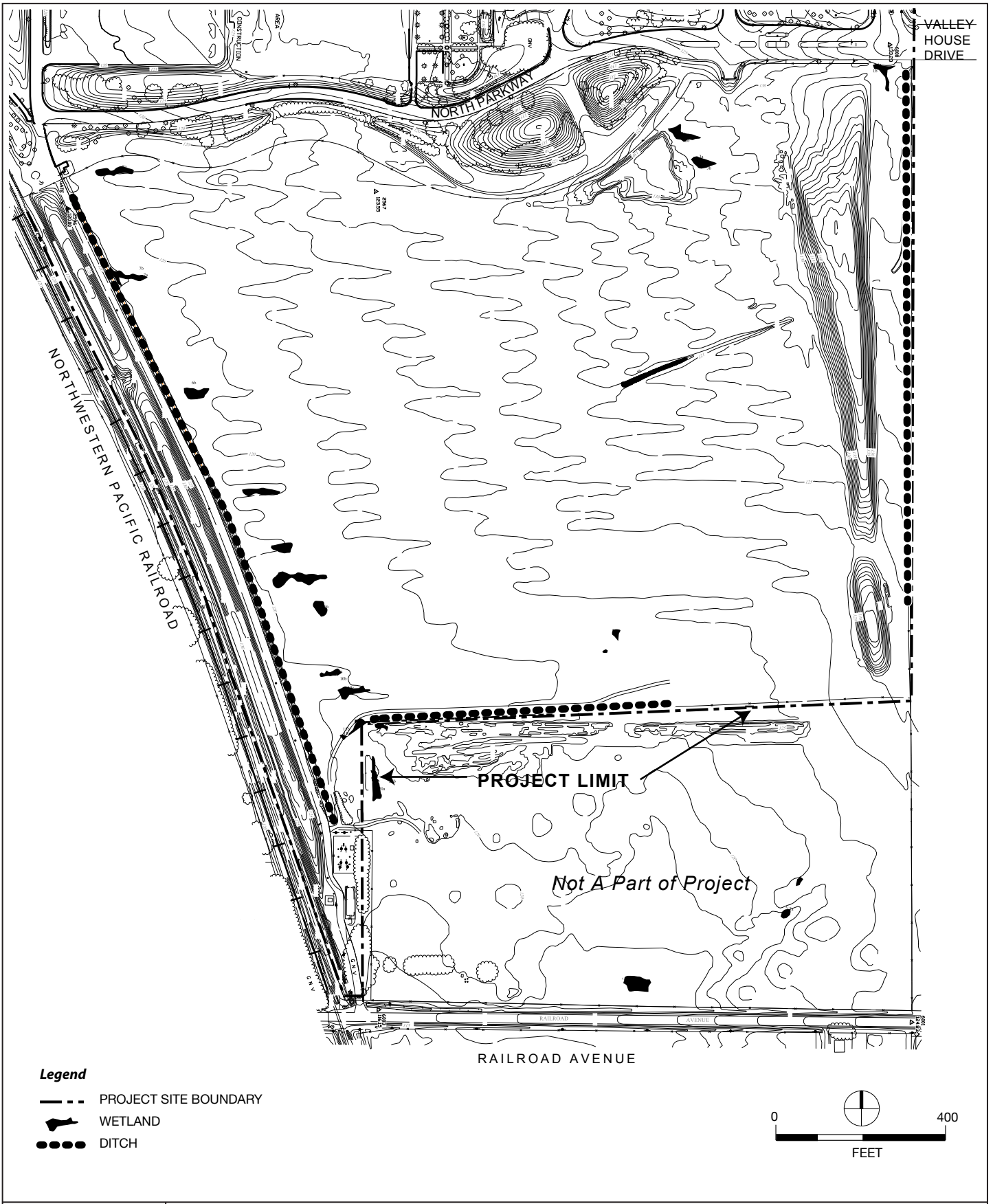
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<sup>1</sup> Wetlands Research Associates, Inc., *Delineation of Potential Jurisdictional Wetlands Under Section 404 of the Clean Water Act, Agilent Excess Land Sale Project Site, Rohnert Park, Sonoma County, California*, August 2002.

<sup>2</sup> *Ibid.*

<sup>3</sup> *Ibid.*

<sup>4</sup> *Ibid.*



**FIGURE 3.3-1  
Wetlands**

Source: Wetlands Research Associates, Inc., 2007

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Sonoma Mountain Village

For the purposes of this section, special-status species include:

- Species listed, proposed, or candidate species for listing as Threatened or Endangered by the USFWS pursuant to the Federal Endangered Species Act (FESA) of 1969, as amended;
- Species designated as Species of Concern by the USFWS (note: although this status designation does not itself trigger any FESA requirements, many of the species that have this designation meet the definition of rare, threatened or endangered under CEQA);
- Species listed as Rare, Threatened, or Endangered by the California Department of Fish and Game (CDFG) pursuant to the California Endangered Species Act (CESA) of 1970, as amended;
- Species designated as Fully Protected under Sections 3511 (birds), 4700 (mammals), and 5050 (reptiles and amphibians) of the California Fish and Game Code;
- Species designated by the CDFG as California Species of Concern;
- Plant species listed as Category 1B and 2 by the California Native Plant Society (CNPS); and species not currently protected by statute or regulation, but considered rare, threatened or endangered under CEQA (Section 15380).

Species identified through the above means, along with their status and likelihood of occurrence on the site is listed in Table 3.3-1. This list represents those species identified in the review of the CNDDDB and USFWS queries having the highest likelihood to occur in the project site (i.e., within the known range, and/or with potential habitat present). Species identified by these sources as potentially occurring in the area, but for which there is no suitable habitat, and the project site is outside the known range of the species, are not addressed further.

Any rating of “observed” indicates that the species has been observed on the site; “high” indicates that the species has not been observed, but sufficient information is available to indicate suitable habitat and conditions are present on-site and the species is expected to occur on-site; “moderate” indicates that it is not known if the species is present, but suitable habitat exists on-site; “low” indicates that species was not found during biological surveys conducted to date on the site and may not be expected, given the species’ known regional distribution or the quality of habitats located on the site, and “none” indicates that the species would not be expected to occur in the project site because either the site is not within the known range of the species, or there is no suitable habitat present there. Descriptions of each of the species rated “Low” or “Moderate” are provided below. No species were rated as “Higher” or “Observed.”

## Plants

Sonoma sunshine (*Blennosperma bakeri*). Sonoma sunshine is both state and federally listed as endangered, and is a CNPS list 1B plant that occurs in mesic (wet) valley and foothill grasslands, and vernal pools. This species has an elevation range from 10 to 110 meters; and blooms March to May. Sonoma sunshine was not observed during focused plant surveys conducted in the undeveloped portion

**Table 3.3-1  
Special-Status Species Potentially Occurring on the  
Sonoma Mountain Village Project Site**

Species	Status Fed/State/ Other	Habitat	Likelihood of Occurrence in the Project site
<b>PLANTS</b>			
<i>Alopecurus aequalis</i> var. <i>sonomensis</i> Sonoma alopecurus	PE/none/1B	Marshes, swamps and riparian scrub; elevation 5 to 365 meters; blooms May to July.	<b>None:</b> No suitable habitat within the project boundaries or vicinity.
<i>Blennosperma bakeri</i> Sonoma sunshine	FE/SE/1B	Valley and foothill grasslands (mesic), vernal pools; elevation 10 to 110 meters; blooms March to May.	<b>Low:</b> Potential habitat within project boundaries, but no records from the site or vicinity. Not observed during focused surveys conducted in 2002.
<i>Carex albida</i> White sedge	FE/SE/1B	Bogs and fens, marshes and swamps (freshwater); elevation 15 to 90 meters; blooms May to July.	<b>None:</b> No suitable habitat within the project boundaries or vicinity.
<i>Fritillaria liliacea</i> Fragrant fritillary	None/ None/1B	Coastal prairie, coastal scrub, valley and foothill grasslands; often serpentinite; elevation 3 to 410 meters; blooms February to April.	<b>Moderate:</b> Suitable habitat within the project boundaries and vicinity. No records from the site or vicinity. Not observed during surveys conducted in 2002, but outside the blooming period for the species.
<i>Lasthenia burkei</i> Burke's goldfields	FE/SE/1B	Meadows (mesic), vernal pools; elevation 15 to 600 meters; blooms April to June.	<b>Low:</b> Potential habitat within project boundaries, but no records from the site or vicinity. Not observed during focused surveys conducted in 2002.
<i>Limnanthes vinculans</i> Sebastopol meadowfoam	FE/SE/1B	Vernally mesic sites in meadows, valley and foothill grasslands, and vernal pools; elevation 15 to 100 meters; blooms April to May.	<b>Low:</b> Potential habitat within project boundaries, but no records from the site or vicinity. Not observed during focused surveys conducted in 2002.
<i>Leptosiphon (Linanthus) jepsonii</i> Jepson's linanthus	None/ None/1B	Cismontane woodlands and chaparral, usually on volcanic soils; elevation 100 to 500 meters; blooms March to May.	<b>None:</b> No suitable habitat within the project boundaries or vicinity.

**Table 3.3-1  
Special-Status Species Potentially Occurring on the  
Sonoma Mountain Village Project Site**

Species	Status Fed/State/ Other	Habitat	Likelihood of Occurrence in the Project site
<i>Pleuropogon hooverianus</i> North Coast semaphore grass	None/ST/1B	Meadows and seeps in broadleaved upland forest, and North Coast coniferous forest. Known from less than ten occurrences. Elevation ranges from 10 to 671 meters; blooms May to August.	<b>None:</b> No suitable habitat within the project boundaries or vicinity.
<i>Trifolium amoenum</i> Showy Indian clover	FE/None/1B	Coastal bluff scrub, valley and foothill grassland (sometimes serpentinite), known from only two occurrences near Occidental; elevation 5 to 415 meters; blooms April to June.	<b>Low:</b> Potential habitat within project boundaries, but no records from the site or vicinity. Not observed during focused surveys conducted in 2002.
<b>WILDLIFE</b>			
<b>Invertebrates</b>			
<i>Hydrochara rickseckeri</i> Ricksecker's water scavenger beetle	Federal: — State: —	Large seasonal ponds and large vernal pools; known only from a few localities in Sonoma, Contra Costa, and Solano counties.	<b>None:</b> No suitable habitat within the project boundaries or vicinity.
<i>Syncaris pacifica</i> California freshwater shrimp	Federal: E State: E	Quiet, tree-lined, free-flowing perennial streams in Marin, Napa, and Sonoma counties.	<b>None:</b> No suitable habitat within the project boundaries or vicinity.
<b>Fish</b>			
<i>Hysterocarpus traski</i> Russian River tule perch	Federal: SC State: —	Low elevation streams of the Russian River system; requires clear flowing water with abundant cover and deep pools (i.e., greater than 1 meter).	<b>None:</b> No suitable habitat within the project boundaries or vicinity.
<i>Lampetra tridentata</i> Pacific lamprey	Federal: SC State: —	Estuaries and nearby oceans; anadromous, spawns in upland streams with fine gravel; most common in Sacramento and San Joaquin Rivers.	<b>None:</b> No suitable habitat within the project boundaries or vicinity.
<i>Oncorhynchus kisutch</i> Coho salmon (Central CA Coast)	Federal: T State: E	Spawns in upper reaches of silt free gravel bottom rivers and creeks between Punta Gorda and the San Lorenzo River.	<b>None:</b> No suitable habitat within the project boundaries or vicinity.

**Table 3.3-1  
Special-Status Species Potentially Occurring on the  
Sonoma Mountain Village Project Site**

Species	Status Fed/State/ Other	Habitat	Likelihood of Occurrence in the Project site
<i>Oncorhynchus mykiss</i> Central California steelhead	Federal: T State: —	Spawns in upper reaches of silt free gravel bottom rivers and creeks in coastal California watersheds; requires cool deep pools in which to spend the summer months.	<b>None:</b> No suitable habitat within the project boundaries or vicinity.
<i>Oncorhynchus tshawytscha</i> Central Valley fall-run Chinook salmon	Federal: PT State: —	Upper reaches of gravel bottom rivers and creeks provide spawning habitat.	<b>None:</b> No suitable habitat within the project boundaries or vicinity.
<i>Oncorhynchus tshawytscha</i> Central Valley spring-run Chinook salmon	Federal: PT State: CE	Upper reaches of gravel bottom rivers and creeks provide spawning habitat.	<b>None:</b> No suitable habitat within the project boundaries or vicinity.
<i>Oncorhynchus tshawytscha</i> South OR/CA Coastal Chinook salmon	Federal: PT State: —	Upper reaches of gravel bottom rivers and creeks provide spawning habitat.	<b>None:</b> No suitable habitat within the project boundaries or vicinity.
<i>Pogonichthys macrolepidotus</i> Sacramento splittail	Federal: PT State: —	Slow moving rivers and dead end sloughs; requires flooded vegetation for spawning and foraging of young; now restricted to the Sacramento/San Joaquin Delta, Suisun Bay and associated marshes.	<b>None:</b> No suitable habitat within the project boundaries or vicinity.
<i>Spirinchus thaleichthys</i> Longfin smelt	Federal: SC State: —	Marine and estuarine waters throughout the San Francisco Bay and north along the coast; spawns in Suisun Bay and Sacramento/San Joaquin Delta.	<b>None:</b> No suitable habitat within the project boundaries or vicinity.
<b>Amphibians</b>			
<i>Ambystoma californiense</i> California tiger salamander	Federal: FC State: CSC	Valley and foothill grasslands and adjacent oak woodlands; shelters in rodent burrows and breeds in seasonal wetlands such as vernal pools.	<b>None:</b> No suitable habitat within the project boundaries or vicinity.
<i>Rana aurora aurora</i> Northern red-legged frog	Federal: SC State: CSC	Creeks and streams with deep pools and dense bank vegetation; presence of adjacent woodlands and grasslands important.	<b>None:</b> No suitable habitat within the project boundaries or vicinity.

**Table 3.3-1  
Special-Status Species Potentially Occurring on the  
Sonoma Mountain Village Project Site**

Species	Status Fed/State/ Other	Habitat	Likelihood of Occurrence in the Project site
<i>Rana boylei</i> Foothill yellow-legged frog	Federal: SC State: CSC	Shallow sunlit rocky streams with exposed boulders in the stream channel.	<b>None:</b> No suitable habitat within the project boundaries or vicinity.
<b>Reptiles</b>			
<i>Clemmys marmorata marmorata</i> Northwestern pond turtle	Federal: SC State: CSC	Ponds, streams and rivers with abundant woody debris for basking sites.	<b>None:</b> No suitable habitat within the project boundaries or vicinity.
<i>Phrynosoma coronatum frontale</i> California horned lizard	Federal: SC State: CSC	Most common in lowlands along sandy washes with scattered shrubs; also found in grasslands, oak woodlands and chaparral with open canopies; requires loose soils, and abundant ants and other insects.	<b>None:</b> No suitable habitat within the project boundaries or vicinity.
<b>Birds</b>			
<i>Accipiter cooperii</i> Cooper's hawk	None/CSC/None	Mature forests and open woodlands; nests primarily in deciduous riparian trees and live oaks.	<b>Low:</b> No suitable nesting habitat within the project boundaries or vicinity. Could possibly forage in the vicinity.
<i>Agelaius tricolor</i> Tricolored blackbird	None/CSC/None	Open grasslands and marshes with large blackberry thickets or large stands of cattails or tules.	<b>Low:</b> No suitable nesting habitat within the project boundaries or vicinity. Could possibly forage on site.
<i>Athene cunicularia hypugea</i> Western burrowing owl	None/CSC/None	Grasslands, deserts and scrub lands with low growing vegetation; dependent on burrowing mammals, especially ground squirrels.	<b>Moderate:</b> Suitable nesting habitat within the project boundaries and vicinity. Not observed within or near the project boundaries to date.
<i>Buteo regalis</i> Ferruginous hawk	None/CSC/None	Present in California only in winter; forages in open grasslands and deserts; does not nest in California.	<b>Low:</b> Species does not nest in California. Could possibly forage in the vicinity.



**Table 3.3-1  
Special-Status Species Potentially Occurring on the  
Sonoma Mountain Village Project Site**

Species	Status Fed/State/ Other	Habitat	Likelihood of Occurrence in the Project site
<i>Coccyzus americanus occidentalis</i> Western yellow-billed cuckoo	None/SE/ None	Riparian forests along lower flood bottoms of larger river systems. Nests in dense growths of willows and cottonwoods with understory of blackberries, nettles or wild grapes	<b>None:</b> No suitable habitat within the project boundaries or vicinity.
<i>Elanus caeruleus</i> White-tailed kite	None/CSC/CFP	Open grasslands, meadows and marshes with isolated trees for perching and nesting.	<b>Moderate:</b> Suitable nesting habitat within the project boundaries and vicinity. Not observed within or near the project boundaries to date.
<i>Empidonax traillii brewsteri</i> Little willow flycatcher	None/CSC/None	Extensive willow thickets adjacent to wet meadows, ponds or backwaters; 610 to 2,500 meters.	<b>None:</b> No suitable habitat within the project boundaries or vicinity.
<i>Falco peregrinus anatum</i> American peregrine falcon	Federal: E State: E	Cliffs for nesting; large open areas usually near water for foraging.	<b>Low:</b> No suitable nesting habitat within the project boundaries or vicinity. Could possibly forage in the vicinity.
<i>Haliaeetus leucocephalus</i> Bald eagle	Federal: T State: E	Ocean shoreline, lake margins and river courses for both nesting and wintering; nests in large old growth or dominant live trees with open branches.	<b>None:</b> No suitable habitat within the project boundaries or vicinity.
<i>Strix occidentalis caurina</i> Northern spotted owl	Federal: T State: —	Old growth conifer, oak/conifer and oak forests, and woodlands.	<b>None:</b> No suitable habitat within the project boundaries or vicinity.
<b>Mammals</b>			
<i>Corynorhinus townsendii townsendii</i> Pacific western big-eared bat	None/CSC/None	Humid coastal regions of northern and central California; roosts in limestone caves, lava tubes, mines, and buildings; will only roost in open, hanging from walls or ceilings; extremely sensitive to disturbance. No records in Sonoma County; not likely to occur on the project site.	<b>None:</b> No suitable roosting habitat within the project boundaries or vicinity. Could possibly forage in the vicinity.

**Table 3.3-1  
Special-Status Species Potentially Occurring on the  
Sonoma Mountain Village Project Site**

Species	Status Fed/State/ Other	Habitat	Likelihood of Occurrence in the Project site
<i>Eumops perotis californicus</i> Greater western mastiff bat	None/CSC/None	Found in a wide variety of open, semi-arid to arid habitats, including conifer and deciduous woodlands, mixed conifer forest, coastal scrub, grasslands, chaparral, and desert scrub; roosts in crevices in cliff faces and occasionally in tall buildings.	<b>None:</b> No suitable habitat within the project boundaries or vicinity.
<i>Myotis yumanensis</i> Yuma myotis	None/CSC/None	Found throughout California in a variety of habitats from low elevations up to 5,000 feet; roosts in colonies in buildings, trees, mines, caves, bridges, and rock crevices. Typically forages over water.	<b>Low to Moderate:</b> Potential roost sites occur in buildings and trees on site, though no large water bodies are nearby.

**Status Codes:**

Federal:

FE – Listed as Endangered under the Federal Endangered Species Act

FT – Listed as Threatened under the Federal Endangered Species Act

FPE – Proposed for Listing as Endangered under the Federal Endangered Species Act

State:

SE – Listed as Endangered under the California Endangered Species Act

ST – Listed as Threatened under the California Endangered Species Act

FP – California Fully Protected Species

CSC – California Species of Special Concern

CSA – This species is included on the California Department of Fish and Game’s Special Animals list.

CFP – California Fully Protected Species

California Native Plant Society (CNPS):

1B – CNPS Ranking. Defined as plants that are rare, threatened or endangered in California and elsewhere.

2 – CNPS Ranking. Defined as plants that are rare, threatened or endangered in California, but are more common elsewhere.

of the project site area in 2002.<sup>5</sup> No records for this species are contained in the CNDDDB either within the project boundaries, or in the vicinity.<sup>6</sup>

Fragrant fritillary (*Fritillaria liliacea*). Fragrant fritillary is a CNPS list 1B plant. This species occurs in coastal prairie, coastal scrub, valley and foothill grasslands; often on serpentinite soils. Fragrant fritillary has an elevation range of 3 to 410 meters; and blooms from February to April. Fragrant fritillary was not observed during focused plant surveys conducted in the undeveloped portion of the project site area in 2002.<sup>7</sup> However, the surveys were conducted outside the blooming period for this species.<sup>8</sup> No records for this species are contained in the CNDDDB either within the project boundaries, or in the vicinity.

Burke's goldfields (*Lasthenia burkei*). Burke's goldfields is both state and federally listed as endangered, and is a CNPS list 1B plant. This species is known to occur in wet meadows, and vernal pools; at elevations ranging from 15 to 600 meters. Burke's goldfields blooms from April to June. Burke's goldfields was not observed during focused plant surveys conducted in the undeveloped portion of the project site area in 2002.<sup>9</sup> No records for this species are contained in the CNDDDB either within the project boundaries, or in the vicinity.

Sebastopol meadowfoam (*Limnanthes vinculans*). Sebastopol meadowfoam is both state and federally listed as endangered, and is a CNPS list 1B plant. This species occurs in seasonally wet sites, such as vernal pools in meadows, and valley and foothill grasslands. The elevation range for Sebastopol meadowfoam is 15 to 100 meters; and this species blooms from April to May. Sebastopol meadowfoam was not observed during focused plant surveys conducted in the undeveloped portion of the project site area in 2002.<sup>10</sup> No records for this species are contained in the CNDDDB either within the project boundaries, or in the vicinity.

Showy Indian clover (*Trifolium amoenum*). Showy Indian clover is federally listed as endangered, and is a CNPS list 1B plant. This species is known from coastal bluff scrub, valley and foothill grassland, sometimes on serpentinite soils. Showy Indian clover is known from only two occurrences near Occidental. This species ranges in elevation from 5 to 415 meters; and blooms April to June. Showy Indian clover was not observed during focused plant surveys conducted in the undeveloped portion of the project site area in 2002.<sup>11</sup> No records for this species are contained in the CNDDDB either within the project boundaries, or in the vicinity.

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<sup>5</sup> Wetlands Research Associates, Inc. *Special-Status Plant Survey of Agilent Excess Land Sale Project Site, Rohnert Park, Sonoma County, California*, August 2002.

<sup>6</sup> *Ibid.*

<sup>7</sup> *Ibid.*

<sup>8</sup> *Ibid.*

<sup>9</sup> *Ibid.*

<sup>10</sup> *Ibid.*

<sup>11</sup> *Ibid.*

## Wildlife

California tiger salamander (*Ambystoma californiense*). The Sonoma, and Santa Barbara County populations of California tiger salamander (CTS) are listed as endangered by the USFWS (with the remainder of the species range federally listed as threatened), and CTS is considered a Species of Special Concern by the CDFG. CTS historically ranged throughout much of the central valley and adjacent foothills south of Butte County, and along the coast ranges from southern Sonoma County, south to Santa Barbara County. The Sonoma County population is isolated from other CTS populations in the state, and is associated primarily with the region known as the Santa Rosa plain. CTS occur in grasslands and open oak savannas in low foothill regions (i.e., 1,500 feet or less) where suitable aquatic sites are available for breeding adjacent to upland habitat. California tiger salamander are known to breed in large natural ephemeral pools, and artificial ponds (i.e., stock ponds, etc.) that are either allowed to go dry during the summer, or are permanently inundated, but contain no fish. CTS larvae are relatively slow to develop, requiring significantly more time to reach metamorphosis than other amphibians. This long larval stage requires that CTS reproduce in only those pools that are the longest lasting, and as a consequence, often the largest in size.

CTS requires upland habitat during the dry-season where they spend most of the year, outside the breeding migrations. This upland habitat must be within a reasonable distance of their breeding pools.<sup>12,13</sup> Upland habitat where CTS spend the bulk of the year is underground, typically in small mammal burrows such as those of the California ground squirrel (*Spermophilus beecheyi*) or Botta's pocket gopher (*Thomomys bottae*), but CTS will also occasionally occur in artificial structures such as damp basements or crawlspaces, underground pipes, and septic tank drains.<sup>14,15</sup> CTS are known to migrate up to 1.24 miles from its upland habitat to breeding sites, though they will generally use suitable habitat in closer proximity, if available.<sup>16</sup> Due to these potential distances, this species is vulnerable to even minor habitat modifications that traverse the area between the breeding pool and upland habitat (such as roads, berms, and certain types of pipelines or fences) as they can impede or even prevent breeding migrations.<sup>17,18</sup>

The CNDDDB contains two records for CTS within one mile of the project site area. One occurrence to the east of the project site area is considered extirpated. The second occurs west of the railroad tracks west of the project site area, and is considered extant. The extant breeding site consists of a deep seasonal ditch along Eucalyptus Avenue, where approximately 20 CTS larvae were observed in March

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<sup>12</sup> Jennings and Hayes, 1994. Jennings, Mark R. and Marc P. Hayes. *Amphibian and Reptile Species of Special Concern in California*. California Department of Fish and Game, Natural Heritage Division, 1994.

<sup>13</sup> Stebbins 2003. *A Field Guide to Western Reptiles and Amphibians*, Houghton Mifflin Field Guides, 2003.

<sup>14</sup> Jennings and Hayes, 1994. Jennings, Mark R. and Marc P. Hayes. *Amphibian and Reptile Species of Special Concern in California*. California Department of Fish and Game, Natural Heritage Division, 1994.

<sup>15</sup> Stebbins 2003. *A Field Guide to Western Reptiles and Amphibians*, Houghton Mifflin Field Guides, 2003.

<sup>16</sup> Personal communication, Mark Jennings, Rana Resources, Davis, California, June 11, 2007.

<sup>17</sup> Jennings and Hayes, 1994. Jennings, Mark R. and Marc P. Hayes. *Amphibian and Reptile Species of Special Concern in California*. California Department of Fish and Game, Natural Heritage Division, 1994.

<sup>18</sup> Stebbins 2003. *A Field Guide to Western Reptiles and Amphibians*, Houghton Mifflin Field Guides, 2003.

of 2002.<sup>19</sup> This breeding site is separated from the project site area by residential development, and a railroad alignment. A protocol level Habitat Assessment for CTS was conducted for this project in 2004, during which time it was determined that no potential breeding habitat is present on the project site, as wetlands present on the site are too small, shallow and short lived.<sup>20</sup> The Habitat Assessment also reported that although the project site area could support CTS upland habitat, annual discing appears to prevent the establishment of burrowing mammals in the area. No suitable ground squirrel burrows were observed during the 2004 habitat assessment,<sup>21</sup> or during the June 15, 2007 survey, therefore upland habitat for this species is not present at the project site.

Tricolored Blackbird (*Agelaius tricolor*). The tricolored blackbird is listed as a CDFG species of concern. It is also listed as a Fish and Wildlife Service Migratory Non-game Birds of Management Concern, is on the Audubon Society's Watch List for California and is a Bureau of Land Management Sensitive species. Although tricolored blackbirds occur sparingly in northwestern Baja California and south central Oregon, they are primarily endemic to the Central Valley and coastal valleys of California. They are a highly gregarious bird, forming large flocks in both breeding and non-breeding seasons. Nests are built near or over water, and occasionally in agricultural fields. Recently, tricolored blackbirds have displayed tendencies toward increased nesting in patches of blackberry, willows, mustard, thistles, nettles, and even grasses. Blackberry brambles, stands of tall herbaceous plants and certain crop types in the project site could provide nesting habitat for this species. No suitable nesting habitat for this species was observed during the June 15, 2007 survey, but the undeveloped portion of the project site area could provide foraging habitat for tricolored blackbird. The CNDDDB contains records for this species within five miles of the project site area, though none were observed during the June 15, 2007 survey.

White-tailed kite (*Elanus leucurus*). White-tailed kite is a California "fully protected" raptor, and is listed on the CDFG Special Animals list. White-tailed kites feed on rodents, small reptiles, and large insects in fresh emergent wetlands, annual grasslands, pastures, and ruderal vegetation. They breed between February and October. Unlike other raptors, kites often roost, and occasionally nest, communally; therefore, disturbance of a relatively small roost or nesting area could affect a large number of birds. The project site provides potential foraging and nesting habitat for white-tailed kite. Although this species has not been observed during field surveys conducted in the project site, the white-tailed kite is fairly common in the region and may utilize the site for foraging and/or nesting. Potential trees, and foraging habitat for white-tailed kite is present in and adjacent to the undeveloped portion of the project site area. The CNDDDB contains records for this species within five miles of the project site area, though none were observed during the June 15, 2007 survey.

Burrowing owl (*Athene cunicularia*). Burrowing owl is designated as a Species of Special Concern by the CDFG, and is listed on the CDFG Special Animals list. This species can be found throughout much

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<sup>19</sup> Wetlands Research Associates, Inc. *California Tiger Salamander Biological Assessment, Agilent Parcel, Sonoma County, California*, July 2004.

<sup>20</sup> *Ibid.*

<sup>21</sup> Wetlands Research Associates, *California Tiger Salamander Biological Assessment, Agilent Parcel, Sonoma County, California*, July 2004.

of the state in low grasslands, open deserts, and scrublands. Burrowing owl is found almost exclusively in association with ground squirrel or other burrowing mammal colonies, and requires their burrows (or similar structures such as dry culverts) for shelter and nesting. Western burrowing owl generally avoids areas where the vegetation is tall and dense, as it is more difficult to avoid predators in such areas. Burrows that are occupied by western burrowing owl typically have distinctive sign that indicates their presence. This sign can include whitewash, feathers, pellets and prey remains. This species is fairly tolerant of human disturbance and can frequently be found inhabiting burrows that are only a few feet from agricultural fields, sidewalks, buildings, or roads. Although none were observed during the June 15, 2007 survey of the site, potential nesting and foraging habitat for burrowing owl is present in the undeveloped portion of the project site area. Several records for burrowing owl were contained in the CNDDDB within five miles of the project site area.

Cooper's hawk (*Accipiter cooperii*). Cooper's hawk is designated as a Species of Special Concern by the CDFG, and is listed on the CDFG Special Animals list. This species typically occurs in mature forests and open woodlands; but may forage in open grasslands in close proximity to their more typical woodland habitat. Cooper's hawk nests primarily in deciduous trees and live oaks along riparian corridors. No nesting habitat for this species is present in the project area, but the CNDDDB contains records for Cooper's hawk within 10 miles of the project site, and the birds may occasionally forage there.

Ferruginous hawk (*Buteo regalis*). Ferruginous hawk is designated as a Species of Special Concern by the CDFG, and is listed on the CDFG Special Animals list. This species is only a winter resident in California, and is not known to breed here. Ferruginous hawk forages over open grassland, scrub and chaparral habitats. The CNDDDB contains records for this species within 10 miles of the project site, and this species may use the grasslands in the project area for foraging.

Yuma myotis (*Myotis yumanensis*). Yuma myotis is a state Species of Special Concern. This bat is found throughout much of California in a wide variety of habitats and elevation ranges (i.e., from near sea level up to 5,000 feet). Yuma myotis roosts in colonies utilizing crevices in buildings, trees, mines, caves, bridges, and rock outcrops. This species typically forages over water, though it will be drawn to other habitats where flying insect prey are abundant (e.g., agricultural fields). Large trees and buildings in the project site area may provide roosting habitat for this species, though no evidence of bat colonies were observed there during the June 15 2007 survey. The fallow agricultural fields comprising the southern portion of the project site area could provide suitable foraging habitat for Yuma myotis. No records for Yuma myotis were contained in the CNDDDB within five miles of the project site area at the time this document was prepared.

## **Sensitive Habitats**

In addition to special-status plants and wildlife, the California Department of Fish and Game tracks what it considers sensitive habitats. These habitats consist of native plant communities with high wildlife value, that are either unique and limited in area, or were once much more widespread, but have declined in the state through a variety of human alterations to the landscape. These alterations include, but are not necessarily limited to urban and agricultural development, channelization of

waterways for flood control, pollution, and the introduction of invasive non-native plant species. Six sensitive habitats were identified in the CNDDDB query for this project, and include Coastal brackish Marsh, Coastal and Valley Freshwater Marsh, Northern Coastal Salt Marsh, Northern Hardpan Vernal Pool, Northern Vernal Pool, and Valley Needlegrass Grassland. The project site is occupied by existing urban development, and fallow agricultural fields. Further, it is surrounded by existing development to the north and west, and agriculture to the south and east. Due to the level of disturbance related to development and agriculture, none of the sensitive habitats identified in the CNDDDB query are present on or adjacent to the project site area. These habitats will therefore not be addressed further in this document.

## **Applicable Policies and Regulations**

### Federal Regulations

#### *Federal Endangered Species Act*

The FESA was enacted in 1973. Under the FESA, the Secretary of the Interior and the Secretary of Commerce, jointly have the authority to list a species as threatened or endangered (16 United States Code [USC] 1533[c]). FESA is administered by both the National Marine Fisheries Service (NMFS) and the USFWS. NMFS is accountable for animals that spend most of their lives in marine waters, including marine fish, most marine mammals, and anadromous fish such as Pacific salmon. The USFWS is accountable for all other federally listed plants and animals.

Pursuant to the requirements of FESA, an agency reviewing a project within its jurisdiction must determine whether any federally listed threatened or endangered species may be present in the project site and determine whether the project will have a potentially significant impact on such species. In addition, the agency is required to determine whether the project is likely to jeopardize the continued existence of any species proposed to be listed under FESA or result in the destruction or adverse modification of critical habitat proposed to be designated for such species (16 USC 1536[3], [4]). Therefore, project-related impacts to these species or their habitats would be considered significant and would require mitigation.

Projects that would result in “take” of any federally listed threatened or endangered species are required to obtain authorization from NMFS and/or USFWS through either section 7 (interagency consultation) or section 10(a) (incidental take permit) of FESA, depending on whether the Federal government is involved in permitting or funding the project. The section 7 authorization process is used to determine if a project with a Federal nexus would jeopardize the continued existence of a listed species and what mitigation measures would be required to avoid jeopardizing the species. The section 10(a) process allows take of endangered species or their habitat in non-Federal activities.

#### *Federal Clean Water Act*

Section 404. The objective of the Clean Water Act (CWA) is to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters. Section 404 of the CWA regulates activities

that result in discharge of dredged or fill material into waters of the United States. The U. S. Army Corps of Engineers is responsible for permitting certain types of activities affecting wetlands and “other” waters of the United States. Under Section 404 of the CWA, the USACE has the authority to regulate activities that discharge fill or dredge material into wetlands or other waters of the U.S. The USACE implements the Federal policy embodied in Executive Order 11990, which is intended to result in no net loss of wetland values or acres.

Section 401. The State Water Resources Control Board (SWRCB) has authority over wetlands through Section 401 of the CWA, which requires that a sponsor for a Section 404 permit (to discharge dredged or fill material into waters of the United States) first obtain certification from the appropriate state agency stating that the fill is consistent with the State’s water quality standards and criteria. In California, the authority to either grant certification or waive the requirement for permits is delegated by the SWRCB to the nine regional boards. The Central Valley Regional Water Quality Control Board (CVRWQCB) is the appointed authority for Section 401 compliance in the project site. A request for certification or waiver is submitted to the regional board at the same time that an application is filed with the USACE. The regional board has 60 days to review the application and act on it. Because no USACE permit is valid under the CWA unless “certified” by the state, these boards may effectively veto or add conditions to any USACE permit.

#### *Migratory Bird Treaty Act*

The Federal Migratory Bird Treaty Act (16 USC, Sec. 703, Supp. I, 1989) prohibits killing, possessing, or trading in migratory birds except in accordance with regulations prescribed by the Secretary of the Interior. This act encompasses whole birds, parts of birds, and bird nests and eggs.

#### State Regulations

##### *California Endangered Species Act*

The California Endangered Species Act (CESA) was enacted in 1984. Under the CESA, the California Fish and Game Commission (CFG) has the responsibility for maintaining a list of threatened and endangered species. CDFG also maintains lists of species of special concern which impacts would be considered significant under CEQA Guidelines Section 15380 and could require mitigation. Pursuant to the requirements of CESA, an agency reviewing a project within its jurisdiction must determine whether any state-listed endangered or threatened species may be present in the project site and determine whether the project would have a potentially significant impact on such species. In addition, CDFG encourages informal consultation on any project which may impact a candidate species. CESA prohibits the take of California listed animals and plants in most cases, but CDFG may issue incidental take permits under special conditions.

##### *Fish and Game Code - Sections 3503, 3503.5, 3513*

Fish and Game Code Section 3503 states that it is unlawful to take, possess, or needlessly destroy the nests or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Fish and Game Code Section 3503.5 protects all birds-of-prey (raptors) and their eggs and



nests. Section 3513 states that it is unlawful to take or possess any migratory non-game bird as designated in the Migratory Bird Treaty Act. These regulations could require that elements of the project (particularly vegetation removal or construction near nest trees) be reduced or eliminated during critical phases of the nesting cycle unless surveys by a qualified biologist demonstrate that nests, eggs, or nesting birds will not be disturbed, subject to approval by CDFG and/or USFWS.

### *Fish and Game Code B Sections 3511, 4700, 5050, and 5515*

Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fish) of the California Fish and Game Code designate certain species as “fully protected.” Fully protected species, or parts thereof, may not be taken or possessed at any time, and no provision of the California Fish and Game Code or any other law may be construed to authorize the issuance of permits or licenses to take any fully protected species. No such permits or licenses heretofore issued may have any force or effect for any such purpose, except that the California Fish and Game Commission may authorize the collecting of such species for necessary scientific research. Legally imported and fully protected species or parts thereof may be possessed under a permit issued by CDFG.

### *CDFG Wetlands Protection Regulations*

The CDFG derives its authority to oversee activities that affect wetlands from a number of pieces of legislation. This authority includes Sections 1600-1616 of the Fish and Game Code (lake and streambed alteration agreements), Section 30411 of the California Coastal Act (CDFG becomes the lead agency for the study and identification of degraded wetlands within the Coastal Zone), CESA (protection of state listed species and their habitats - which may include wetlands), and the Keene-Nejedly California Wetlands Preservation Act of 1976 (states a need for an affirmative and sustained public policy program directed at wetlands preservation, restoration, and enhancement).

In general, the CDFG asserts authority over wetlands within the state either through review and comment on USACE Section 404 permits, review and comment on CEQA documents, preservation of state listed species, or through stream and lakebed alteration agreements.

### *California Wetlands Conservation Policy*

The California Wetlands Conservation Policy (1993 - Senate Concurrent Resolution No. 28) created an interagency task force headed by the State Resources Agency and California EPA to: (1) ensure no overall net loss, and a long-term net gain in the quantity, quality, and permanence of wetlands acreage and values; (2) reduce procedural complexity in the administration of state and Federal wetlands conservation programs; and (3) encourage partnerships that make restoration, landowner incentives, and cooperative planning the primary focus of wetlands conservation.

This resolution directed the CDFG to prepare and submit to the legislature a plan identifying means to protect existing wetlands and restore former wetlands. This includes identification of sufficient potential wetlands sites to increase the amount of wetlands in California by 50 percent by the year 2000, and a program for the public and private acquisition of such lands. While the resolution does not

have the force and effect of law, CDFG and other California state agencies frequently point to it as an expression of state policy.

### *Porter-Cologne Act*

Pursuant to the Porter-Cologne Act, each of California's nine regional boards must prepare and periodically update basin plans that set forth water quality standards for surface and groundwater, as well as actions to control point and non-point sources of pollution to achieve and maintain these standards. Basin plans offer an opportunity to achieve wetlands protection through enforcement of water quality standards. The Porter Cologne Act provides legal protection for waters of the State (i.e., wetlands and other waters), and is enforced by the RWQCB. The RWQCB usually defers to the federal Clean Water Act when the USACE has jurisdiction, however, in cases where there is no federal jurisdiction, the RWQCB will enforce the Porter Cologne Act.

### *CEQA Guidelines Section 15380*

Although threatened and endangered species are protected by specific Federal and state statutes, CEQA Guidelines section 15380(b) provides that a species not listed on the Federal or state list of protected species may be considered rare or endangered if the species can be shown to meet certain criteria. These criteria have been modeled after the definition in FESA and the section of the California Fish and Game Code dealing with rare or endangered plants and animals, and allows a public agency to undertake a review to determine if a significant effect on species that have not yet been listed by either the USFWS or CDFG (i.e., species of concern) would occur. Whether a species is rare, threatened, or endangered can be legally significant because, under CEQA Guidelines Section 15065, an agency must find an impact to be significant if a project would "substantially reduce the number or restrict the range of an endangered, rare, or threatened species." Thus, CEQA provides an agency with the ability to protect a species from a project's potential impacts until the respective government agencies have an opportunity to designate the species as protected, if warranted.

### *California Native Plant Society*

The CNPS maintains an inventory of special-status plant species. CNPS maintains four species lists of varying rarity. Vascular plants listed as rare or endangered by the CNPS, but which have no designated status or protection under Federal or state-endangered species legislation, are defined as follows:

- List 1A     Plants Believed Extinct.
- List 1B     Plants Rare, Threatened, or Endangered in California and elsewhere.
- List 2     Plants Rare, Threatened, or Endangered in California, but more numerous elsewhere.
- List 3     Plants About Which More Information is Needed - A Review List.
- List 4     Plants of Limited Distribution - A Watch List.

In general, plants appearing on CNPS List 1 or 2 are considered to meet CEQA Guidelines section 15380 criteria and impacts on these species are analyzed in this Environmental Assessment.

## Local Regulations

In accordance with City Ordinance No. 769 adopted by the City Council on April 24, 2007, the removal of existing non-exempt trees on the project site would require a permit under Chapter 17.15, Tree Preservation and Protection, of Title 17, Zoning, of the *Rohnert Park Municipal Code*. The Ordinance states: “No person shall alter, remove, or relocate any tree on private property that is not exempted by this Chapter, unless the Community Development Director or his/her designee has issued a Tree Removal Permit in accordance with Section 17.15.040 (Permit Processing).” Exempt trees include Acacia, Ailanthus, Eucalyptus, Ligustrum, Liquidambar, Monterey Pine and poplars. Native species are non-exempt. Any proposed tree removal as part of a larger project is to be processed along with the primary entitlement request submitted for the project.

### *17.15.050 Tree Replacement.*

- A. Required. Any non-exempt tree which has been approved for alteration, removal, or relocation shall be replaced in accordance with the formula set forth in Section 17.15.050(B) (Replacement formula) unless other arrangements have been made in writing between the sponsor and the City’s Department of Community Development.
- B. Replacement formula. Tree replacement shall be based on the value of the tree as defined in Section 17.04.030 (Definitions of words and terms).
- C. Type of replacement. The sponsor shall replace the altered, removed, or relocated tree(s) by either depositing an in-lieu fee, as described above, with the City’s Recreation Department or by planting an equivalent number of new tree(s). The planting of any new tree(s) must be approved by the City Arborist.
- D. Location of replacement trees. If deemed feasible and appropriate by the City Arborist, replacement trees shall be replanted on the site of the original tree removal. Otherwise, replacement trees may be located on any parcel within Rohnert Park city limits, depending on the feasibility and appropriateness of the site as determined by the City Arborist.

## Impacts and Mitigation Measures

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### Standards of Significance

Based on the City of Rohnert Park thresholds of significance, biological resources impacts would be considered significant if one or more of the following conditions were created by implementation of the Sonoma Mountain Village project.

- **Impact Criterion #1:** Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

- **Impact Criterion #2:** Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.
- **Impact Criterion #3:** Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, etc.) through direct removal, filling, hydrological interruption, or other means.
- **Impact Criterion #4:** 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.
- **Impact Criterion #5:** Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- **Impact Criterion #6:** Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Impacts in any of the above categories would be considered significant and unavoidable effects if they could not be (a) eliminated, (b) avoided or minimized by redesign or relocation of some components of the project, (c) reduced to a less-than-significant level, or (d) compensated for by replacement of equal habitat extent and value.

## **Project Evaluation**

As noted in the discussion of the Setting, above, species appearing in the query results, but not included in Table 3.3-1 either have no suitable habitat in the vicinity of the project site, or whose known range does not include the project site area. Therefore, these species will not be addressed in this document.

Potential impacts of the project on the listed resources were identified by first comparing the habitat requirements of those species identified during this review to the habitat available on and adjacent to the project site. A determination was then made as to what effect the loss of that potential habitat could have on those species.

### **Impact Criterion #1**

**Special-Status Species Habitat Modification:** *Would the project adversely affect, either directly or through habitat modifications, any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?*

### **Impact 3.3-1**

*The project could result in the potential loss and/or degradation of rare plant populations. This would be a potentially significant impact.*

The undeveloped portions of the project site area were subject to disturbance related to historic agricultural uses, but has remained fallow for a number of years. It is possible that special-status plants including Sonoma sunshine, fragrant fritillary, Burke's goldfields, Sebastopol meadowfoam, and showy Indian clover may have become reestablished in the project site area since that time. Focused surveys conducted in 2002 did not reveal the presence of any of these (or any other) special-status species known from the region. Although, based on this evidence, it is unlikely any special-status plant species occur in the project site area, the CDFG and USFWS consider plant surveys to be valid for only two years, as it is possible for new populations to become established during longer periods of time. If any of the special-status plants known from the region have either become established in the project site area in recent years, or escaped detection during the Spring 2002 survey, development of the project would result in the loss of individuals of those species. Take of special-status plant species would be a violation of state and/or federal regulations protecting the species. Therefore this impact is considered potentially significant.

#### **Mitigation Measure 3.3-1**

- 3.3-1(a) The project sponsor shall retain a qualified biologist to conduct focused surveys for special-status plant species including, but not limited to, Sonoma sunshine, fragrant fritillary, Burke's goldfields, Sebastopol meadowfoam, and showy Indian clover during the appropriate time of year (generally February through July), prior to issuance of a grading permit.

If no special-status plants are located during the surveys, no further mitigation would be required.

- 3.3-1(b) If any state or federally listed special-status plant species are found during the surveys in areas that cannot be avoided during construction, the project sponsor shall consult with the appropriate agency (i.e., USFWS, CDFG, or both) to obtain an incidental take permit for the removal of any state or federally listed plant populations in the project site area. Specific mitigation measures detailing replacement methods and ratios the project sponsor would be responsible for would be developed as required by the agency, but would likely include transplanting existing populations, collection of seed for planting at a mitigation site, and either purchase of mitigation lands where the lost plants will be reestablished, or purchase of mitigation credits at an approved mitigation bank prior to issuance of a grading permit.

- 3.3-1(c) If any non-listed special-status plant species are found during the surveys in areas that cannot be avoided, the project sponsor shall notify CDFG within 24 hours so that an opportunity can be made available to salvage plants, soil or seed banks, for

use in rare plant restoration in mitigation areas prior to issuance of a grading permit.

The implementation of Mitigation Measure 3.3-1 would reduce Impact 3.3-1 regarding the potential loss and/or degradation of rare plant populations to a less-than-significant level under Impact Criterion #1.

### **Impact 3.3-2**

***The project could result in the loss California tiger salamander individuals or salamander habitat, a federally listed species. This would be a potentially significant impact.***

The project site area occurs within the range of the federally listed as endangered Sonoma County population of California tiger salamander, and occurrence records for this species are contained in the CNDDDB within one mile of the project site area. These records include one presumed extirpated breeding site, and one breeding site that is assumed to be still in existence. A protocol level habitat assessment for CTS was conducted for the project site area in 2004.<sup>22</sup> Although seasonal wetlands are present, no potential breeding sites for CTS were observed, as the existing wetlands are too small, shallow and short lived to support breeding of this species. The project site area is within approximately 0.3-mile of a currently extant CTS breeding site, but is separated from that site by residential development, surface streets and a railroad alignment which would make the migration of any CTS between the project site area and the breeding pool unlikely. Additionally, no potential upland burrows were observed during the surveys conducted in support of the habitat assessment.<sup>23</sup> Assuming the lack of burrows continues (i.e., annual disking of the site continues), the project site does not represent suitable habitat for CTS. However, due to the close proximity of a known CTS breeding site, it is still possible that CTS could appear in the project site area during dispersal migrations after larvae in the nearby pool metamorphose. If any CTS were present in the project site area during dispersal, implementation of the project could result in the loss of individual CTS through grading or other ground disturbance related to construction of the project. Loss of individual CTS would be considered “take” under the federal Endangered Species Act.

#### **Mitigation Measure 3.3-2**

Implementation of the following mitigation measure would reduce impact 3.3-2 to a less-than-significant level through avoidance of loss of individual CTS, or compensate for the loss of individuals or their habitat, should they move into the area prior to construction.

3.3-2(a) Prior to the issuance of a grading permit, the project sponsor and/or their representatives shall initiate an informal consultation with the USFWS to discuss measures to avoid a potential take of CTS during construction. Although details of these measures would be developed in consultation with the USFWS, they would likely include:

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<sup>22</sup> *Ibid.*

<sup>23</sup> *Ibid.*

- Retaining a qualified biologist to conduct a preconstruction survey of the project site area to ensure that no potential upland retreat habitat has been created (i.e., through ground squirrel activity) since the 2004 habitat assessment,
- Seasonal restrictions on grading and construction to avoid the wet season dispersal period (i.e., October through March),
- Installation of drift fences around the perimeter of the construction area to prevent any CTS from moving into the area,
- Providing compensation for loss of CTS upland habitat, as required by the USFWS (either through avoidance, or purchase of mitigation credits at a USFWS approved bank), if any suitable habitat is found during the preconstruction surveys referenced above, and
- Retaining qualified biologists to monitor the project site area during construction to ensure that no CTS would be harmed.

Assuming complete avoidance can be achieved, no incidental take permit would be required. However, if CTS are discovered to be present in the project site area, and a “take” of the species cannot be avoided, Mitigation Measure 3.3-2(b) shall be required.

3.3-2(b) Prior to construction or issuance of a grading permit, the project sponsor and/or their representatives shall initiate consultation with the USFWS pursuant to Section 7 of the Federal Endangered Species Act to obtain an incidental take permit for loss of any individual CTS. Details of the requirements of the Incidental Take Permit would be developed during consultation with the USFWS, but would likely include (but not be limited to) the following.

- Preparation of a Biological Assessment pursuant to Section 7 of the FESA for submission to the USFWS for their review.
- Retaining qualified, permitted biologists to monitor for, and potentially move CTS outside of the project site area.
- Payment of mitigation fees, and/or purchase of mitigation land to compensate for the loss of CTS and their habitat

The implementation of Mitigation Measure 3.3-2 would reduce Impact 3.3-2 regarding the potential loss California tiger salamander or its habitat to a less-than-significant level under Impact Criterion #1.

### **Impact 3.3-3**

***Construction of the Project could result in the loss of burrowing owl individuals, a Species of Special Concern (eggs, nestlings, or juveniles). This would be a potentially significant impact.***

Fallow agricultural land in the project site area provides suitable nesting and foraging habitat for the burrowing owl. Burrowing owls have not been recorded on the site to date. There are, however, records in the CNDDDB within 10 miles of project site area boundaries, and the project site area contains suitable foraging habitat for this species. Although no potential nest burrows have been observed in the project site area, no focused burrowing owl survey has been conducted there. It is possible that burrowing owl could establish nests prior to project implementation and construction activities could therefore lead to a loss of nest burrows and adjacent foraging habitat through grading and other ground disturbance related to project development. This potential loss of a burrowing owls or their habitat would be considered a significant impact.

### Mitigation Measure 3.3-3

3.3-3(a) Prior to the issuance of a grading permit, the project sponsor shall hire a qualified biologist to conduct both nesting and wintering season surveys for burrowing owl to determine if the site is used by this species. The timing and methodology for the surveys are based on the CDFG/Burrowing Owl Consortium Survey Guidelines and are detailed below. CDFG may require that these surveys be repeated annually if project construction is expected to span over two or more years.

- Winter Season (December 1 through January 31)—Four site visits on separate days, 2 hours before to 1 hour after sunset or 1 hour before to 2 hours after sunrise.
- Nesting Season (February 1 to August 31)—Four site visits on separate days, 2 hours before to 1 hour after sunset or 1 hour before to 2 hours after sunrise. At least two of the surveys shall be conducted during the peak nesting season between April 15 and July 15.

In addition to the wintering and nesting season surveys, pre-construction surveys shall be conducted by an experienced biologist within 30-days prior to the start of work activities where land conversions are planned in known or suitable habitat areas. If construction activities would be delayed for more than 30 days after the preconstruction surveys, then a new preconstruction survey would be required. All surveys shall be conducted in accordance with the CDFG/Burrowing Owl Consortium survey protocols (Burrowing Owl Consortium, 1993).

If the above survey does not identify any burrowing owls on the project site, no further mitigation would be required. However, should any individual burrowing owls or burrowing owl nests be located, Mitigation Measure 3.3-4(b), Mitigation Measure 3.3-4(c), and Mitigation Measure 3.3-4(d) shall be implemented.

3.3-3(b) If burrowing owls are discovered in the project area, the project sponsor shall notify the City and CDFG. A qualified biologist shall implement a routine monitoring program and establish a fenced exclusion zone around each occupied burrow. No construction activities shall be allowed within the exclusion zone until such time that the burrows are determined to be unoccupied. The buffer zones shall



be a minimum of 100 feet from an occupied burrow during the non-breeding season (September 1 through January 31), and a minimum of 160 feet from an occupied burrow during the breeding season (February 1 through August 31).

- 3.3-3(c) The project sponsor shall provide appropriate relocation mitigation for project-related effects on the burrowing owl in consultation with CDFG. Mitigation can be conducted either on the project site, or at an off-site location that is approved by the CDFG. Preference is for on-site within open space areas, if possible.
- 3.3-3(d) The CDFG shall be consulted regarding the implementation of avoidance or passive relocation methods. All activities that would result in a disturbance to burrows shall be approved by CDFG prior to implementation.

If the above survey does not identify any burrowing owls on the project site, no further mitigation would be required. The implementation of Mitigation Measure 3.3-4 would reduce Impact 3.3-4 regarding the potential loss of burrowing owl individuals to a less-than-significant level under Impact Criterion #1.

#### **Impact 3.3-4**

***The project could result in the direct loss or disturbance of nesting birds, including white-tailed kite, Cooper's hawk, and other raptors (birds-of-prey). This would be a potentially significant impact.***

Potential nesting habitat for birds including Cooper's hawk, white-tailed kite and other raptors, as well as other migratory bird species occurs in trees in the project site area. Potential nesting habitat includes the coast redwoods in stands located along the main access road into the site, poplars, and other ornamental trees occurring along within the developed portion of the property, particularly where it is adjacent to the undeveloped portions of the site. Construction activities that occur in close proximity to active nest trees (i.e., within 500 feet) could disturb nesting birds, if present. Further, the removal of any active nest trees could result in the loss of the nest. Nesting raptors and other migratory birds are protected by a variety of state and federal regulations including the migratory bird treaty act, and Sections 3503, 3503.5, 3513 of the Fish and Game Code. Disruption of nesting birds, resulting in the abandonment of active nests, or the loss of active nests through tree removal would be a violation of those regulations.

#### **Mitigation Measure 3.3-4**

- 3.3-4(a) If construction is to occur between March 15 through August 30, the project sponsor, as required by the CDFG, shall conduct a pre-construction breeding-season survey of the project site within 30 days of when construction is planned to begin. The survey shall be conducted by a qualified biologist to determine if any birds are nesting on or directly adjacent to the project site.

If the above survey does not identify any nesting raptor species on the project site, no further mitigation would be required. However, should any active bird nests be located, Mitigation Measure 3.3-3(b) shall be implemented.

- 3.3-4(b) The project sponsor, as required by CDFG, shall avoid all birds nest sites located in the project site during the breeding season (approximately March 15 through August 30) while the nest is occupied with adults and/or young. This avoidance could consist of delaying construction to avoid the nesting season. Any occupied nest shall be monitored by a qualified biologist to determine when the nest is no longer used. If the construction cannot be delayed, avoidance shall include the establishment of a non-disturbance buffer zone around the nest site. The size of the buffer zone shall be approved by the CDFG. The buffer zone shall be delineated by highly visible temporary construction fencing.

The implementation of Mitigation Measure 3.3-3 would reduce Impact 3.3-3 regarding the potential loss or disturbance of nesting birds to a less-than-significant level under Impact Criterion #1.

### **Impact Criterion #2**

**Effect Riparian Habitat or Sensitive Natural Communities:** *Would the project adversely affect any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.*

As stated in the Setting section above, the Sonoma Mountain Village project site is occupied by existing urban development, and fallow agricultural fields. Further, it is surrounded by existing development to the north and west, and agriculture to the south and east. Due to the level of disturbance related to development and agriculture, none of the sensitive habitats identified in the CNDDDB query are present on or adjacent to the project site area. Therefore no impacts on riparian habitat or other sensitive natural communities will occur as a result if the proposed project.

### **Impact Criterion #3**

**Effect Federally Protected Wetlands:** *Would the project adversely affect federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, etc.) through direct removal, filling, hydrological interruption, or other means.*

### **Impact 3.3-5**

*The project would result in the filling or adverse modification of jurisdictional wetland/ other "waters of the U.S." This would be a significant impact.*

A total of approximately 0.59 acres of potential wetlands have been identified in the project site area in the *Delineation of Potential Jurisdictional Wetlands Under Section 404 of the Clean Water Act, Agilent Excess Land Sale Project Site, Rohnert Park, Sonoma County, California* conducted by Wetlands Research Associates, Inc. August 2002. These wetlands consist of 21 small seasonally inundated depressions totaling 0.35-acre distributed throughout the undeveloped portion of the project site area, and three drainage ditches along the perimeter of the undeveloped portion of the project site area that

total 0.24-acre. As noted previously, these features contain a variety of common seasonal wetland and vernal pool plant species. Additionally, a potential wetland, not included in the 2002 report was observed during the June 15, 2007 survey. This feature, which occurs in the northwest corner of the project site area, adjacent to an existing baseball diamond, appears to be less than 0.10-acre, but may still be considered jurisdictional by the USACE. Wetlands are protected by a variety of state and federal regulation including Sections 401 and 404 of the Clean Water Act, CDFG Wetlands Regulations, California Wetlands Conservation Policy, and the Porter Cologne Act. These regulations prohibit the fill or alteration of jurisdictional wetlands, other waters of the U.S., or Waters of the State (where federal jurisdiction is not applicable). Implementation of the project would result in the loss of all potential wetlands within the project boundaries during grading and construction of the proposed commercial and residential development, as well as construction of roads through and around the project site. No riparian habitat is present on or adjacent to the project area.

#### Mitigation Measure 3.3-5

Implementation of the following mitigation measure would reduce impact 3.3-5 to a less-than-significant level by ensuring that no-net-loss of state and federally protected wetlands occurs as a result of the project.

- 3.3-5 (a) Prior to the issuance of a grading permit, the project applicant shall retain a qualified biologist to conduct a re-verification of the 2002 wetland delineation at the site in accordance with the 1987 Manual. This delineation should also be expanded to include the northern half of the project area (i.e., to include the detention basin in the northwest corner of the site). The delineation report shall be updated and submitted to the USACE for re-verification prior to the commencement of construction. If it is determined by the USACE that these features are jurisdictional, then the project sponsor would have two options: avoidance, or removal and replacement mitigation. Due to the scope of the project which includes development of the entire site, avoidance is not assumed as an option in this case, although avoidance is the preferred option. Therefore, replacement mitigation shall be implemented for the project of any wetland determined to be jurisdictional such that there would be no net loss of wetland acreage. Replacement mitigation must occur prior to any ground breaking on the project.
- 3.3-5 (b) Where avoidance of existing wetlands is not feasible, then mitigation measures shall be implemented for the project related loss of any existing wetlands on site, such that there is no-net loss of wetland acreage or habitat value. Wetland habitat acreage replacement can be greater than the acreage of wetlands that fall under the jurisdiction of the USACE and/or the RWQCB.
- (i) Wetland mitigation shall be developed as a part of the Section 404 CWA permitting process, or for non-jurisdictional wetlands, during permitting through the RWQCB and/or CDFG. Mitigation is to be provided prior to construction. Mitigation could include purchase of the appropriate amount

of credits from a Santa Rosa Plain mitigation bank. The exact mitigation ratio is variable, based on the type and value of the wetlands that would be affected by the project, but agency standards typically require a minimum of 1:1 for preservation and 1:1 for the construction of new wetlands. In addition, a wetland mitigation and monitoring plan shall be developed that includes the following:

- Descriptions of the wetland types, and their expected functions and values;
  - Performance standards and monitoring protocol to ensure the success of the mitigation wetlands over a period of five to ten years;
  - Engineering plans showing the location, size and configuration of wetlands to be created or restored;
  - An implementation schedule showing that construction of mitigation areas will commence prior to or concurrently with the initiation of project construction; and
  - A description of legal protection measures for the preserved wetlands (i.e., dedication of fee title, conservation easement, and/or an endowment held by an approved conservation organization, government agency or mitigation bank).
- (ii) Prior to the issuance of grading permits by the City, the sponsor shall acquire all appropriate wetland permits. These permits include a Section 404 Wetlands Fill Permit from the U.S. Army Corp of Engineers, or a Report of Waste Discharge from the RWQCB, a Section 401 Water Quality Certification from the Regional Water Quality Control Board, and, if necessary, a Section 1601 Streambed Alteration Agreement from the California Department of Fish and Game.

The implementation of Mitigation Measure 3.3-5 would reduce Impact 3.3-5 regarding the loss of wetlands to a less-than-significant level under Impact Criteria #2 and #3.

#### **Impact Criterion #4**

***Interfere with Native Species: 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.***

The project site consists of urban development on the north parcel and annually disked fallow agricultural land on the south parcel. Urban residential development borders the site to the north, and west. In addition, the site is bounded by major roadways on north, east and south sides, and a railroad right-of-way borders the west margin of the site. As a result, the project site is subject to regular

disturbance related to traffic, agricultural practices (i.e., disking and mowing) and other human activities normally associated with urban development, all of which currently contribute to restricting wildlife use and movement. Although the project site does provide potentially suitable habitat for a number of common and special-status wildlife species, no wildlife corridors or important wildlife nursery sites are present within its boundaries. While the project would result in increased urban development on the site and increased human activity in and around the site, wildlife movement and nursery site use would not be significantly adversely reduced beyond current levels as a result of the project and the impact regarding interfering substantially with the movement of wildlife would be less than significant under Impact Criterion #4.

### **Impact Criterion #5**

*Local Policies or Ordinances: Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? (Impact Criterion #5)*

### **Impact 3.3-6**

*The project would result in the loss of existing trees within the project site boundaries that are protected by municipal codes. This would be a significant impact.*

Numerous ornamental trees occur in the developed portion of the project site. Many of these trees (i.e., those not exempted pursuant to Chapter 17.15.030 B of the *Rohnert Park Municipal Code*) are protected from removal, or alteration, including trimming or grading and excavation within the dripline through Chapter 17.15 of Title 17 of the *Rohnert Park Municipal Code* - Chapter 17.15 Tree Preservation and Protection.

According to grading plans prepared for the project, the linear earth berm between the project site and Camino Colegio and Bodway Parkway would be removed to allow for project construction.<sup>24</sup> Trees currently situated on the earth berm would likewise be removed as a result. The poplar and redwood trees along North Parkway through the center of the site would be removed to allow for project development including a revised street grid. Removal or alteration of these trees within the project site without first obtaining a Tree Removal Permit in accordance with Section 17.15.040 of the Municipal Code would be a violation of the Code. Because approximately 25 non exempt redwood trees have already been removed without a permit as required, this is considered a significant impact.<sup>25</sup>

### **Mitigation Measure 3.3-6**

3.3-6 To insure the project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance

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<sup>24</sup> BKF, *Sonoma Mountain Village, Conceptual Grading Plan*, sheet C.18, November 10, 2006, BKF Job No. 20065064.10.

<sup>25</sup> Rich, Maureen, Sr. Planner, City of Rohnert Park, e-mail memorandum to Ted Adams, PBS&J, October 2, 2007.

under Impact Criterion #5, prior to the issuance of a grading permit, the project sponsor shall hire a licensed and certified arborist to inventory all non exempt trees on the project site slated to be removed and assessed as directed by the City as to size, health, species and location. This inventory shall be provided to the City of Rohnert Park Community Development Director or his/her designee for review. The project sponsor shall then comply with the provisions of the Tree Removal Permit issued by the Community Development Director, including tree replacement and the protection of any trees to be retained during construction.

This would reduce Impact 3.3-6 to a less-than-significant level (see also Mitigation Measure 3.3-3 for mitigation regarding nesting birds).

### **Impact Criterion #6**

***Conservation Plans: Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? (Impact Criterion #6)***

The Sonoma Mountain Village project site is not known to be included within a habitat conservation plan or natural community conservation plan or other local, regional or state habitat conservation plan and would therefore not conflict with Impact Criterion #6 regarding conservation plans. Refer to the Setting discussion of this section regarding the preservation of wetlands. A conformance evaluation of the project with the objectives, goals and policies of the Rohnert Park General Plan is contained in Section 3.10, Planning Policy and Relationship to Plans, of this EIR.

### **Cumulative Development**

The discussion of cumulative development impacts is as described in the *Introduction* section of this EIR under the title *Cumulative Impact Assessment* and includes collectively the Sonoma Mountain Village project and cumulative development projects as noted therein. However, because biological resources are seldom contained to a specific parcel or even within City boundaries the cumulative context for the biological resources analysis for the project includes potential development within the region as a whole.

As pointed out in the above analysis, plant and wildlife habitat on the project site is highly disturbed and of generally low quality. The project site in its current condition supports only those special-status species that are fairly widespread in the region. Similar habitat is currently abundant in the adjacent area, and the region. Therefore, because the project site area represents relatively low habitat value and consists of habitat types that are wide spread, the project's contribution to the loss of plant and wildlife habitat in the region would be less than considerable. Further, the potential impacts to biological resources that could result from the project can be mitigated to less-than-significant levels as indicated above. Consequently, project implementation would not contribute to potentially cumulatively considerable adverse biological impacts.



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## 3.4 CULTURAL RESOURCES

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### Introduction

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This section of the EIR assesses the proposed project's potential impacts on cultural and paleontological resources. Potential impacts are assessed in accordance with established impact significance criteria. Cultural resources are defined as historic architectural resources, as well as, prehistoric or historic archaeological resources. The setting includes applicable cultural resources policies and regulations for the project area, a brief historical perspective, and a determination of cultural resource sensitivity within the project site. The section concludes with a discussion of potential project impacts on cultural and paleontological resources and the appropriate mitigation measures to reduce potential impacts to less-than-significant levels.

### Setting

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#### Applicable Policies and Regulations

**Federal Regulations.** The National Historic Preservation Act of 1966 (NHPA), as amended, established the National Register of Historic Places (NRHP), which contains an inventory of the nation's significant prehistoric and historic properties. Under 36 CFR 60, properties are recommended for possible inclusion on the NRHP if the property is at least 50 years old,<sup>1</sup> has integrity, and meets one of the following criteria:

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

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

**State Regulations.** As defined by Section 15064.5(a)(3)(A-D) of the State CEQA Guidelines, a resource shall be considered historically significant if the resource meets the criteria for listing on the California Register of Historical Resources (CRHR). The CRHR and many local preservation

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<sup>1</sup> Criteria for inclusion under the California Register of Historic Resources is essentially the same as for the NRHP, except buildings 45 years old or older may qualify as historic resources.



ordinances have employed the criteria for eligibility to the NRHP as a model, since the NHPA provides the highest standard for evaluating the significance of historic resources. A resource that meets the NRHP criteria is clearly significant. In addition, a resource that does not meet the NRHP standards may still be considered historically significant at a local or State level. CEQA regulations specifically state that a resource need not be listed on any register to be found historically significant (Public Resources Code Section 21084.1).

Section 15064.5(c) of the State CEQA Guidelines applies to the analysis of effects on archaeological sites. When a project will affect an archaeological site, a lead agency must determine whether the site is a historic resource, and therefore subject to the NRHP criteria listed above (particularly Criterion D), or whether the site is a *unique archaeological resource*, as defined in Section 21083.2 of CEQA, and whether the provisions of that section for mitigation apply. If a lead agency determines that an archaeological site is neither historic nor unique, Section 21083.2(h) of CEQA states that the resource requires no further consideration, other than recordation.

**Local Regulations.** Section 6.1, Historic and Archaeological Resources, of the Environmental Conservation Element of the City of Rohnert Park General Plan calls for the protection and preservation of historic and archaeological resources (see also Section 3.10 of this EIR, *Planning Policy and Relationship to Plans*, for further information regarding General Plan policies).

### **Brief Historical Perspective**

**Prehistoric Setting.** Aside from a few Paleoindian (pre-8000 B.C.) prehistoric sites at Borax Lake in the North Coast Ranges, there are few indications of human presence in the project area prior to 8000 B.C. Better evidence of human occupation of the area dates to the Lower Archaic Period (8000 B.C.). Prehistoric toolkits from this period suggest a diversified economy heavily reliant on vegetal resources. An increase in the frequency of sites dating between 3000 to 350 B.C. (the Early Period) suggests an increase in the regional prehistoric population. Artifacts attributed to this period imply a generalized economy that incorporated seeds from marshlands and grasslands. Sites dated to the Middle Period (350 B.C. to A.D. 800) have a wide distribution, including valleys and oak woodland habitats. Around A.D. 800, semi-permanent villages appeared near marshlands. Finally, the Late Period (A.D. 800–1800) was a time of resource intensification, increased settlement, and greater social elaboration.

**Ethnographic Setting.** The project site lies in territory controlled by the Coast Miwok at the time of Euroamerican contact. The voyages of Drake in 1579, and Cermeño in 1595, resulted in sketchy accounts of the life of the Coast Miwok prior to disruption of the native culture. The traditional way of life disappeared rapidly after the founding of the mission at San Francisco in 1776, and the later missions at San Rafael and Sonoma. Forced movement of Coast Miwok to the missions and the determination of the Spanish friars to convert the natives to Christianity and destroy all vestiges of their former life, along with epidemic diseases of the Europeans, left few natives that could remember the pre-contact culture.

The Coast Miwok occupied what is now Marin County, part of Sonoma County (including the project area) and as far north as the vicinity of Sebastopol. The Coast Miwok moved among residences on the coast, around salt or freshwater marshes, and on interior streams so that they would be close to the most abundant food supply available at a particular season. Dwellings were conical brush-on-frame structures capable of sheltering up to ten individuals. Other structures included semi-subterranean sweatshouses, which served as something of a men's club, and, at major villages, a dancehouse for religious ceremonies. Archeological research has provided an extensive collection of the stone tools that were used by the Coast Miwok. Basket making also was a highly developed skill.

In terms of socio-political organization, the term Coast Miwok is primarily a convenience for anthropologists, denoting a group speaking the same language and occupying a contiguous territory. In fact, there was no overall political control of this group and the real basis of social organization was the main village.

**Historic Setting.** The Spanish colonization of California was achieved through a program of military-civilian-religious conquest. Under this system soldiers secured areas for settlement by suppressing Indian and foreign resistance and established fortified structures (presidios) from which the colony would be governed. Civilians established towns (pueblos) and stock-grazing operations (ranchos) that supported the settlement and provided products for export. The missionary component of the colonization strategy was led by Spanish priests, who were charged with converting Indians to Catholicism, introducing them to the benefits of Spanish culture, and disciplining them into a productive labor force. Ultimately, four presidios and 21 missions were established in Spanish California between 1769 and 1821.

In 1822, after more than a decade of revolutionary struggle, Mexico achieved independence from Spain, and California became a distant outpost of the Mexican Republic. Under a law adopted by the Mexican congress in 1833, the mission lands were to be subdivided into land grants, or ranchos, to be sold to trustworthy citizens. The rancho economy was based primarily on stock raising for the hide and tallow trade. Cattle were driven to coastal locations where they were slaughtered and skinned; the hides and tallow (a product made from animal fat and used to make soap and candles) were then processed for transport to awaiting trade ships. The proposed project site is located on land that was once a part of the Rancho Cotate land grant, which the Mexican government awarded to Captain Juan Castenada in 1837. Castenada was unable to hold on to the property, and it was soon purchased by the California land-baron Thomas Larkin, who sold the property to Joseph Ruckle, who then sold it to Dr. Thomas Page in 1849. The Page family owned the lands for the next eighty years. The Page family developed the land into a cattle and sheep ranch, and until the early 1890s, it remained largely unchanged.

In 1892, the Page family formed the Cotati Land Company to subdivide and sell the vast ranch and to transform Page's Station into a small town. To head up the marketing of the five, ten, and twenty acre parcels, they hired David W. Batchelor, who sold over 900 tracts of land for the Page family and also was a pioneer in the poultry business, which he is credited with introducing into the region. A much later community, Rohnert Park, within which the project site is located, was founded by Paul Golis and was officially incorporated in 1962. The town was named for the Waldo Rohnert Seed Farm and is presently the home of Sonoma State University.

In 1984, information technology giant Hewlett Packard (HP) began construction of a complex of manufacturing, research, marketing, and administrative facilities on the project site. In 1999, HP announced a company realignment to create an independent measurement and instrument company. The new company, Agilent Technologies, became fully independent from HP in June 2000. Ownership of HP's facilities on the project site was transferred to Agilent Technologies at that time. Vacation of the Agilent Technologies facilities occurred in 2004-2005. Coddling Enterprises purchased the facilities and subsequently submitted an application package to the Rohnert Park Planning Department to further develop the project site with the mix of office, retail/commercial, and residential land uses analyzed in this EIR. Refer to Appendix B for greater historical detail regarding project site development.

## **Project Site Investigations<sup>2</sup>**

**NWIC Records Search.** A records search for the proposed project site was conducted in June 2007, by the Northwest Information Center (NWIC) of the California Historical Resources Information System (CHRIS). The records search included an examination of the latest listings of the National NRHP, the CRHR, the California Inventory of Historic Resources, California Historical Landmarks, California Points of Historical Interest, and the Historic Property Directory (Office of Historic Preservation database). Historic maps were also consulted, including the 1857 Rancho Cotate plat, the 1867 Bowers map of the County, the 1877 Thompson & West Company historical atlas map, the 1890 Rancho Cotate map, the 1898 Atlas of Sonoma County, and the 1916 U.S. Geological Survey (USGS) Santa Rosa quadrangle. None of the historic maps depict any structures on the project site.

The records search revealed that the project site was included in a cultural resources survey conducted in 1975, and a portion of the project site was surveyed in 2005. The area along the railroad that forms the western boundary of the project site was surveyed in 1991, and the property immediately east of the project site was surveyed for cultural resources in 2002. None of this work recorded cultural resources in the immediate vicinity of the project site.

**Native American Consultation.** A request was made of the Native American Heritage Commission (NAHC) to search its sacred lands database to determine if any Native American cultural resources are located on or near the project site. The NAHC response letter stated that the search of the sacred lands database failed to indicate the presence of Native American resources in the immediate project area. The letter also included a list of Native American individuals/organizations who may have knowledge of cultural resources in the project area. The Sacred Sites Protection Committee of the Federated Indians of the Graton Rancheria responded in writing that it is not aware of any Native American sites in the project area. The Committee noted, however, that the project site has the potential to contain sites or native plants that might have been used in religious rites. They requested that the Committee be notified if any Native American cultural resources are discovered as a result of the project. No other Native American responses have been received as of the printing of this document

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<sup>2</sup> Peak & Associates, Inc, *Cultural Resources Assessment of the Proposed Sonoma Mountain Village Project, Sonoma County, California*, August 6, 2007, pages 5-6. This document is on file and available for public inspection at the offices of the City of Rohnert Park Planning Department, 130 Avram Avenue, Rohnert Park, CA 94928.

**Pedestrian Field Survey.** The project site was inspected on July 2, 2007, by a three-person team of experienced archeologists. The pedestrian survey excluded the northern portion of the project site, which is developed with no original ground surface visible. The southern portion of the project site was inspected by use of linear transects spaced about 15 meters apart. Where necessary, small holes were dug by hand to clear vegetation and to inspect the sediments. It appears that the southern portion of the project site is mowed regularly to assist in fire suppression, and ground visibility was good in this area.

The pedestrian survey revealed no evidence of prehistoric or historic-period cultural resources within the project site. The setting of the project site, away from any natural water sources and very open and exposed, would not have been suitable for Native American occupation. It is possible that the area was used for hunting and the procurement of other foodstuffs. These activities would leave little physical evidence. There are no historic buildings or structures present on the project site.

### **Project Site Sensitivity for Cultural Resources**

The NWIC records search conducted for the proposed project revealed no recorded prehistoric or historic-period sites or features on the project site. The search of the NAHC sacred lands database and Native American correspondence failed to indicate the presence of Native American resources in the immediate project area; however, the Sites Protection Committee of the Federated Indians of the Graton Rancheria noted that the project site has the potential to contain sites or native plants that might have been used in religious rites. An archaeological pedestrian survey identified no prehistoric or historic-period features or structures on the project site. Taken together, these findings indicate a low to moderate sensitivity for prehistoric cultural resources on the project site.

### **Project Site Sensitivity for Paleontological Resources**

Paleontological resources include fossil remains as well as fossil localities and rock or soil formations that have produced fossil material. Fossils are the remains or traces of prehistoric animals and plants. Fossils are important scientific and educational resources because of their use in documenting the presence and evolutionary history of particular groups of now extinct organisms, reconstructing the environments in which these organisms lived, and determining the relative ages of the strata in which they occur and of the geologic events that resulted in the deposition of the sediments that formed these strata and in their subsequent deformation.

Paleontological resources are classified as non-renewable scientific resources and are protected by federal and State statutes, most notably by the 1906 Federal Antiquities Act. Professional standards for assessment and mitigation of adverse impacts on paleontological resources have been established by the Society of Vertebrate Paleontology. CEQA requires that these resources be addressed during the EIR process.

The project site is underlain by geologically recent fluvial deposits characterized by fine but variable grain size (mainly fine sand, silt, and silty clay) and inter-fluvial marsh-like basin deposits of clay and

silty clay (rich in organic matter).<sup>3</sup> The soils have been disturbed by agriculture and root action to at least six feet below the ground surface.<sup>4</sup> These deposits are not known to contain paleontological resources.<sup>5</sup> The Petaluma formation (claystone, siltstone, and sandstone), exposed at higher elevations in the foothills southwest, south, and east of Rohnert Park, contains fresh-water mollusk fossils and, rarely, mammal remains. The closest known fossil-bearing locality is near Glen Ellen, about eight miles east of the project site.

## Impacts and Mitigation Measures

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### Standards of Significance

Under CEQA Guidelines Section 15064.5, any project that may cause a substantial adverse change in the significance of an historic resource (building or site or archaeological site qualifying as an historic resource), is considered to have a significant effect on the environment. A substantial adverse change in the significance of an historic resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surrounding such that the significance of an historic resource would be materially impaired. A historic resource impact would be considered significant if the proposed project would:

- **Impact Criterion #1:** Cause a substantial adverse change in the significance of historical resources as defined in CEQA Section 15064.5.
- **Impact Criterion #2:** Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Section 15064.5.
- **Impact Criterion #3:** Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.
- **Impact Criterion #4:** Disturb any human remains, including those interred outside of formal cemeteries.

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<sup>3</sup> Fox, K.F. Jr., J.D. Sims, J.A. Bartow, and E.J. Helley, *Preliminary geologic map of eastern Sonoma County and western Napa County, California*, United States Geological Survey, Miscellaneous Field Studies Map MF-483, 1973, Sheets 1 & 2, map scale 1:62 500.

<sup>4</sup> United States Department of Agriculture, Natural Resources Conservation Service (formerly the Soil Conservation Service), *Soil Survey of Sonoma County, California*, V.C. Miller, Party Chief, Washington, D.C., 1972, pages 3, 22 – 24, Tables 6, 8, Maps 1 and 2, scale 1:380,160, Plates 98 & 106, scale 1:20,000.

<sup>5</sup> Database searches:

- University of California Museum of Paleontology, <http://bscit.berkeley.edu/ucmp/loc.shtml>, online search through UCMP Locality Search, August 7, 2007 by G. J. Burwasser, page 7151;
- American Museum of Natural History, Division of Paleontology, <http://paleo.amnh.org/fossil/seek.html>, online search through AMNH Advance Search, August 7, 2007 by G. J. Burwasser, page 7151;
- North American Mammalian Paleofaunal Database, <http://www.nceas.ucsb.edu/~alroy/nampfd.html>, online search through The Paleobiology Database, August 7, 2007 by G. J. Burwasser, page 7151.

## **Project Evaluation**

### **Impact Criterion #1**

**Historic Structures:** *Would the project cause a substantial adverse change in the significance of historical resources as defined in CEQA Section 15064.5?*

No historic-period buildings, structures, sites, or features are recorded on the project site, and none were observed during a pedestrian field survey of the site. The project would have no significant adverse impact under Impact Criterion #1 regarding a substantial adverse change in the significance of a historical resource as defined in CEQA Section 15064.5 and no mitigation is required.

### **Impact Criterion #2**

**Archaeological Resources:** *Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Section 15064.5?*

#### **Impact 3.4-1**

*There is low to moderate sensitivity for prehistoric cultural resources existing on the project site. It is therefore reasonable to conclude that prehistoric cultural deposits could be found anywhere within or near the project site and could be disturbed or destroyed through vegetation-clearing, grading, and construction activities. Damage to archaeological sites would be considered a potentially significant impact.*

#### **Mitigation Measure 3.4-1**

3.4-1 Prior to ground breaking the project sponsor shall provide construction specifications, inclusive of earth-disturbance required for the project, that instruct operators of site-grading and excavation equipment to be observant for unusual or suspect archaeological materials that may surface from below during site-grading and excavation operations. Archaeological materials include features such as concentrations of artifacts or culturally modified (darkened) soil deposits including trash pits older than fifty years of age.

In the event that unknown archaeological remains are discovered during subsurface excavation and construction, land alteration work in the vicinity of the find shall be halted and a qualified archeologist consulted. Prompt evaluations could then be made regarding the find and a resource management plan that is consistent with CEQA requirements could then be implemented. If prehistoric archeological deposits are discovered, local Native American organizations shall be consulted and involved in making resource management decisions. All applicable State and local legal requirements concerning the treatment of cultural materials and Native American burials shall be enforced.

If subsequent investigations result in the recording of prehistoric archeological sites that cannot be avoided and preserved, and the importance of the cultural deposits cannot be determined from surface evidence, then subsurface testing programs shall take place to make such determinations. Testing procedures shall be designed to specifically determine the boundaries of sites, the depositional integrity, and the cultural importance of the resources, as per CEQA criteria. These investigations shall be conducted by qualified professionals knowledgeable in regional prehistory. The testing programs shall be conducted within the context of appropriate research considerations and shall result in detailed technical reports that define the exact disturbance implications for important resources and present comprehensive programs for addressing such disturbances. Measures similar to the ones described below would also apply:

- Avoidance of an archaeological site through modification of the roadway plan line that would allow for the preservation of the resource
- Covering or “capping” sites with a protective layer of fill; this could be a good way of mitigating situations where public access may be increased as a result of development. Archaeological monitoring during the filling process would be recommended

In circumstances where archaeological deposits cannot be preserved through avoidance or capping, data recovery through excavation would be the alternative. This measure would consist of excavating those portions of the site(s) that would be adversely affected. The work shall be accomplished within the context of detailed research and in accordance with current professional standards. The program should result in extraction of sufficient volumes of archaeological data so that important regional research considerations can be addressed. The excavation should be accomplished by qualified professionals and detailed technical reports should result.

In considering subsurface testing and excavations of prehistoric archaeological sites, consultation with the local Native American community is essential; all aspects of the programs, including the treatment of cultural materials and particularly the removal, study and reinternment of Native American burials shall be addressed. All applicable State and local legal requirements concerning these issues shall be strictly adhered to.

Implementation of Mitigation Measure 3.4-1 would reduce potential impacts on previously unknown archaeological resources to a less-than-significant level.

### **Impact Criterion #3**

***Paleontological Resources: Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?***

No unique or geologic features exist on the project site. The project site is underlain by geologically recent fluvial deposits characterized by fine but variable grain size (mainly fine sand, silt, and silty clay) and inter-fluvial marsh-like basin deposits of clay and silty clay (rich in organic matter). The soils have been disturbed by agriculture and root action to at least six feet below the ground surface. These deposits are not known to contain paleontological resources. This impact is considered less than significant under Impact Criterion #3 regarding the destruction of a unique paleontological resource or unique geologic feature and no mitigation is required.

#### **Impact Criterion #4**

**Human Remains:** *Would the project disturb any human remains, including those interred outside of formal cemeteries?*

#### **Impact 3.4-2**

*It is possible, given the record of prehistoric use of the project area, that excavation or grading for the project could disturb human remains interred outside of formal cemeteries. This would be a potentially significant impact.*

#### **Mitigation Measure 3.4-2**

3.4-2 If human remains are discovered during any phase of project construction, all ground-disturbing activities within 50 feet of the remains shall be halted and the County coroner notified immediately. If the remains are determined by the County coroner to be Native American, the Native American Heritage Commission (NAHC) shall be notified within 24 hours, and the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains. The project sponsor shall also retain a professional archaeologist with Native American burial experience to conduct a field investigation of the specific discovery site and consult with the Most Likely Descendant, if any, identified by the NAHC. As necessary, the archaeologist may provide professional assistance to the Most Likely Descendant, including excavation and removal of the human remains taking into account the provisions of State law, as set forth in CEQA Guidelines section 15064.5(e) and Public Resources Code section 5097.98, to the satisfaction of the City of Rohnert Park Planning Department. Mitigation Measure 3.4-3 shall be implemented prior to the resumption of ground-disturbing activities within 50 feet of where the remains were discovered.

Implementation of Mitigation Measure 3.4-2 would reduce potential impacts on human remains interred outside of formal cemeteries to a less-than-significant level.



## **Cumulative Impacts**

The discussion of cumulative development impacts is as described in the *Introduction* section of this EIR under the title *Cumulative Impact Assessment* and includes collectively the Sonoma Mountain Village project and cumulative development projects as noted therein.

The potential archaeological resource impact that could result from the proposed project can be mitigated to a less-than-significant level as indicated above. Consequently, the cultural resources impacts of project implementation would not contribute to potentially cumulatively considerable adverse cultural resources impacts.

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## 3.5 GEOLOGY AND SOILS

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### Introduction

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Geology, soils, and seismicity conditions are important aspects of all development projects in the San Francisco Bay Area. Although most projects have little or no effect on geology, any project involving construction will have some effect on soils and topography; and all may be affected by certain geologic events, such as earthquakes. Earthquake protection is provided through existing building codes or other construction standards and regulations.

This section of the EIR presents the regional geologic, soils and seismic characteristics influencing the proposed Sonoma Mountain Village project area. Local faulting, soils, the potential effects of seismicity, and the potential for the presence of important mineral resources are explained. Physical and regulatory settings are described, followed by an analysis of the potential for geologic, soil, and seismic impacts, and any potential loss of locally or regionally important mineral resources, based on City of Rohnert Park adopted thresholds of impact significance. Applicable technical and regulatory framework considerations in assessing and mitigating potential impacts are included in the analysis. No comments on geology or soil conditions were received in response to the NOP (See Appendix A). Erosion and sedimentation issues are considered briefly in this section of the EIR and are addressed more fully in Section 3.7, Hydrology and Water Quality.

### Setting

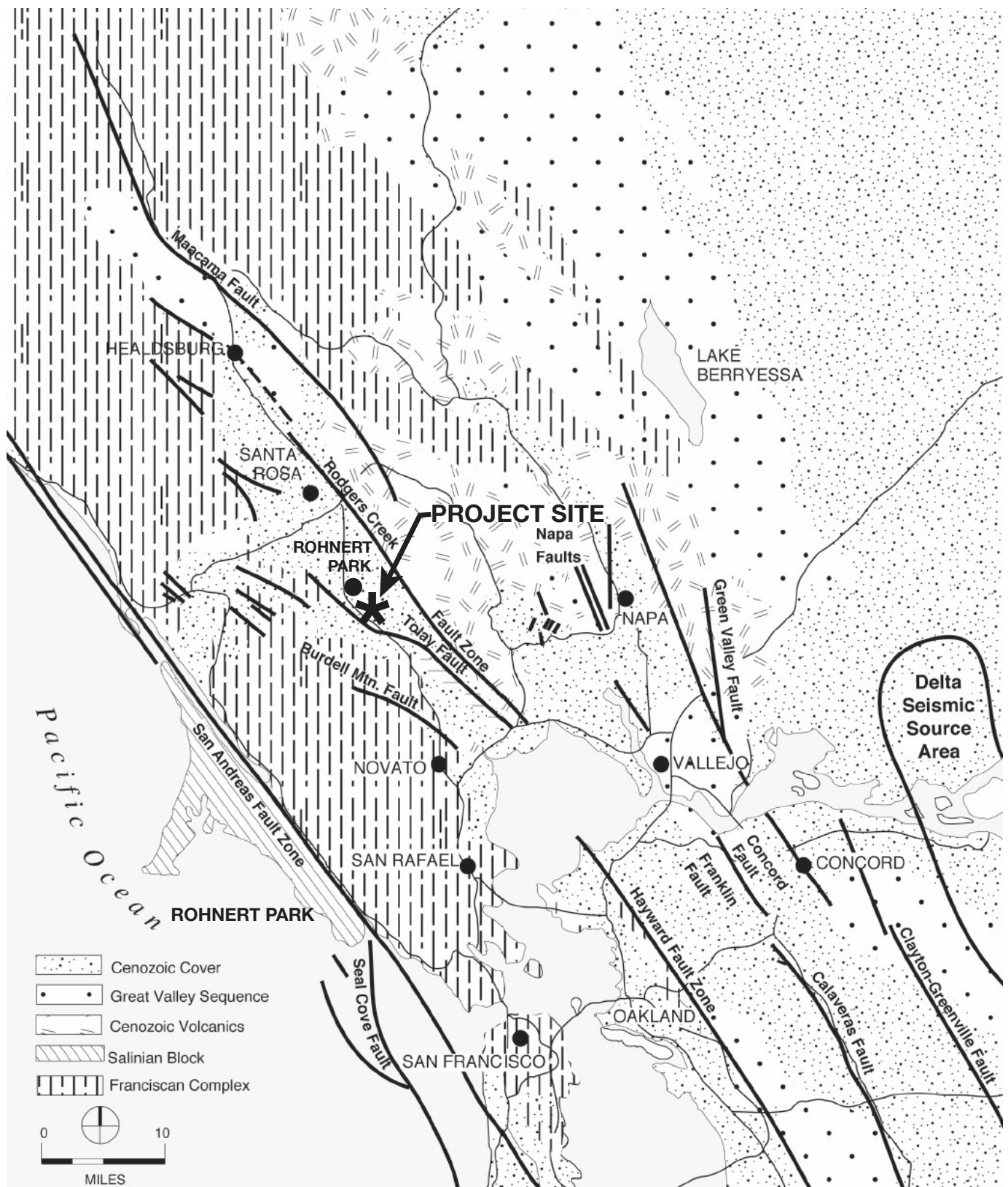
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#### Regional Characteristics

**Geology.** The regional geologic framework of the Bay Area (Figure 3.5-1), Sonoma County, and the City of Rohnert Park in particular, can be understood through the theory of plate tectonics. Earth's mantle is composed of several large plates that move relative to each other. The San Andreas Fault Zone is at the junction of two such plates. The Pacific plate, on the west side of the fault zone, is moving north relative to the North American plate on the east side. All of the geologic formations in Sonoma County are on the North American plate. One of the results of plate movement is the regional rock deformation that is expressed in the general northwest trend of valleys and ridges in Sonoma County. This is visible, for example, in the orientation of the Rodgers Creek fault about 2.5 miles northeast of the project site area, and in the orientation of the Sonoma Mountains between three and four miles east of Rohnert Park. Another result of plate movement, discussed below, is the regional seismicity that Rohnert Park has in common with the rest of the Bay Area.<sup>1</sup>

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<sup>1</sup> Oakeshott, G.B., *California's Changing Landscapes, A Guide to the Geology of the State*, 2<sup>nd</sup> edition, McGraw-Hill Book Company, San Francisco, 1978, pages 208 through 221.



**FIGURE 3.5-1**  
**Regional Geologic Map**

Source: California Geological Survey, 2001 and U.S. Geological Survey, 1994.



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Sonoma Mountain Village

**Seismicity.** The City of Rohnert Park, including the project area, lies within the San Andreas Fault System, which is approximately 44 miles wide in the Bay Area.<sup>2</sup> The principal active faults, on which there is evidence of displacement during Holocene time (the last 11,000 years), include the San Andreas, San Gregorio, Hayward, Rodgers Creek, West Napa, Calaveras, Concord, and Green Valley faults.<sup>3</sup> Figure 3.5-1 shows the approximate position of the major fault zones, the general distribution of the major groups of rock units, and the location of the project area in relation to these features.

Table 3.5-1 contains the estimated maximum parameters for earthquakes on several known major faults potentially affecting the project site area. Terms that may be unfamiliar to the general public are defined in the glossary at the end of this section.

**Table 3.5-1**  
**Estimated Maximum Parameters**  
**for Major Known Faults Affecting the Sonoma Mountain Village Project Site Area**

Fault	Rodgers Creek	San Andreas	West Napa	Hayward
Moment Magnitude <sup>a</sup>	7.1	7.9	6.7	7.1
Duration of Strong Shaking (seconds) <sup>b</sup>	18-30	30-60	18-30	30-60
Maximum Intensity (MMI) <sup>c</sup>	VIII-IX	VII	VII	VII
Peak Horizontal Accelerations in Rock and Stiff Soil (Gravity) <sup>d</sup>	>0.6	0.2–0.3	0.3–0.4	0.3–0.4
Approximate Distance and Direction from Site to Fault (Miles)	2.5 NE	16 SW	20 E	30 SSE

Source: *PBS&J, 2008.*

Notes:

- a. For the purposes of describing the size of the design (or scenario) earthquake of a particular fault segment, **moment magnitude** ( $M_w$ ) of the characteristic earthquake for that segment has replaced the concept of a maximum credible earthquake of a particular Richter magnitude. This has become necessary because the Richter Scale “saturates” at the higher magnitudes; that is, the Richter scale has difficulty differentiating the size of earthquakes above magnitude 7.5. The  $M_w$  scale is proportional to the area of the fault surface that has slipped, and thus, is directly related to the length of the fault segment. Although the numbers appear lower than the traditional Richter magnitudes, they convey more precise (and more useable) information to geologic and structural engineers.
- b. Duration of ground motion at 0.5 g within 10 miles of the fault. Estimates based on relationships developed by Bolt, 1973.
- c. Estimated Modified Mercalli Intensity damage level based on relationships developed by Perkins and Boatwright, 1995, or Richter, 1958 (San Andreas fault only).
- d. Estimates based on relationships developed by Seed and Idriss, 1972, Joyner and Boore, 1981, Campbell and Sadigh, 1983.

<sup>2</sup> Wallace, R.E., “General Features”, in Wallace, R.E., ed. *The San Andreas Fault System, California*, United States Geological Survey Professional Paper 1515, January 1990, pages 3-12.

<sup>3</sup> Bortugno, E.J., *Map Showing Recency of Faulting*, Santa Rosa Quadrangle, California Geological Survey (formerly the Division of Mines and Geology), Regional Geologic Map Series, No. 2A, 1982, Sheet 5, scale 1:250,000.

The City of Rohnert Park, Sonoma County, and the rest of the Bay Area, are in one of the most active seismic regions in the United States. Each year, low and moderate magnitude earthquakes occurring within or near the Bay Area are felt by residents of the City and County. Since the mid-nineteenth century about 150 local earthquakes have been felt in Sonoma County. About ten of these temblors caused some damage in the County; those of 1906 and 1969 being the most destructive. The April 1906 earthquake on the San Andreas fault, estimated at about Moment Magnitude ( $M_w$ ) 7.9 ( $M_8.3$  on the Richter scale - see Glossary), practically destroyed the business district of the nearby City of Santa Rosa, causing 61 reported deaths, although only chimney falls were reported from the Rohnert Park area.<sup>4</sup> Similarly, the October 1969 earthquakes on the Healdsburg fault registered  $M_{5.6}$  and  $M_{5.7}$ , causing injuries and several million dollars of building and utility damage in Sonoma County, but relatively minor damage in Rohnert Park. More recently, the  $M_w$  6.9 ( $M_{7.1}$ ) Loma Prieta earthquake of October 1989 on the San Andreas Fault, caused severe damage throughout the Bay Area, but, again, not extensively in Rohnert Park. The incorporation of earthquake safety design for construction in the City, through the use of the California Building Code (CBC; see below) as adopted by the City of Rohnert Park (Title 15 of the City's *Municipal Code*), has ensured that no known structures in the City built in accordance with the code would be specifically hazardous during an earthquake.<sup>5</sup>

The major fault zones of the San Andreas Fault System were the sources of all these earthquakes, and are expected to be the sources of most future earthquakes in the area.<sup>6</sup> It is necessary to design structures and facilities in Rohnert Park to withstand the anticipated effects of seismic vibration from distant, as well as nearby, sources.<sup>7</sup> Recognizing this necessity, the City and County General Plan Safety Elements specifically identify the Rodgers Creek fault, about 2.5 miles northeast of the project site area, as a potential source of seismic activity that must be taken into consideration during the planning of development in the City and County. The County identifies several splinter faults within about 0.75 miles west of the Rodgers Creek fault in the Rohnert Park-Cotati and Environs Planning Area that the County considers potentially active, but have not been included in an Alquist-Priolo Earthquake Fault Zone (see Figure 3.5-2).<sup>8</sup>

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<sup>4</sup> Huffman, M.E. and C.F. Armstrong, *Geology for Planning in Sonoma County*, California Geological Survey, Special Report 120, 1980, pages 8 and 9, 5 plates, map scale 1:62,500.

<sup>5</sup> City of Rohnert Park, *General Plan*, *op. cit.*, Chapter 7, Health and Safety, Section 7.1, Seismic and Geologic Hazards, page 7-2.

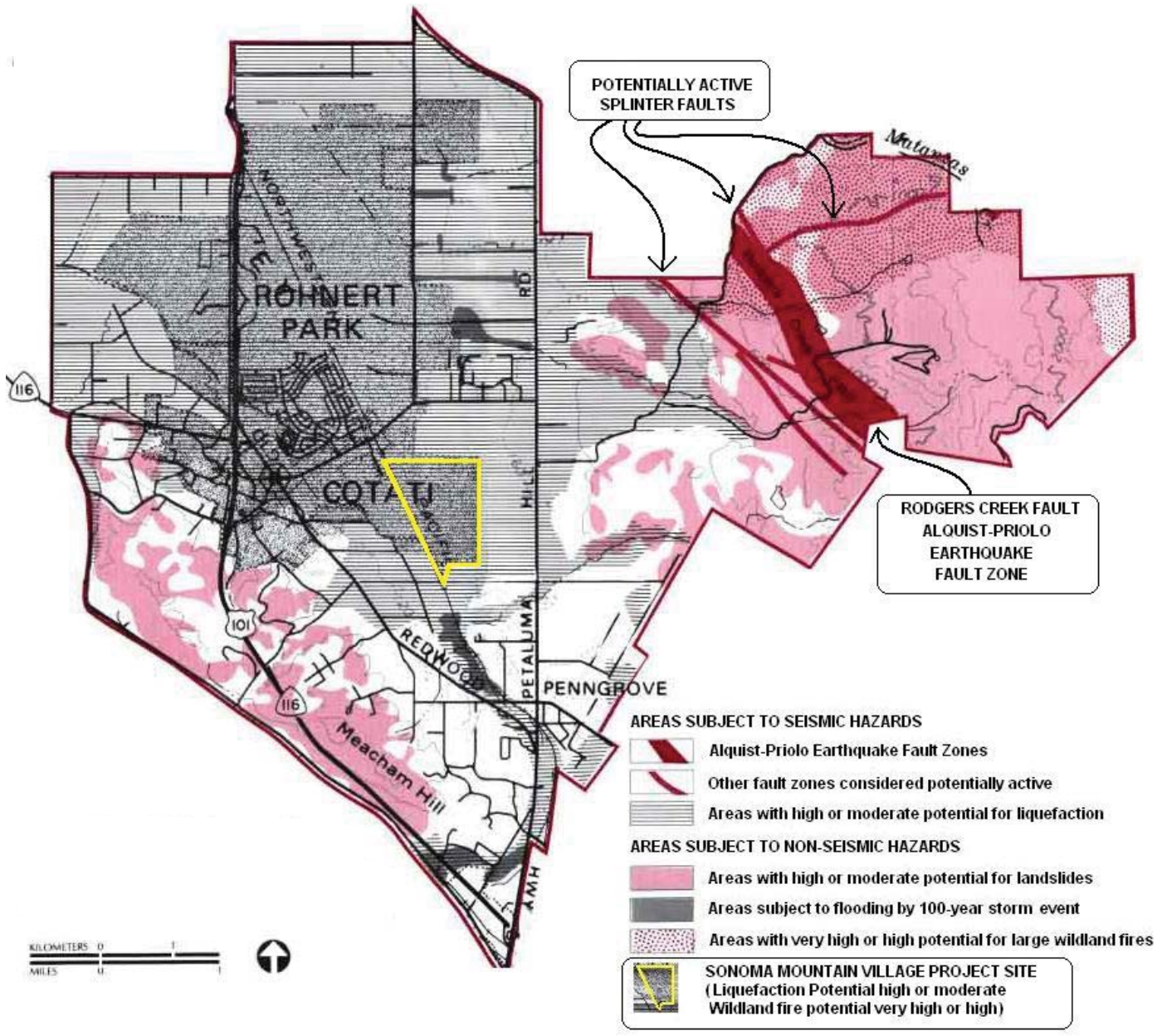
<sup>6</sup> a) Jennings, C.W., *Fault Activity Map of California and Adjacent areas, with locations and ages of Recent Volcanic Eruptions*, Geologic Data Map No. 6, California Geological Survey, 1994, scale 1:750,000, accompanied by 92 pages of explanatory text.

b) Association of Bay Area Governments, *The San Francisco Bay Area on Shaky Ground*, Publication Number P95001EQK, April 1995, 56 pages, 13 maps, scale 1:1,000,000.

<sup>7</sup> Seismology Committee, Structural Engineers Association of California, *Recommended Lateral Force Requirements and Tentative Commentary*, San Francisco, California, 5<sup>th</sup> edition, revised 30 June 1998, 163 pages, see page 1.

<sup>8</sup> County of Sonoma, Permit and Resource Management Department, *General Plan 2020, Third Revision*, adopted December 1998, Figure PS-1g Schematic Map of Areas Subject to Safety Policy Requirements: Rohnert Park-Cotati and Environs Planning Area.





**FIGURE 3.5-2  
 Geologic Hazards**

Source: Figure PS-1g, Sonoma County General Plan, Public Safety Element, Rohnert Park - Cotati and Environs Planning Area, 1989.

On the basis of research conducted since the 1989 Loma Prieta earthquake, the United States Geological Survey (USGS) and other scientists conclude that there is a 63 percent mean probability of at least one  $M_w$  6.7 or greater earthquake, capable of causing widespread damage, striking the San Francisco Bay region before 2032. The Hayward-Rodgers Creek fault system has the highest mean probability (31 percent) of generating an  $M_w$  6.7+ earthquake in this timeframe.<sup>9</sup> Earthquakes of this magnitude are sufficient to create ground motion (acceleration) in bedrock and in stiff unconsolidated sediments severe enough to cause major damage to structures and foundations not designed specifically to resist the lateral forces generated by earthquakes, and to underground utility lines not designed with sufficient flexibility to accommodate expected seismic ground motion.<sup>10,11</sup>

There are several other active and potentially active fault zones that could affect the Sonoma Mountain Village area. These include faults that are historically active (during the last 200 years), those that have been active in the geologically recent past (about the last 11,000 years, referred to as the Holocene epoch), and those that have been active at some time during the Quaternary geologic period (the last 1.6 million years). The Rodgers Creek, San Andreas, West Napa, and Hayward fault zones are all, at least partially, historically active. Parts of each of these major fault zones have been classified as Holocene or Quaternary depending on the age of the evidence of the most recent movement.<sup>12</sup>

A characteristic earthquake on the entire San Andreas fault ( $M_w$  7.9) probably is the largest that would affect the project site area; however, a characteristic earthquake on the Rodgers Creek fault ( $M_w$  7.1) would be so much closer to any point in the project site area that its effects would be at least as severe. Other faults that exist in the vicinity of the City of Rohnert Park are pre-Quaternary in origin, generally being related to the Coastal thrust belt or the Coast Range thrust. They were active tens of millions of years ago, but have shown no evidence of activity during the last 1.6 million years.<sup>13</sup>

## Project Vicinity Characteristics

**Topography.** The ground surface in the project site area is a nearly level plain that slopes very gently to the southwest; the average gradient is about one percent. Elevations are between about 140 feet above mean sea level in the northwest corner of the site to about 115 feet above mean sea level in the far southwest corner of the project site. Earth mounding (berms) from about five to ten feet high has

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<sup>9</sup> 2007 Working Group on California Earthquake Probabilities, *The Uniform California Earthquake Rupture Forecast, Version 2 (UCERF 2)*, United States Geological Survey, Open File Report 2007-1437, April 2008, pages 66 and 74.

<sup>10</sup> D. Borchardt, et al., *Maximum Earthquake Intensity Predicted on a Regional Scale*, United States Geological Survey, Miscellaneous Field Investigations Map MF-709, 1975, scale 1:125,000.

<sup>11</sup> Steinbrugge, K.V., J.H. Bennett, H.J. Lagorio, J.F. Davis, G.A. Borchardt and T.R. Topozada, *Earthquake Planning Scenario for a Magnitude 7.5 Earthquake on the Hayward Fault in the San Francisco Bay Area*, California Geological Survey, Special Publication 78, 1987, 243 pages, 12 scenario maps, scale 1:200,000, see maps and accompanying text on adjacent page.

<sup>12</sup> Jennings, C.W., *Fault Activity Map of California and Adjacent areas, with locations and ages of Recent Volcanic Eruptions*, Geologic Data Map No. 6, California Geological Survey, 1994.

<sup>13</sup> Ibid.

been created from soils excavated on the site along the east side of the Northwestern Pacific Railroad right-of-way and along Camino Colegio and Bodway Parkway inside the site boundary.<sup>14</sup>

**Soils.** The soils of Sonoma County belong to two major groups related to the substrate on which the soils have developed. The major soil groups are divided into 15 associations, which are subdivided into soil types based on a variety of distinguishing characteristics, such as texture, slope, and agricultural capability. One major soil group is represented in the project site area: the basin soils of the lowlands. The soil association in the site area is the Clear Lake-Reyes, developed on the unconsolidated deposits of flood plains, low terraces, and alluvial fans. The soil type on the project site is Clear Lake clay. The soil is slowly permeable, highly expansive, highly corrosive to untreated steel and concrete, with poor soil strength (high compressibility), and of low to moderate liquefaction potential. These native soils range in thickness from four to eight feet. In their undisturbed state, runoff is slow and erosion hazard is low.<sup>15,16</sup>

Both the City and County General Plan Safety Elements identify the project area as having moderate potential for liquefaction. Even though surface soils may have low potential, liquefaction can occur in the subsoils if the water table is within 50 feet below the ground surface in pockets of fine-grained, uniformly sized sand, such as can exist in alluvial deposits. In general, areas underlain by poorly sorted older alluvium are less liquefaction-prone than those underlain by the younger fine sand deposits. Groundwater was encountered during geotechnical investigations reviewed for the site's 2002 Phase I Environmental Site Assessment at depths of 20- to 50-feet below the existing ground surface.<sup>17</sup> Consequently, liquefaction potential would need to be addressed at specific construction sites if subsurface conditions such as depth to water table, uniformity of grain size and mix of grain size were found to vary substantially from those encountered during the geotechnical investigation.

Soils with low erosion potential in their natural condition can become erosion-prone when disrupted unless specific measures are taken to control erosion. Because the major adverse effects of potential erosion are turbidity and sedimentation in drainage ways, this issue is discussed in Section 3.7 of this EIR, Hydrology and Water Quality.

**Geologic Units.** The project area is underlain by geologically young alluvial fan sediments deposited on land by running water. The sediments consist of about 400 feet of interbedded fine sand, silt, and silty clay. These unconsolidated sediments are easy to excavate; however, the soils do not provide

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<sup>14</sup> United States Geological Survey, *Cotati Quadrangle, California, 7.5 Minute Series (Topographic)*, 1954, photo revised 1980, scale 1:24,000.

<sup>15</sup> United States Department of Agriculture, Natural Resources Conservation Service (formerly the Soil Conservation Service), *Soil Survey of Sonoma County, California*, V.C. Miller, Party Chief, Washington, D.C., 1972, pages 3, 22 - 24, Tables 6 - 8, Maps 1 & 2, scale 1:380,160, Plates 98 & 106, scale 1:20,000.

<sup>16</sup> Michelucci & Associates, Inc., Updated Geotechnical engineering Investigation, Proposed Residential Development, 7279 Petaluma Hill Road, Rohnert Park, California, Sonoma Mountain Village Area, M&A Job No. 01-SR314, December 27, 2002.

<sup>17</sup> RGH Geotechnical and Environmental Consultants, *Phase I Environment Site Assessment, Agilent Technologies, Inc. Parcels, Rohnert Park, California*, RGH Project Number 1625.03.00.01, pages 4 through 9, August 6, 2002.



sufficient strength for unsupported cuts to stand in relatively steep slopes during an entire construction season. The clay portions of the material are prone to expansion and do not drain easily. The slightly coarser-grained sediments drain more readily, although slowly, and there is a possibility of encountering pockets of liquefiable sand.<sup>18,19,20</sup>

Below the alluvial fan sediments is at least 3,600 feet of interbedded shale, sandstone, conglomerate, and volcanic rocks (tuff) of the Wilson Grove and Petaluma formations (marine and river sediments, respectively). At least 2,000 feet of the Sonoma Volcanics formation underlies the Wilson Grove and Petaluma formations.

**Faults.** The known active fault traces closest to the project area are those of the Rodgers Creek fault, about 2.5 miles northeast of the project site area (Figures 3.5-1 and 3.5-2). This is the only fault in the vicinity of Rohnert Park that is zoned by the State under the Alquist-Priolo Earthquake Fault Zoning Act of 1972. No other Earthquake Fault Zones or known active faults traces cross or trend toward the project site area. The nearby traces of the Rodgers Creek fault in the Earthquake Fault Zone are historically active, but show little evidence of ground surface rupture during the last 11,000 years, a relatively short time in terms of geologic activity. The Rodgers Creek fault is capable of generating a characteristic earthquake of  $M_w$  7.1 and peak horizontal ground accelerations in excess of 0.6 g (60 percent of the force of gravity).<sup>21,22,23,24,25</sup>

Groundshaking intensities associated with this event are expected to be IX (violent) on the Modified Mercalli Intensity (MMI) Scale.<sup>26</sup> MMI IX generally will cause some damage to specially designed

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<sup>18</sup> M.E. and C.F. Armstrong, *Geology for Planning in Sonoma County*, California Geological Survey, Special Report 120, 1980, pages 8 and 9.

<sup>19</sup> Michelucci & Associates, Inc., Updated Geotechnical engineering Investigation, Proposed Residential Development, 7279 Petaluma Hill Road, Rohnert Park, California, Sonoma Mountain Village Area, M&A Job No. 01-SR314, 27 December, 2002

<sup>20</sup> Coddling Enterprises, *Sonoma Mountain Village Water Plan*, July 30, 2007, pages 23-30, geology analysis provided by Barry Hecht, EG 1245, HG 50, of Balance Hydrologics, Berkeley, California.

<sup>21</sup> Hart, E.W., *Fault Evaluation Report, Rodgers Creek Fault*, California Geological Survey FER-141, 27 September 1982, 20 pages, 7 maps, scale 1:24,000.

<sup>22</sup> Greensfelder, R.W., "Seismicity, Groundshaking and Liquefaction Potential," *in* M.E. Huffman and C.F. Armstrong, *Geology for Planning in Sonoma County*, California Geological Survey, Special Report 120, 1980, pages 5 to 14.

<sup>23</sup> Hart, E.W., and W.A. Bryant, *Fault-Rupture Hazard Zones in California, Alquist-Priolo Earthquake Fault Zoning Act with Index to Earthquake Fault Zones Maps*, California Geological Survey (formerly the Division of Mines and Geology), Special Publication 42, 1997 Edition, Supplements 1 and 2 added 1999, 47 pages, Supplement 3 released 1 May 2003, updated on-line 7 October 2003, Plate 3B, scale 1:62,500.

<sup>24</sup> Jennings, C.W., *Fault Activity Map of California and Adjacent areas, with locations and ages of Recent Volcanic Eruptions*, Geologic Data Map No. 6, California Geological Survey, 1994.

<sup>25</sup> Michelucci & Associates, Inc., Updated Geotechnical engineering Investigation, Proposed Residential Development, 7279 Petaluma Hill Road, Rohnert Park, California, Sonoma Mountain Village Area, M&A Job No. 01-SR314, 27 December, 2002.

<sup>26</sup> Earthquake Hazard Map for Rohnert Park/Cotati, Scenario: Rodgers Creek + North Hayward Segments of the Hayward-Rodgers Creek Fault System *in* *Earthquake Hazard Maps*, Association of Bay Area Governments, <http://www.abag.ca.gov/bayarea/eqmaps/pickcity.html>, updated 20 October 1999.

structures, serious damage in structures of good workmanship, and heavy damage in ordinarily substantial buildings, foundations, and underground utilities such as water pipelines. Seismic ground response of this intensity in the near-source area of the fault trace would cause severe damage to older buildings, roadways, and infrastructure that were not constructed to resist earthquake forces; however, there are no structures on the site. For new buildings, roads and infrastructure constructed to current CBC Zone 4 seismic-resistance standards and criteria, using site-specific parameters to address the proximity of the fault, the damage potential would be somewhat lower, but still considerable.<sup>27</sup>

**Landslides.** No landslide deposits have been mapped within the project site area or in the immediate vicinity. The California Geological Survey (CGS) slope stability map of southern Sonoma County categorizes project area as an area of the greatest relative stability because there are no slopes steeper than one percent.<sup>28</sup>

## Applicable Policies and Regulations

**State Policies and Regulations.** The State legislation regarding earthquake fault zones is the Alquist-Priolo Earthquake Fault Zoning Act. In 1972, the State of California began delineating Earthquake Fault Zones (called Special Studies Zones prior to 1994) around active and potentially active faults to reduce fault-rupture risks to structures for human occupancy.<sup>29</sup> The Act has resulted in the preparation of maps delineating Earthquake Fault Zones to include, among others, recently active segments of the Rodgers Creek fault. The Act provides for special seismic design considerations if developments are planned in areas adjacent to active or potentially active faults.<sup>30</sup> The project area is not crossed by any Alquist-Priolo Earthquake Fault Zone.

The State regulations protecting the public from geo-seismic hazards, other than surface faulting, are contained in California Code of Regulations, Title 24, Part 2, the CBC and California Public Resources Code, Division 2, Chapter 7.8, The Seismic Hazards Mapping Act. These regulations generally apply to public buildings (and a large percentage of private buildings) intended for human occupancy.

Until January 1, 2008, the CBC was based on the then-current Uniform Building Code (UBC) and contained Additions, Amendments, and Repeals specific to building conditions and structural

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<sup>27</sup> Greensfelder, R.W., "Seismicity, Groundshaking and Liquefaction Potential," in M.E. Huffman and C.F. Armstrong, *Geology for Planning in Sonoma County*, California Geological Survey, Special Report 120, 1980, pages 5 to 14.

<sup>28</sup> Armstrong, C.F., "Landslides and Relative Slope Stability – Southern Sonoma County," Plate 2B in Huffman M.E. and C.F. Armstrong, *Geology for Planning in Sonoma County*, California Geological Survey, Special Report 120, 1980, scale 1:62,500.

<sup>29</sup> *Alquist-Priolo Earthquake Fault Zoning Act*, California Public Resources Code, Division 2, "Geology, Mines, and Mining," Chapter 7.5 "Earthquake Fault Zones," Sections 2621 through 2630; signed into law 22 December 1972, amended 1994.

<sup>30</sup> Hart, E.W., and W.A. Bryant, *Fault-Rupture Hazard Zones in California, Alquist-Priolo Earthquake Fault Zoning Act with Index to Earthquake Fault Zones Maps*, California Geological Survey (formerly the Division of Mines and Geology), Special Publication 42, 1997 Edition, Supplements 1 and 2 added 1999, 47 pages, Supplement 3 released 1 May 2003, updated on-line 7 October 2003, pages 9, 11, and 13.

requirements in the State of California. The 2007 CBC, effective January 1, 2008, is based on the current (2006) International Building Code (IBC). The IBC offers more stringent requirements associated with fire safety, equal access for disabled persons, and environmentally friendly construction practices in comparison to the UBC. In addition, Seismic-resistant construction design is required to meet more stringent technical standards than those set by previous versions of the CBC. Each jurisdiction may adopt its own building code based on the 2007 CBC as long as they are more stringent than the 2007 CBC, or at a minimum, able to meet all State standards and enforce the regulations of the 2007 CBC beginning January 1, 2008.

Chapters 16 and 16A of the 2007 CBC deal with Structural Design requirements governing seismically resistant construction, including (but not limited to) factors and coefficients used to establish seismic site class and seismic occupancy category for the soil/rock at the building location and the proposed building design. Chapters 18 and 18A of the 2007 CBC include (but are not limited to) the requirements for foundation and soil investigations (Sections 1802 & 1802A); excavation, grading, and fill (Sections 1803 & 1803A); allowable load-bearing values of soils (Sections 1804 & 1804A); and the design of footings, foundations, and slope clearances (Sections 1805 & 1805A), retaining walls (Sections 1806 & 1806A), and pier, pile, driven, and cast-in-place foundation support systems (Sections 1808, 1808A, 1809, 1809A, 1810 & 1810A). Chapter 33 of the 2007 CBC includes (but is not limited to) requirements for safeguards at work sites to ensure stable excavations and cut or fill slopes (Section 3304). Appendix J of the 2007 CBC includes (but is not limited to) grading requirements for the design of excavations and fills (Sections J106 & J107) and for erosion control (Section J110).

The City of Rohnert Park began enforcing the 2007 CBC on January 1, 2008. Consequently, Sonoma Mountain Village project design is required to include the application of 2007 CBC seismic standards as the minimum seismic-resistant design for portions of the project intended for human occupancy.

The Seismic Hazards Mapping Act became effective in 1991 to identify and map seismic hazard zones for the purpose of assisting cities and counties in preparing the safety elements of their general plans and to encourage land use management policies and regulations that reduce seismic hazards. CGS provides guidance with regard to seismic hazards through its website<sup>31</sup> and CGS Special Publication 117, *Guidelines for Evaluating and Mitigating Seismic Hazards in California*, for earthquake-related hazards associated with projects in designated zones of required investigations. Under the terms of the Act, cities and counties must require a geotechnical report defining and delineating any seismic hazard prior to the approval of a project in a state-identified seismic hazard zone.

The State legislation protecting mineral resource zones is the *Surface Mining and Reclamation Act of 1975*. One purpose of the Act is to classify mineral resources in the State and to transmit the information to local governments which regulate land use in each region of the State. Local governments are responsible for designating lands that contain regionally significant mineral resources

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<sup>31</sup> California Geological Survey, <http://gmw.consrv.ca.gov/shmp/>.

in the local General Plans to assure resource conservation in areas of intensive competing land uses. The law has resulted in the preparation of Mineral Land Classification Maps delineating Mineral Resource Zones (MRZs) 1 through 4 for aggregate resources (sand, gravel and stone).

The project site area is in an area zoned as MRZ-1, defined as an area where there is adequate information to indicate that no significant mineral deposits are present, or where little likelihood exists for their presence. The closest Mineral Resource Sector identified by the MRZ mapping is Sector F, approximately 3.5 miles west of the project site.<sup>32</sup>

**Local Policies and Regulations.** Two City policies for protection from seismic and geologic hazards are addressed in Section 7.1, Seismic and Geologic Hazards, of the General Plan Health and Safety Element (Chapter 7). The Seismic and Geologic Hazards Goal is to minimize the risk to life and property from seismic and geologic hazards in Rohnert Park.

- Policy HS-1 requires new construction to use site preparation, grading, and foundation designs in accordance with site-specific soil conditions, and requires submittal of a preliminary soils report, prepared by a registered civil engineer.
- Policy HS-2 continues the requirement that all new buildings in the City be built in conformance with the seismic requirements of the Uniform Building Code and Uniform Plumbing Code, as adopted by the City in its Municipal Code.

See Section 3.10, Planning Policy and Relationship to Plans, of this EIR, for additional information.

The City of Rohnert Park enforces the 2007 CBC. In addition to state amendments to the 2006 IBC, jurisdictional authorities such as the City are permitted to develop local amendments, when deemed necessary. As required by law, the City has made findings based on local climatic, geologic, and topographical conditions that allows for the adoption of a number of local code amendments considered necessary primarily because of the existence of unusual and deleterious soil conditions. These amendments are incorporated in Title 15 of the City's *Municipal Code* to ensure seismic and soil safety design for construction.

## **Impacts and Mitigation Measures**

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### **Standards of Significance**

Based on the City of Rohnert Park thresholds of significance, geology, soils and seismicity impacts would be considered significant if one or more of the following conditions were created through implementation of the Sonoma Mountain Village project.

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<sup>32</sup> Stinson, M.C., M.W. Manson, and J.J. Plappert, Mineral Land Classification: Aggregate Materials in the San Francisco — Monterey Bay Area, Part III: Classification of Aggregate Resource Areas, North San Francisco Bay Production — Consumption Region, California Geological Survey, Special Report 146, Part III, 1983, page 32, Plates 3.25 and 3.53 (scale approximately 1:48,000).

- **Impact Criterion #1:** Expose people or structures to potentially substantial adverse effects, including the risk of loss, injury, or death involving:
  - 1.1 Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault;
  - 1.2 Strong seismic groundshaking;
  - 1.3 Seismic-related ground failure, including liquefaction;
  - 1.4 Landslides.
- **Impact Criterion #2:** Result in substantial soil erosion or the loss of topsoil.
- **Impact Criterion #3:** Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.
- **Impact Criterion #4:** Be located on expansive soil, as defined in Section 1802.3.2 of the 2007 CBC creating substantial risks to life or property.
- **Impact Criterion #5:** Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State.
- **Impact Criterion #6:** Result in the loss of availability of a locally-important mineral resource recovery site delineated by the General Plan, a specific plan or other land use plan.

Adverse impacts in any of these categories would be considered unavoidable significant effects of the project, if they could not be (a) reduced to an acceptable level of risk, (b) eliminated, or (c) avoided by using existing techniques, generally recognized by geotechnical consultants in the Bay Area to be applicable and feasible.

## **Project Evaluation**

### **Impact Criterion #1.1**

**Fault Rupture:** *Would the project expose people or structures to potentially substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?*

The Sonoma Mountain Village project site area is about 2.5 miles from the active Rodgers Creek fault. However, the fault is not delineated on the most recent Alquist-Priolo Earthquake Fault Map. The project is located approximately 16 miles from the delineated and active San Andreas Fault which if ruptured could potentially constitute a substantial secondary hazard within the project site area. Adherence to the CBC 2007 building requirements, which is required by the City of Rohnert Park, would reduce potentially adverse rupture risks to sensitive receptors. Therefore, with the implementation of required project design measures, the proposed project would result in a less than significant adverse impact under Impact Criterion #1.1 regarding fault rupture potential.

### **Impact Criteria #1.2 and #1.3**

**Groundshaking: *Would the project expose people or structures to the potentially adverse effects of strong seismic groundshaking or seismic-related ground failure, including liquefaction?***

From a review of regional and local geo-seismic conditions, it is apparent that the City of Rohnert Park will be subjected to at least one major earthquake during the useful economic life of structures in the project site area. The characteristic earthquake for the project area is estimated by USGS and CGS to be an  $M_w$  7.1 earthquake on the Rodgers Creek fault, creating peak horizontal ground accelerations in excess of 0.6g. The ground acceleration parameters of the design earthquake for the project site can be estimated using the mapped values shown in Figures 3 and 4 of Section 1613A.5.1 of the 2007 CBC. The 2007 CBC defines the design earthquake peak horizontal ground acceleration as two thirds of the mapped values. The mapped value for the center of the Sonoma Mountain Village project site is 150 percent of the acceleration of gravity. Consequently, the estimated peak ground acceleration from the design earthquake is 1.0 g, indicating the hazard posed by seismic shaking is high. The resulting vibration could cause damage to buildings, roads and infrastructure (primary effects), and could cause ground failures such as liquefaction or settlement in alluvium and poorly compacted fill (secondary effects). Because the project site area is 2.5 miles from known traces of the Rodgers Creek fault, violent seismically induced groundshaking would occur in the project site area.

Structures within the project site area would be underlain by alluvial materials that, in their natural state, could respond poorly to loading during seismic ground motion. The older alluvium contains slightly more coarse materials than the younger alluvium, and, therefore, may be less susceptible to failure caused by earthquake vibrations.

To reduce the primary and secondary risks associated with seismically induced groundshaking, it is necessary to take the location and type of subsurface materials into consideration when designing foundations and structures in the project site area. In the City of Rohnert Park, residential, commercial, and institutional buildings; bridges; pedestrian overcrossings; and all associated infrastructure are required to reduce the exposure to potentially damaging seismic vibrations through seismic-resistant design, in conformance with Chapters 16, 16A, 18, and 18A of the CBC. Because the project site area is near the Rodgers Creek fault, the Building Code requires special seismic design factors be applied to the project including:

- The use of 2007 CBC seismic standards as the minimum seismic-resistant design for all proposed facilities;
- Additional seismic-resistant earthwork and construction design criteria, based on the site-specific recommendations of a California Certified Engineering Geologist in cooperation with the project's California-registered geotechnical and structural engineers;
- An engineering analysis that demonstrates satisfactory performance of alluvium or fill where either forms part or all of the support, especially where the possible occurrence of liquefiable soils exists; and,

- An analysis of soil expansion potential and appropriate remediation (compaction, removal/replacement, etc.) prior to using any expansive soils for foundation support.

Based on a comparison of the Sonoma Mountain Village Final Development and Zoning/Regulating Plans as proposed with the geo-seismic conditions outlined in the Setting portion of this section of the EIR showing that a regulatory framework exists to address earthquake safety issues, seismically induced groundshaking would not be a substantial hazard within the project site area. Therefore, there would be no significant adverse impact under Impact Criteria #1.2 and #1.3 regarding strong seismic groundshaking.

#### **Impact Criterion #1.4**

***Landslides: Would the project expose people or structures to the potentially substantial adverse effects of landslides?***

Because the project site and the surrounding area are nearly level and flat, landslides would not be a substantial hazard within the project site. Therefore, there would be no significant adverse impact under Impact Criterion #1.4 regarding landslides.

#### **Impact Criterion #2**

***Soil Erosion: Would the project result in substantial soil erosion or the loss of topsoil?***

As addressed Section 3.7 of this EIR, *Hydrology and Water Quality*, erosion and sediment transport control are required by City, County, and Regional Water Quality Control Board regulations through general plan policies and regulatory permits. An Erosion and Sediment Transport Control Plan (ESTCP) must be prepared for the project prior to the commencement of grading. An erosion control professional, or landscape architect or civil engineer specializing in erosion control, must design the ESTCP and be on-site during the installation of erosion and sediment transport control structures, to supervise the implementation of the designs and the maintenance of facilities throughout the site clearing, grading and construction periods.

Based on a comparison of the Sonoma Mountain Village Final Development and Zoning/Regulating Plans as proposed with the conditions outlined in the Setting portion of Section 3.7 of this EIR, *Hydrology and Water Quality*, showing that a regulatory framework exists to address erosion and sediment transport control issues, erosion would not be a substantial hazard within the project site area. Therefore, there would be no significant adverse impact under Impact Criterion #2 regarding erosion.

#### **Impact Criterion #3**

***Unstable Soils: Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?***

#### **Impact Criterion #4**

**Expansive Soils:** *Would the project be located on expansive soil, as defined in Section 10802.3.2 of the 2007 CBC, creating substantial risks to life or property?*

The existence of unstable geologic units or soils, including expansive, compressible, and corrosive soils, throughout the project site area makes it necessary to ensure the soils used for foundation support are sound. Using unsuitable and unstable soils would have the potential to create future problems of building settlement and utility line disruption. When weak soils are re-engineered specifically for stability prior to use, these potential effects can be reduced or eliminated. An acceptable degree of soil stability can be achieved by the required incorporation of soil treatment programs (grouting, compaction, drainage control, etc.) in the excavation and construction plans to address site-specific soil conditions. The site-specific analysis is the mainstay of foundation support design in areas where unsuitable conditions are suspected. Such analyses contain recommendations for ground preparation and earthwork specific to the site that become an integral part the construction design.

As part of the construction permitting process, the City requires completed reports of soil conditions at the specific construction sites to identify potentially unsuitable soil conditions. The evaluations must be conducted by registered soil professionals, and measures to eliminate inappropriate soil conditions must be applied, depending on the soil conditions. The design of foundation support must conform to the analysis and implementation criteria described in the 2007 CBC, Chapters 16, 16A, 18, and 18A. Adherence to the City's codes and policies ensures the maximum practicable protection available for users of buildings and infrastructure and their associated trenches, slopes, and foundations.

Based on a comparison of the Sonoma Mountain Village Final Development and Zoning/Regulating Plans as proposed with the conditions outlined in the Setting portion of this section of the EIR showing that a regulatory framework exists to address weak soils issues, unstable geologic and soil units would not be a substantial hazard within the project site area. Therefore, there would be no significant adverse impact under Impact Criteria #3 and #4 regarding unstable and expansive soils.

#### **Impact Criterion #5**

**Mineral Resources:** *Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?*

The proposed project is about 3.5 miles east of the nearest Mineral Resource Sector, as discussed in the Applicable Policies and Regulations of this section. Therefore the project would have no significant adverse impact under Impact Criterion #5 regarding the loss of availability of known mineral resources that would be of value to the region and residents of the state.

#### **Impact Criterion #6**

**Mineral Resources:** *Would the project result in the loss of availability of a locally-important mineral resource recovery site delineated by the General Plan, a specific plan or other land use plan?*



The proposed project is about 3.5 miles east of the nearest Mineral Resource Sector as discussed in the Applicable Policies and Regulations of this section. Therefore, the project would have no significant adverse impact under Impact Criterion #6 regarding the loss of availability of a locally-important mineral resource recovery site.

## **Cumulative Development**

The geographic context for the analysis of CEQA impacts resulting from geologic hazards generally is site-specific, rather than cumulative in nature, because each project site has a different set of geologic considerations that would not be subject to uniform site development and construction standards. As such, the potential for cumulative impacts to occur is limited. The discussion of cumulative development impacts is as described in the Introduction section of this EIR under the title *Cumulative Impact Assessment* and includes collectively the project site areas and projects as described therein.

The cumulative context for the analysis of cumulative soils, geology and seismicity impacts is based on the development assumptions found in the Rohnert Park 2020 General Plan, pursuant to the requirements from CEQA Guidelines section 15130 (b).

Cumulative development in Rohnert Park, including the proposed project, would increase the number of people and structures that could be exposed to hazards associated with seismic activity. As described earlier, the proposed project could be subject to groundshaking that could potentially result in secondary seismic impacts, such as liquefaction. Implementation of the project would increase the number of structures that could be subject to the effects of expansive soils or other soil constraints that could affect structural integrity, roadways, or underground utilities. As more areas within the City are developed, more people and structures could be exposed to similar risks.

Site preparation, development, and operation associated with buildout of the Rohnert Park 2020 General Plan would create temporary and/or permanent ground surface changes that could alter erosion rates resulting in cumulative effects within a watershed. Development throughout Rohnert Park is subject to state and local runoff, erosion, and sedimentation prevention requirements, including the applicable provisions of the general construction permit, Best Management Practices (BMPs), and Phases I and II of the National Pollution Discharge Elimination System (NPDES) permit process. These requirements would be implemented as conditions of approval of project development and subject to continuing enforcement. For a discussion of cumulative water quality impacts resulting from erosion, see Section 3.7, Hydrology and Water Quality. Implementation of the proposed project would modify soil and topographic conditions at the site to accommodate development and to provide a stable and safe physical environment. This modification during the construction phases could expose areas of soil to erosion by wind or water. Development of other cumulative projects in the City could expose soil surfaces, and further alter soil conditions, subjecting soils to erosional processes during construction.

Potentially adverse environmental effects associated with seismic hazards, as well as those associated with expansive soils, topographic alteration, and erosion, are considered site-specific and generally do not combine with similar effects that could occur with other projects in the City. Implementation of the

provisions of the City's Building Code and grading ordinances, the NPDES permit requirements, and General Plan Health and Safety Policies HS-1 and HS-2 would ensure that potential site-specific impacts would be maintained at less-than-significant levels. Consequently, the impacts of project implementation would not be cumulatively considerable.

## **Glossary**

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**Alquist-Priolo Earthquake Fault Zone:** In 1972, the State of California began delineating special studies zones (called Earthquake Fault Zones since January 1994) around active and potentially active faults in the state. The zones are revised periodically, and extend 200 to 500 feet on either side of identified fault traces. No structures for human occupancy may be built across an identified active fault trace. An area of 50 feet on either side of an active fault trace is assumed to be underlain by the fault, unless proven otherwise. Proposed construction within the Earthquake Fault Zone is permitted only following the completion of a fault location report prepared by a California Registered Geologist.

**Characteristic Earthquake:** Characteristic earthquakes are repeat earthquakes that have the same faulting mechanism, magnitude, rupture length, location, and, in some cases, the same epicenter and direction of rupture propagation as earlier shocks. As used in this report, the  $M_w$  (see below) of the seismic event considered representative of a particular fault segment, based on seismologic observations and statistical analysis of the probability that a larger earthquake would not be generated during a given time frame. In the Bay Area, the characteristic earthquake for the Peninsula segment of the San Andreas fault has a  $M_w$  of 7.1; the entire Hayward fault, a  $M_w$  of 7.3; and the Rodgers Creek fault,  $M_w$  7.1.

**Horizontal Ground Acceleration:** The speed at which soil or rock materials are displaced by seismic waves. It is measured as a percentage of the acceleration of gravity ( $0.5g = 50$  percent of  $32$  feet per second squared, expressed as a horizontal force). Peak horizontal ground acceleration is the maximum acceleration expected from the characteristic earthquake predicted to affect a given area. Repeatable acceleration refers to the acceleration resulting from multiple seismic shocks. Sustained acceleration refers to the acceleration produced by continuous seismic shaking from a single, long-duration event.

**Modified Mercalli Intensity (MMI) Scale:** A 12-point scale of earthquake intensity based on local effects experienced by people, structures, and earth materials. Each succeeding step on the scale describes a progressively greater amount of damage at a given point of observation. Effects range from those which are detectable only by seismicity recording instruments (I) to total destruction (XII). Most people will feel Intensity IV ground motion indoors and Intensity V outside. Intensity VII frightens most people, and Intensity IX causes alarm approaching panic. The scale was developed in 1902 by Giuseppe Mercalli for European conditions, adapted in 1931 by American seismologists Harry Wood and Frank Neumann for conditions in North America, and modified in 1958 by Dr. Charles F. Richter to accommodate modern structural design features.

**Moment Magnitude ( $M_w$ ):** A logarithmic scale used by modern seismologists to measure the amount of energy released by an earthquake. For the purposes of describing this energy release (i.e. the "size" of the earthquake on a particular fault segment for which seismic-resistant construction must be

designed) the  $M_w$  of the characteristic earthquake for that segment has replaced the concept of a maximum credible earthquake of a particular Richter magnitude. This has become necessary because the Richter scale “saturates” at the higher magnitudes; that is, the Richter scale has difficulty differentiating the size of earthquakes above  $M$  7.5. To correct for this effect, the formula used for the  $M_w$  scale incorporates parameters associated with the rock types at the seismic source and the area of the fault surface involved in the earthquake. The  $M_w$  scale is proportional to the area of the fault surface that shifts (slips) during an earthquake, and, thus is directly related to the length and width of the rupture. It reflects the amount of “work” (in the sense of classical physics) done by the earthquake. The relationship between Richter and moment magnitudes is not linear (i.e., moment magnitude is not a set percentage of Richter magnitude): the two values are derived using different formulae. The four well-known earthquakes listed below exemplify this relationship.

Location	Date	Richter Magnitude	Moment Magnitude
New Madrid MO	1812	8.7	8.1
San Francisco CA	1906	8.3	7.7
Anchorage AK	1964	8.4	9.2
Northridge CA	1994	6.4	6.7

Although some of the values shown on the  $M_w$  scale are lower than those of the traditional Richter magnitudes, they convey more precise (and more useable) information to geologic and structural engineers.

**Richter Magnitude Scale:** A logarithmic scale developed in 1935 to 1936, by Dr. Charles F. Richter and Dr. Beno Gutenberg, to measure earthquake magnitude ( $M$ ) by the amount of energy released, as opposed to earthquake intensity as determined by local effects on people, structures, and earth materials (for which, see MMI Scale). Each whole number on the Richter scale represents a 10-fold increase in amplitude of the waves recorded on a seismogram and about a 31-fold increase in the amount of energy released by the earthquake. Because the Richter scale tends to saturate above about  $M$  7.5, it is being replaced in modern seismologic investigations by the  $M_w$  scale (see above).

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## 3.6 HAZARDS AND HAZARDOUS MATERIALS

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### Introduction

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This section of the EIR assesses potential adverse environmental, health, and safety impacts that could result from exposure to hazardous materials within or in close proximity to the Sonoma Mountain Village project site. Where appropriate, this section also identifies mitigation measures with respect to potential risks from hazardous materials in accordance with City of Rohnert Park adopted thresholds of impact significance. Potential hazards include disturbing contaminated soil and groundwater, and handling hazardous materials. Hazardous materials are those chemicals or substances that pose hazards to human health or safety, or to the environment, particularly if released. Hazardous wastes are a subset of hazardous materials that pose potential hazards to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

### Setting

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#### Hazardous Materials and Wastes

A number of properties may cause a substance to be considered hazardous, including toxicity, ignitability, corrosivity, or reactivity. A substance is defined as hazardous if it appears on a list of hazardous materials prepared by a federal, state, or local regulatory agency, or if it has characteristics defined as hazardous by such agency.

The California Department of Toxic Substances Control (DTSC) defines the term “hazardous material” as a substance or combination of substances that, because of its quantity, concentration or physical, chemical or infectious characteristics, may either (1) cause, or significantly contribute to an increase in mortality or an increase in serious, irreversible, or incapacitating illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of, or otherwise managed.

A “hazardous waste” is any hazardous material that is abandoned, discarded, or recycled (California Health & Safety Code Section 25124). The same criteria that render a material hazardous make a waste hazardous: toxicity, ignitability, corrosivity, or reactivity.

Toxic, ignitable, corrosive, and reactive materials are all subsets of hazardous materials and wastes. For example, if a material is toxic, it is hazardous, but not all hazardous materials are toxic. Specific tests for toxicity, ignitability, corrosivity, and reactivity are set forth in Title 22, California Code of Regulations (CCR), Sections 66693 to 66708.

#### Applicable Policies and Regulations

**Hazardous Materials Management and Emergency Planning.** State and federal laws require businesses that handle hazardous materials to ensure that the hazardous materials are properly handled,

used, stored, and disposed of, and in the event that such materials are accidentally released, to prevent or reduce injury to health and the environment. California's Hazardous Materials Release Response Plans and Inventory Law, sometimes called the "Business Plan Act," aims to minimize the potential for accidents involving hazardous materials and to facilitate an appropriate response to hazardous materials emergencies. The law requires businesses that use hazardous materials to provide inventories of those materials to designated emergency response agencies, to illustrate on a diagram where the materials are stored, to prepare an emergency response plan, and to train employees to use the materials safely. This law is implemented locally by the Rohnert Park Department of Public Safety (DPS) and the Sonoma County Environmental Health Division, which also enforce certain fire code regulations pertaining to hazardous materials storage.

**Worker Safety.** Occupational safety standards exist in federal and state laws to minimize worker safety risks from both physical and chemical hazards in the workplace. The California Division of Occupational Safety and Health Administration (Cal/OSHA) is responsible for developing and enforcing workplace safety standards and assuring worker safety in the handling and use of hazardous materials. Among other requirements, Cal/OSHA obligates all businesses to prepare Injury and Illness Prevention Plans. The Hazard Communication Standard requires that workers be informed of the hazards associated with the materials they handle. For example, manufacturers are to appropriately label containers, Material Safety Data Sheets are to be available in the workplace, and employers are to properly train workers.

**Hazardous Waste Handling.** The U.S. Environmental Protection Agency (US EPA) has authorized the DTSC to enforce hazardous waste laws and regulations in California. Requirements place "cradle-to-grave" responsibility for hazardous waste disposal on the shoulders of hazardous waste generators. Anyone who creates a hazardous waste is considered a hazardous waste generator. Generators must ensure that their wastes are disposed of properly, and legal requirements dictate the disposal requirements for many waste streams (e.g., banning many types of hazardous wastes from landfills). All hazardous waste generators must certify that, at a minimum, they make a good faith effort to minimize their waste and they select the best waste management method available. Hazardous waste laws and regulations are enforced locally by the Rohnert Park DPS and the Sonoma County Environmental Health Division.

**Soil and Groundwater Contamination.** The Comprehensive Environmental Response, Compensation, and Liability Act and the Superfund Amendments and Reauthorization Act (together commonly referred to as "Superfund") establish a regulatory process to address the release of hazardous substances that may be harmful to public health and the environment. This process requires responsible parties to clean up contamination and enables parties harmed by hazardous materials releases to be compensated.

California has its own version of Superfund, the Hazardous Substances Account Act. Many of the regulatory guidelines, standards, and methods established as part of the Superfund process are used to evaluate health and environmental risks at other sites. The oversight of areas where hazardous materials have been released to the environment often involves several agencies that may have

overlapping authority and jurisdiction. The DTSC and the California Regional Water Quality Control Board (RWQCB - San Francisco Region) are two State agencies that are often responsible for sites where hazardous materials releases have occurred. Pursuant to the May 1, 2005 Memorandum of Agreement (MOA) between the DTSC and the California RWQCB, anyone requesting oversight from the DTSC or a Regional Board must submit an application to initiate the process to assign the appropriate oversight agency. The MOA was intended to avoid duplication of efforts among the agencies in the regulatory oversight of investigation and cleanup activities at brownfield sites. Site cleanups can also be overseen by local agencies known as Certified Unified Participating Agencies under DTSC authorization. Releases of hazardous substances in excess of certain quantities must be reported to the DTSC within 30 days of discovery.

**Hazardous Building Components.** Structural building components may contain hazardous materials such as asbestos, polychlorinated biphenyls (PCBs), and lead. Typically, these materials are present in buildings constructed prior to 1981 and can present a hazard to construction workers during the demolition process. These materials are subject to various regulatory schemes.

**Asbestos.** Asbestos is regulated both as a hazardous air pollutant and as a potential worker safety hazard. Bay Area Air Quality Management District (BAAQMD) and Cal/OSHA regulations restrict asbestos emissions from demolition and renovation activities, and specify safe work practices to minimize the potential to release asbestos fibers. These regulations prohibit emissions of asbestos from asbestos-related manufacturing, demolition, or construction activities; require medical examinations and monitoring of employees engaged in activities that could disturb asbestos; specify precautions and safe work practices that must be followed to minimize the potential to release asbestos fibers; and require notice be given to federal and local government agencies prior to beginning renovation or demolition that could disturb asbestos. California requires the licensing of contractors who conduct asbestos abatement activities.

**Polychlorinated Biphenyls (PCBs).** The California DTSC has classified PCBs as a hazardous waste when concentrations exceed 5 parts per million (ppm) in liquids or when a standard extract of a non-liquid exceeds 5 ppm. Electrical transformers and fluorescent light ballasts may contain PCBs, and if so, they are regulated as hazardous waste and must be transported and disposed of as hazardous waste. Ballasts manufactured since 1978, in general, do not contain PCBs and are required to have a label stating that PCBs are not present.

**Lead.** Cal/OSHA standards establish a maximum safe exposure level for types of construction work where lead exposure may occur, including demolition of structures where materials containing lead are present; removal or encapsulation of materials containing lead; and new construction, alteration, repair, and renovation of structures with materials containing lead. Inspection, testing, and removing lead-containing building materials is to be performed by state-certified contractors who are required to comply with applicable health and safety and hazardous materials regulations. The U.S. Department of Housing and Urban Development has published guidelines for the evaluation and control of lead-based

paint hazards in housing.<sup>1</sup> Typically, building materials with lead-based paint attached are not considered hazardous waste unless the paint is chemically or physically removed from the building debris.

**Mercury.** Spent fluorescent light tubes, thermostats, and other electrical equipment contain heavy metals that, if disposed of in landfills, can leach into the soil or groundwater. Lighting tubes sometimes contain concentrations of mercury that exceed regulatory thresholds for hazardous waste and, therefore, must be managed in accordance with hazardous waste regulations. Elemental mercury can be found in many electrical switches, including thermostats, and when disposed of, such mercury is considered hazardous waste.

**Hazardous Materials Transportation.** The U.S. Department of Transportation has developed regulations pertaining to the transport of hazardous materials and hazardous wastes by all modes of transportation. The U.S. Postal Service has developed additional regulations for the transport of hazardous materials by mail. U.S. Department of Transportation regulations specify packaging requirements for different types of materials. The US EPA has also promulgated regulations for the transport of hazardous wastes. These more stringent requirements include tracking shipments with manifests to ensure that wastes are delivered to their intended destinations. In California, the California Highway Patrol, the California Department of Transportation (Caltrans), and the DTSC play key roles in enforcing hazardous materials transportation requirements.

## **Existing Site Conditions**

Based on the available information, the project site property was purchased and developed by Hewlett-Packard beginning in 1984 (see Appendix B, Brief Historical Profile of Project Site Development). Agilent Technologies, Inc. was created as a wholly owned subsidiary of Hewlett-Packard in 1999, and at that time began operating on the project site as an Agilent Technologies facility. Ownership of the subject property was transferred to Agilent Technologies in June 2000 when Agilent Technologies became a separate company from Hewlett-Packard.

The project site is comprised of four parcels. The northern two parcels are about 98.3 acres and contain five buildings, with approximately 700,000 square feet of total floor area, remaining from former operations of the Agilent Technologies campus. Portions of these buildings are currently in use as offices, accommodating about 350 employees. The southern two parcels total about 76.9 acres and remain vacant except for a Pacific Gas & Electric (PG&E) electrical substation near the southwest corner of the site, with access from East Railroad Avenue. An additional 25.2 acre parcel is located immediately south of the southern parcel in unincorporated Sonoma County and was included in a 2002 Phase I hazardous materials analysis, but is not part of the current development proposal.

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<sup>1</sup> U.S. Department of Housing and Urban Development, *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing*, June 1995, revised 1997.

## Environmental Database Review and Local Regulatory Agency Consultation

On June 28, 2007 a search of available environmental records regarding the potential presence of hazardous materials on the project site was conducted by Environmental Data Resources, Inc.<sup>2</sup> The record search conducted for the project included a one-mile radius beyond the project site. The record search was designed to meet the search requirements of US EPA's Standards and Practices for all Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-05) for the evaluation of environmental risk associated with a land parcel.

The purpose of the file review was to identify recognized hazardous materials conditions that may exist within the project site area related to current and past use of the site and adjoining properties. This includes the presence or likely presence of any hazardous substance or petroleum product on the project site under conditions that indicate an existing release, a past release, or a material threat of release into a structure on the property or into the ground, groundwater, or surface water on the property.

The record search included: federal superfund sites; Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) sites; the Resource Conservation and Recovery Act (RCRA) sites; brownfields sites; Cortese List database<sup>3</sup> (Cortese) sites; Leaking Underground Storage Tanks (LUST) sites; and active Underground Storage Tank (UST) sites, et al.

While the environmental records database search did not identify hazardous materials locations of potential concern on the project site, the search did identify several hazardous materials locations of potential concern in Rohnert Park, listed as follows:

- Dunn's Diesel Service, 5531 State Farm Drive; HAZNET<sup>4</sup>, LUST, Cortese
- Weyerhaeuser-Commercial Door, 5600 State Farm Drive; LUST, Cortese
- Rohnert Park Towing, 5500 State Farm Drive; LUST, Cortese, EMI<sup>5</sup>
- Sabek, Incorporated, Highway 101/0.5 miles north of Highway 116; LUST, SLIC<sup>6</sup>

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<sup>2</sup> The EDR Report is on file and available for public inspection at the offices of the Rohnert Park Planning Department, 130 Avram Avenue, Rohnert Park, CA 94928.

<sup>3</sup> The Cortese List database identifies public drinking water wells with detectable levels of contamination, hazardous substance sites selected for remedial action, sites with known toxic material identified through the abandoned site assessment program, sites with Underground Storage Tanks (USTs) having a reportable release, and solid waste disposal facilities from which there is known migration. The source is the Cal/EPA Office of Emergency Information.

<sup>4</sup> The Hazardous Waste Information System (HAZNET); data for this database is extracted from the copies of hazardous waste manifests received each year by the Department of Toxic Substances Control (DTSC).

<sup>5</sup> The Emissions Inventory (EMI) list includes toxics and criteria pollutant emissions data collected by the California Air Resources Board (CARB) and local air pollution agencies.

<sup>6</sup> The Spills, Leaks, Investigations, and Cleanups (SLIC) database is provided by the California RWQCB.



- Abandoned Airfield, West Side of Highway 101; EnviroStor<sup>7</sup>

After subsequent mapping, it was determined that the first three sites, located along State Farm Drive are approximately 2.5-3.0 miles northwest of the project site. The remaining two sites are both located near Highway 101 to the west/northwest of the project site and are also located 2.5-3.0 miles from the project site. Therefore, these identified hazardous materials sites are located far enough from the project site that no material threat is posed to the proposed project.

According to the Rohnert Park General Plan, Rohnert Park does not contain any known hazardous materials disposal site. Although USTs are scattered throughout the community, regular laboratory testing of water from City wells has not detected contaminants from underground tanks or other hazardous materials. The City's DPS investigates illegal hazardous waste dumping.

According to the California DTSC EnviroStor Database<sup>8</sup> the City of Rohnert Park contains no Federal Superfund Sites, State Response Sites, Voluntary Cleanup Sites, or School Cleanup Sites. Additionally, based on conversations with RWQCB staff<sup>9</sup> and staff review of the GeoTracker database, the project site is identified as a LUST site, with a "closed" status.

## Phase I Environmental Site Assessments

Two Phase I Environmental Site Assessments (ESAs) were conducted for the project site. The first was conducted by RGH Geotechnical and Environmental Consultants with a Phase I report issued on August 6, 2002.<sup>10</sup> The second was conducted by ERM-West, Inc. with a Phase I report issued in August 2004.<sup>11</sup>

The objective of these Phase I assessments was to evaluate whether past known site and/or nearby off-site usage may have resulted in the release of hazardous substances into the soil or groundwater at the subject site. Each report includes a summary of an environmental record search, a site reconnaissance, a review of information regarding site groundwater hydrology, regional and local geology, soil descriptions and related geotechnical information, a summary of contacts with current and former property owners and regulatory agencies, and a historic aerial photography review.

<sup>7</sup> The DTSC's Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifies sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

<sup>8</sup> Department of Toxic Substances Control, Envirostor search engine <http://www.envirostor.dtsc.ca.gov>.

<sup>9</sup> Jim Tischler, California Regional Water Quality Control Board (North Coast Region), personal communication, July 10, 2007.

<sup>10</sup> RGH Geotechnical and Environmental Consultants, Phase I Environmental Site Assessment, Agilent Technologies, Inc. Parcels, Rohnert Park, California, Project Number 1625.03.00.01, August 6, 2002.

<sup>11</sup> ERM, Phase I Environmental Site Assessment, Agilent Technologies, 5924.00/0020392, August 2004.

At the time of the project site reconnaissance in June 2002, the south portion of the site was primarily undeveloped grassland with a small model airplane landing strip at the center of the property. PG&E operates a substation at the southwest corner of the site. This substation provides power for both the Agilent facility and residences in Penngrove. The City of Rohnert Park (City) and Sonoma County Water Agency (SCWA) have water meters and valve boxes near the northwest corner of the site. Each respective agency's utility is accessible from an asphalt-paved road that runs the length of the western border of the site. The south parcel has also been used for stockpiling soils that were excavated from the Agilent facilities site (north parcel) during construction and expansion of the facility.

The Phase I Assessments identified the following areas of potential concern respecting hazardous materials:

- **Container Storage.** Previous and current limited operations at the Agilent Technologies site involve the storage of chemicals and wastes at chemical storage areas in the Building 2 Annex and outside Building 1, in the 90-day hazardous waste accumulation area outside the Building 2 Annex, at process work areas and work benches in the Reliability Physics Lab, and in flammable cabinets and other storage units.<sup>12</sup>
- **Underground Storage Tanks.** One UST is present at the facility and contains diesel fuel for the facility power plant boilers. This tank has a 12,000 gallon capacity and is constructed of double-walled fiberglass. The tank was installed before 1990 and was retrofitted in 1990 with double-contained manways and piping, leak protection and monitoring equipment.<sup>13</sup>

Three 4,000 gallon USTs were formerly located on the site, two contained diesel and one contained gasoline. All three were removed in 1989; the closure activities were documented and submitted to the County of Sonoma Public Health Department, Environmental Health Services.<sup>14</sup> One soil boring was taken to a depth of 40 feet and analyzed for detectable levels of petroleum hydrocarbons and benzene derivatives. None were found and the County issued a letter to HP on August 10, 1993 stating that “No Further Action” was required and the case was closed.<sup>15</sup> Ground water sampling was not done due to dry conditions in wells.

- **Aboveground Storage Tanks.** One 1,175.3-gallon nitrogen above-ground storage tank is present on the property.<sup>16</sup>
- **Solvent Tank Pit.** A former sub-grade solvent tank pit is located on the north side of Building 1. Historically the pit contained four tanks which were removed December 8, 1993. The County approved closure of the pit and indicated that additional information was not

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<sup>12</sup> Ibid.

<sup>13</sup> RGH Geotechnical and Environmental Consultants, Phase I Environmental Site Assessment, Agilent Technologies, Inc. Parcels, Rohnert Park, California, Project Number 1625.03.00.01, August 6, 2002.

<sup>14</sup> ERM, Phase I Environmental Site Assessment, Agilent Technologies, 5924.00/0020392, August 2004.

<sup>15</sup> Ibid.

<sup>16</sup> Ibid.

required. However, soil sampling was not performed as part of the closure and the presence of solvents in subsurface soils cannot be ruled out.<sup>17</sup>

- **Asbestos Containing Materials.** Given the age of the buildings, asbestos containing materials are likely present, particularly in floor tiles.

## Regulatory Agency List Review and File Search

The RGH Phase I ESA provided additional information regarding the following government records databases:

- **RCIS-SQG Listing:** The Resource Conservation and Recovery Information System includes selective information on sites that generate, transport, store, treat and/or dispose of hazardous waste as defined by the RCRA. Agilent is identified as a small quantity generator for their use and storage of frozen epoxy and isopropyl alcohol. However, no current or historical violations were identified.
- **CA FID UST Listing:** The California Inventory Database contains historical listings of active and inactive USTs. The project site was listed for the USTs, described above.
- **LUST Listing:** The LUST Information System contains an inventory of reported leaking underground storage tank incidents. The project site was included for a fuel oil spill. In 1987 a fuel oil spill occurred following the overfilling of one of the on-site USTs. Approximately 4,000 gallons of fuel oil was released into the facility storm drain. Remediation for this fuel release included the flushing of vent piping, roof and storm water drains, City storm drain vaults, and water and soil removal. Following remedial actions confirmation soil analysis indicated that impacted soils had been removed within allowable detection limits.
- **HIST UST Listing:** The Hazardous Substance Storage Container Database listing for historical underground storage tank sites is as described, above.
- **HAZNET Listing:** Under the Hazardous Waste Manifest listings received from DTSC, the project site is listed for wastes discharged during the 1987 fuel oil release and for the use and disposal of frozen epoxy and isopropyl alcohol. There were 86 HAZNET listings for the project site, all of which documented proper use, handling, or disposal of hazardous materials and wastes.<sup>18</sup>
- **FINDS Listing:** The Facility Index System/Facility Identification Initiative Program Summary Report listed the site for LUST listing and fuel oil release.
- **Cortese Listing:** Under the Hazardous Waste & Substance Sites List as designated by the State Water Resource Board, the Integrated Waste Board, and the DTSC; Agilent Technologies was identified due to the LUST listing and the fuel oil spill described above.

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<sup>17</sup> Ibid.

<sup>18</sup> RGH Geotechnical and Environmental Consultants, Phase I Environmental Site Assessment, Agilent Technologies, Inc. Parcels, Rohnert Park, California, Project Number 1625.03.00.01, August 6, 2002.

It should be noted that at completion of the 2007 EDR study conducted for this EIR, the project site was not identified on any of the above or other hazardous materials lists. However, in view of the prior storage and use of hazardous materials throughout the Agilent Technologies campus portion of the site as documented above, the potential presence of hazardous materials on the project site today cannot be substantially ruled out.

## **Impacts and Mitigation Measures**

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### **Standards of Significance**

Based on City of Rohnert Park thresholds of impact significance, a project would normally have a significant adverse hazard and/or hazardous materials impact if the project would:

- **Impact Criterion #1:** Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
- **Impact Criterion #2:** Create a significant hazard to the public or the environment through reasonably-foreseeable upset and accident conditions involving the release of hazardous materials into the environment.
- **Impact Criterion #3:** Emit hazardous emissions or handle hazardous or acutely-hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
- **Impact Criterion #4:** Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment.
- **Impact Criterion #5:** Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- **Impact Criterion #6:** Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

The project would include some structure modification and removal of soils and debris to make way for site preparation and new building and utilities construction. These actions could result in potential impacts related to hazardous materials. Future completed development could also involve the routine handling and storage of hazardous materials.

### **Project Evaluation**

#### **Impact Criterion #1**

**Hazardous Materials Disposal:** *Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*

Hazardous materials would be used in varying amounts during construction and occupancy of the proposed project. Products and materials typically used during construction that could contain hazardous substances include paints, solvents, cements, glues, and fuels. Exposure of site occupants to hazardous materials could occur in the following manner: improper handling or use of hazardous materials or hazardous wastes during occupancy of the proposed project, particularly by untrained personnel; transportation accident; environmentally unsound disposal methods; or fire, explosion or other emergencies.

Using the Planned Development Zoning District, the project proposes a combination of residential, office, and retail/commercial uses all of which would likely use and store commonly available hazardous materials, and some waste classified as hazardous could also be generated. For example, office and commercial activities could use a variety of products such as cleaning agents, solvents, paints, materials used in printing, pesticides, and chemicals for landscape maintenance. The types and amounts of hazardous materials used within each land use type would be expected to vary, but not significantly, according to the location and nature of the activity. All allowable uses would be subject to code requirements, as necessary, which would ensure compliance with applicable permits and inspections. The use of hazardous materials on-site would also result in their transport along major thoroughfares that provide access to the site, which could include some residential neighborhoods. It is unlikely that the uses proposed would require types and quantities of hazardous materials that would require implementation of the regulations described below. These regulations, however, would ensure that any use allowed under the Planned Development Zoning District would minimize hazardous materials risks.

Hazardous materials regulations, which are codified in Titles 8, 22, and 26 of the CCR, and their enabling legislation set forth in Chapter 6.95 of the California Health and Safety Code, were established at the State-level to ensure compliance with federal regulations to reduce the risk to human health and the environment from the routine use of hazardous substances. These regulations must be implemented by employers/businesses, as appropriate, and are monitored by the State (e.g., Cal/OSHA in the workplace or DTSC for hazardous waste) and/or local jurisdictions (e.g., the Rohnert Park Fire Department and the Sonoma County Environmental Health Division).

By ensuring that future businesses in the project site comply with the regulations, the City would reduce impacts associated with the potential for the accidental release of hazardous materials during occupancy of the proposed project that could result in increased risk of exposure to accidental release of hazardous materials, and the potential for an increased demand for incident emergency response. This would be accomplished by ensuring that regulated activities (e.g., businesses) are managed in accordance with applicable regulations such as Hazardous Materials Release Response Plans and Inventories (Business Plans), the CalARP Program, and the California Uniform Fire Code: Hazardous Material Management Plans and Hazardous Material Inventory Statements.

Compliance with Title 26, Division 6, of the CCR, which would be monitored by the City, would reduce the potential for accidental release during construction or occupancy on the project site. Compliance with this regulation would ensure that businesses and public facilities where hazardous

materials are used or stored adhere to regulations designed to prevent leakage and spills of material in transit and provide detailed information to clean-up crews in the event of an accident.

Workplace regulations addressing the use, storage, and disposal of hazardous materials in Title 8 of the CCR would apply to businesses and public facilities on the project site. Compliance with these regulations would be monitored by the Rohnert Park Fire Department and the Sonoma County Environmental Health Division when they perform inspections for flammable and hazardous materials storage. Other mechanisms in place to enforce the Title 8 regulations include compliance audits and reporting to local and State agencies. Implementation of the workplace regulations would further reduce the potential for hazardous materials releases.

Implementation of Title 49, Parts 171-180, of the Code of Federal Regulations would reduce the potential for accidental release during construction or occupancy of the proposed project or by transporters delivering hazardous materials to the project site or picking up hazardous waste. These regulations establish standards by which hazardous materials would be transported.

Compliance with existing federal, state, and local laws and regulations that are administered and enforced by the Sonoma County Environmental Health Division and Rohnert Park Fire Department would reduce risks associated with the routine use, storage, and transportation of hazardous materials associated with construction and occupancy of the proposed project. Therefore, the proposed project would have a less than significant impact with respect to Impact Criterion #1 regarding the creation of hazards through the routine transport, use, or disposal of hazardous materials.

## **Impact Criterion #2**

***Hazardous Materials Accidents: Would the project create a significant hazard to the public or the environment through reasonably-foreseeable upset and accident conditions involving the release of hazardous materials into the environment?***

### **Impact 3.6-1**

***Project construction activities could disturb any unknown or remaining contaminated areas in the surface and/or subsurface soils and inadvertently expose construction workers or the environment to a health risk. Based on the findings of the Phase I Site Assessments and regulatory file reviews as described in this EIR, this adverse impact is considered potentially significant.***

Project construction in general would involve disturbing soil at various locations throughout the project site. For example, excavation and grading would be necessary to install building foundations, infrastructure such as revamped and/or new water lines, sewer lines, and electrical utilities. Site excavations could occur in contaminated soil areas that were not discovered during prior investigations, either at or below the surface of the site. While Impact 3.6-1 wouldn't necessarily be classified as an accident, the potential for exposing construction workers or the environment to a health risk would remain. The potential exposure routes for hazardous materials are inhalation of airborne particulates,

skin adsorption, and ingestion. During construction, these materials could pose potential health hazards to construction workers and the surrounding community.

If earth-moving activities in contaminated areas were to be undertaken without appropriate safeguards, workers directly engaged in on-site activities would face the greatest potential for exposure. The public could be exposed if access to the site were insufficiently controlled or if contaminated soil were to become airborne. Hazardous materials exposure could cause various short-term and long-term health effects specific to the particular chemicals present (if present in sufficient concentrations and durations). Petroleum hydrocarbons are often associated with dermatitis, and solvents can affect the central nervous system, sometimes acting as depressants or anesthetics. Some contaminants, such as benzene, are carcinogenic.

#### Mitigation Measure 3.6-1

- 3.6-1 Prior to project grading, a Phase II Environmental Site Assessment (ESA) shall be conducted by the project sponsor in areas of known concern identified in the Phase I ESA. These areas are near the chemical storage areas, near the existing diesel UST, near the historic diesel fuel spill site, near the nitrogen above ground storage tank and near the solvent pit tank. This investigation shall involve the collection and analysis of soil and groundwater samples. Sampling shall extend at least to depths proposed for site grading or excavation, and samples shall be tested for elevated levels of petroleum hydrocarbons, volatile organic compounds, or lead. This assessment shall be completed by a Registered Environmental Assessor, Registered Geologist, Professional Engineer, or similarly qualified individual prior to initiating any earth-moving activities at the project site. Soils with concentrations of hazardous substances above regulatory threshold limits shall be disposed of off-site in accordance with California hazardous waste disposal regulations (CCR Title 26) or shall be managed in place with approval of DTSC, Sonoma County of Public Health, or the Regional Water Quality Control Board (RWQCB).

In the event that residual or unknown contamination is visually discovered during site grading or excavation activities, further investigations shall be completed to verify the extent of contaminated soils and if any necessary remediation actions would be required. Because the contaminated materials could pose a potential health hazard to construction workers, if contaminated soil is confirmed, a comprehensive Site Safety and Health Plan would be required to keep occupational exposure within prescribed limits and to prevent the migration of contaminants beyond the site boundaries (a California Division of Occupational Safety and Health Administration requirement for work at hazardous waste sites).

The plan would be prepared by a consultant specializing in the handling of hazardous materials in accordance with regulatory requirements and the Occupational Safety and Health Guidance Manual for Hazardous Waste Site

Activities.<sup>19</sup> It would identify potential hazards, material handling procedures, dust suppression measures, necessary personal protective clothing and devices, and appropriate equipment. In addition to measures that protect on-site workers, the plan would include measures to minimize public exposure to contaminated soil or groundwater. Such measures would include dust control, appropriate site security, restriction of public access, perimeter air monitoring, posting of warning signs, and would apply from the time of surface disruption throughout the completion of earthwork construction.

If elevated levels of hazardous materials are detected, more effective dust control measures would need to be implemented including more frequent watering of excavated materials, or more frequent covering of material that is stockpiled at the point of excavation. If levels of detection at the construction site perimeter do not exceed allowable levels of exposure for workmen at the site, it is unlikely that pedestrians or other members of the general public would be subject to harmful exposures.

The Safety and Health Plan would need to be implemented through the direction of a Site Safety Officer.

The implementation of Mitigation Measure 3.6-1 would reduce Impact 3.6-1 to a less-than-significant level under Impact Criterion #2 regarding the release of hazardous materials into the environment.

### **Impact 3.6-2**

***Structure and building component demolition, modification, and removal could disturb hazardous materials in the existing buildings proposed for adaptive reuse, resulting in increased risk of human or environmental exposure to hazardous materials. This would be a potentially significant impact.***

Project construction would require modification to and adaptive reuse of existing buildings. Building components in older structures could contain hazardous materials, such as asbestos, PCBs, lead, or mercury. As discussed below, such materials could pose health and safety hazards to individuals exposed to them, and if released, they could cause environmental degradation and risk to human health.

Asbestos can be found in fire-proofing, sprayed-on acoustic ceiling materials, thermal insulation, wall and ceiling texture, floor tiles, and other materials in existing buildings and facilities. Asbestos poses health hazards when inhaled; therefore, friable (easily crumbled) asbestos is potentially hazardous. Non-friable asbestos and encapsulated friable asbestos do not pose substantial health risks. Upon building demolition and or remodeling, asbestos fibers (if any are present), could be released to the environment unless proper precautions are taken. Government regulations limit asbestos emissions

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<sup>19</sup> National Institute for Occupational Safety and Health, U.S. Occupational Health and Safety Administration, U.S. Coast Guard, and U.S. Environmental Protection Agency, *Occupational Safety and Health Guidance Manual for Hazardous Waste and Site Activities*, 1985.



from asbestos-related demolition and construction activities, and specify precautions and safe work practices that must be followed to minimize the potential release of asbestos fibers.

Building components containing PCBs, lead, or mercury could also be found in areas to be remodeled or demolished. PCBs were once common components of electrical transformers and fluorescent light ballasts. They are now regulated under the Federal Toxic Substances Control Act. In sufficient concentrations, the metals, lead, and mercury are toxic. They are regulated as hazardous wastes.

Applicable health and safety requirements could minimize the risks of handling asbestos, PCBs, lead, mercury, and other hazardous materials that could be present, unless they fail to be identified adequately prior to demolition. If any unidentified hazardous materials were to remain in existing facilities when demolition or reconstruction occurred, these hazardous materials could create worker health hazards, result in environmental releases of these hazardous materials, or result in inappropriate waste disposal. In this way, a substantial hazard to the public or the environment through the mishandling or disposal of hazardous wastes could occur without mitigation. Appropriate hazardous materials surveys and safety precautions would be needed to avoid the potentially significant impact of possible exposure to hazardous materials in existing facilities and building components to be demolished, remodeled, or modified.

#### Mitigation Measure 3.6-2

3.6-2 Prior to commencing the demolition, removal and/or remodeling or reconstruction of exterior or interior portions of existing buildings on the project site, the project sponsor shall retain a qualified environmental specialist (e.g., a Registered Environmental Assessor) to inspect the buildings. The specialist shall identify any asbestos, polychlorinated biphenyls, mercury, lead, or other hazardous materials present which would then be tested. If found at levels that would require special handling, these materials would need to be managed as required by law and according to federal and state regulations and guidelines, including those of the Bay Area Air Quality Management District, the California Division of Occupational Safety and Health Administration, and the California Department of Toxic Substances Control.

The implementation of Mitigation Measure 3.6-2 would reduce Impact 3.6-2 to a less-than-significant level under Impact Criterion #2 regarding the creation of health risk hazards.

#### **Impact 3.6-3**

***Existing building component demolition, modification, and/or removal involving hazardous materials cleanup in accordance with Mitigation Measure 3.6-2 would reduce potential health threats and prevent individuals on and off-site from encountering these materials in the future. This would be a beneficial impact.***

Project construction would require modification to and adaptive reuse of existing buildings. The removal and disposal of components in older structures containing hazardous materials, such as

asbestos, PCBs, lead, or mercury that could pose health and safety hazards to individuals exposed to them would reduce potential health threats. Proper handling and disposing of contaminated materials as explained under Mitigation Measure 3.6-2 would protect the environment and prevent potential future adverse health or safety effects. No further mitigation respecting this issue would be required.

### **Impact Criterion #3**

**Hazardous Emissions:** *Would the project emit hazardous emissions or handle hazardous or acutely-hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*

The nearest public school to the project site is Monte Vista Elementary School located approximately 0.25-0.5 miles north of the northern edge of the project site. La Fiesta Elementary School is located approximately two-thirds of a mile west of the project site. The closest private school is Cross Crown Lutheran School located approximately 1.1 miles north of the project site. No schools are proposed on or within one-quarter mile of the project site. Accordingly, the project would have a less-than-significant impact under Impact Criterion #3 regarding hazardous emissions or the handling of acutely hazardous materials within one-quarter mile of an existing or proposed school.

### **Impact Criterion #4**

**Hazardous Material Site:** *Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result create a significant hazard to the public or the environment?*

The Hazardous Waste and Substances Sites (Cortese) List is a planning document used by the State, local agencies and developers to comply with CEQA requirements in providing information about the location of hazardous materials release sites. Government Code section 65962.5 requires the California Environmental Protection Agency to develop at least annually an updated Cortese List. The DTSC is responsible for a portion of the information contained in the Cortese List. The project site is not listed on the Cortese List.<sup>20</sup> Therefore, Impact Criterion #4 regarding Government Code Section 65962.5 would not apply to the project site.

### **Impact Criterion #5**

**Emergency Response Plan:** *Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

In accordance with the California Emergency Services Act, State Government Code Sections 8550-8668, the City of Rohnert Park maintains an emergency plan for natural, manmade, or war-caused emergencies as well as earthquakes, fires and floods. In 1995, the City adopted a Standardized Emergency Management Plan which describes the principles and methods to be applied in carrying out emergency operations or rendering mutual aid during emergencies. The DPS has developed the

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<sup>20</sup> Department of Toxic Substances Control, Envirostor search engine <http://www.envirostor.dtsc.ca.gov/public/search.asp>, June 12, 2009.

Standardized Emergency Management System which is consistent with the California Emergencies Services Acts. The system is revised and updated on an annual basis. The City also maintains a hazardous materials response plan which builds upon the Sonoma County Operational Area Hazardous Materials Incident Response Plan.<sup>21</sup>

The Sonoma Mountain Village project would facilitate vehicular and pedestrian access throughout the project site through the development of a system of trails, roads, and alleys. Therefore, the project would not impair implementation of or physically interfere with adopted emergency response or evacuation plans under Impact Criterion #5.

### **Impact Criterion #6**

**Wildland Fires:** Would the project expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

The project site is not listed as a wildland fire risk area or wildlife interface zone by the California Department of Forestry and Fire protection, nor is the site included in a Moderate, High, or Very High Fire Hazard Safety Zone.<sup>22</sup> The southern portion of the site consists of undeveloped grassland mowed on an annual basis to reduce fire hazard. However, one small grass fire did occur on the property around July 4th, 2004. Site personnel indicated that the fire was caused by fireworks.<sup>23</sup> Moreover, the development of the Sonoma Mountain Village project and the surrounding Southeast Specific Plan area and Canon Manor Specific Plan area would reduce any potential wildland fire risk on the project site, since the site and the surrounding area would be urbanized and the grassland area replaced with site development. Although there are undeveloped grasslands adjacent to the east margin of the site and south of the site, they are mowed at least annually and would pose no substantial risk of wildland fires. Therefore, the project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires under Impact Criterion #6.

### **Cumulative Development**

The health and safety hazards posed by most hazardous materials are local in nature, near or at their point of use. The Sonoma Mountain Village project as proposed would be expected to generate the use of common hazardous materials in small quantities associated with residential, office and commercial use. Other projected cumulative development in the project vicinity, including the residential Southeast Specific Plan Area project and residential Canon Manor Specific Plan Area project east and northeast of the project site respectively, would be required to comply with the same regulatory requirements and mitigation measures for hazardous materials as the project. No potential substantial off-site hazardous materials impacts have been identified. Further, the hazardous material impacts of the project can be

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<sup>21</sup> City of Rohnert Park General Plan, 2002. Chapter 7: Health and Safety.

<sup>22</sup> California Department of Forestry and Fire Protection, Fire and Resource Assessment Program, Fire Hazard Severity Zoning Map, Sonoma County, [http://frap.cdf.ca.gov/webdata/maps/sonoma/fhsz\\_map.49.jpg](http://frap.cdf.ca.gov/webdata/maps/sonoma/fhsz_map.49.jpg)

<sup>23</sup> ERM, Phase I Environmental Site Assessment, Agilent Technologies, 5924.00/0020392, August, 2004.

reduced to a level of insignificance as indicated through the implementation Mitigation Measures 3.6-1 through 3.6-3. Project compliance with the mitigation measures as listed herein would ensure that the project's cumulative contribution would be reduced to a less than considerable level, rendering the cumulative hazardous materials impact less than significant.



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## 3.7 HYDROLOGY AND WATER QUALITY

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### Introduction

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This section characterizes the existing local and regional hydrologic conditions for the proposed project. It describes existing drainage facilities, flood hazards, and water quality and groundwater issues.<sup>1</sup> Potential hydrology and water quality impacts were determined by assessing proposed project land use changes on drainage, groundwater conditions, sediment generation, and potential water quality concerns both during and following the construction period and based on the City of Rohnert Park adopted thresholds of impact significance. Regulatory terms used in this analysis such as Maximum Extent Practicable (MEP) and Best Management Practices (BMPs) are capitalized with acronyms noted throughout this section of the EIR. Selected technical data relative to the assessment of hydrologic and water quality impacts are relegated to endnotes for brevity. Additional supplemental data to support the analysis is provided in Appendix E, Water Plan and. Appendix F, Hydrology and Water Quality.

### Setting

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#### Climate

Rohnert Park is situated midway between the City of Santa Rosa and City of Petaluma. The project site is located within the southeast portion of Rohnert Park. The area has a Mediterranean climate, which is characterized by wet winters and dry summers. Mean annual precipitation at Santa Rosa is about 31 inches per year<sup>2</sup> and mean annual precipitation at Petaluma is about 25.9 inches per year<sup>3</sup> with most precipitation occurring from October through April (94 and 90 percent, respectively). General area-wide storms of two or three days in duration produce most of the rainfall.<sup>4</sup> The annual mean temperature at Santa Rosa is about 59.1 degrees F with the lowest monthly mean occurring during December (48.5 degrees F) and highest occurring during August (67.8 degrees F).<sup>5</sup> The annual mean

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<sup>1</sup> Background information used in preparation of this section of the EIR was collected from US Geological Survey topographic maps; reports prepared by the Department of Water Resources, the Natural Resources Conservation Services (formerly the Soil Conservation Service), and the Regional Water Quality Control Boards (RWQCB); *City of Rohnert Park 2005 Urban Water Management Plan*, Adopted August 28, 2007; *City of Rohnert Park Phase II National Pollutant Discharge Elimination System Storm Water Management Plan (2005 [SWMP])*; *Sonoma Mountain Village Water Plan October 2007*; California Department of Water Resources Bulletin 118 (2004), and other references as cited.

<sup>2</sup> Western Regional Climate Data Center. Santa Rosa, California NCDC 1971-2000 Monthly Normals. <http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca7965>.

<sup>3</sup> Western Regional Climate Data Center. Petaluma Fire Station 3, California NCDC 1971-2000 Monthly Normals. <http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca6826>.

<sup>4</sup> Winzler and Kelly. *City of Rohnert Park Revised Phase II NPDES Storm Water Management Plan*. Prepared for the City of Rohnert Park. March, 2005.

<sup>5</sup> Western Regional Climate Data Center. Santa Rosa, California NCDC 1971-2000 Monthly Normals. <http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca7965>.

temperature at Petaluma is about 58.5 degrees F with the lowest monthly mean occurring during December (47.9 degrees F) and highest occurring during August (67.5 degrees F).<sup>6</sup>

## **Regional Drainage**

The City is at the southern end of the Santa Rosa Plain in the California Coast Ranges north of San Francisco Bay. The Santa Rosa Plain drains to the northwest toward the Russian River and then to the Pacific Ocean. A small portion of the City, in the southeastern area, also drains towards the Petaluma River. The majority of the City and the lower reaches of the watershed are on a flat plain with slopes of approximately one percent. However, the upland reaches of the Russian River watershed in the Sonoma Mountains are quite steep, with many slopes in excess of 30 percent.<sup>7</sup>

Most soils in the vicinity of Rohnert Park were eroded by flowing water from upland slopes and deposited as river channel or pond sediments in a structural valley between ridges of bedrock.<sup>8</sup> To the east of the City, the bedrock ridges of the Sonoma Mountains were the source of sediments that formed the Santa Rosa Plain in the Russian River and Petaluma Valley watersheds. The generally fine-grained nature of the soils on the Plain and in the Valley tends to retard percolation to the water table, but the underlying sediments contain sufficient medium- to coarse-grained material to allow limited passage of groundwater.

The Russian River watershed drains an area of 1,485 square miles that includes much of Sonoma and Mendocino counties.<sup>9</sup> The headwaters of the Russian River are located in central Mendocino County, approximately 15 miles north of Ukiah. The Russian River is approximately 110 miles in length, flows generally south and then changes course to flow west to its discharge point at the Pacific Ocean near Jenner, approximately 20 miles west of Santa Rosa.

The largest tributary of the Russian River, the Laguna de Santa Rosa, drains a 254-square-mile watershed which encompasses nearly the entire Santa Rosa Plain and includes all or part of the cities of Windsor, Santa Rosa, Rohnert Park, Cotati, Sebastopol, and the unincorporated community of Forestville.<sup>10</sup> The Laguna de Santa Rosa watershed is defined in the east by the Mayacamas and Sonoma Mountains. Rain on these slopes enters fast-flowing creeks that convey the water to the valley floor. Much of this water and the sediment it carries are captured by a network of flood control channels designed to move water flow quickly through the urban areas and reduce the chance of flooding.

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<sup>6</sup> Winzler and Kelly. City of Rohnert Park Revised Phase II NPDES Storm Water Management Plan. Prepared for the City of Rohnert Park. March, 2005.

<sup>7</sup> *Ibid.*

<sup>8</sup> Brown and Caldwell. 2005 Urban Water Management Plan, prepared for the Sonoma County Water Agency. December 2006.

<sup>9</sup> *Ibid.*

<sup>10</sup> Laguna de Santa Rosa Foundation. [www.lagunadesantarosa.org/about\\_ecology.htm](http://www.lagunadesantarosa.org/about_ecology.htm).

The broad gentle plain on which the City lies is known as the Cotati (Cotate) Valley.<sup>11</sup> This area is one of the Laguna de Santa Rosa watershed's flattest regions with a regional average slope of 0.8 percent. Only about 10 percent of the area has a slope greater than 3 percent.<sup>12</sup> About 60 percent of this region is developed with an average impervious surface coverage of about 41 percent.<sup>13</sup> The other 40 percent of the Cotate region has not been built on or paved.

The floodplain and adjacent uplands contain many distinctive natural features, including braided channels, pools, springs, seasonal and perennial wetlands, and riparian and oak woodland. The Laguna de Santa Rosa watershed comprises approximately ten percent of the entire Russian River drainage area; and when the river floods, the Laguna can act as a significant natural reservoir, storing up to 80,000 acre-feet of water.<sup>14</sup>

The Petaluma River watershed is located in southern Sonoma County and a portion of northeastern Marin County and encompasses about 146 square miles.<sup>15</sup> The watershed is approximately 19 miles long and 13 miles wide with the City of Petaluma near its center. The headwaters and ephemeral tributaries of Petaluma River begin on the steep southwest slopes of Sonoma Mountain, the southern slopes of Mecham Hill, and the eastern slopes of Weigand's Hill and Mt. Burdell. The Petaluma River itself flows through the City of Petaluma. Tidal influence extends upstream to the north end of Petaluma. Lower reaches of the River flow through the Petaluma Marsh, the largest remaining salt marsh in San Pablo Bay. The marsh covers 5,000 acres and is surrounded by approximately 7,000 acres of reclaimed wetlands.

## **Project Site**

The 175 acre project site lies over the approximate watershed divide between the Russian River and Petaluma River watersheds. The project site is not located within a Federal Emergency Management Agency defined Flood Hazard Area subject to inundation during the 100-year flood event.<sup>16</sup> However, locations further down stream on the Laguna de Santa Rosa and Lichau Creek are within 100-year Flood Hazard Areas.

Soils at the project site are entirely Clear Lake Clays, 0-2 percent slope. These soils have a low permeability (0.06 to 0.2 inches per hour) and they are classified as Hydrologic Group D (low infiltration and high runoff potential). Because of the flat topography and clayey soils, erosion hazard is

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<sup>11</sup> Horton, J., and A. W. Sears. Enhancing and Protecting the Laguna de Santa Rosa: A Plan for Restoring and Managing the Laguna de Santa Rosa Watershed, Sonoma County, CA. Prepared for the Laguna de Santa Rosa Foundation. 2006.

<sup>12</sup> *Ibid.* Impervious surface average by PBSJ, August, 2007 based on Horton and Sears information.

<sup>13</sup> *Ibid.*

<sup>14</sup> Laguna de Santa Rosa Foundation. [www.lagunadesantarosa.org/about\\_ecology.htm](http://www.lagunadesantarosa.org/about_ecology.htm).

<sup>15</sup> Southern Sonoma County Resource Conservation District. Petaluma River Watershed. 2004. [www.sscrtd.org/area/petaluma.html](http://www.sscrtd.org/area/petaluma.html).

<sup>16</sup> Federal Emergency Management Agency (FEMA), National Flood Insurance Program (NFIP), Flood Insurance Rate Map, Sonoma County, California, Community-Panel 2 of 2, Number 060380 0002 B. Effective date June 1, 1981.



considered slight. The high clay content makes these soils highly expansive; during the dry season, large cracks can form<sup>17</sup> and once the soil becomes wet, these cracks will close, although they still provide an avenue for the transport of water and dissolved substances.

**Northern Portion of the Project Site:** The northern two-thirds of the site drains into the headwaters of the Laguna de Santa Rosa, tributary to the Russian River. Water flows north to northwest within the Laguna de Santa Rosa to its confluence with the Russian River about 14 miles downstream. The majority of urbanized areas within Sonoma County are within the Laguna de Santa Rosa watershed. As a result of urbanization, stormwater runoff into the Laguna de Santa Rosa wetlands complex has increased significantly compared to prehistoric times.<sup>18</sup>

The 99-acre northern portion of the project site planned for development is currently partially developed and runoff is routed by a system of storm drains to the City's storm drainage system. About 46 percent of the area is impervious surfaces (roof tops and parking lots) and 54 percent pervious surface.<sup>19</sup> The project site topography drops slightly towards the west with a slope of about 0.5 percent.<sup>20</sup>

Although the project site is not located within a flood hazard area, some downstream reaches of the Laguna de Santa Rosa are subject to the 100-year flood. For the most part, the Laguna de Santa Rosa's main channel contains the 100-year flood through the City, although shallow floodwater (as deep as 1 foot) does spread into low lying areas along some reaches.

**Southern Portion of the Project Site:** The southern portion of the site drains to Lichau Creek, Petaluma River, and the Petaluma Marsh. Lichau Creek is currently the focus of many ongoing bank stabilization and riparian restoration efforts.<sup>21</sup> This stream is already constrained by increases in flood flows from many sources.<sup>22</sup> Federal Emergency Management Agency Federal Insurance Rate Maps indicate flooding all along Lichau Creek from the Northwestern Pacific Railroad crossing downstream to its confluence with Willow Brook during the 100-year storm event. No detailed studies are available to show the extent of flooding further upstream.

The 51 acre southern portion of the project site planned for development is largely undeveloped and includes less than 1 percent impervious area.<sup>23</sup> The project site topography drops slightly towards the west with a slope of about 0.5 percent.<sup>24</sup> The east side of the project site is bounded by a large north-

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<sup>17</sup> Balance Hydrologics, Carienzoli and Associates, and BKF Engineering. Sonoma Mountain Village Water Plan. Prepared for Coddling Enterprises. October 10, 2007.

<sup>18</sup> *Ibid.*

<sup>19</sup> *Ibid.*

<sup>20</sup> BKF Engineers. Conceptual Grading Plan. November 10, 2006.

<sup>21</sup> Sonoma County Water Agency. Lichau Creek Channel Maintenance and Revegetation. Completed 2000. <http://calconservationcommons.net/sfbacc-data-catalogs/testing/early-adopters/north-bay-watershed-association-projects/licchau-creek-channel-maintenance-and-revegetation> accessed August 10, 2007.

<sup>22</sup> *Ibid.*

<sup>23</sup> *Ibid.*

<sup>24</sup> BKF Engineers. Conceptual Grading Plan. November 10, 2006.

south trending earthen berm as a result of constructing the Agilent Technologies campus complex. During large storm events, some flow may enter the site from the east through a gap in the berm along the east-central border of the project site.<sup>25</sup> A ditch runs along the western side of the project site and the flow exits the ditch through a culvert in the southwest corner of the project site (underneath the Northwestern Pacific Railroad tracks).

## **Groundwater**

Groundwater elevations in the Santa Rosa Plain Subbasin, were mapped by Wagner et al., in 1982 showing two elevation contour maps for a shallow zone and one for an intermediate/deeper zone.<sup>26</sup> The maps show that the flow of groundwater in both zones is northwest toward the Laguna de Santa Rosa, but that the flow in the Cotati Valley is divided between a Santa Rosa Plain (northwest) component and a Petaluma Valley Groundwater Basin (southeast) component. The divide between the two groundwater basins cannot be mapped precisely with existing data, but is known to pass through just south of Rohnert Park and Cotati.<sup>27</sup>

## **Shallow Soils and Groundwater<sup>28</sup>**

Project site soils are entirely Clear Lake Clays, 0 to 2 percent slope and the project site would be classified as a low recharge area because the saturated soil infiltration rate is less than 1.5 cm/hr.<sup>29</sup> The unconsolidated alluvial deposits provide limited recharge of surface water percolating to the water table. Clay layers in the subsurface form caps above the water table that slow the percolation of rainwater, causing prolonged ponding. None of the important direct recharge zones along the major rivers in the Santa Rosa Plain Subbasin include the project site. However, because of the high variability in underlying geology, caused by depositional events and meandering drainages, there could be isolated pockets of coarser textured subsurface material that could provide for groundwater recharge potential (refer to Appendix E and Appendix F for further information regarding soils and groundwater conditions in the project area).

## **Applicable Plans and Policies**

This section briefly outlines major applicable federal, state, and local regulations and policies pertaining to the proposed project. See Appendix E and Appendix F of this EIR for a more detailed description of drainage and water quality regulations that would pertain to the proposed project.

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<sup>25</sup> Balance Hydrologics, Carienzoli and Associates, and BKF Engineering. Sonoma Mountain Village Water Plan. Prepared for Coddling Enterprises. August 5, 2009.

<sup>26</sup> City of Rohnert Park. 2005 Urban Water Master Plan, August 28, 2007.

<sup>27</sup> *Ibid.*

<sup>28</sup> Balance Hydrologics, Carienzoli and Associates, and BKF Engineering. Sonoma Mountain Village Water Plan. Prepared for Coddling Enterprises. August 5, 2009.

<sup>29</sup> USDA NRCS. Soil Survey Area CA097, Sonoma County, CeA (Clear Lake Clay 0 to 2 percent Slopes) RUSLE2 Properties, Saturated Hydraulic Conductivity. Soil Data Mart. <http://soildatamart.nrcs.usda.gov/Report.aspx?Survey=CA097&UseState=CA>. Accessed August 12, 2007.

## Federal

*Clean Water Act (CWA):* The CWA was enacted with the primary purpose of restoring and maintaining the chemical, physical, and biological integrity of the Nation's waters. The CWA directs states to establish water quality standards for all "waters of the United States" and to review and update such standards on a triennial basis. Other provisions of the CWA relate to basin planning including Section 208, which authorizes the preparation of waste treatment management plans, and Section 319, which mandates specific actions for the control of pollution from non-point sources. The U.S. Environmental Protection Agency has delegated responsibility for implementation of portions of the CWA, including water quality control planning and control programs, such as the National Pollutant Discharge Elimination System (NPDES) Program, to the State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Board (RWQCB).

The NPDES permit system was established in the CWA to regulate point source discharges (a municipal or industrial discharge at a specific location or pipe). Non-point pollution sources are diffuse and originate over a wide area rather than from a definable point. As defined in the federal regulations, non-point sources are generally exempt from federal NPDES permit program requirements. Urban stormwater runoff and construction site runoff, however, are diffuse-sources regulated under the NPDES permit program because they are conveyed to surface waters via pipelines or other discrete conveyance structures.

Each NPDES permit contains limits on allowable concentrations and mass emissions of pollutants contained in the discharge. Sections 401 and 402 of the CWA contain general requirements regarding NPDES permits. Section 307 of the CWA describes the factors that the U.S. Environmental Protection Agency (USEPA) must consider in setting effluent limits for priority pollutants.

The goal of the NPDES non-point source regulations is to improve the quality of stormwater discharged to receiving waters to the "maximum extent practicable" through the use of Best Management Practices (BMPs). To meet the goals of the NPDES permit, each local stormwater program and each permittee within a program establishes a Stormwater Management Plan (SWMP). These SWMPs provide specific local requirements targeted to meet the environmental needs of each watershed, as well as to reflect the political consensus of each community.

*Floodplain Development:* The Federal Emergency Management Agency (FEMA) is responsible for determining flood elevations and floodplain boundaries based on U.S. Army Corps of Engineers studies. FEMA is also responsible for distributing the Flood Insurance Rate Maps (FIRMs), which are used in the National Flood Insurance Program. These maps identify the locations of special flood hazard areas, including the 100-year floodplain.

## State

*Porter-Cologne Water Quality Control Act:* The Porter-Cologne Water Quality Control Act establishes the SWRCB and each RWQCB as the principal state agencies for coordinating and controlling water quality in California. Specifically, the Porter-Cologne Water Quality Control Act authorizes the

SWRCB to adopt, review, and revises policies for all waters of the state (including both surface and groundwater) and directs the RWQCBs to develop regional Basin Plans.

The San Francisco Bay RWQCB and the North Coast RWQCB have the authority to implement water quality protection standards through the issuance of permits for discharges to waters at locations within its jurisdiction. Water quality objectives for the San Francisco Bay and its tributaries are specified in The San Francisco Bay Basin Water Quality Control Plan Basin and North Coast Region Water Quality Control Plan prepared by the RWQCBs in compliance with the federal CWA and the State Porter-Cologne Water Quality Control Act.

The Porter-Cologne Act provides that “All discharges of waste into the waters of the State are privileges, not rights.” Furthermore, all dischargers are subject to regulation under the Porter-Cologne Act including both point and nonpoint source dischargers. In obligating the SWRCB and RWQCBs to address all discharges of waste that can affect water quality, including nonpoint sources, the legislature provided the SWRCB and RWQCBs with administrative permitting authority in the form of administrative tools (waste discharge requirements [WDRs], waivers of WDRs, and basin plan prohibitions) to address ongoing and proposed waste discharges. Hence, all current and proposed NPS discharges must be regulated under WDRs, waivers of WDRs, or a basin plan prohibition, or some combination of these administrative tools.

*Basin Plans:* Responsibility for the protection of water quality in California rests with the State Water Resources Control Board (SWRCB) and nine Regional Water Quality Control Boards (RWQCBs). The SWRCB establishes statewide policies and regulations for the implementation of water quality control programs mandated by federal and state water quality statutes and regulations. The RWQCBs develop and implement Water Quality Control Plans (Basin Plans) that consider regional beneficial uses, water quality characteristics, and water quality problems.

*NPDES Phase II General Municipal Stormwater Permit:* The federal Storm Water Phase II Final Rule (Phase II Rule) is the follow-up to the Phase I Rule and requires operators of separate storm sewer systems (MS4s) to obtain a NPDES permit by March 2003. The Phase II Rule includes cities with populations between 10,000 and 100,000. As part of Phase II, the State Water Resources Control Board adopted a General Permit for the Discharge of Storm Water from Small MS4s (WQ Order No. 2003-0005-DWQ) to provide permit coverage for smaller municipalities, including non-traditional Small MS4s, which are governmental facilities such as military bases, public campuses, and prison and hospital complexes.

Permittees must implement Best Management Practices (BMPs) that reduce pollutants in storm water runoff to the technology-based standard of Maximum Extent Practicable (MEP) to protect water quality. The MS4 permit also requires the discharger to develop and implement a Storm Water Management Plan/Program with the goal of reducing the discharge of pollutants to the MEP standard.

*NPDES General Construction Activity Stormwater Permit:* The SWRCB permits all regulated construction activities under Order No. 98-08-DWQ (1999). This Order requires that, prior to beginning construction activities, the permit applicant must obtain coverage under the General

Construction Permit by preparing and submitting a Notice of Intent and appropriate fee to the SWRCB. Additionally, coverage would not occur until an adequate Stormwater Pollution Prevention Plan (SWPPP) has been prepared.

Construction activities subject to the NPDES Construction General Permit includes clearing, grading, and disturbances to the ground, such as stockpiling or excavation, that result in soil disturbances of at least one acre of total land area. Because construction of the project would cumulatively disturb more than one acre, all improvements and development activities would be subject to these permit requirements.

The SWPPP has two major objectives: (1) to help identify the sources of sediment and other pollutants that affect the quality of stormwater discharges, and (2) to describe and ensure the implementation of BMPs to reduce or eliminate sediment and other pollutants in stormwater as well as non-stormwater discharges. The SWPPP includes a description of (1) the site, (2) erosion and sediment controls, (3) means of waste disposal, (4) implementation of approved local plans, (5) control of post-construction sediment and erosion control measures and maintenance responsibilities, and (6) non-stormwater management controls. The SWPPP must include BMPs that address source control, and, if necessary, must also include BMPs that address specific pollutant control. Dischargers are also required to inspect their construction sites before and after storms to identify stormwater discharge associated with construction activity and to identify and implement controls where necessary.

## Regional

*Sonoma County Water Agency (SCWA):* The SCWA is responsible for the maintenance of major streams and flood control facilities throughout the Santa Rosa Plain. In Rohnert Park, storm drainage is under joint management of the City and the SCWA. The City maintains responsibility for the system of underground pipes that provide for minor and intermediate drainage, while the SCWA maintains the system of open channels that diverts major drainage flows west towards the Laguna de Santa Rosa. Open channels and pipe systems in the City are designed to meet SCWA standards and comply with the National Flood Hazard Insurance Program. The SCWA reviews drainage plans and general designs of specific land development proposals for their hydraulic adequacy. Comprehensive stormwater management programs have been undertaken by the SCWA to remove the flood hazard designation applied by FEMA from most areas in the affected watersheds.

The SCWA reviews project plans for proposed on-site drainage systems, as well as for all new or upgraded facilities that may be required off-site in the City of Rohnert Park. The SCWA reviews projects for conformance with the Agency's Flood Control Design Criteria, and recommends site-specific improvements be in compliance with those criteria. Culverts and drainage systems must be designed to accommodate the runoff from a 25-year storm. In addition, all structures must be protected from flooding expected to occur during a 100-year storm.

*TMDLs – RWQCB:* Section 303(d) of the CWA bridges the approach between technology-based and water quality-based strategies for managing water quality. Section 303(d) requires that the states make

a list of waters that are not attaining standards after the technology-based limits are put into place. For waters on this list the states are to develop total maximum daily loads (TMDLs).

Temperature and dissolved oxygen TMDLs for the Laguna de Santa Rosa were developed in 2008. Diazinon TMDLs are currently being addressed for the Petaluma River. TMDLs for the other constituents listed as contributing to impairment of these water bodies are scheduled for completion by 2019.

The Laguna de Santa Rosa currently has a TMDL and implementation plan for sediment and nitrogen. Phosphorous, dissolved oxygen, temperature, and mercury TMDLs are in progress. Sediment, temperature, and pathogens TMDLs for the Russian River and its tributaries have not yet started.

## Local

*City of Rohnert Park General Plan:*<sup>30</sup> The City of Rohnert Park General Plan goals and policies related to hydrology, water quality, and water supply are documented in Section 3.10, Planning Policy and Relationship to Plans, of this EIR.

*City of Rohnert Park Municipal Code:*<sup>31</sup> Chapter 13.64 of the *Municipal Code*, Storm Water Discharge, is intended to ensure the health, safety, and general welfare of the residents of the City of Rohnert Park, and protect and enhance the water quality of watercourses and water bodies in a manner pursuant to and consistent with the Federal Clean Water Act (33 U.S.C. § 1251 et seq.), and NPDES Phase II stormwater regulations for small municipal separate storm sewer systems, by reducing pollutants in stormwater discharges to the maximum extent practicable and by prohibiting non-storm water discharges to the storm drain system. (Ord. 714 §1 (part), 2004). The Ordinance deals with prohibiting illegal discharges, states requirements for reducing pollutants in stormwater, monitoring of discharges, inspections, sampling, erosion and sediment control, design standards for erosion control plans, and other factors pertaining to maintaining hydrologic and water quality standards.

## Impacts and Mitigation Measures

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### Standards of Significance

Based on the City of Rohnert Park thresholds of impact significance, a project would normally have a significant adverse hydrology and/or water quality impact if the project would:

- **Impact Criterion #1:** Violate any water quality standards or waste discharge requirements.
- **Impact Criterion #2:** Substantially deplete groundwater supplies or interfere substantially with groundwater recharge so that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level.

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<sup>30</sup> City of Rohnert Park. City of Rohnert Park General Plan 4<sup>th</sup> Edition. June 2002. <http://www.rpccity.org/content/view/full/613/149/> Accessed June 15, 2009.

<sup>31</sup> City of Rohnert Park. City of Rohnert Park Municipal Code current through Ordinance 786 passed April 24, 2007. LexisNexis, <http://municipalcodes.lexisnexis.com/codes/rohnert>.

- **Impact Criterion #3:** 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.
- **Impact Criterion #4:** Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site.
- **Impact Criterion #5:** Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems.
- **Impact Criterion #6:** Introduce typical stormwater pollutants<sup>32</sup> into ground or surface water.
- **Impact Criterion #7:** Substantially increase the amount of impervious surface coverage.
- **Impact Criterion #8:** Result in discharge, directly through a storm drain system into surface waters.
- **Impact Criterion #9:** Alter groundwater or surface water quality, temperature, dissolved oxygen, or turbidity.
- **Impact Criterion #10:** Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map;
- **Impact Criterion #11:** Place within a 100-year flood hazard area structures which would impede or redirect flood flows;

Adverse impacts in any of these categories would be considered unavoidable significant effects of the project, if they could not be (a) reduced to an acceptable level of risk, (b) eliminated, or (c) avoided by using existing techniques generally recognized by hydraulic/hydrologic specialists in the Bay Area to be applicable and feasible.

## Methods of Analysis

**Project Site Annual Runoff:** Changes in project site annual runoff as a result of development were estimated using the Simple Method. Under the Simple Method, annual runoff is calculated by using mean annual precipitation, the runoff coefficient (fraction of precipitation that would run off the surface during a rain event with higher numbers resulting in more runoff), and fraction of rainfall that would contribute to runoff (a small storm event would likely be entirely infiltrated - this value is conservative evaluated to be 0.9 in order to ensure sufficient mitigation). The mean annual rainfall used was 28.5 inches, the average of values at the Petaluma and Santa Rosa climate stations listed in the Setting

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<sup>32</sup> “Typical stormwater pollutants” include, but are not limited to: paints, varnishes, and solvents; hydrocarbons and metals from vehicle use or business operations; non-hazardous solid wastes and yard wastes; sediment from construction activities (including silts, clays, slurries, concrete rinsates, etc.); ongoing sedimentation due to changes in land cover/land use; nutrients, pesticides, herbicides, and fertilizers (e.g., from landscape maintenance); hazardous substance and wastes; sewage, fecal coliforms, animal wastes, and pathogens; dissolved and particulate metals; other sediments and floatables; metals and acidity from mining operations.

section. Runoff coefficients were calculated based on information from studies conducted in 2009 by Balance Hydrologics<sup>33</sup> and Caltrans methodology,<sup>34</sup> calculations are detailed in Appendix F.

In lieu of detailed information regarding impervious coverage and catchment areas for the southern portion of the project site, the analysis assumed 50 percent lower density residential and open space use, 34 percent residential/mixed use, 29 percent institutional use, and no high density land uses. Based on the Final Development Plan Rendering (Figure 2-3) and Proposed Zoning/Regulating Plan (Figure 2-5), the southern portion of the site would appear to have a lower development density than the northern portion, providing some justification for this assumption.

The analysis also assumed that the same amount of area currently draining into each watershed (Laguna de Santa Rosa or Lichau Creek) would continue to drain in the same general direction. Table 3.7-1 lists the existing and proposed project estimated annual runoff characteristics.

Land Use	Runoff Coefficient	Mean Annual Runoff	
		Inches	Acre-Feet
<b>Existing Conditions</b>			
North Portion	0.79	20.3	210
Southern Portion	0.63	16.2	69
Overall	0.75	19.2	280
<b>Proposed Project</b>			
North Portion	0.84	21.5	222
Southern Portion	0.75	19.2	82
Overall	0.81	20.8	303

*Source: PBS&J, 2008.*

The small difference between existing and proposed project runoff characteristics is because of the already highly developed nature of the northern portion of the site (46 percent impervious area) and the high runoff coefficient measured for existing conditions surfaces (0.66 and 0.63 for the north and south areas, respectively). Development of the project site would also include landscaping and lawns as part of the residential, open space, and mixed use areas that may serve to reduce the runoff from pervious areas and result in an overall lower runoff coefficient compared to the existing bare surfaces.

**Project Site Peak Flow Rates:** Worst-case changes in project site peak runoff were estimated using the rational method (See Appendix F for calculations). Runoff coefficients used were the same as those

<sup>33</sup> Balance Hydrologics, Carienzoli and Associates, and BKF Engineering. Sonoma Mountain Village Water Plan. Prepared for Coddling Enterprises. August 5, 2009.

<sup>34</sup> California Department of Transportation. Attachment D Computation Sheet for Determining Runoff Coefficients.



listed in Table 3.7-1. The average of the Santa Rosa and Petaluma one-hour rainfall intensities were used in the analysis. One-hour intensities were used because no 10- or 15- minute intensities were available, which would provide more likely worst-case conditions and reflect catchment runoff to a storm drain system more appropriately.

**Water Quality:** Pollutant and sediment transport was evaluated using the Simple Method and typical stormwater concentrations of pollutants from similar land uses. No water quality BMPs were included in the analysis in order to represent the likely worst-case effect of the proposed project on pollutant loads. Analysis details are described in Appendix F.

Two scenarios were run to determine the potential effect of the proposed project on pollutant loads if there are no water quantity controls (Scenario 1) and if there are water quantity controls and stormwater runoff quantity is reduced to existing conditions levels (Scenario 2).

The effect of changing land use on pollutant loading was estimated by using available stormwater pollutant data the National Stormwater Quality Database v. 1.1.<sup>35</sup> The National Stormwater Quality Database is a national database with stormwater data from the National Urban Runoff Program at locations around the US. The land use summary is a summary of all sites across the US in each land use category. Because pollutant concentrations in stormwater for land uses similar to the proposed project is not available for Sonoma County, the national database values were used to approximate potential changes in pollutant loads. Values are not available for all possible pollutants of concern; however, Table 3.7-2 lists several typical pollutants and their median concentrations in stormwater runoff from various land uses. Project site existing pollutant loads were estimated using the pollutant concentrations in stormwater runoff from the “open space” and “commercial” land use categories and proposed project conditions were estimated using the “residential,” “mixed residential,” “commercial,” and “open space” land use categories.

## **Project Evaluation**

The following discussion for Impact Criteria 1 through 11 evaluates each of the City’s thresholds of significance to substantiate this conclusion based on hydrologic conditions as documented in the Setting and Sonoma Mountain Village Water Plan.

### **Impact Criterion #1**

**Water Quality Standards:** *Would the project violate any water quality standards or waste discharge requirements?*

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<sup>35</sup> Pitt, R., and A. Maestre and the Center for Watershed Protection. The National Stormwater Quality Database, Version 1.1: A Compilation and Analysis of NPDES Stormwater Monitoring Information. Prepared for the US EPA Office of Water. Sept 4, 2005.

**Table 3.7-2  
Pollutant Concentrations in Stormwater Runoff**

Pollutant	Units	Open Space	Residential	Mixed	
				Residential	Commercial
Conductivity <sup>a</sup>	uS/cm	113	96	112	119
Hardness <sup>b</sup>	mg/L as CaCO <sub>3</sub>	150	32	39.7	38.9
Oil and Grease	mg/L	1.3	3.1	4.4	4.7
Total Dissolved Solids	mg/L	125	70.7	86	74
Total Suspended Solids	mg/L	48.5	48	68	42
Fecal coliforms	mpn/100 mL	7200	7750	11000	4300
Ammonia	mg/L	0.18	0.31	0.39	0.6
Total Nitrogen	mg/L	1.33	2	1.95	1.97
Dissolved Phosphorous	mg/L	0.13	0.17	0.12	0.14
Total Phosphorous	mg/L	0.31	0.3	0.27	0.26
Total Arsenic	ug/L	4	3	3	2
Total Cadmium	ug/L	0.38	0.50	0.8	0.89
Total Chromium	ug/L	5.4	4.5	7	6
Total Copper	ug/L	10	12	17	17
Total Lead	ug/L	10	12	18	18
Total Zinc	ug/L	40	33	99.5	150

Source: NSQD v. 1.1 2004.

Notes:

<sup>a</sup>Conductivity is defined as the ability of an aqueous solution to carry an electric current due to the presence of increased ions generated by inorganic compounds.

<sup>b</sup>Water hardness is the total concentration of cations, specifically calcium (Ca<sup>2+</sup>), magnesium (Mg<sup>2+</sup>), iron (Fe<sup>2+</sup>) and manganese (Mn<sup>2+</sup>) in water.

The proposed project would not be a point source discharger subject to an individual NPDES permit or Waste Discharge Requirements (WDRs). Wastewater generated by the project would be treated by the Subregional System and the additional flows would not be expected to result in a violation of the system's waste discharge requirements. The applicable WDRs for the project include the NPDES Construction General Permit and the NPDES Phase 2 General Permit. If construction dewatering is required or the filling of wetlands, then individual WDRs would also be applicable for construction activities. The applicable water quality standards are listed in the North Coast Basin Plan and San Francisco Basin Plan.

Based on a comparison of the proposed project development components with the physical conditions and regulatory environment outlined in the Setting portion of this section of the EIR, implementation of the proposed project would have a less-than-significant potential to violate existing water quality standards or waste discharge requirements under Impact Criterion #1. Each hydrologic-related aspect

of the project would be covered by regional or local regulations or policies that monitor and limit potential project effects on runoff volume and rate, erosion, flooding, groundwater recharge, and surface/groundwater quality linked to chemical contaminants or sedimentation.

## **Impact Criterion #2**

**Groundwater:** *Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level?*

**Construction Phase:** Studies at the project site by Balance Hydrologics indicate that during the rainy season the surface one to two feet of soil can be saturated because of an impeding layer less than 3.6 feet below ground surface. Infiltrating water that ends up perched on top of the impermeable layer and low soil infiltration at deeper depths can result in ponding conditions in opened trenches and pits. Consequently, it may be necessary to dewater open trenches and foundation pits, if construction occurs during the rainy season. This would result in a temporary lowering of the perched water table above the local shallow groundwater table but would not affect the local shallow groundwater table because of the impeding layers. There is little connectivity between the two.

**Operation Phase:** Implementation of the proposed project would result in greater amounts of impervious surfaces that could impede natural groundwater recharge by rainfall percolation as noted previously. However, the proposed project would also use infiltration galleries and basins, where feasible, to minimize stormwater runoff. This would partially offset any potential reduction in groundwater recharge caused by the creation of more impervious surfaces.

Most of the city's potable water supply wells draw from the Intermediate aquifer, with a few drawing from the Deep and Lower aquifers. These aquifers receive almost no recharge from the Shallow aquifer because the intervening clay and sandy clay deposits prevent substantial downward percolation. Furthermore, the project site is not located within an area identified as a potential groundwater recharge area.<sup>36</sup>

Studies by Balance Hydrologics have also indicated little recharge currently occurs within the project site. Soils have a low infiltration capacity, except during initial rainfall events after the dry season where large cracks can infiltrate and store water. Furthermore, piezometer (monitoring well) and soil moisture probe measurements indicate an impeding layer between 1.7 and 3.6 feet depth in the southern portion of the project site. Saturated soils in the upper 1.7 feet resulted in runoff and water levels within the shallow piezometer (monitoring well), but there was no percolation to the lower piezometer at 3.6 feet below ground surface during the entire study season (January 22 to May 31, 2007).

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<sup>36</sup> Luhdorff and Scalmanni Consulting Engineers. Figure 3-29. Recharge Potential Defined for WSA. City of Rohnert Park Water Supply Assessment. 2008.

More impervious surface would also alter the site drainage such that stream bed and bank recharge might be altered, although any effect on the Laguna de Santa Rosa recharge potential is considered to be minimal since it is not considered to be in a high recharge potential area.<sup>37</sup> The recharge potential of Lichau Creek is unknown; however, project alterations in stormwater flow are not likely to substantially affect groundwater recharge in Lichau Creek. Current mean annual flow to Lichau Creek is about 69 acre-feet. Project implementation, without runoff water controls, would increase flow to about 82 acre-feet. If Lichau Creek has groundwater recharge potential, this would increase potential groundwater recharge. Therefore, increasing impervious surface is not likely to substantially or adversely alter groundwater recharge in the area, and the proposed project would not result in a net deficit in aquifer volume or a lowering of the local groundwater table level under Impact Criterion #2 (see also the discussions below under Impact Criteria #6 and #9).

### **Impact Criterion #3**

**Erosion/Siltation:** *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 that would result in substantial erosion or siltation on or off site?*

#### **Impact 3.7-1**

*Project implementation would result in site grading, drainage improvements, and development, thus increasing runoff potential that could contribute to erosion or siltation on or off site. This would be a potentially significant impact.*

**Construction Phase:** The proposed project would include construction activities, such as excavation and trenching for foundations and utilities, soil compaction, cut and fill activities, and grading, all of which would temporarily disturb soils. Disturbed soils are susceptible to high rates of erosion from wind and rain, resulting in sediment transport. Erosion and sedimentation affects water quality through interference with photosynthesis, oxygen exchange, and the respiration, growth, and reproduction of aquatic species. Additionally, other pollutants, such as nutrients, trace metals, and hydrocarbons, can attach to sediment and be transported downstream, which could contribute to the degradation of water quality.

The existing NCRWQCB Sediment TMDL Implementation Policy requires sediment pollution control be incorporated into existing permitting and enforcement tools. A grading and erosion control ordinance was developed and adopted to codify the requirement for grading, erosion control plans, and follow-up inspections. Codified sanctions for violations were also included in the ordinance. As part of the City of Rohnert Park Revised Stormwater Management Plan (SWMP), the existing inspections will be expanded, as necessary, to include a comprehensive look at stormwater protection measures that may or may not be directly related to erosion control. The City Engineering Division currently requires erosion and sediment control plans for all construction sites on which there will be grading regardless of the size of the site. The City's Engineering Inspector inspects every construction site for compliance

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<sup>37</sup> *Ibid.*

with the site's erosion control plan. This procedure of review and inspection occurs simultaneously with the SCWA drainage and hydrology reviews conducted of construction sites. Furthermore, the project sponsor would have to prepare and implement a SWPPP that includes erosion and sediment controls.

The SWRCB permits all regulated construction activities under the Construction General Permit. The proposed project would disturb more than one acre of land surface and would be required to comply with the Construction General Permit. As required by the Construction General Permit, the project sponsor is required to file a Notice of Intent with the State of California to comply with the requirements of the National Pollution Discharge Elimination System General Construction Permit. This would include the preparation of a SWPPP incorporating BMPs for construction-related control of erosion and sedimentation contained in stormwater runoff, as well as for control of other pollutants that might enter the storm drain system. The SWPPP may include, but would not necessarily be limited to, implementing the following applicable erosion and sediment control measures:

- Construction scheduling, such as phasing and rainy season avoidance, to minimize erosion and sediment.
- Perimeter protection, such as straw wattles or silt fences.
- Check dam installation to prevent gulley erosion and/or slow water down to allow sediment to settle out.
- Gravel bag berm/barrier installation to prevent runoff or run-on of surface water flows.
- Street sweeping and vacuuming to remove vehicle- tracked soil and sediment.
- Storm drain inlet protection such as filter bags and perimeter enhancement.
- Construction stabilization of entrances and exits, construction roads, and tire washing to prevent vehicle tracking of sediment and debris on roadways.
- Wind erosion control BMPs such as soil stabilizers, wetting down of dry sediment, or covering exposed surfaces.
- Covering exposed surfaces as soon as possible (e.g., hydroseeding, hydraulic mulch, soil binders, and others).
- Installing runoff velocity dissipation devices.
- Water conservation practices BMPs.

The implementation of SWPPP BMPs would provide runoff controls to prevent substantial off-site erosion and sediment transport and the potential for construction site runoff rates to cause or contribute to substantial downstream erosion within either Lichau Creek or the Laguna de Santa Rosa.

**Operation Phase:** Implementation of the proposed project would be subject to existing regulations for erosion and sediment controls and implementation of BMPs to the Maximum Extent Practicable. The SWPPP, required for construction, must also include descriptions of the BMPs to reduce pollutants in

stormwater discharges after all construction phases have been completed at the site (Post-Construction BMPs). Post-Construction BMPs include the minimization of land disturbance, the minimization of impervious surfaces, treatment of stormwater runoff using infiltration, detention/retention, biofilter BMPs, use of efficient irrigation systems, ensuring that interior drains are not connected to a storm sewer system, and appropriately designed and constructed energy dissipation devices. These must be consistent with all local post-construction storm water management requirements, policies, and guidelines. Operation and maintenance of control practices after construction is completed is also required to be addressed in the SWPPP, including short-and long-term funding sources and the responsible party. The City required Erosion and Sediment Control Plan would also reduce the potential for on-site erosion and off-site sediment transport.

Nevertheless, the increase in impervious surfaces created by the proposed project could result in greater rates and amount of stormwater runoff leaving the project site. This could lead to streambed and bank erosion and siltation in the Laguna de Santa Rosa or Lichau Creek as higher flows contribute to bed and bank scouring. Higher flows have a greater energy for both detaching and transporting sediment and particles.

Table 3.7-3a and Table 3.7-3b list the estimated peak runoff rates from the project site. This estimate is for a worst-case situation; there is no detention BMPs included in the estimate in order to ensure the evaluation of the worst-case scenario. The return frequency is the probability of a rainfall event of that size occurring. A 1.5 -year storm event has a 65percent chance of occurring and a 10-year storm event has a 10 percent chance of occurring.

Return Frequency	Condition		Difference cfs
	Existing cfs	Proposed Project cfs	
10-yr	160	179	19

Source: PBSJ, 2008.

Note: cfs = cubic feet per second

Return Frequency	Condition		Difference cfs
	Existing cfs	Proposed Project cfs	
10-yr	55	65	10

Source: PBSJ, 2008.

Note: cfs = cubic feet per second

These estimates indicate that implementation of the proposed project could increase the rate of runoff by over 11 percent from the northern portion and by over 18 percent from the southern portion.

Additionally, all runoff from the project site would be routed through storm drains and channels to the receiving waters, whereas current conditions have at least one-third of the project site runoff as overland sheet flow. Reconfiguration of the existing drainage system and conveyance of runoff from overland flow through pipe and channel systems could also alter the timing of the peak flow rate reaching and flowing through the receiving waters.

The effect of these increases in flow rate would vary, depending upon the stability and conveyance capacity of these drainages. The Laguna de Santa Rosa is already sediment/siltation impaired and the Petaluma River is also sediment/siltation impaired. Lichau Creek is likely sediment and siltation impaired and has been subject to streambank stabilization and revegetation efforts.<sup>38</sup> These systems may be subject to hydromodification by the proposed project; changes in the stream bed and bank habitat, stability, and stream corridor functions as a result of an altered hydrologic regime.

The project sponsor has proposed mitigation to prevent hydromodification through stormwater controls (swales, detention pond, narrow streets, infiltration galleries/cisterns, and others) and has stated a commitment to maintain or reduce the rate of runoff to Lichau Creek and the Laguna de Santa Rosa. However, details have not been identified and a hydrology and drainage study has not been completed to assure that these intentions are met. Therefore, in order to prevent alterations in project site flow from causing or contributing to stream bed and bank erosion, in addition to the regulatory requirements noted above the following Mitigation Measure shall be implemented:

#### Mitigation Measure 3.7-1

- 3.7-1 Prior to issuance of a grading permit, a Final Drainage Master Plan for all on- and off-site drainage facilities (including water quality facilities - BMPs) shall be prepared by the project sponsor and submitted to the City of Rohnert Park's Department of Public Works and the Community Development Department for review and approval. The Final Drainage Plan shall be prepared by a Registered Civil Engineer and shall be in conformance with the City of Rohnert Park Storm Drain Design Standards, Municipal Code 16.16.020 C. Storm Drains and General Plan goals and policies in Section 7.2 Drainage, Erosion, Stormwater, and Flooding and Section 6.3 Water Quality. The Final Drainage Plan shall include a comparative analysis of stormwater runoff peak flow rate and volume from the site for flow events important to stream geomorphology conditions and flood flow conveyance. The Final Drainage plan shall be prepared in accordance with the SCWA and SUSUMP Design Standards and shall include design measures and BMPs that demonstrate that peak flows from under project buildout conditions would not result in a net increase over pre-development conditions in either a 2 year or 10 year storm event. The Final Drainage Plan shall include at a minimum, written text addressing existing conditions, the effects of project improvements, all

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<sup>38</sup> Sonoma County Water Agency. Lichau Creek Channel Maintenance and Revegetation. Completed 2000. <http://calconservationcommons.net/sfbacc-data-catalogs/testing/early-adopters/north-bay-watershed-association-projects/lichau-creek-channel-maintenance-and-revegetation>, accessed August 10, 2007.

appropriate calculations, a watershed map, potential increases in downstream flows and volumes, proposed on-site and off-site improvements, on-site water quality facilities, effectiveness of water quality BMPs, operation and maintenance responsibilities, inspection schedules, reporting requirements and shall include specifics regarding the timing of implementation. Grading permits shall be issued following City approval of the proposed Final Drainage Plan.

The Drainage Plan shall be coordinated in its development with the Water Quality Management Plan to maximize the efficiency of BMPs for both stormwater detention and water quality treatment.

The implementation of Mitigation Measure 3.7-1 would assure that there is no substantial change in the project site runoff to receiving waters and that on-site drainage and conveyance would be adequate to accommodate project flows. Therefore, with mitigation fully implemented as noted, potential on- or off-site erosion and siltation potential associated with the proposed project would be less than significant under Impact Criterion #3.

#### **Impact Criterion #4**

**Surface Runoff:** *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, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?*

**Construction Phase:** Project runoff during construction would not be expected to be greater than under existing conditions; grading would not greatly alter topography and clearing, grubbing, and excavations would not substantially increase the runoff properties of the clayey soils. Implementation of SWPPP BMPs as noted previously would provide runoff controls to prevent substantial off-site run-off and the potential for construction site runoff rates to cause or substantially contribute to downstream erosion within either Lichau Creek or the Laguna de Santa Rosa.

**Operation Phase:** As noted above under the discussion of Impact Criteria #1, #2 and #3, implementation of the proposed project would increase the amount of impervious surfaces and provide for efficient runoff conveyance in a storm drain system that could result in a higher rate and amount of stormwater runoff leaving the project site. Downstream portions of both the Laguna de Santa Rosa and Lichau Creek are currently subject to flooding during the 100-year storm event. Additional runoff from the project site could have a contributory effect on downstream flooding in these already stressed systems. In addition to regulatory agency controls, the implementation of Mitigation Measure 3.7-1 would reduce stormwater runoff rates to existing levels thereby avoiding project conditions which would result in flooding on- or off-site under Impact Criterion #4.

#### **Impact Criterion #5**

**Storm Drain System Capacity:** *Would the project create or contribute runoff that would exceed the capacity of existing or planned stormwater drainage systems?*



New on-site drainage facilities would need to be constructed to serve all project-generated drainage needs. Specific drainage facilities (swales, rain gardens, and other facilities) have not yet been designed but the design of these facilities must comply with the City of Rohnert Park Storm Drain Design Standards. Although project site runoff under 1.5 year and 10 year storm event conditions would increase with implementation of the proposed project, implementation of Mitigation Measure 3.7-1, in addition to the regulatory agency requirements and controls noted above, would assure that the project sponsor implement a properly designed on-site storm drainage system that results in off-site runoff that is not substantially different than existing conditions and existing or planned stormwater drainage systems would not be exceeded under Impact Criterion #5.

### **Impact Criterion #6**

**Stormwater Pollutants:** *Would the project introduce typical stormwater pollutants into ground or surface waters?*

### **Impact 3.7-2**

*Project implementation would alter land uses and increase the amount of typical stormwater pollutants into surface water and potentially groundwater. This would be a potentially significant impact.*

Urban development creates new pollution sources as human population density increases and brings with it proportionately higher levels of car emissions, car maintenance wastes, municipal sewage, pesticides, household hazardous wastes, pet wastes, trash, and others, which can be washed into the municipal separate storm sewer system. Furthermore, as rainwater flows over areas altered by development, it picks up small particles of soil, chemicals such as oil and grease, pesticides, fertilizers, metals, and fecal matter, and enters creeks and other water conveyances. Once discharged, these materials can impair aquatic habitat and ultimately adversely affect the quality of receiving waters.

**Construction Phase:** The delivery, handling, and storage of construction materials and wastes, as well as the use of construction equipment, could introduce a risk for stormwater contamination that could impact water quality. Spills or leaks from heavy equipment and machinery can result in oil and grease contamination, and some hydrocarbon compound pollution associated with oil and grease can be toxic to aquatic organisms at low concentrations. Demolition of building components and the removal of waste material during construction could also result in the tracking of dust and debris and release of contaminants in existing structures. Staging areas or building sites can also be the source of pollution due to the use of paints, solvents, cleaning agents, and metals during construction. Pesticide use (including herbicides, fungicides) associated with site preparation work (as opposed to pesticide use for landscaping) is another potential source of stormwater contamination.

The proposed project would, however, be subject to the existing NPDES Phase 2 General Permit and any applicable TMDLs that have been developed. No numeric limits on pollutants in stormwater discharge to the receiving water bodies have been established for any of the receiving waters. Rather, in lieu of effluent limitations, the proposed project would be required to implement Best Management

Practices for controlling pollutants in stormwater. The project would also disturb more than one acre of land surface and would therefore be required to obtain coverage under the NPDES Construction General Permit, which includes development of a SWPPP (See the discussion under Impact Criterion #3 and Mitigation Measure 3.7-1).

The State Regional Water Quality Control Board permits all regulated construction activities under the Construction General Permit. The proposed project would disturb more than one acre of land surface and would therefore be required to comply with the Construction General Permit as noted previously. This would include the preparation of a SWPPP incorporating BMPs for construction-related control pollutants in stormwater runoff.

The SWPPP would include, but would not necessarily be limited to erosion and sediment control BMPs; vehicle and equipment operation BMPs (vehicle and equipment cleaning/maintenance, potable water/irrigation controls); use of equipment staging areas to localize and establish BMPs for the control of pollutants associated with equipment re-fueling, operation, and maintenance; waste management and material pollution BMPs for the control of pollutants associated with the storage of construction materials and construction activities, among other provisions.

The development of a construction SWPPP has been identified by the SWRCB as protective of water quality during construction activities. Incorporation of the required BMPs for materials and waste storage and handling, as well as equipment and vehicle maintenance and fueling, would reduce potential discharge of stormwater pollutants from these sources.

If construction dewatering is required, the discharger or project sponsor, must file a Report of Waste Discharge (RoWD) with the RWQCB. The RWQCB determines if there would be a threat to water quality based on the RoWD and may require a WDR for the discharge. Required conditions for the Waste Discharge Requirements (WDR) are included to assure that any discharge does not contribute to degradation of water quality and violation of water quality standards. If the RWQCB determines that there is no threat to water quality standards associated with this discharge, they may waive the WDR.

These existing regulatory requirements are considered protective of water quality standards. Construction inspections by the City of Rohnert Park would also assure that all permit conditions are being met. Therefore, the potential for discharges of polluted stormwater from construction to affect beneficial uses of receiving waters would not be substantial. Implementation of existing regulatory requirements would assure that the potential contribution of pollutants to ground or surface waters under Impact Criterion #6 during construction would be less than significant.

**Operation Phase:** Operation of the proposed project would result in a significant change in land use and the potential for increased site runoff. During the operational phase of the proposed project, the major source of pollution in stormwater runoff would be contaminants that have accumulated on rooftops and other impervious surfaces, such as parking lots and pedestrian walkways, prior to being washed off and into the storm drain system.

The proposed project would likely result in a slight increase in runoff (23 acre-feet per year, Table 3.7-1) and change in the associated pollutants in stormwater runoff (Table 3.7-2). The proposed project would not increase stormwater runoff to as great an extent as possibly expected by the higher amount of development and impervious surfaces because the existing northern portion of the project site is already developed with commercial uses and the pervious surfaces within the project site have a high stormwater runoff rate because of their low infiltration properties. Table 3.7-4a and Table 3.7-4b list the change in estimated mean annual pollutant load following implementation of the proposed project for the northern portion and southern portion of the project site, respectively. Estimated effects on pollutant load were evaluated separately for each portion because each portion drains to a different watershed. Scenario 1 is implementation of the proposed project without stormwater quantity controls and Scenario 2 is implementation of the proposed project with stormwater quantity controls such that the operational mean annual runoff equals the existing conditions runoff.

Implementation of the proposed project could result in an increase in the estimated pollutant load with a few exceptions: hardness, total dissolved solids, and arsenic. In general, development of the proposed project could increase annual pollutant loads to both the Laguna de Santa Rosa (Northern Portion) and Lichau Creek (Southern Portion). This increase would be primarily because of the differences in pollutant concentrations in stormwater runoff from different land uses. Scenario 2 factors out the effect of greater stormwater runoff and assumes that detention BMPs are implemented such that the proposed project runoff is the same as existing conditions; and still, there is a higher estimated annual pollutant load from the operational project site compared to existing conditions as a result of the different land use characteristics.

Increasing pollutant loads may cause or contribute to the violation of water quality standards, in particular, those pollutants that are already listed as causing or contributing to impairment (primarily, nutrients, sediment, temperature, and dissolved oxygen). Table 3.7-5a and Table 3.7-5b provide an evaluation of the potential significance of greater estimated annual load for the pollutants assessed, as well as the required load reduction necessary to reduce potential impacts to the less-than-significant level. The level of significance was considered potentially significant to significant for any increase in the estimated mean annual load for pollutants listed as causing or contributing to impairment of the receiving water (303(d) list); for increases between 0 to 10 percent the significance level was “potentially significant” and for increases from 10 percent and up, the significance level was “significant.”

**Table 3.7-4a**  
**Estimated Annual Pollutant Load: Northern Portion (Laguna)**

Pollutant	Existing North (lbs)	Scenario 1		Scenario 2	
		Proposed Project North (lbs)	Difference (lbs)	Proposed Project North (lbs)	Difference (lbs)
Hardness	50647	29315	-21332	27959	-20941
Oil and Grease	1809	2489	680	2328	533
Total Dissolved Solids	55268	49588	-5680	46943	-6869
Total Suspended Solids	25618	31611	5993	29990	4937

Ammonia	235	276	41.3	256	23.8
Total Nitrogen	960	1134	174	1065	121
Dissolved Phosphorous	77.3	79.1	1.79	74.3	-1.43
Total Phosphorous	161	161.2	0.071	152	-5.41
Total Arsenic	1.65	1.566	-0.087	1.49	-0.116
Total Cadmium	0.377	0.468	0.091	0.438	0.065
Total Chromium	3.27	3.72	0.457	3.71	0.305
Total Copper	7.90	9.58	1.67	8.98	1.20
Total Lead	8.22	10.08	1.87	9.46	1.36
Total Zinc	57.4	67.8	10.4	62.9	5.97

**Billions of colonies**

Fecal coliforms	14562	20008	5445	19136	4956
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Source: PBSJ, 2007.

**Table 3.7-4b  
Estimated Annual Pollutant Load: Southern Portion (Lichau)**

Pollutant	Existing South (lbs)	Scenario 1		Scenario 2	
		Proposed Project South (lbs)	Difference (lbs)	Proposed Project South (lbs)	Difference (lbs)
Hardness	27851	14693	-13157	14552	-13299
Oil and Grease	241	755	514	739	498
Total Dissolved Solids	23209	20744	-2465	20440	-2769
Total Suspended Solids	9005	13196	4191	12959	3954
Ammonia	33.4	73	39.1	71	37.7
Total Nitrogen	247	406	159	399	152
Dissolved Phosphorous	24.1	29.9	5.76	29.5	5.33
Total Phosphorous	57.6	64.3	6.71	63.3	5.74
Total Arsenic	0.743	0.728	-0.015	0.717	-0.026
Total Cadmium	0.071	0.142	0.072	0.139	0.069
Total Chromium	1.00	1.36	0.361	1.34	0.336
Total Copper	1.86	3.19	1.34	3.13	1.28
Total Lead	1.86	3.32	1.46	3.25	1.39
Total Zinc	7.43	16.0	8.58	15.6	8.21

**Billions of colonies**

Fecal coliforms	6093	9539	3447	9367	3274
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Source: PBSJ, 2007.

**Table 3.7-5a  
Impact Significant for Proposed Project: Northern Portion (Laguna)**

Pollutant	Scenario 1		Scenario 2	
	Impact Significance <sup>a</sup>	Required Load Reduction for LTS <sup>b</sup> percent	Impact Significance <sup>a</sup>	Required Load Reduction for LTS <sup>b</sup> percent
Hardness	NI	0	NI	0
Oil and Grease	PS	20	PS	15
Total Dissolved Solids	NI	0	NI	0
Total Suspended Solids <sup>c</sup>	S	19	S	16
Fecal coliforms	PS	20	PS	19
Ammonia <sup>c</sup>	S	15	S	9
Total Nitrogen <sup>c</sup>	S	15	S	11
Dissolved Phosphorous <sup>c</sup>	PS	2	NI	0
Total Phosphorous <sup>c</sup>	NI	0	NI	0
Total Arsenic	PS	0	PS	0
Total Cadmium	PS	12	PS	7
Total Chromium	PS	4	PS	0
Total Copper	PS	9	PS	5
Total Lead	PS	10	PS	6
Total Zinc	PS	7	PS	1

Source: PBSJ, 2007.

Notes:

- Where: NI = no impact, no increase or decrease in pollutant load; PS = potentially significant impact; S = significant impact.
- Percent pollutant load reduction to reach the less-than-significant level of impacts; increase of less than 10 percent for pollutants not identified as contributing to water body impairment and increase of 0 percent for those pollutants identified as contributing to impairment.
- Pollutants identified as contributing to impairment of the Petaluma River; total suspended solids would contribute to sediment/siltation.

**Table 3.7-5b  
Impact Significant for Proposed Project: Southern Portion (Lichau)**

Pollutant	Scenario 1		Scenario 2	
	Impact Significance <sup>a</sup>	Required Load Reduction for LTS <sup>b</sup> percent	Impact Significance <sup>a</sup>	Required Load Reduction for LTS <sup>b</sup> percent
Hardness	NI	0	NI	0
Oil and Grease	PS	65	PS	64
Total Dissolved Solids	NI	0	NI	0
Total Suspended Solids <sup>c</sup>	S	32	S	31
Fecal coliforms <sup>c</sup>	S	36	S	35
Ammonia <sup>c</sup>	S	54	S	53
Total Nitrogen <sup>c</sup>	S	39	S	38
Dissolved Phosphorous <sup>c</sup>	S	19	S	18
Total Phosphorous <sup>c</sup>	S	10	S	9
Total Arsenic	NI	0	NI	0
Total Cadmium	PS	46	PS	44
Total Chromium	PS	19	PS	18
Total Copper	PS	36	PS	35
Total Lead	PS	38	PS	37
Total Zinc	PS	49	PS	48

Source: PBSJ, 2007.

Notes:

- Where: NI = no impact, no increase or decrease in pollutant load; PS = potentially significant impact; S = significant impact.
- Percent pollutant load reduction to reach the less-than-significant level of impacts; increase of less than 10 percent for pollutants not identified as contributing to water body impairment and increase of 0 percent for those pollutants identified as contributing to impairment.
- Pollutants identified as contributing to impairment of the Petaluma River; total suspended solids would contribute to sediment/siltation.

For all other pollutants, any increase less than 10 percent was considered less than significant, and all other increases were considered potentially significant.

The proposed project could substantially increase pollutant loads if no water quality BMPs would be implemented. No WDRs with numeric effluent limitations are applicable to the operational phase of the proposed project. The only applicable operational WDR would be the NPDES Phase II General Permit, which only requires technology-based standards to the Maximum Extent Practicable (MEP). Acceptable structural and non-structural BMPs are listed in the California Stormwater Quality Association (CASQA) Stormwater BMP Handbook for New Development and Redevelopment.

The project sponsors intend to incorporate stormwater quality BMPs to reduce potential pollutants to the MEP. These include BMPs to treat 80 percent of the mean annual runoff from the project site. Some BMPs considered for use are:

- Minimization of directly connected impervious area;
- Use of pervious paving options and underdrained substrate;
- Biofiltration swales and rain gardens, wherever practical;
- Infiltration galleries and cisterns to store and percolate runoff. These would be located in areas such as under outdoor recreational fields and parks, and in other commons areas where ponding would be undesirable;
- Construction of a channel corridor in the greenway along the railroad right-of-way with overbank storage for flood flows and encouragement of groundwater recharge;
- Detention/retention/infiltration basins in both the northern and southern areas;
- Chemical application management;
- Homeowner education;
- Pool and spa preferred treatment and draining methods and chemicals;
- Restrictions on car washing; and
- Pet waste stations.

In order to maximize their potable water supply efficiency, the project sponsor also intends to explore the storage and use of stormwater runoff for non-potable water uses. If stormwater runoff is substantially reduced by these practices, pollutant loads to receiving waters would also be substantially lowered. As also noted previously, under Impact Criterion #3 regarding drainage alteration and erosion, both in increasing or reducing flow in a stream system can affect stream bed and bank habitat conditions and stream corridor functions. Too much flow can lead to erosion, siltation, altered channel configurations, and loss of habitat. Too little flow can reduce wetland functions, riparian habitat, aquatic habitat, and stream corridor functions.

BMPs details have not been incorporated into the project description, conceptual plan, or site design. The project sponsors contend that they are committed to maximizing BMPs to the MEP and have selected several potential BMPs and BMP locations; however, until BMPs have been formally selected, located, and sized, it is unknown whether or not the intended BMPs would be feasible and effective at reducing potential pollutant loads to less-than-significant level.

Furthermore, even though the NPDES Phase 2 General Permit requires implementation of a SWMP that requires stormwater quality BMPs to the MEP, various BMPs have different treatment efficiencies for different pollutants; incorporation of approved BMP types may still not reduce pollutant loads to existing conditions levels if less efficient devices are selected for the pollutants of concern or for the site characteristics. Therefore, in order to assure that appropriate BMPs are incorporated in the

proposed project to reduce potential pollutant loads to existing conditions levels from the project site, the following Mitigation Measures shall be implemented:

Mitigation Measure 3.7-2

3.7-2(a) *Water Quality Management Plan with Targeted Pollutant Removal Rates.* The project sponsor shall prepare and implement a site-specific Water Quality Management Plan (WQMP) with Best Management Practices (BMPs) targeted to reduce post-construction pollutant loads by the values listed in Table 3.7-4a and Table 3.7-4b, Scenario 1 or Scenario 2, depending upon the final drainage and storage designs.

This WQMP shall identify specific stormwater BMPs for reducing potential pollutants in stormwater runoff. Each BMPs or suite of BMPs shall be selected to target removal rates equal to at least the “Required Load Reduction for LTS” values in Table 3.7-5a and Table 3.7-5b Scenario 1 (no water quantity controls), or Scenario 2 (water quantity controls), depending upon the final drainage and storage designs. BMP location, size, design and operation criteria, and pollutant removal rates expected shall be referenced, documented, and incorporated into the WQMP. The WQMP must be approved by a qualified engineer or stormwater management professional of the Rohnert Park Public Works Department prior to the beginning of grading and/or construction activities.

The WQMP shall include the following BMPs along with selected BMPs to target pollutant removal rates:

- Waste and materials storage and management (design and construction of outdoor materials storage areas and trash and waste storage areas, if any, to reduce pollutant introduction).
- Spill prevention and control.
- Slope protection.
- Water efficient irrigation practices (Municipal Code 14.52 Water Efficient Landscape; water efficient guidelines and Conceptual Landscape Plan).
- Permanent erosion and sediment controls (e.g., hydroseeding, mulching, surface covers).
- Routine source control BMPs and activity restrictions to prevent the introduction of pollutants to stormwater runoff. These shall include street sweeping practices, landscape management practices, other operations and maintenance practices, tenant/owner use restrictions, and others. Conditions, Covenants, and Restrictions (CCRs) or lease restrictions shall be defined and implemented as part of deed restrictions or lease agreements. The project sponsor shall prepare the CCRs and lease



restrictions and shall be responsible for tenant/home owner education and enforcement of restrictions until such responsibilities are formally transferred to a Property Owners Association (POA) or similar authority.

The project sponsor is encouraged to consider the following BMPs:

- Minimize directly connected impervious area, including: pervious concrete or other pervious pavement for parking areas (e.g., turf block), pervious pavement for paths and sidewalks, and direction of rooftop runoff to pervious areas.
- Incorporation of rain gardens or cisterns to reuse runoff for landscape irrigation.
- Wet vaults for subsequent landscape irrigation.
- Sand filters for parking lots and rooftop runoff.
- Frequent and routine street and parking lot sweeping.
- Media filter devices for roof top drain spouts (including proprietary devices).
- Biofiltration devices (bioretention features, swales, filter strips, and others).
- Drain inlet filters.
- Pet waste stations.

Unless sufficient objective studies and review are available and supplied with the WQMP to correctly size devices and to document expected pollutant removal rates the WQMP shall not include:

- Hydrodynamic separator type devices as a BMP for removing any pollutant except trash and gross particulates.
- Oil and Grit separators.

The WQMP shall not include infiltration BMPs unless they comply with design guidelines and requirements specified in TC-1: Infiltration Basins in the California Stormwater Quality Association Stormwater Quality BMPs Handbook for New Development and Significant Redevelopment (2003) and shall meet NPDES Phase 2 General Permit Attachment D minimum requirements including adequate maintenance, and that the vertical distance from the base of any infiltration device to the seasonal high groundwater mark shall be at least 10 feet. Furthermore, prior to infiltration, stormwater should be pre-treated through a system such as a biofilter to minimize potential groundwater pollution.

The WQMP shall also identify the responsible party for operations and maintenance of structural BMPs and implementation of non-structural BMPs and compliance with any management or monitoring plans. The responsible party, project sponsor, or POA shall prepare an annual report to the City of Rohnert Park documenting the BMP operations and maintenance activities, implementation of routine source control BMPs, and compliance with any management and monitoring plans. The City of Rohnert Park or their designee shall review the annual reports for compliance with the WQMP and implement enforcement actions as necessary.

During the design review process, a qualified stormwater management professional shall review and approve site plans for assuring the effectiveness of stormwater quality BMPs in removing pollutants according to the target pollutant removal rate guidelines noted in Table 3.7-4a and Table 3.7-4b. BMPs will be installed and maintained as stipulated in the City of Rohnert Park SWMP and NPDES Phase 2 General Permit.

- 3.7-2(b) *Chemical Application Management Plan.* The project sponsor shall prepare and implement a site-specific Chemical Application Management Plan for both public and private properties to control pesticide and nutrient applications within the proposed project area, including identification of the responsible party for ensuring implementation of the Chemical Application Management Plan, and its incorporation into the WQMP. The Chemical Application Management Plan shall provide guidelines and rates for chemical controls and applications within the Sonoma Mountain Village project area. The emphasis on the Chemical Application Management Plan shall be to minimize use through the correct application and use of chemicals less likely to migrate to the aquatic environment.

Synthetic, quick-release fertilizer use shall be restricted through homeowners' associations and leasing agreements. Compost and naturally-derived fertilizers shall be encouraged and slow-release synthetic fertilizers shall be allowed, but their use shall not be encouraged.

Pesticide use shall be restricted and label requirements followed. Diazinon use shall not be allowed. The Chemical Application Management Plan shall include homeowner education and guidance to prevent misuse and overuse of pesticides and chemicals.

All public area and homeowner association landscape maintenance personnel shall be properly trained in the Chemical Application Management Plan and shall have an appropriate applicator license for restricted-use chemicals that might be applied.

Pool and spa treatment methods, chemicals, and drainage restrictions, based on preferred treatment and procedures that minimize environmental degradation shall be incorporated into homeowner association and leasing agreements.

Informational guidance and restrictions associated with the Chemical Application Management Plan shall be supplied to homeowners and tenants.

Implementation of existing regulations along with Mitigation Measure 3.7-2(a) and Mitigation Measure 3.7-2(b) would reduce potential pollutant loads into ground or surface water to existing conditions levels or lower, and return altered flows to existing conditions. Therefore, post-construction impacts would be less than significant under Impact Criterion #6 regarding the introduction of stormwater pollutants into ground or surface waters.

### **Impact Criterion #7**

***Impervious Surface Coverage: Would the project substantially increase the amount of impervious surface coverage?***

As discussed under Impact Criterion #2, the effects of increased impervious area on groundwater recharge would be less than significant. However, the discussions under Impact Criteria #2, #4, #5 and #6 also address the effects of increased impervious surfaces on erosion, flooding, storm drainage systems, and stormwater pollution. The implementation of Mitigation Measure 3.7-1, Mitigation Measure 3.7-2(a), and Mitigation Measure 3.7-2(b) would reduce potential project runoff and pollutant transport to existing conditions levels. Therefore, the project would have a less-than-significant impact with mitigation incorporated under Impact Criterion #7 regarding an increase in the amount of impervious surface coverage.

### **Impact Criterion #8**

***Surface Water Discharge: Would the project result in discharge, directly or through a storm drain system into surface waters?***

Potential project effects on erosion, siltation, flooding, and stormwater pollution resulting from discharge into surface water are discussed under Impact Criteria #1 through #7. The implementation of Mitigation Measure 3.7-1, Mitigation Measure 3.7-2(a), and Mitigation Measure 3.7-2(b) would reduce project runoff and pollutant transport to existing conditions levels. Therefore, the project would have a less-than-significant impact with mitigation incorporated under Impact Criterion #8 regarding discharging into surface waters.

### **Impact Criterion #9**

***Water Quality: Would the project alter groundwater or surface water quality, temperature, dissolved oxygen, or turbidity?***

### **Impact 3.7-3**

***Implementation and operation of the proposed project could adversely alter surface water quality, temperature, dissolved oxygen, and turbidity. This would be a potentially significant impact.***

Potential project effects on erosion, siltation, flood, and stormwater pollution are discussed under Impact Criterion #2 through #6. The implementation of Mitigation Measure 3.7-1, Mitigation Measure 3.7-2(a), and Mitigation Measure 3.7-2(b) would result in project runoff and pollutant transport being reduced to existing conditions levels. Therefore the project's potential effects on dissolved oxygen (via nutrient loading controls), turbidity, and other water quality components would be less than significant as noted previously.

However, pavement and building surfaces tend to warm up faster than bare or vegetated soils, which can result in higher water temperatures in urban runoff compared to undeveloped conditions. Furthermore, water storage in basins or other facilities could also lead to higher water temperatures as the standing water heats up. This standing water may then be flushed out during a rain event and contribute to higher stream water temperatures. Stored water could also be used for irrigation and other non-potable water uses that might end up in dry season runoff. Therefore, the proposed project could have a potentially substantial effect on water temperature. Water conservation and mitigation measures can be implemented to minimize the potential effects on water temperature.

#### Mitigation Measure 3.7-3

3.7-3 *Water Temperature Management Measures.* Water temperature mitigation for the proposed project shall be implemented using one or more of the following management measures:

- Stormwater runoff storage may be located in below-ground storage devices where feasible to minimize potential heating during storage
- Surface water storage area for stormwater may be shaded by trees (preferred) or artificial shading.
- Water conservation shall be practiced to limit the amount of stored water or “nuisance” (uncontrolled) runoff water from entering the storm drain systems. Homeowner Association and leasing agreements shall include restrictions on water use activities that cause or contribute to nuisance flows.
- Discharge water temperature monitoring shall be periodically conducted in accordance with a Temperature Monitoring Plan prepared by the project sponsor in consultation with the City of Rohnert Park and the RWQCB. Temperature Monitoring Plan shall be approved by the City of Rohnert Park prior to issuance of a Certificate of Occupancy. Results of the Temperature Monitoring Plan shall be reported annually to the City of Rohnert Park and RWQCB. If project site discharges are determined to have the potential to substantially affect in-stream water temperatures, by either the City of Rohnert Park or the RWQCB, the project sponsor shall consult with the RWQCB, SCWA, and City of Rohnert Park to develop a riparian restoration plan to restore riparian vegetation and trees along a

portion or portions of the affected stream. Riparian vegetation would serve to provide shade and mitigate potential increases in water temperature. The City- and RWQCB-approved Temperature Monitoring Plan shall be incorporated into the WQMP.

The final determination of the appropriate water temperature management implementation measure will be made by the project sponsor and approved by City staff prior to submittal of final grading plans. The implementation of existing regulations and Mitigation Measure 3.7-1, Mitigation Measure 3.7-2(a), Mitigation Measure 3.7-2(b), and Mitigation Measure 3.7-3 would reduce potential project impacts under Impact Criterion #9 regarding groundwater or surface water quality, temperature, dissolved oxygen, and turbidity to less-than-significant levels.

### **Impact Criterion #10**

***100-year Flood Hazard: Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?***

The project site is not located within a flood hazard area as mapped on a FEMA Flood Insurance Rate Map or other flood hazard delineation map. Therefore, there would be no impact under Impact Criterion #10 regarding placement of housing within a 100-year flood hazard area.

### **Impact Criterion #11**

***100-year Flood Hazard: Would the project place within a 100-year flood hazard area structures that would impede or redirect flood flows? (Impact Criteria #11)***

The project site is not located within a flood hazard area as mapped on a FEMA Flood Insurance Rate Map or other flood hazard delineation map. Therefore, there would be no impact under Impact Criterion #11 regarding placement of structures within a 100-year flood hazard area capable of impeding or redirecting flood flows.

### **Cumulative Development**

The context for the analysis of cumulative hydrology and water quality impacts is the upper Laguna de Santa Rosa and Lichau Creek watersheds and cumulative growth therein.

Full build out in the two watersheds could result in more flooding potential, water quality impairment, and reduced recharge potential. Existing regulations would reduce potential impacts, but impacts on flooding and water quality could still be potentially considerable without mitigation. However, as indicated in this section of the EIR, compliance with existing regulations and Mitigation Measure 3.7-1, Mitigation Measure 3.7-2(a), Mitigation Measure 3.7-2(b), and Mitigation Measure 3.7-3 would ensure the project's impacts would be less than significant regarding water quality, flooding potential,

and recharge potential. Therefore, the proposed project would not contribute to cumulatively considerable impacts under Impact Criteria #1 through #9.



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## 3.8 LAND USE AND PLANNING

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### Introduction

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This section of the EIR discusses existing land uses that occur around and within the project site, and evaluates the potential for land use impacts in accordance with City of Rohnert Park adopted thresholds of impact significance. The potential for the disruption of existing land uses and land use incompatibilities as a result of project development are examined. It is recognized that long-term disturbances that would diminish the quality of a particular land use or community characteristic would be considered potentially significant. The expansion of development adjacent to existing land uses could create land use incompatibilities through changes in appearances, air quality, increased noise and increased traffic as documented in other technical sections of this EIR (refer to Section 3.1, Aesthetics, 3.2, Air Quality, 3.9, Noise and 3.13, Traffic and Circulation, for additional information).

### Setting

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#### City of Rohnert Park

The Rohnert Park City limits encompass an area of about 6.9 square miles (4,400 acres). Residential land use is the predominant land use in Rohnert Park, occupying about 53 percent of the City's land area.<sup>1</sup> The remaining land area is in industrial (13 percent), parks (13 percent), commercial (9 percent), public (6 percent), or office use (1 percent). Much of the land within the existing City limits is built out, with about 190 acres (5 percent) remaining as vacant land. Most housing units are single-family detached units with an average citywide housing density of about eight units per net acre. Existing neighborhoods have a wide range of densities and a variety of housing types, including multifamily dwellings and apartments. Commercial, retail, and industrial development is typically auto-oriented, and is clustered around the U.S. 101 interchanges at Rohnert Park Expressway and Wilfred Avenue.

To the southwest, Rohnert Park shares its boundaries with the City of Cotati. To the north, Santa Rosa's Urban Growth Boundary (UGB) comes within 1,000 feet of the Rohnert Park City limits. Undeveloped parcels, agricultural and rural residential land uses surround the City at other locations. East of Rohnert Park, outside the City limits, land is devoted to rural residential uses, grazing or non-intensive agricultural purposes (such as the cultivation of truck crops, hay production or horse boarding), or fallow land. East of Petaluma Hill Road near the base of the Sonoma Mountains, for example, there is a mix of agricultural and semi-rural residential land uses.

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<sup>1</sup> *Rohnert Park General Plan, Revised Draft Environmental Impact Report*, May, 2000, Land Use Chapter, p. 4-2.



## Sonoma Mountain Village Site and Surrounding Area

The current City limits follow Bodway Parkway along the east margin of the Sonoma Mountain Village site south to Valley House Drive. The City limits extend further south of Valley House Drive to coincide with the eastern and southern boundaries of the project site. The Northwestern Pacific Railroad right-of-way, now owned by SMART District, is located along the west margin of the site. Camino Colegio is a four-lane Major Collector along the north margin of the site serving local residential areas surrounding Magnolia Park, a major recreation facility in the area. The railroad right-of-way has been considered for a number of years for commute and passenger use, but is not in use today.<sup>2</sup>

The northern 98.3 acres of the project site comprises the former Agilent Technologies campus area (see Figure 3.8-1 for an aerial photograph of the site). The campus area is developed with five building structures up to about 40 or 50 feet in height and of differing size. All buildings are connected with pedestrian walkways and roads. Substantial areas are developed as surface parking lots around existing buildings. The northern portion of the project site is landscaped with earth mounds, lawn areas, groundcovers and ornamental trees (see also Section 3.1 of this EIR, Aesthetics and Urban Design, for additional descriptions of site development). An unused baseball field is located in the northwest portion of the site with a soccer field situated to the immediate southeast (see Figure 3.8-2, Land Use Map). A water tank and fire pump station is situated south of the soccer field.

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<sup>2</sup> Public acquisition of the Northwestern Pacific Railroad (NWPRR) right-of-way began in the 1970s and continued into the mid-90s, with significant funding provided by federal and state sources. The objective was to insure the potential rail transportation benefits of NWPRR corridor would be preserved in Sonoma and Marin Counties for the future. In 1997, the Sonoma County Transportation Authority and Marin Planning Agency commissioned the “Sonoma Marin Multi-Modal Transportation and Land Use Study”. This study recommended that a commission be formed to guide the design and implementation of passenger train service to support transportation and land use patterns that minimize the negative environmental impacts of sprawl. In 1998, the Counties of Sonoma and Marin formed the Sonoma Marin Area Rail Transit (SMART) Commission to carry out this mission.

In 2000, SMART released the Sonoma Marin Rail Implementation Plan, following an 18-month process of analysis and public meetings. The plan provided SMART with a commuter rail operating system plan that included recommendations for key station sites along the route.<sup>2</sup> On January 1, 2003 a new regional transportation district was established to oversee the development and implementation of passenger rail service on the NWPRR line. The new rail district, created with the passage of California State Assembly Bill 2224 consolidated the existing SMART Commission, Northwestern Pacific Railroad Authority, and the Golden Gate Bridge, Highway and Transportation District Authority and assets over the rail corridor into a single rail district.

Today, the SMART District is charged with planning, engineering, evaluating and implementing passenger train service and corridor maintenance from Cloverdale to a Ferry Terminal in Marin County that connects to San Francisco, a distance of about 85 miles (potentially, the Larkspur Ferry Terminal; an analysis is underway to determine the feasibility of a Point San Quentin rail extension). Current plans call for up to 14 stations, nine in Sonoma County and five in Marin County, with transfers to existing and proposed bus service, ferry service and the provision of bicycle and pedestrian connections. Potential development funding of the NWPRR right-of-way was defeated at the poles in November of 2006.

Future use of the railroad right-of-way for passenger train service was uncertain at the time of preparing this EIR. The proposed station site nearest the Sonoma Mountain Village site is listed by SMART as Cotati Avenue and Industrial Road (southeast corner), about 3/4 mile from the project site. [http://www.sonomamarintrain.org/project\\_details/stations.html](http://www.sonomamarintrain.org/project_details/stations.html).



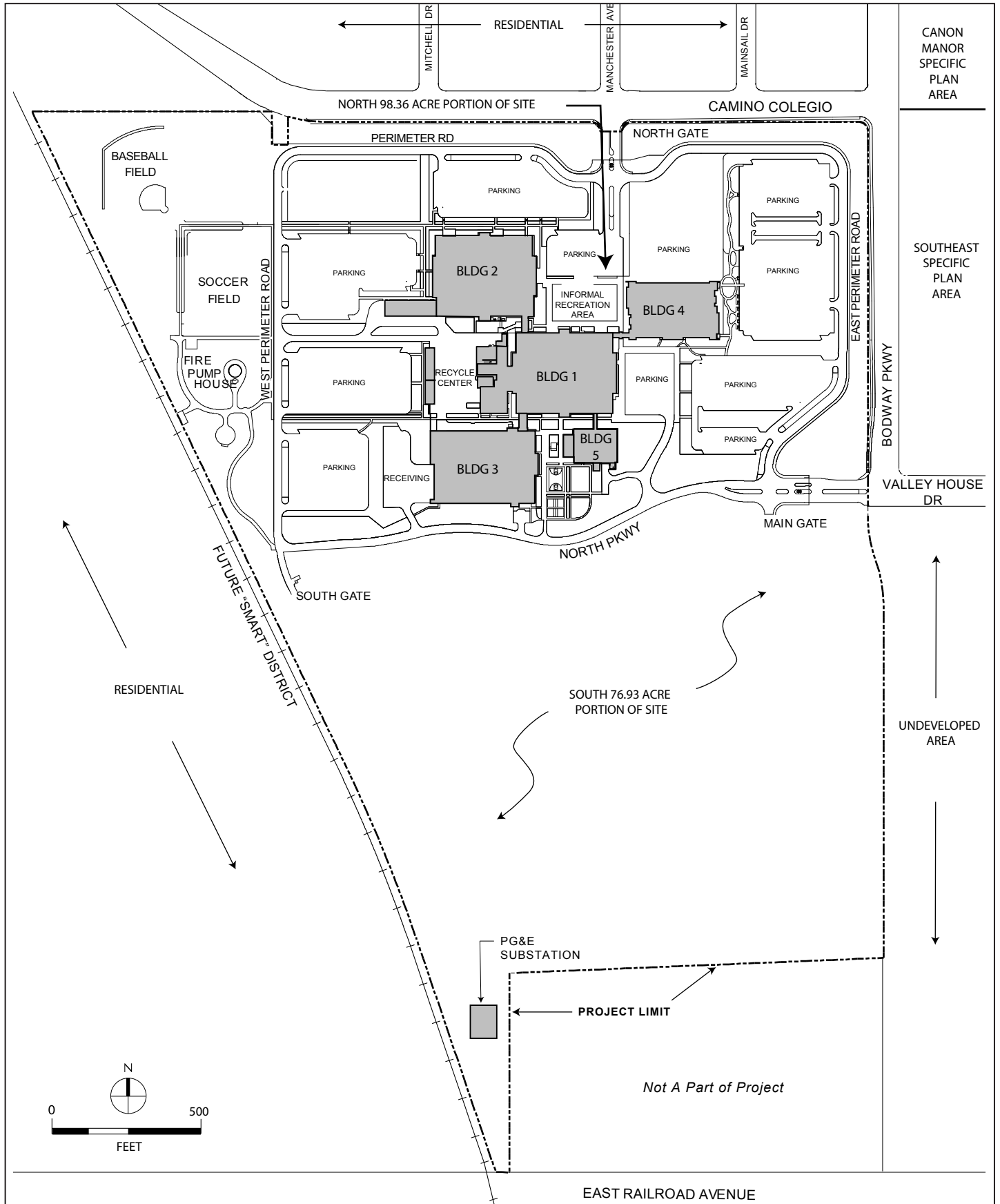
**FIGURE 3.8-1**  
**Aerial View West of North Portion of Project Site**

Source: Codding Enterprises, 2007



D41336.00

Sonoma Mountain Village



**FIGURE 3.8-2  
Land Use Map**

Source: Basemap: Codding Enterprises, Data: PBS&J, 2008

D41336.00

Sonoma Mountain Village

The southern 76.9 acres of the project site is undeveloped except for a PG&E electrical substation in the southwest corner of the site. This portion of the site may have historically been used for agricultural uses, such as the production of hay. Today however, the site does not generate revenue from agricultural production, and the grassland that occurs there is mowed on an annual basis to minimize fire hazards.<sup>3</sup> The project site is not currently operating under a Williamson Act contract, a state program that requires property owners to maintain agricultural use of their lands in exchange for specified property tax advantages. The project site has been designated as *Urban* and *Urban and Built Up* by the State Department of Conservation and is not shown as Prime Farmland, Farmland of Statewide Importance, Unique Farmland, or Farmland of Local Importance on state-designated important farmland maps.<sup>4</sup> The site is currently designated as Industrial on the Rohnert Park General Plan Diagram (see the discussion under Applicable Policies and Regulations).

The southeastern portion of the project site, south of Valley House Drive, is bordered by undeveloped land extending east about one-half mile to Petaluma Hill Road. The northeast portion of the project site, North of Valley House Drive, is bordered by the Southeast Specific Plan area, an 80-acre parcel of land used for the growing of hay and harvested annually for which an application to develop up to 499 residential units along with up to 20,000 square feet of commercial/retail space is pending. Immediately north of the Southeast Specific Plan area is located the Canon Manor Specific Plan area, a 237-acre subdivision consisting of about 118 developed residential parcels and 109 vacant parcels, with a 20-acre commercial golf range. The Canon Manor subdivision would require preparation of a Specific Plan prior to approval of any development on the site.<sup>5</sup> If the subdivision were to be annexed to the City, buildout under the Rohnert Park General Plan would allow up to several hundred additional residential units.

Abutting the north margin of the Canon Manor Specific Plan area is Sonoma State University (SSU). The 214-acre SSU campus lies outside the eastern City limits but within the City's UGB. It supports about 7,000 full time equivalent students and 1,200 employees. SSU has prepared an update to its campus-wide Master Plan (SSU Draft 1999 Master Plan (Adopted in 2000)), which includes the expansion of residential, classroom and other facilities. At buildout, the Master Plan would expand classroom area by 265,000 sf and would increase the student capacity to approximately 10,000. This periodic growth would also generate the need for additional full-time and part-time employees on campus.

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<sup>3</sup> Don Coddling, Coddling Enterprises, personal communication to Ted Adams, PBS&J, June 4, 2007.

<sup>4</sup> State of California, Bay Area Regional Important Farmland 2004 (map). For additional information, see [www.consrv.ca.gov/dlrp/FMMP/map\\_products/download\\_gis\\_data.htm](http://www.consrv.ca.gov/dlrp/FMMP/map_products/download_gis_data.htm).

<sup>5</sup> The Canon Manor Specific Plan area (Canon Manor West – CMW), is generally indicated as Rural Estate Residential (up to two dwelling units per acre) on the Rohnert Park General Plan Diagram. CMW is in an unincorporated area located immediately east of the City limits but within the City's Sphere of Influence and Urban Growth Boundary. The original subdivision approved for development in 1956 included 188 residential lots. If CMW were to be annexed to the City, buildout under the Rohnert Park General Plan for the Canon Manor Specific Plan area would allow up to several hundred additional residential units. The City of Rohnert Park has chosen not to annex the property.

Residential land uses predominate north of Camino Colegio, north of the Sonoma Mountain Village project site. The General Plan map indicates residential densities ranging from low (Low Density Residential at four to six units per acre) to high (High Density Residential at 12 to 30 units per acre), with the higher density range located opposite the site. Low Density Residential land uses also predominate immediately west of the project site and the Northwestern Pacific Railroad right-of-way.

## Applicable Policies and Regulations

As noted in Chapter 2 of this EIR, Project Description, the project sponsor is proposing an “urban village that incorporates a mix of housing types and affordability, interconnected and pedestrian-oriented public streets, civic buildings and a civic square, a wide variety of parks, and vertically-integrated mixed-use buildings in the village square.” As part of this development plan, the project would require amendments to the text and graphic exhibits of the Rohnert Park General Plan. It would also require a change in project site zoning. Notably, to move forward as proposed, the project would require General Plan amendments as described in Appendix L. The relationship of the project to the goals and policies of the General Plan are discussed in Section 3.10, Planning Policy and Relationship to Plans.

**Sonoma County General Plan.** Existing residential areas are located within the City of Rohnert Park on the north and west sides of the project site. However, the project site abuts unincorporated lands of Sonoma County on the south and east sides. It is therefore important to acknowledge important features of the Sonoma County General Plan that may have a bearing on future use of the project site.

The Sonoma County General Plan addresses land uses surrounding the City's Urban Growth Boundary (UGB). On most lands surrounding the east and south sides of Rohnert Park, the Sonoma County General Plan designates the area as Diverse Agriculture. The Canon Manor Specific Plan area is designated Rural Residential, which provides for low density development where there are fewer urban services but access to County maintained roads is available.

An important land use issue relates to the concept of community separation and loss of industrial land. The Sonoma County General Plan designates “community separators” intended to provide open space buffers between the urban areas of cities located within the County. While the Sonoma Mountain Village site is not located immediately next to a community separator, land use planning in the area does require consideration of the preservation of open space features including urban separators (this subject is discussed further in Section 3.1 of this EIR, Aesthetics and Urban Design).

## Impacts and Mitigation Measures

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### Introduction

The Sonoma Mountain Village project would consist of further development of an approximate 175 acre site, about 44 percent of which is currently vacant and undeveloped. With site development proposals involving undeveloped land areas near or in suburban to urban locations, the evaluation of land use impacts normally includes identifying any potential conflicts with applicable land use plans,

policies or regulations with jurisdiction over the project. Considerations include the potential impacts of changes in the type and intensity of land uses and the compatibility of those changes with existing or planned adjacent uses. A significant impact may be identified when a proposed change in type or intensity of land uses is not compatible with existing or approved land uses on or adjacent to a project site. A significant impact may also be identified where a project would contribute to cumulative adverse land use changes resulting from development of a proposed project and other approved, proposed, and planned projects in the vicinity which would result in substantial changes to the land use pattern in the vicinity.

## **Standards of Significance**

Based on City of Rohnert Park thresholds of significance, land use impacts would be considered significant if one or more of the following conditions were created by implementation of the Sonoma Mountain Village project:

- **Impact Criterion #1:** 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, the Zoning Ordinance or any specific plan), adopted for the purpose of avoiding or mitigating an environmental effect.
- **Impact Criterion #2:** Conflict with any applicable habitat conservation plan or natural community conservation plan.
- **Impact Criterion #3:** Physically divide an established community.

## **Project Evaluation**

### **Impact Criterion #1**

**Plan Consistency:** *Would the project 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, the Zoning Ordinance or any specific plan), adopted for the purpose of avoiding or mitigating an environmental effect?*

An evaluation of the conformance of implementing the Sonoma Mountain Village with the City of Rohnert Park General Plan goals and policies is provided in Section 3.10, Planning Policy and Relationship to Plans. The analysis shows that the Sonoma Mountain Village project would generally be in conformance with the goals and policies of the General Plan. Where partial conformance with the General Plan is noted, mitigation measures are established to bring the Sonoma Mountain Village project into compliance with the goals and policies of the General Plan.

Despite general conformance, the proposed project uses would be in direct conflict with the existing industrial land use designation's allowable uses and would require a General Plan Amendment. Approval of the project would eliminate a large portion of the available industrial properties within the



City and perhaps the City's largest and most developable industrial site.<sup>6</sup> The proposed project site is among a few parcels that provide opportunities for industrial growth and job creation opportunities on a large scale, while eliminating any potential land use compatibility issues associated with heavy industrial operations and residential uses in close proximity. According to the Conley Consulting Group, industrial and manufacturing jobs provide the highest average wages in Rohnert Park. Therefore, the loss of the existing industrial land use designation could result in a significant loss in higher paying jobs.

While the conversion of land uses associated with the proposed project would theoretically trigger a negative impact to the City's economic base, it must be noted that in recent years, there has been negative growth within the industrial sector from a national and local perspective. This negative growth can be attributed to increased outsourcing and the advent of internet age, which has limited the overall value and economic effectiveness of the domestic industrial workforce. Due to the dot com bust and the recent global economic crisis, the demand for prime industrial land uses has decreased significantly, particularly in areas that are close to residential uses. This has resulted in a number of vacancies both locally and throughout the Bay Area. In order to address the various economic pressures facing the City, the project aims to maintain light industrial uses and high tech jobs on-site. While the proposed project would generate a large number of residential opportunities, the project will generate over 1,704 office jobs, 1,198 regional technical jobs, 140 civic jobs, 640 construction jobs (temporary), and 732 service/retail positions. Therefore the proposed project would generate higher wage job opportunities than currently offered under the existing land designation.

The City of Rohnert Park General Plan Diagram would be amended to reflect the land use mix envisioned for the project as noted above to more accurately reflect the configuration of land uses (road layout, and size and configuration of the Residential, Mixed Use, Office, Commercial, Public/Institutional, Parks and Open Space land uses), as represented within the Final Development Plan text and graphic. These adjustments would not reflect any substantive departure from existing General Plan goals and policies, but would further the existing goals and policies by providing greater land use specificity and an updating of the General Plan Diagram to be consistent with any approvals of the Sonoma Mountain Village project. Other amendments would be required to provide additional information about density standards; floor area ratios; descriptions of the types of land uses that may be allowed; and modifications to the Master Street Plan, Bicycle System diagram, and Parks and Schools diagram. In view of the above, the Sonoma Mountain Village project and its development components would be generally consistent with applicable City land use plans, policies or regulations thus obviating the potential for incompatible land uses. The project focuses on the creation of residential, retail/commercial and office space uses, not the creation of industrial or manufacturing uses that could otherwise generate the potential for incompatible and uncertain closely associated health safety risks involving poor air quality, noise, hazardous materials use, machine operations, heavy truck traffic and odors that may be more common to industrial or manufacturing land uses. Such activities could place an undue burden on employers and jeopardize the overall concept for development of the project as conceived. Recasting the largely unused project site and its existing building facilities for economic

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<sup>6</sup> City of Rohnert Park, *Economic Development Action Plan*, Parsons Muni Services, 2007.

development within Rohnert Park would be directly reflected in the office and retail/commercial business opportunities of the project as proposed.<sup>7</sup>

As primarily a residential project that includes retail/commercial uses, parks and recreational uses at a gross density of about 10 residential units per acre, the proposed land use mix and density would be similar to, and not be expected to be incompatible with, adjacent residential land uses ranging from Low Density Residential at four to six units per acre up to Medium Density Residential at six to 12 units per acre as indicated on the General Plan Diagram. As mentioned previously, future development of the Southeast and Canon Manor Specific Plan areas east of the site would be expected to include residential development as a continuation of the predominate land uses west of Bodway Parkway including the project site if developed as proposed. The Sonoma Mountain Village project would represent a continuation of established residential land uses within the east portion of the City and potential residential land uses within the UGB east of the current City limits as shown on the General Plan Diagram.

The project site encompasses 175 acres of industrially zoned land, which is approximately one-third of the land devoted to such uses within the City. Implementation of the proposed project would shift the City's land use balance away from industrial uses, and would preclude future industrial development. To maintain a balance of residential and non-residential uses pursuant to General Plan goal GM-D and policy GM-16, it could be necessary to promote the development of additional non-residential uses. However, the Sonoma Mountain Village project proposes a mix of on-site land uses consisting of residential, commercial, parks, and civic uses. As discussed in Section 3.10, Planning Policy and Relationship to Plans, the proposed project would be consistent with General Plan goal GM-D and policy GM-16.

The project would not result in the loss of Prime Farmland, Farmland of Statewide Importance, Unique Farmland, or Farmland of Local Importance as designated by the State Department of Conservation. The project site is not within a Specific Plan area as designated in the Land Use and Community Design Elements of the General Plan. Project approvals would be required from the City of Rohnert Park in order to proceed. In view of the above, the project would have no significant adverse land use impact under Impact Criterion #1 and would not conflict with any applicable land use plan, policy or regulation of the City of Rohnert Park adopted for the purpose of avoiding or mitigating an environmental effect. No mitigation measures would be required under Impact Criterion #1.

## **Impact Criterion #2**

### ***Conservation Plan Conflicts: Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?***

The Sonoma Mountain Village project site is not included within a habitat conservation plan or natural community conservation plan. Refer to the discussion above regarding applicable land use plans,

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<sup>7</sup> For information regarding economic development potential in Rohnert Park, refer to Economic Development Action Plan for the City of Rohnert Park, MuniServices and Conley Consulting Group, July, 2007.



policies, or regulations (see also Section 3.3, Biological Resources, regarding wildlife habitat values of the project site). The Sonoma Mountain Village project would not conflict with a habitat or community conservation plan under Impact Criterion #2.

### **Impact Criterion #3**

#### **Community Configuration: *Would the project physically divide an established community?***

The northern 98.3-acre portion of the project site was developed and used as the Agilent Technologies campus. The southern 76.9 acres of the project site remains undeveloped. As indicated previously, with implementation of the proposed project, the existing five Agilent buildings on the project site have begun the process of adaptive reuse with additional residential, retail/commercial, and civic/recreational land uses constructed on the site. The southern portion of the site would also be developed with residential, retail/commercial, and civic/recreational land uses.

Existing streets surround the project site on north, east, and south sides, although it is recognized that there is a strip of undeveloped land abutting the south margin of the project site between the site and East Railroad Avenue. While Bodway Parkway currently terminates at Valley House Drive on the east side of the site, Bodway Parkway would be extended south to intersect East Railroad Avenue as part of the project. The SMART District right-of-way separates the west margin of the site from residential development west of the site.

Therefore, existing or planned traffic/transportation arteries surround the project site and continue to maintain a degree of physical separation between the site and off-site developed and undeveloped areas. The project site is further defined by its own boundary within the transportation network and would not require off-site land acquisition for the construction of new streets or require the reconfiguration of land parcels to facilitate site development or circulation systems. The project would not preclude use of the Northwestern Pacific Railroad right-of-way for future passenger rail use. The Sonoma Mountain Village project would provide for a connection between Valley House Drive and East Railroad Avenue as mentioned above.

Site development, to the exclusion of specified utility extensions (sewer, water, energy provisions as explained in Section 3.14, Utilities and Service Systems), would be contained within the site as exists today. Utilities constructed off-site as necessary to serve site development would be constructed along existing roadway corridors and not extend through previously or intensively developed parcels requiring the disruption, division or substantial alteration of existing land uses. The project, constructed within its own site boundaries, would not displace any existing housing, retail/commercial, or publicly owned recreational or open space uses. Therefore, the Sonoma Mountain Village project would not physically divide an established community under Impact Criterion #3.

## **Cumulative Development**

Cumulative development impacts are defined in Chapter 1, Introduction under the sub-heading, Cumulative Impact Assessment; these include the Specific Plan Areas within the City of Rohnert Park and other projects as described therein.

Land uses proposed for the Sonoma Mountain Village project are generally consistent with the overall direction of the City's plans for the future as expressed in the City's General Plan as noted above. The project would not conflict with any policy or plan specifically adopted for the purpose of avoiding or mitigating an environmental effect. To maintain consistency with the proposed General Plan text and map amendments to reflect land uses for the project as proposed, a rezoning from Limited Industrial to Planned Development would be required.

No major physical disruption of an existing developed portion of the community is anticipated under the project. Therefore, because there would be no adverse land use impact as indicated above, the project would not contribute to potentially cumulatively considerable adverse land use impacts under Impact Criteria #1, #2 and #3.



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## 3.9 NOISE

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### Introduction

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This section of the EIR evaluates the potential for noise and groundborne vibration impacts resulting from implementation of the proposed Sonoma Mountain Village project. This includes the potential for the project to cause a substantial temporary and/or permanent increase in ambient noise levels in the vicinity of the project site; expose residents or businesses to excessive noise levels or groundborne vibration; and whether this exposure would be in excess of standards established in the City of Rohnert Park General Plan and Noise Ordinance, or any other applicable standards. City of Rohnert Park adopted thresholds of impact significance are provided on which to base the assessment of noise/vibration impacts. Mitigation measures intended to reduce identified noise impacts are provided.

### Setting

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#### Characteristics of Sound, Noise, and Vibration

**Sound.** Sound is created when vibrating objects produce pressure variations that move rapidly outward into the surrounding air. The main characteristics of these air pressure waves are amplitude, which we experience as a sound's loudness, and frequency, which we experience as a sound's pitch. The standard unit of sound amplitude is the decibel (dB); it is a measure of the physical magnitude of the pressure variations relative to the human threshold of perception. The human ear's sensitivity to sound amplitude is frequency-dependent; it is more sensitive to sound with a frequency at or near 1000 cycles-per-second than to sound with much lower or higher frequencies.

Most "real world" sounds (e.g., a dog barking, a car passing, etc.) are complex mixtures of many different frequency components. When the average amplitude of such sounds is measured with a sound level meter, it is common for the instrument to apply different adjustment factors to each of the measured sound's frequency components. These factors account for the differences in perceived loudness of each of the sound's frequency components relative to those that the human ear is most sensitive to (i.e., those at or near 1000 cycles per second). This practice is called "A-weighting." The unit of A-weighted sound amplitude is also the decibel. However, when reporting measurements to which A-weighting has been applied, an "A" is appended to dB (i.e., dBA) to make this clear. Table 3.9-1 lists representative environmental sound levels.

**Noise.** Noise is the term generally given to the "unwanted" aspects of intrusive sound. Many factors influence how a sound is perceived and whether or not it is considered annoying to a listener. These include the physical characteristics of a sound (e.g., amplitude, frequency, duration, etc.), but also non-acoustic factors (e.g., the acuity of a listener's hearing ability, the activity of the listener during exposure, etc.) that can influence the judgment of listeners regarding the degree of "unwantedness" of a sound.

**Table 3.9-1  
Representative Environmental Noise Levels**

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	—110—	Rock Band
Jet Fly-over at 100 feet		
	—100—	
Gas Lawnmower at 3 feet		
	—90—	Food Blender at 3 feet
Diesel Truck going 50 mph at 50 feet	—80—	Garbage Disposal at 3 feet
Noisy Urban Area during Daytime		
Gas Lawnmower at 100 feet	—70—	Vacuum Cleaner at 10 feet
Commercial Area		Normal Speech at 3 feet
Heavy Traffic at 300 feet	—60—	
		Large Business Office
Quiet Urban Area during Daytime	—50—	Dishwasher in Next Room
Quiet Urban Area during Nighttime	—40—	Theater, Large Conference Room (background)
Quiet Suburban Area during Nighttime		
	—30—	Library
Quiet Rural Area during Nighttime		Bedroom at Night, Concert Hall (background)
	—20—	
		Broadcast/Recording Studio
	—10—	
Lowest Threshold of Human Hearing	—0—	Lowest Threshold of Human Hearing

*Source:* California Department of Transportation, 1998.

All quantitative descriptors used to measure environmental noise exposure recognize the strong correlation between the high acoustical energy content of a sound (i.e., its loudness and duration) and the disruptive effect it is likely to have as noise. Because environmental noise fluctuates over time, most such descriptors average the sound-level over the time of exposure, and some add “penalties” during the times of day when intrusive sounds would be more disruptive to listeners. The most commonly used descriptors are:

- **Equivalent Energy Noise Level ( $L_{eq}$ )** is the constant noise level that would deliver the same acoustic energy to the ear of a listener as the actual time-varying noise over the same exposure

time. No “penalties” are added to any noise levels during the exposure time;  $L_{eq}$  would be the same regardless of the time of day during which the noise occurs.

- **Day-Night Average Noise Level ( $L_{dn}$ )** is a 24-hour average  $L_{eq}$  with a 10 dBA “penalty” added to noise levels during the hours of 10:00 p.m. to 7:00 a.m. to account for increased sensitivity that people tend to have to nighttime noise. Because of this penalty, the  $L_{dn}$  would always be higher than its corresponding 24-hour  $L_{eq}$  (e.g., a constant 60 dBA noise over 24 hours would have a 60 dBA  $L_{eq}$ , but a 66.4 dBA  $L_{dn}$ ).
- **Community Noise Equivalent Level (CNEL)** is an  $L_{dn}$  with an additional 5 dBA “penalty” for the evening hours between 7:00 p.m. and 10:00 p.m.

Community noise exposures are typically represented by 24-hour descriptors, such as a 24 hour  $L_{eq}$  or  $L_{dn}$ . One-hour and shorter-period descriptors are useful for characterizing noise caused by short-term activities, such as the operation of construction equipment.

Environmental noise levels in residential areas are generally considered low when the  $L_{dn}$  is below 60 dBA, moderate in the 60 to 70 dBA range, and high above 70 dBA. In general, the higher the  $L_{dn}$  in a residential area, the greater the proportion of residents who report themselves “highly annoyed” with their noise exposure; and for a set increase in  $L_{dn}$ , the proportion of resident’s in the “highly annoyed” category increases faster at higher  $L_{dn}$ s than at lower  $L_{dn}$ s.<sup>1</sup>

Residential structures are routinely designed to limit interior noise levels to 45 dBA  $L_{dn}$  or less to reduce the potential for sleep disruption. California homes built prior to 1970 generally provide an exterior-to-interior noise level reduction up to about 20 dB with closed windows. Homes built within the last 30 years generally provide an exterior-to-interior reduction up to about 30 dB with closed windows.

**Vibration.** Vibrating objects in contact with the ground radiate energy through that medium. If a vibrating object is massive enough and/or close enough to an observer, its vibrations can be perceptible. Vibration magnitude is measured in vibration decibels (VdB) relative to a reference level of 1 micro-inch per second, the human threshold of perception. Most perceptible indoor vibration is caused by sources within buildings such as operation of mechanical equipment, movement of people, or slamming of doors. Typical outdoor sources of perceptible groundborne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If the roadway is smooth, the vibration from traffic is rarely perceptible. The general human response to different levels of groundborne vibration velocity levels is described in Table 3.9-2.

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<sup>1</sup> Transit Noise and Vibration Impact Exposure, Federal Transit Administration, May 2006; Chapter 3 and Appendix B.

**Table 3.9-2  
Human Response to Different Levels of Groundborne Vibration**

Vibration Velocity Level	Human Reaction
65 VdB	Approximate threshold of perception for many people.
75 VdB	Approximate dividing line between barely perceptible and distinctly perceptible. Many people find that transportation-related vibration at this level is unacceptable.
85 VdB	Vibration acceptable only if there are an infrequent number of events per day.

*Source:* Federal Transit Administration, 2006.

## Applicable Policies and Regulations

### Federal

The Federal Noise Control Act (1972) addressed the issue of noise as a threat to human health and welfare, particularly in urban areas. In response to the Noise Control Act, the United States Environmental Protection Agency (USEPA) published *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety*.<sup>2</sup> Table 3.9-3 summarizes US EPA recommendations for residential and other noise-sensitive land uses (i.e., that yearly average  $L_{eq}$  not exceed 70 dBA or less to prevent measurable hearing loss over a lifetime; and that  $L_{dn}$  not exceed 55 dBA outdoors and 45 dBA indoors to prevent activity interference and annoyance). The US EPA intent was that these findings not necessarily be considered as standards, criteria, or regulatory goals, but as advisory exposure levels below which there is no reason to suspect that the general population would be at risk from any of the identified health or welfare effects of noise.

The US EPA *Levels* report also identified 5 dBA as an adequate margin of safety before an increase in noise level would produce a significant increase in the severity of community reaction (i.e., increased complaint frequency, annoyance percentages, etc.) provided that the existing baseline noise exposure did not exceed 55 dBA  $L_{dn}$ .

The Federal Transit Administration (FTA) has developed an extensive methodology and significance criteria to evaluate noise impacts from surface transportation modes (i.e., private motor vehicles, trucks, buses, and rail), as presented in *Transit Noise Impact and Vibration Assessment* (May 2006). The FTA incremental noise impact criteria are presented in Table 3.9-4. These criteria are based on the US EPA findings (as presented in *Levels* and summarized in Table 3.9-3) and subsequent studies of annoyance in communities affected by transportation noise. Starting from the US EPA's definition of minimal noise impact as a 5 dBA change from a "safe" ambient level of 50 dBA ( $L_{dn}$  or peak hour  $L_{eq}$ , depending on the FTA's Land Use Category), the FTA extended the incremental impact criteria to higher baseline ambient levels by requiring that increased adverse community reaction be kept below a defined minimal level (i.e., a 2 percent increase the number of residents reporting a "high" level of

<sup>2</sup> United States Environmental Protection Agency 1974.

**Table 3.9-3  
Summary of Noise Levels Identified as Requisite to Protect Public Health and Welfare  
with an Adequate Margin of Safety**

<b>Effect</b>	<b>Level</b>	<b>Area</b>
Hearing	$L_{eq}$ (24 hr.) < 70 dBA <sup>a</sup>	All areas
Outdoor activity interference and annoyance	$L_{dn}$ < 55 dBA	Outdoors in residential areas and farms and other outdoor areas where people spend widely varying amounts of time and other places in which quiet is a basis for use.
Outdoor activity interference and annoyance	$L_{eq}$ (24 hr) < 55 dBA	Outdoor areas where people spend limited amounts of time, such as school yards, playgrounds, etc.
Indoor activity interference and annoyance	$L_{dn}$ < 45 dBA	Indoor residential areas
Indoor activity interference and annoyance	$L_{eq}$ (24 hr) < 45 dBA	Other indoor areas with human activities such as schools, etc.

*Source:* Environmental Protection Agency, Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety, March 1974.

*Note:* Noise exposure at the identified level would have to continue over a period of forty years before any hearing loss would result.

**Table 3.9-4  
Exterior Incremental Noise Impact Standards for Noise-Sensitive Uses (dBA)**

<b>Residences and buildings where people normally sleep<sup>a</sup></b>		<b>Institutional land uses with primarily daytime and evening uses<sup>b</sup></b>	
<b>Existing Ldn</b>	<b>Allowable Noise Increment</b>	<b>Existing Peak Hour <math>L_{eq}</math></b>	<b>Allowable Noise Increment</b>
45	8	45	12
50	5	50	9
55	3	55	6
60	2	60	5
65	1	65	3
70	1	70	3
75	0	75	1
80	0	80	0

*Source:* Federal Transit Administration, *Transit Noise Impact and Vibration Assessment*, May 2006.

*Notes:*

- This category includes homes, hospitals, and hotels where a nighttime sensitivity to noise is assumed to be of utmost importance.
- This category includes schools, libraries, theaters, and churches where it is important to avoid interference with such activities as speech, meditation, and concentration on reading material.



annoyance, as measured by survey). As baseline ambient levels increase, it takes a smaller and smaller increment to produce the same increase in annoyance (e.g., in residential areas with a baseline ambient noise level of 50 dBA L<sub>dn</sub>, a 5 dBA increase in noise levels would be expected to increase community annoyance by 2 percent, but at a baseline ambient noise level of 70 dBA L<sub>dn</sub>, a 1 dBA increase in noise levels would be expected to have the same effect on community annoyance levels).

The FTA has also developed criteria for judging the significance of groundborne vibration, as shown in Table 3.9-5.

**Table 3.9-5  
Groundborne Vibration (GBV) Impact Criteria for General Assessment**

Land Use Category	GBV Impact Levels (VdB re 1 micro-inch/second)		
	Frequent Events <sup>a</sup>	Occasional Events <sup>b</sup>	Infrequent Events <sup>c</sup>
<i>Category 1:</i> Buildings where vibration would interfere with interior operations.	65 <sup>d</sup>	65 <sup>d</sup>	65 <sup>d</sup>
<i>Category 2:</i> Residences and buildings where people normally sleep.	72	75	80
<i>Category 3:</i> Institutional land uses with primarily daytime uses.	75	78	83

*Source:* Federal Transit Administration, *Transit Noise Impact and Vibration Assessment*, May 2006.

*Notes:*

- a. “Frequent Events” is defined as more than 70 vibration events of the same source per day.
- b. “Occasional Events” is defined as between 30 and 70 vibration events of the same source per day.
- c. “Infrequent Events” is defined as fewer than 30 vibration events of the same source per day.
- d. This criterion limit is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. Vibration-sensitive manufacturing or research will require detailed evaluation to define the acceptable vibration levels.

## State

The State of California *General Plan Guidelines 2003 (Guidelines)* promotes use of L<sub>dn</sub> or CNEL for evaluating noise compatibility of various land uses with the expected degree of noise exposure. The designation of a level of noise exposure as “normally acceptable” for a given land use category implies that the expected interior noise would be acceptable to the occupants without the need for any special structural acoustic treatment. The *Guidelines* identify the suitability of various types of construction relative to the range of customary outdoor noise exposures. The *Guidelines* provide each local community some leeway in setting local noise standards that allow for the variability in individual perceptions of noise in that community. Findings presented in US EPA *Levels* have had an obvious influence on the recommendations of the State Guidelines, most importantly in the latter’s choice of noise exposure metrics (i.e., L<sub>dn</sub> or CNEL) and in the upper limits for the “normally acceptable” exposure of noise-sensitive uses (i.e., no higher than 60 dBA L<sub>dn</sub> or CNEL for low-density residential, which is just at the upper limit of the 5 dBA “margin of safety” defined by the US EPA for noise-sensitive land use categories).

The California Noise Insulation Standards (California Code of Regulations, Title 24) establish an interior noise standard of 45 dBA for multiple unit and hotel/motel structures. Acoustical studies must be prepared for proposed multiple unit residential and hotel/motel structures where  $L_{dn}$  or CNEL is 60 dBA or greater. The studies must demonstrate that the design of the building will reduce interior noise to 45 dBA  $L_{dn}$  or CNEL, or lower. The primary means to achieve this standard is through the use of noise insulating windows, and/or sound isolation materials when constructing walls and ceilings.

## Local

### City of Rohnert Park

*City of Rohnert Park General Plan.* The California Government Code requires that a noise element be included in the general plan of each county and city in the state. Each local government's goals, objectives, and policies for noise control are established by the noise element of the general plan and the passage of specific noise ordinances.

The Noise Element of the Rohnert Park General Plan establishes policies for the compatibility of new land uses with various noise levels. These policies have been used to set and adopt exterior and interior noise compatibility criteria for various land uses within the City. The purpose of these criteria is to reduce the various potential effects of noise on people, including sleep disturbance, reduced physical and mental performance, annoyance, and interference with speech communication. The Noise Element identifies 60 dBA  $L_{dn}$  as the established standard for exterior noise and 45 dBA  $L_{dn}$  as the established interior noise standard for all residential uses. General Plan Policy NS-6 recommends avoidance of the use of visible sound walls for new development project, except for those located along US 101 and along the Northwestern Pacific Railroad right-of-way. The General Plan requires the control of equipment or mitigation measures for any noise-emitting construction equipment or activity.

*City of Rohnert Park Municipal Code.* Chapter 17.12.030 of the Rohnert Park Zoning Ordinance includes various noise level standards for land uses in the City, inclusive of maximum levels and duration.

The City of Rohnert Park has also adopted a Noise Ordinance (Chapter 9.44 of the Rohnert Park Municipal Code), which identifies ambient base noise levels, noise standards for various sources, specific noise restrictions, exemptions, and variances for sources of noise within the City. The Noise Ordinance applies to all noise sources with the exception of any vehicle that is operated upon any public highway, street or right-of-way, or to the operation of any off-highway vehicle, to the extent that it is regulated in the State Vehicle Code, and all other sources of noise that are specifically exempted.

The Noise Ordinance limits construction activity within a residential zone or a radius of 500 feet to the hours of 8:00 a.m. through 6:00 p.m. when the potential noise levels would cause discomfort or annoyance to a reasonable person of normal sensitiveness residing in the area. Other restrictions are as explained in Chapter 17.12.020 of the Zoning Ordinance.

## City of Cotati

Noise impacts within the City of Cotati are addressed in the guidelines established in the City of Cotati General Plan and in the noise section of the City's Municipal Code. A brief discussion of these noise guidelines and regulations are presented below.

*Cotati General Plan.* The City of Cotati has adopted objectives and policies related to community noises in the Community Development Chapter of the General Plan. The policies are designed to ensure compatible developments within the City. Table 3.9-6 of the Noise Element of the General Plan establishes land use compatibility standards for community noise that provide guidelines for acceptable exterior noise exposure depending on the identified land use. As shown below, the City's General Plan identifies a maximum range of 60 to 85 dBA  $L_{dn}$  as the established standard for acceptable exterior noise for most land uses. Table 4.9-4 of the General Plan establishes a 45 dBA  $L_{dn}$  as the established interior noise standard for all land uses. The General Plan provides a number of objectives to help minimize noise levels and enhance the quality of existing and future land uses.

**Table 3.9-6**  
**City of Cotati General Plan Land Use Compatibility for Community Noise Environment**

Land Use	Normally Acceptable Exterior Noise Exposure	Conditionally Acceptable Exterior Noise Exposure	Unacceptable Exterior Noise Exposure
Residential, Hotel, Motel	Up to 60 Ldn	Up to 75 Ldn	$\geq 75.1$
Outdoor sports/Recreation/Playground	Up to 65 Ldn	Up to 80 Ldn	$\geq 80.1$
Schools/Libraries, Museums, Hospitals Churches, Meeting Halls	Up to 60 Ldn	Up to 75 Ldn	$\geq 75.1$
Office/Business Commercial	Up to 70 Ldn	Up to 80 Ldn	$\geq 80.1$
Auditorium, Concert Hall, Amphitheater	NA	Up to 70 Ldn	$\geq 70.1$
Industrial, Manufacturing, Utilities, and Agriculture	Up to 70 Ldn	Up to 85 Ldn	$\geq 85.1$

*Cotati Municipal Code.* Section 17.30.050 of the City of Cotati Municipal Code addresses noise standards for all development and land uses. This section implements the noise related policies of the General Plan and provides standards for noise mitigation that are intended to protect the community by limiting exposure to the unhealthy effects of noise. The City's Municipal Code identifies a maximum of 65 dBA  $L_{dn}$  as the established standard for exterior noise for most land uses, with the exception of offices (75 dBA  $L_{dn}$  ) playground parks (70 dBA  $L_{dn}$ ), and theatre/auditorium uses. It establishes a 45 dBA  $L_{dn}$  as the maximum allowable interior noise standard for all land uses (see Table 4.9-5 of the General Plan).

This section of the Municipal Code also establishes requirements for the preparation of acoustical analyses for certain types of projects, and sets a limitation on hours of construction. Unless otherwise established as conditions of approval, the allowable hours of construction in Cotati are:

Monday through Friday: 7:00 a.m. to 7:00 p.m.

Saturdays, Sundays, Holidays: 9:00 a.m. to 5:00 p.m. (only as condition of approval)

## Sonoma County

The County of Sonoma General Plan's Noise Element has established objectives and policies concerning the generation and control of noise that could adversely affect sensitive noise receptors and land uses within their jurisdiction. The noise element identifies goals and policies to support achievement of goals. Table 3.9-7 reflects exterior noise level standards that were officially adopted with the 2008 General Plan Noise Element. Refer to Sonoma County General Plan for a detailed description of applicable goals, objectives, and policies of the Sonoma County General Plan regarding noise.

**Table 3.9-7**  
**Sonoma County Noise Level Performance Standards**

<b>Hourly Noise Metric<sup>1</sup></b> <b>dBA</b>	<b>Daytime</b> <b>(7 a.m. to 10 p.m.)</b>	<b>Nighttime</b> <b>(10 p.m. to 7 a.m.)</b>
L50 (30 minutes in any hour)	50	45
L25 (15 minutes in any hour)	55	50
L08(5 minutes in any hour)	60	55
L02(1 minute in any hour)	65	60

*Source: Sonoma County General Plan, Noise Element, 2008.*

*Note:*

1. The sound level exceeded n% of the time in any hour. For example, the L50 is the value exceeded 50% of the time, or 30 minutes, in any hour; this is the median noise level. The L02 is the sound level exceeded 1 minute in any hour.

## **Existing Noise Levels at Noise-Sensitive Uses On/Near the Project Site**

Existing uses surrounding the Sonoma Mountain Village site consist of residential, agricultural, and educational uses, and undeveloped open space. Although other noise sources (e.g., low-flying aircraft, agricultural machinery, etc.) are present in the project site vicinity, motor vehicle traffic is the primary source of noise on and around the project site. Residential uses are the predominant noise-sensitive use along all the major motor vehicle access routes to the project site, from the north by Camino Colegio and Bodway Parkway, and from the south by East Railroad Avenue. The residential uses along these roadways are all located relatively close to the roadside (i.e., 20 feet to 100 feet), but in some cases they are shielded from direct noise exposure by 7- to 8-foot high concrete walls along their property lines. The most important instances of such shielding occur along Camino Colegio (i.e., on the west side, from Magill Lane to Maple Drive, as shown on Figure 3.9-1; and on the north side, from Manchester Avenue to Bodway Parkway, as shown on Figure 3.9-1) and Bodway Parkway (i.e., from Camino Colegio to Madison Avenue, also shown on Figure 3.9-1). Residential uses along the north side of Camino Colegio west from Manchester Avenue to Mitchell Drive are only screened by a property line wooden fence, as shown on Figure 3.9-2, which has virtually no noise attenuation



A. Homes fronting Camino Collegio (west side, south of Magnolia Avenue) – 7- to 8-foot-high concrete sound walls.



B. Homes fronting Camino Collegio and/or Bodway Parkway (looking west along Camino Collegio from Bodway) – 7- to 8-foot-high concrete sound walls.





A. Homes fronting Camino Collegio (North side, west of Manchester Avenue) – Wood fence only.



B. Homes fronting Railroad Avenue (north side) – No sound walls.

capability. Residential uses along both sides of East Railroad Avenue are completely unshielded by walls, as shown in Figure 3.9-2. Residence along East Railroad Avenue are within the jurisdiction of Sonoma County and would be subject to County noise guidelines.

Existing daytime noise levels were measured at five locations adjacent to the main motor vehicle access roads around the Sonoma Mountain Village site. These locations are identified in Figure 3.9-3 and the noise level characteristics at each location are identified in Table 3.9-8. Near almost all measurement locations, residential uses were predominant; the only exception was East Cotati Avenue, where adjacent land uses are a mix of residential and commercial.

**Table 3.9-8  
Daytime Noise Levels Measurements at Selected Locations Near the Project Site**

Noise Measurement Location/Time	Primary Noise Sources	Noise Level Statistics		
		L <sub>eq</sub>	L <sub>min</sub>	L <sub>max</sub>
#1 Sidewalk along frontage of single-family residences north of Camino Colegio and west of Manchester Avenue; Start time: 4:16 pm, June 21 (Thursday).	Vehicular traffic on Camino Colegio.	62.1	39.6	79.8
#2 Near roadside along East Railroad Avenue, east of Willow Avenue, close to single-family residence at 651 East Railroad Avenue; Start time: 4:50 pm, June 21 (Thursday).	Vehicular traffic on East Railroad Avenue.	66.0	39.4	88.5
#3 Grassy berm near roadside along frontage of multifamily residential, west of Camino Colegio, south of Magnolia Avenue; Start time: 3:53 pm, July 11 (Wednesday).	Vehicular traffic on Camino Colegio	58.9	42.4	73.9
#4 Sidewalk along frontage of single-family residences west of Bodway Parkway and north of Camino Colegio; Start time: 4:39 pm, July 11 (Wednesday).	Vehicular traffic on Bodway Parkway	54.9	37.5	90.5
#5 Sidewalk along frontage of mixed residential/ commercial uses on East Cotati Avenue, between Lasalle Avenue and Lancaster Drive; Start time: 5:46 pm, July 11 (Wednesday).	Vehicular traffic on East Cotati Avenue	70.9	53.2	84.8

Source: PBS&J, 2007.

Notes:

All measurements were made on weekday afternoons of either June 21 or July 11, 2007. Each measurement was 15 minutes in duration.

L<sub>eq</sub> is the average noise level during the measurement period, L<sub>min</sub> is the minimum instantaneous noise level during the measurement period, and L<sub>max</sub> is the maximum instantaneous noise level during the measurement period.





**FIGURE 3.9-3**  
**Noise Measurement Locations**

Source: PBS&J, 2009

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Sonoma Mountain Village



The Federal Highway Administration (FHWA) Traffic Noise Model (TNM) was used to calculate the existing 24-hour traffic noise levels ( $L_{dn}$ ) at the setbacks of the residences along the major traffic access routes serving the project site; the modeled  $L_{dn}$  at these locations are presented in Table 3.9-8. Note that the existing traffic-induced  $L_{dn}$  are below the City's 60 dBA standard at almost all locations modeled; the only exception was the site on East Cotati Avenue. This reflects the generally low existing traffic volumes on most of the streets surrounding the project site and providing access to it.

## Impacts and Mitigation Measures

### Noise Analysis Methodology

The analysis of the existing and future noise environments presented in this analysis is based on noise level monitoring, computer modeling, and empirical observations. Existing noise levels were monitored at selected locations (as identified in Table 3.9-9 and Figure 3.9-1) near the project site using a Larson-Davis Model 720 sound level meter, which satisfies the American National Standards Institute (ANSI) for general environmental noise measurement instrumentation. Noise modeling procedures involved the calculation of existing and future vehicular noise levels at noise sensitive uses in the vicinity of the monitoring locations. This task was accomplished using the FHWA's TNM model. The model calculates the average noise level at specific locations based on traffic volumes, average speeds, roadway geometry, and site environmental conditions. The average vehicle noise rates (energy rates) utilized in TNM reflect the latest measurements of average vehicle noise rates for all vehicle classes. Traffic volumes utilized as data inputs in the noise prediction model were provided through the traffic analysis prepared for this EIR.

**Table 3.9-9**  
**Existing Roadway Noise Levels at Residential Uses Off Site**

Roadway	Roadway Segment	$L_{dn}$ (dBA)
Camino Colegio (North Side)	East of Manchester Avenue	46.7*
Camino Colegio (North Side)	West of Manchester Avenue	56.6
Camino Colegio (West Side)	Magill Lane to Maple Drive	50.0*
Camino Colegio (East Side)	Magnolia Avenue to Mitchell Drive	57.3
East Railroad Avenue (North Side)	East of Old Redwood Highway	57.5
East Railroad Avenue (South Side)	East of Old Redwood Highway	56.6
Bodway Parkway (West Side)	Madison Avenue to Camino Colegio	45.8*
East Cotati Avenue	Lasalle Avenue to Lancaster Drive	<b>66.7</b>

Source: PBS&J, 2007.

Notes:  $L_{dn}$  calculated using the FHWA's TNM computer model; instances where exterior noise exposures exceed the identified residential standards are shown in **bold**.

\* In these cases, the residences were protected from traffic noise intrusion by 7- to 8-foot, concrete sound walls and the modeled  $L_{dn}$ s include the effects of such walls.

## Standards of Significance

Based on the City of Rohnert Park thresholds of significance and where applicable significance thresholds for the City of Cotati and Sonoma County, noise impacts would be considered significant if one or more of the following conditions were created by implementation of the Sonoma Mountain Village project.

- **Impact Criterion #1:** Expose persons to or generate noise levels in excess of standards established in the General Plan or noise ordinances, or applicable standards of other agencies.
- **Impact Criterion #2:** Expose persons to or generate excessive groundborne vibration levels.
- **Impact Criterion #3:** Cause a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.
- **Impact Criterion #4:** Cause a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

This analysis uses the FTA's vibration impact thresholds for sensitive buildings, residences, and institutional land uses, as identified in Table 3.9-5.

This analysis uses the following FTA traffic noise impact criteria: where the baseline  $L_{dn}$  is less than 60 dBA (65 dBA for City of Cotati), a permanent increase in roadway traffic noise levels of 3 dBA over baseline ambient noise levels is considered to be substantial and, therefore, significant; where the baseline  $L_{dn}$  is between 60 dBA and 65 dBA, a permanent increase in roadway traffic noise levels of 2 dBA over baseline ambient noise levels is considered to be substantial and, therefore, significant; where the baseline  $L_{dn}$  is between 65 dBA and 70 dBA, a permanent increase in roadway traffic noise levels of 1 dBA over baseline ambient noise levels is considered to be substantial and, therefore, significant.

For construction equipment noise, this analysis uses the City of Rohnert Park Noise Ordinance Ambient Base Noise Level as significance criteria.

## Project Evaluation

### Impact Criterion #1

**Noise Standards:** *Would the project expose persons to, or generate noise levels in excess of, standards established in the General Plan or noise ordinance, or applicable standards of other agencies?*

### Impact 3.9-1

*Residential uses fronting Camino Colegio (between Manchester Avenue and Mitchell Drive) and residential uses fronting East Railroad Avenue east of Old Redwood Highway would be exposed to exterior traffic noise levels that exceed City standards. This would be a potentially significant impact*

*for residences fronting Camino Colegio and a significant and unavoidable impact for residences fronting East Railroad Avenue.*

Table 3.9-10 presents the future average daily exterior and interior traffic noise levels at adjacent residential uses along the major project site access roads.

**Table 3.9-10  
Predicted Baseline + Project (2020) Traffic Noise Levels at Residential Locations Facing Site Access Roads**

Residential Area (Type of Noise Barrier) Analysis Location	Noise Levels in dBA L <sub>dn</sub>				
	2020 Exterior Noise Levels	Exterior Noise Standard	Assumed Exterior to Interior Noise Reduction	Interior Noise Level	Interior Noise Standard
Camino Colegio, north side, east of Manchester Avenue (7- to 8-foot, property line concrete wall)	50.6*	60	-20	30.6	45
Camino Colegio, north side, west of Manchester Avenue (6-foot wooden property line fence)	<b>60.5</b>	60	-20	40.5	45
Camino Colegio, west side, Magill Lane to Maple Drive (7- to 8-foot, property line concrete wall)	52.7*	60	-20	32.7	45
Camino Colegio, east side, Magnolia Avenue to Mitchell Drive (no wall, only low earth berms and parking shelters in some places)	60.0	60	-20	41.0	45
East Railroad Avenue, north side east of Old Redwood Highway (no wall or fence)	<b>61.2</b>	60	-20	41.3	45
East Railroad Avenue, south side, east of Old Redwood Highway (no wall, or fence)	<b>60.3</b>	60	-20	40.3	45
Bodway Parkway, west side, Madison Avenue to Camino Colegio (7- to 8-foot, property line concrete wall)	48.9*	60	-20	28.9	45
East Cotati Avenue, both sides (including commercial uses), Lasalle Avenue to Lancaster Drive (no wall or fence)	<b>66.9</b>	65	-20	<b>46.9</b>	45

Source: PBS&J, 2007.

Notes: L<sub>dn</sub> calculated using the FHWA's TNM computer model; instances where exterior noise exposures exceed the established residential standards are shown in **bold**.

\* In these cases, the residences were protected from traffic noise intrusion by 7- to 8-foot, concrete sound walls and the modeled L<sub>dn</sub>s include the effects of such walls.

### Mitigation Measure 3.9-1

- 3.9-1 Construct a seven- to eight-foot-high solid concrete/masonry wall along the property line facing Camino Colegio between Manchester Avenue and Mitchell

Drive. This would reduce Impact 3.9-1 for residents along Camino Colegio to a less-than-significant level. No mitigation measure is available to reduce the noise impact for residences facing East Railroad Avenue.

Mitigation Measure 3.9-1 would ensure that exterior noise levels in the backyards of the homes located along Camino Colegio between Manchester Avenue and Mitchell Drive would not exceed the City standard, and would reduce the noise impact to a less-than-significant level.

Impacts to East Railroad Avenue are within the jurisdiction of Sonoma County and would be subject to the impact thresholds identified in the Sonoma County General Plan. Construction of continuous roadside sound walls as prescribe in Mitigation 3.9-1 would not be deemed a feasible mitigation measure along East Railroad Avenue because each residence along that frontage would require its own individual driveway for vehicle access thus creating an unobstructed open area along the road frontage. In addition, the identified roads are outside the jurisdiction of the lead agency for this EIR (City of Rohnert Park) and would therefore not be subject to the City of Rohnert Park, Therefore future exterior noise levels at the frontage of the residential buildings would exceed County standards for East Railroad Avenue and result in a significant and unavoidable impact under Impact Criterion #1 regarding noise levels in excess of established General Plan standards.

The City of Cotati standard for noise exposure of residential uses facing East Cotati Avenue is currently exceeded without the proposed project. Future exterior noise levels generated by operation of the proposed project at existing residential uses facing East Cotati Avenue would continue to exceed the City exterior standard of 65 dBA. However, the project would trigger only a 0.2 dBA Ldn increase (66.7 dBA Ldn to 66.9 dBA Ldn) over existing traffic noise levels, which is less than the prescribed FTA impact threshold of a 2 dBA increase over existing ambient noise levels.. Consequently, noise impacts under Impact Criterion #1 along East Cotati Avenue would be less than significant.

## **Impact Criterion #2**

**Groundborne Vibration/Noise: *Would the project expose persons to or generate excessive groundborne vibration levels?***

Construction activities that would occur on the Sonoma Mountain Village site have the potential to generate low levels of groundborne vibration. Table 3.9-11 identifies various vibration velocity levels for the types of construction equipment that would operate at the Sonoma Mountain Village site during construction.

Construction vibration could affect the residential and other vibration sensitive-land uses proposed for the site as part of the project if they are occupied prior to the completion of construction associated with later phases of the project. Based on the information presented in Table 3.9-9, vibration levels could exceed 87 VdB in areas within 25 feet of on-site construction activity. This would exceed the 80 VdB threshold for residences and buildings where people normally sleep (see Table 3.9-5). However, the construction activities would be limited to daytime hours between 8:00 a.m. through 6:00 p.m. in accordance with Section 9.44.120 of the *Rohnert Park Municipal Code*. Thus,

**Table 3.9-11  
Vibration Source Levels for Construction Equipment**

Construction Equipment	Approximate VdB				
	25 Feet	50 Feet	60 Feet	75 Feet	100 Feet
Large Bulldozer	87	81	79	77	75
Loaded Trucks	86	80	78	76	74
Jackhammer	79	73	71	69	67
Small Bulldozer	58	52	50	48	46

*Source:* Federal Railroad Administration, 1998.

construction would not occur during recognized sleep hours. Therefore, the impact under Impact Criterion #2 regarding the exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise levels would be less than significant due to the limited hours of operation. The closest existing off-site residential uses are located more than 100 feet from the edge of the project site and so would not be significantly affected by vibration produced by on-site construction. However, Mitigation Measure 3.9-1(a) is proposed to help further reduce the already less-than-significant impact.

Mitigation Measure 3.9-1(a)

- 3.9-1(a) The project sponsor shall inform future on-site residents of the possibility of disruption of sleep due to vibration from ongoing on-site construction activity associated with project development.

**Impact Criterion #3**

***Ambient Noise Levels: Would the project cause substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?***

**Impact 3.9-2**

***Residential uses fronting Camino Colegio (between Manchester Avenue and Mitchell Drive) and East Railroad Avenue east of Old Redwood Highway could be exposed to permanent increases in exterior traffic noise levels above accepted standards. This would be a potentially significant impact for residences fronting Camino Colegio and a significant unavoidable impact for residences fronting East Railroad Avenue.***

The changes in noise levels at the existing residential uses facing the major motor vehicle access routes to the project site are shown in Table 3.9-12. Future exterior noise level increases in the outdoor activity areas of the homes located along East Railroad Avenue and in the backyards of the homes located along Camino Colegio between Manchester Avenue and Mitchell Drive would exceed accepted incremental standards (see Table 3.9-4; the significance criteria for the noise level increase at each specific residential use are also show in the last column of Table 3.9-12).

**Table 3.9-12  
Project Traffic Noise Increments (2020) at Residential Locations Facing Site Access Roads**

Residential Area (Type of Noise Barrier) Analysis Location	Roadway Segment	Ldn (dBA)			Significance Threshold
		Existing Traffic	Baseline + Project Traffic	Project Increase	
Camino Colegio, north side (7- to 8-foot, property line concrete wall)	East of Manchester Avenue	46.7*	50.6*	3.9	8.0
Camino Colegio, north side (6-foot wooden property line fence)	West of Manchester Avenue	56.6	60.5	<b>3.9</b>	3.0
Camino Colegio, west side (7- to 8-foot, property line concrete wall)	Magill Lane to Maple Drive	50.0*	52.7*	2.7	5.0
Camino Colegio, east side (no wall, only low earth berms and parking structures in some places)	Magnolia Avenue to Mitchell Drive	57.3	60.0	2.7	3.0
East Railroad Avenue, north side (no wall or fence)	East of Old Redwood Highway	57.5	61.2	<b>3.7</b>	3.0
East Railroad Avenue, south side (no wall, or fence)	East of Old Redwood Highway	56.6	60.3	<b>3.7</b>	3.0
Bodway Parkway, west side (7- to 8-foot, property line concrete wall)	Madison Avenue to Camino Colegio	45.8*	48.9	3.1	8.0
East Cotati Avenue, both sides, includes commercial uses (no wall or fence)	Lasalle Avenue to Lancaster Drive	66.7	66.9	0.2	1.0

Source: PBS&J, 2009.

Notes: L<sub>dn</sub> calculated using the FHWA's TNM computer model; instances where incremental noise exceed FTA residential standards are shown in **bold**.

\* In these cases, the residences were protected from traffic noise intrusion by 7- to 8-foot, concrete sound walls and the modeled L<sub>dn</sub>s include the effects of such walls.

### Mitigation Measure 3.9-2

3.9-2 Implement Mitigation Measure 3.9-1 to ensure that exterior noise levels in the backyards of the homes located along Camino Colegio between Manchester Avenue and Mitchell Drive do not increase substantially. This would reduce the incremental impact to the residences along Camino Colegio to a less-than-significant level. No mitigation measure is available to reduce the noise impact for residences facing East Railroad Avenue.

As stated previously, impacts to East Railroad Avenue are within the jurisdiction of Sonoma County and would be subject to the impact thresholds identified in the Sonoma County General Plan. Construction of continuous roadside sound walls as prescribe in Mitigation 3.9-1 would not be deemed a feasible mitigation measure along East Railroad Avenue because each residence along that frontage would require its own individual driveway for vehicle access thus creating an unobstructed open area along the road frontage. In addition, the identified roads are outside the jurisdiction of the lead agency

for this EIR (City of Rohnert Park) and would therefore not be subject to the City of Rohnert Park prescribed mitigation measures. Therefore, future exterior noise levels at the frontage of the residential buildings would exceed County standards for East Railroad Avenue and without feasible mitigation would result in a significant and unavoidable impact under Impact Criterion #3 regarding a permanent increase in ambient noise levels.

#### **Impact Criterion #4**

***Ambient Noise Levels: Would the project cause a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?***

#### **Impact 3.9-3**

***Construction activities associated with Sonoma Mountain Village could generate substantial temporary or periodic increases in noise levels potentially annoying residents. This would be a potentially significant impact.***

Project development would require the use of heavy equipment for site grading and excavation, the installation of utilities, paving, and building fabrication. Development activities would also involve the use of smaller power tools, generators, and other sources of noise. During each stage of development, there would be a different mix of equipment operating and noise levels would vary based on the amount of equipment in operation and the location of the activity.

The US EPA has compiled data regarding the noise generating characteristics of specific types of construction equipment and typical construction activities, which are presented in Table 3.9-13 and Table 3.9-14, respectively. These noise levels would diminish rapidly with distance from the construction site at a rate of approximately 6 dBA per doubling of distance (e.g., a noise level of 84 dBA measured at 50 feet from the noise source to the receptor would fall to 78 dBA at 100 feet from the source to the receptor).

The nearest existing off-site residential uses (to the north and west of the site) that would be subject to construction-related noise are several hundred feet from the closest potential construction site. It is anticipated that the residential uses would not be significantly affected by construction noise due to noise attenuation through distance. However, construction noise could affect any new on-site residential uses if they are occupied prior to the completion of all on-site construction associated with latter phases of the project.

Construction activities would generate typical noise levels of up to 82 dBA  $L_{eq}$  at on-site residences during ground clearing, and 86 dBA  $L_{eq}$  at on-site residences during excavation, grading, and finishing. However, construction activities would be limited to weekday daytime hours between 8:00 a.m. through 6:00 p.m. in accordance with Section 9.44.120 of the Rohnert Park Municipal Code. The resulting noise would, however, be considered a potentially significant noise impact under Impact Criterion #4 regarding a substantial temporary or periodic increase in ambient noise levels in the project vicinity.

**Table 3.9-13  
Noise Ranges of Typical Construction Equipment**

<b>Construction Equipment</b>	<b>Noise Levels in dBA L<sub>eq</sub> at 50 feet<sup>a</sup></b>
Front Loader	73–86
Trucks	82–95
Cranes (moveable)	75–88
Vibrator	68–82
Saws	72–82
Pneumatic Impact Equipment	83–88
Jackhammers	81–98
Pumps	68–72
Generators	71–83
Compressors	75–87
Concrete Mixers	75–88
Concrete Pumps	81–85
Back Hoe	73–95
Tractor	77–98
Scraper/Grader	80–93
Paver	85–88

*Source:* US EPA, 1971 as presented in City of Los Angeles, 1998.

*Notes:*

- a. Machinery equipped with noise-control devices or other noise-reducing design features do not generate the same level of noise emissions as that shown in this table.

**Table 3.9-14  
Typical Outdoor Construction Noise Levels**

<b>Construction Phase</b>	<b>Noise Levels at 50 Feet (dBA L<sub>eq</sub>)</b>	<b>Noise Levels at 50 Feet with Mufflers (dBA L<sub>eq</sub>)</b>
Ground Clearing	84	82
Excavation, Grading	89	86
Foundations	78	77
Structural	85	83
Finishing	89	86

*Source:* US EPA, 1971.



In accordance with Policy NS-4 of the Rohnert Park General Plan, Mitigation Measure 3.9-3 is recommended to reduce the potential noise impacts associated with project traffic and development of the Sonoma Mountain Village project to less-than-significant levels.

### Mitigation Measure 3.9-3

3.9-3 Reduce noise levels associated with construction activities and heavy-duty construction equipment. The project contractor(s) shall implement measures to reduce noise levels generated by construction equipment operating at the project site during project grading and construction phases. The project sponsor shall include in construction contracts the following requirements or measures shown to be equally effective:

- Stationary construction equipment that generates noise levels in excess of 65 dBA  $L_{eq}$  shall be located as far away from existing residential areas as possible. If required to minimize potential noise conflicts, the equipment shall be shielded from noise sensitive receptors by using temporary walls, sound curtains, or other similar devices
- Heavy-duty vehicle storage and start-up areas shall be located a minimum of 150 feet from occupied residences where feasible
- An information sign shall be posted at the entrance to each construction site that identifies the permitted construction hours and provides a telephone number to call and receive information about the construction project or to report complaints regarding excessive noise levels
- The project sponsor shall inform future on-site residents of the possibility of noise disruption due to ongoing construction activity associated with project development.

The implementation of Mitigation Measure 3.9-3 would reduce Impact 3.9-3 regarding causing an increase in ambient noise levels under Impact Criterion #4 to a less-than-significant level.

## **Cumulative Development**

The geographic context for the cumulative noise analysis of the proposed project is the buildout of Rohnert Park. This cumulative analysis examines the effects of the proposed development, in combination with other current projects, probable future projects, and projected future growth within the City in the next 20 years.

The previous conclusion above regarding significant project traffic noise impacts on residential development along the north side of Camino Colegio (between Manchester Avenue and Mitchell Drive) and both sides of East Railroad Avenue east of Old Redwood Highway would apply as well under cumulative development conditions. The noise levels associated with existing and cumulative traffic volumes with the project are identified in Table 3.9-15. The implementation of Mitigation Measure 3.9-1 would reduce all noise impacts along Camino Colegio to a less-than-significant cumulative level

under Impact Criterion #1, regarding noise levels in excess of standards established in the General Plan. However, the noise exposures of residential uses along East Railroad Avenue would remain a significant unavoidable cumulative impact. The same conditions and conclusions would apply under Impact Criterion #2.

**Table 3.9-15  
Cumulative Traffic Noise Increments (2030) at Residential Locations Facing Site Access Roads**

Residential Area (Type of Noise Barrier) Analysis Location	Roadway Segment	L <sub>dn</sub> (dBA)			
		Existing Traffic	Cumulative + Project Traffic	Cumulative Increase	Significance Threshold
Camino Colegio, north side (7- to 8-foot, property line concrete wall)	East of Manchester Avenue	46.7*	50.8*	4.1	8.0
Camino Colegio, north side (6-foot wooden property line fence)	West of Manchester Avenue	56.6	60.7	<b>4.1</b>	3.0
Camino Colegio, west side (7- to 8-foot, property line concrete wall)	Magill Lane to Maple Drive	50.0*	54.5*	4.5	5.0
Camino Colegio, east side (no wall, only low earth berms and parking structures in some places)	Magnolia Avenue to Mitchell Drive	57.3	61.8	<b>4.5</b>	3.0
East Railroad Avenue, north side (no wall or fence)	East of Old Redwood Highway	57.5	61.5	<b>4.0</b>	3.0
East Railroad Avenue, south side (no wall, or fence)	East of Old Redwood Highway	56.6	60.6	<b>4.0</b>	3.0
Bodway Parkway, west side (7- to 8-foot, property line concrete wall)	Madison Avenue to Camino Colegio	45.8*	49.1	3.3	8.0
East Cotati Avenue, both sides, includes commercial uses (no wall or fence)	Lasalle Avenue to Lancaster Drive	66.7	68.1	<b>1.4</b>	1.0

Source: PBS&J, 2009.

Notes: L<sub>dn</sub> calculated using the FHWA's TNM computer model; instances where incremental noise exceed FTA residential standards are shown in **bold**.

\* In these cases, the residences were protected from traffic noise intrusion by 7- to 8-foot, concrete sound walls and the modeled L<sub>dn</sub>s include the effects of such walls.

Future cumulative increases in exterior noise levels at existing residential uses facing East Cotati Avenue would exceed the applicable City of Cotati standards of 65 dBA L<sub>dn</sub>. Cumulative traffic would likely cause interior noise levels in some of the closest and oldest of the residential units along East Cotati Avenue to increase further above the 45 dBA L<sub>dn</sub> standards set by Title 24 and the City of Cotati. Consequently, cumulative noise impacts to residential uses along East Cotati Avenue would be significant and unavoidable under Criterion #3.

Cumulative development in Rohnert Park should not result in the exposure of people to or the generation of excessive construction groundborne vibration or excessive construction noise due to the localized nature of such vibration and noise impacts under Impact Criteria #2 and #4, and the fact that all construction projects would not occur at the same time and at the same location. Further, all construction activities that would occur in close proximity to occupied residences would be limited to daytime hours between 8:00 a.m. through 6:00 p.m. in accordance with Section 9.44.120 of the Rohnert Park Municipal Code. As such, their cumulative noise or vibration impacts would not be cumulatively considerable under Impact Criteria #2 and #4.

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## **3.10 PLANNING POLICY AND RELATIONSHIP TO PLANS**

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### **Introduction**

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All incorporated cities and counties in California are required to develop, implement, and periodically revise a plan for the comprehensive regulation of land use within territory that pertains to their planning activities. The Rohnert Park General Plan fulfills this requirement for the City of Rohnert Park.<sup>1</sup> The Rohnert Park General Plan is the most current comprehensive long-term plan for the physical development of the City. This section of the EIR evaluates the Sonoma Mountain Village project and its development components for consistency with the relevant goals and policies of the Rohnert Park General Plan.

### **City of Rohnert Park General Plan**

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The General Plan has been termed the constitution of community land use; it is the highest expression of desired community character. In California, all other land use policies and permits must ultimately conform to the goals and policies of the General Plan. The General Plan serves primarily as a policy document and is used as a point of reference by public officials when making decisions on such things as specific plans, subdivisions, capital improvements, neighborhood rehabilitation, and public acquisitions.

The proposed project includes land use designations and distributions that differ from current land use designations included in the existing City's General Plan. The proposed project would result in the conversion of 175 acres of land designated as light industrial into a proposed mixed-use residential land, resulting in an overall increase in residential population and job creation. This would require several land use entitlements from the City of Rohnert Park including a General Plan Amendment/Change of Zone, and a development agreement. The project is proposing to amend the existing General Plan as shown in Appendix L.

In addition to amending the General Plan, the existing zoning standards within the entire project area would be revised from Limited Industrial to Planned Development. Within the Planned Development, the SmartCode will provide project specific zoning characteristics, as shown in Appendix J. Table 3.10-1 provides a brief summary of the proposed SmartCode zoning changes.

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<sup>1</sup> *Rohnert Park 2020, A Plan for the Future, General Plan*, Adopted by the City Council, July, 2000.

**Table 3.10-1  
Sonoma Mountain Village Proposed Zoning**

<b>Zone</b>	<b>SmartCode Transect Zone Description</b>	<b>Gross Acres</b>	<b>General SmartCode Building Functions</b>
<b>T-3</b> Sub-Urban	Low density suburban residential, allowing home occupations. Planting is naturalistic with setbacks relatively deep. Blocks may be large and the roads irregular to accommodate natural conditions.	17.8	Restricted residential, restricted lodging, restricted office, restricted retail.
<b>T-4</b> General Urban	Mixed-use, primarily urban residential. Consists of a wide range of building types: single, sideyard, and rowhouses. Setbacks and landscaping are variable. Streets typically define medium-sized blocks.	74.2	Limited residential, limited lodging, limited office, restricted retail.
<b>T-5</b> Urban Center	Higher density mixed-use buildings that accommodate retail, offices, rowhouses, and apartments. Consists of a tight (compact) network of streets with wide sidewalks, with street trees and narrow street frontages.	42.1	Residential, lodging, office and retail.
<b>T-6</b> Urban Core	High density with a variety of uses including civic buildings. Consists of larger blocks and street trees and narrow street frontages.	9.4	Residential, lodging, office and retail.
<b>CS</b> Civic Space Reserve	Public site permanently dedicated to open space use.	29.1	—
<b>CP</b> Civic Parking Reserve	Site dedicated to municipal parking and/or transit.	1.3	—
<b>CB</b> Civic Building Reserve	Site dedicated to buildings generally operated by not-for-profit entity for culture, education, government or other municipal use.	1.3	Civic/municipal use.
<b>Project Total:</b>		<b>175.2</b>	

*Source:* Sonoma Mountain Village LLC, 2009.

The Final Development Plan SmartCode proposes four mixed use residential/office/retail districts (T-3 Sub-Urban, T-4 General Urban, T-5 Urban Center, and T-6 Urban Core) and three civic spaces (Civic Space Reserve, Civic Parking Reserve, and Civic Building Reserve) as a part of the proposed project. The SmartCode allows for a diversity of housing types, building densities, and structural uses by focusing on the land use and regulatory goals of the entire plan in conjunction with the Sustainability Action Plan. Therefore, as proposed, the change in land use designations and zoning within the Sonoma Mountain Village would enable development of uses that range from small lot attached residential units to large scale office and industrial uses.

The Sonoma Mountain Village project and its development components would be consistent with the relevant goals and policies of the General Plan. Although the Sonoma Mountain Village Final Development Plan outlines the ways in which the project would generally be consistent with or further the goals and policies of the General Plan, the following pages contain an independent evaluation of the Sonoma Mountain Village and its development components with the provisions of the General Plan respecting new development. Goal and policy issues include those relating to land use, growth management, community design, transportation, open space, public facilities, environmental resources, and related subject areas. The goal and policy provisions presented in this analysis are direct quotations from the Rohnert Park General Plan. If General Plan inconsistency or potential General Plan inconsistency issues are identified, mitigation measures or recommended amendments are noted as required to bring the Sonoma Mountain Village project and its development components into consistency with the General Plan goal or policy being considered. The mitigation measures are as developed in each of the technical EIR sections (i.e., Hydrology and Water Quality, Biological Resources).

As noted in the Rohnert Park General Plan (page 1-4): “The General Plan articulates a vision for the city, but it is not merely a compendium of ideas and wish lists. Broad objectives such as ‘quality of life’ and ‘community character’ are meaningful only when translated into tangible, feasible actions. Thus, while each element of the General Plan articulates long-term goals, it also includes action-oriented policies that outline concrete and achievable steps to attain these goals.” Overall, the General Plan outlines a vision for the long-range physical and economic development of the City, establishes a basis for judging whether specific development proposals are in harmony with the stated vision, and provides the basis for setting priorities for detailed plans and capital improvements.

The following consistency analysis utilizes a table format (Table 3.10-2) to make the analysis easy to read and the conclusions accessible to the public and decision-makers. This analysis pertains to the whole of the Sonoma Mountain Village project area.

Table 3.10-2

Consistency Analysis of Sonoma Mountain Village and its Development Components with the Relevant Provisions of the Rohnert Park General Plan

Goals and Policies	Consistency Analysis
<b>Land Use and Growth Management Element</b>	
<b>Goal LU-A:</b> Maintain a compact urban form, with a defined urban growth boundary and urban development intensities in land designated for urban uses.	<b>Consistent:</b> The project is located within the Rohnert Park City Limits and Urban Growth Boundary. Portions of the project site are developed with research/industrial land uses. The project includes a proposal to rezone the project site from “I-L” (Limited Industrial) to “P-D” (Planned Development) to accommodate a wide range of residential, commercial and office land uses that are mutually supportive, and to integrate the project into the existing urban residential surroundings.  As noted in the Sonoma Mountain Village Final Development Plan submittal, the project sponsor is proposing an “urban village” that incorporates a mix of housing types and affordability, interconnected and pedestrian-oriented public streets, civic buildings, a village square, parks and vertically-integrated mixed-use buildings in the village square.
<b>Goal LU-B:</b> Provide soft urban edges and ensure that designated intensities provide gradual transition to open space at the City edges.	<b>Consistent:</b> Taller buildings of the project with more intense commercial and office land uses as provided for in the T-5 Urban Center and T-6 Urban Core Transects would be generally clustered around or near the existing Agilent buildings in the north portion of the site. In this way, a transition in building intensity and bulk from the center of the site outward to the edges of the site would be achieved providing a more harmonious appearance with the existing surrounding community as a whole.
<b>Goal LU-C:</b> Promote a balanced land use program and increase the ability of people to live and work in the City.	<b>Consistent:</b> As explained under Goal LU-A above, the project sponsor is proposing an “urban village that incorporates a mix of housing types and affordability, interconnected and pedestrian-oriented public streets, civic buildings and a civic square, a variety of parks, and vertically-integrated mixed-use buildings in the village square.” Mixed uses include retail/commercial and office space functions thereby enhancing job opportunities for the local population.  The rate of job growth would be slightly greater than the rate of residential growth projected under the City’s <i>Growth Management Program</i> and creation of work space, types of jobs to be created, amount of office space to be leased, availability in the labor force, and business opportunities prevalent within the project area and the City as a whole. The existing jobs:housing balance of the City of 1:1 would be increased by the project when viewed in isolation, since the projected 2,576 permanent jobs are greater

**Table 3.10-2**  
**Consistency Analysis of Sonoma Mountain Village and its Development Components with the Relevant Provisions of the Rohnert Park General Plan**

Goals and Policies	Consistency Analysis
<p><b>Goal LU-D:</b> Provide for concentrations of activity and mixed use and pedestrian oriented development in selected areas.</p> <p><b>Goal LU-H:</b> Maintain land use patterns that maximize residents’ accessibility to parks, open space, and neighborhood shopping centers.</p> <p><b>Goal LU-I:</b> Provide a range of housing types in type and price, including large-lot homes and housing oriented to students. Provide a variety of housing in all neighborhoods and reserve sites, where appropriate, for housing types that would ensure that Rohnert Park remains an inclusive community.</p> <p><b>Goal LU-K:</b> Promote a diverse range of jobs within the City.</p>	<p>than the proposed 1,892 housing units. However, the excess jobs provided by the project will provide in town higher end employment opportunities for both the existing residential communities to the north and west of Sonoma Mountain Village, as well as the proposed Southeast Specific Plan, which is a primarily residential project to the east of Sonoma Mountain Village. As a result of the anticipated Sonoma Mountain Village development, the City determined that it would not seek to annex the Canon Manor Specific Plan area and would ultimately slow down development within planned specific plan areas. In addition, adherence to the Growth Management Program will ensure that the project is developed at a rate that balances employment and residential uses.</p> <p><b>Consistent:</b> Refer to the discussion under Goal LU-C above.</p> <p><b>Consistent:</b> Refer to the discussion under Goal LU-C above.</p> <p><b>Consistent:</b> Refer to the discussion under Goal LU-C above.</p> <p>Housing, a major project component, is planned to encompass a diverse cross section of lot sizes, home sizes, and prices. The homes would include a combination of single family, mixed-use, live/work, and attached units, as well as high, medium, and low development densities. Adaptive reuse of the existing buildings would include provision for mixed-use functions wherein residential uses would be combined with office and retail uses. Housing is planned to include a mix of both rental and for-sale units with a range of pricing to assist in affordability requirements.</p> <p>Housing styles are planned to include a mix of design formats. The housing component of the project is also planned to include accessory dwellings or “granny” units to provide homeowners with the choice of using them as a home office, income-generating rental units, or for accommodating a larger family including the care of parents or a relative.</p> <p><b>Consistent:</b> Refer to the discussion under Goal LU-C above. In addition, the project would generate approximately 4,414 total jobs, of which 2,576 would be permanent on-site positions and 1,198 of which would be permanent off-site positions. The range of jobs, including technology, office, retail, professional</p>



**Table 3.10-2**  
**Consistency Analysis of Sonoma Mountain Village and its Development Components with the Relevant Provisions of the Rohnert Park General Plan**

Goals and Policies	Consistency Analysis
<p><b>Policy LU-2:</b> Require sites designated as Mixed Use—University District, City Center, Southwest Shopping Center, and near Bodway Parkway/Valley House Road—to be developed with a variety of residential and non-residential uses, in accordance with the delineated land use program for the Specific Plan areas in this chapter.</p> <p><b>Policy LU-6:</b> Locate new Medium and High Density Residential development adjacent to parks, creekways or other open space, in order to maximize residents’ access to recreational uses, or adjacent to a Mixed Use or Neighborhood Commercial Center, to maximize access to services.</p> <p><b>Policy LU-7:</b> Encourage new neighborhood commercial facilities and supermarkets to be located to maximize accessibility to all residential areas.</p> <p><b>Goal GM-A:</b> Recognize the availability of housing as a vital issue of statewide importance. Cooperate with other local governments and the State in addressing regional housing needs, and balance regional and State considerations with the community’s interest in preserving Rohnert Park’s quiet, safe, small-town feeling and desire for carefully planned and managed growth.</p>	<p>and administrative, hotel and spa, and public sector positions. While industrial jobs would be lost, the conversion would allow the City to better diversify its local workforce.</p> <p><b>Consistent:</b> Although the site is not currently designated for mixed use on the General Plan Diagram, General Plan amendments and a proposed change in zoning are being requested to allow mixed use development. The project site is also not within a designated Specific Plan area, but is located at Bodway Parkway and Valley House Drive immediately west of the Southeast Specific Plan area site.</p> <p><b>Consistent:</b> Refer to the discussion under Goals LU-A and LU-C above. The project would include approximately 27.3 acres of parkland, including various locally accessible park spaces throughout the project site. There would be a trail corridor along the western portion of the site. An all-weather soccer field consisting of artificial turf is planned for public use. The unincorporated acreage south of the project site and north of East Railroad Avenue that is not included in project development may ultimately be used for a public park or community garden.</p> <p><b>Consistent:</b> Refer to the discussion under Goal LU-C above. The project is proposed to include a 45,000 square foot grocery store specializing in the production of locally grown, sustainable products. All commercial/retail and office facilities would be available for use by project area and surrounding residents.</p> <p><b>Consistent:</b> Project phasing (rate of development) would be controlled by the City’s implementation of Ordinance No. 667 adding Chapter 17.66, the Growth Management Program to the Rohnert Park Municipal Code (the actual Program is contained in Chapter 17.19 of the Zoning Code). An objective is to ensure new residential development and mixed-use developments with a residential component occurs concurrently with the necessary infrastructure and public service improvements and maintain an average population growth rate of one percent per year. The project would also be subject to conformance with City Ordinance No. 677 regarding the provision of affordable housing.</p> <p>The development of the proposed project would limit the development of residential units and release of building permits in some of the planned specific plan</p>

**Table 3.10-2**

**Consistency Analysis of Sonoma Mountain Village and its Development Components with the Relevant Provisions of the Rohnert Park General Plan**

Goals and Policies	Consistency Analysis
<p><b>Goal GM-E:</b> Promote contiguous urban development and maintain a compact form over successive stages of the City's development.</p>	<p>areas, due to the City's desire to maintain a balanced rate of growth. As a result, the City has determined not to annex the Canon Manor Specific Plan and has not extended infrastructure services to facilitate growth in the unincorporated County.</p> <p><b>Consistent:</b> Refer to the discussion under Goals LU-A and LU-C above.</p>
<p><b>Goal GM-D:</b> Maintain a balance of land uses and a variety of housing types over time.</p>	<p><b>Consistent:</b> Refer to the discussion under Goals LU-A and LU-C above. See also the discussion under Goal LU-I regarding housing.</p>
<p><b>Goal GM-E:</b> Promote contiguous urban development and maintain a compact form over successive stages of the City's development.</p>	<p><b>Consistent:</b> Refer to the discussion under Goals LU-A and LU-C above.</p>
<p><b>Goal GM-F:</b> Ensure all new development provides necessary public facilities to support the development.</p>	<p><b>Consistent:</b> Refer to the discussion under Goal GM-A above. In addition, the project sponsor would contribute to the Public Facilities Finance Plan (PFFP) which identifies infrastructure projects needed to implement the City's General Plan and which requires that new development, like Sonoma Mountain Village, pay its share, through proportional funding of PFFP projects.</p>
<p><b>Goal GM-G:</b> Require all urban development in the Rohnert Park Planning Area to be located within the Urban Growth Boundary; prohibit urban development outside the Urban Growth Boundary.</p>	<p>To the extent the project would increase the employee and resident population of Rohnert Park, there would be an increase in the demand for the provision of public services. The analysis indicates there would be no significant impacts on public services due to the project, but the project would contribute to the overall demand for public services in terms of cumulative development throughout the City as a whole.</p> <p>Planning for the future expansion of utility and public service facilities and services would take account of the project population levels. The project would be required to comply with the growth management goals and policies contained in the General Plan and Zoning Ordinance Chapter 17.19 regarding growth. Controlled growth would thus align the pace of project development with the ability of utility and public service providers to adequately serve the project.</p> <p><b>Consistent:</b> The project would occur within the Rohnert Park City Limits and within the Urban Growth Boundary.</p>

**Table 3.10-2**  
**Consistency Analysis of Sonoma Mountain Village and its Development Components with the Relevant Provisions of the Rohnert Park General Plan**

Goals and Policies	Consistency Analysis
<p><b>Goal GM-H:</b> Minimize the impacts—physical, visual, and fiscal—of growth and annexation on existing homes and businesses.</p>	<p><b>Partially Consistent:</b> The project would occur within the Rohnert Park City limits and annexation would thus not be required. Refer to the discussion above under Goal GM-A regarding rate of growth. The identified physical environmental impacts as identified in this EIR can be mitigated to less-than-significant levels with the exception of specified air quality, noise, and traffic impacts listed as significant and unavoidable and would require mitigation as identified in this EIR.</p>
<p><b>Policy GM-14:</b> Require new development to dedicate land to the City in the appropriate amount and location for parks and recreational space in accordance with the General Plan Diagram, the Specific Plan for the area, and the City’s park dedication requirements.</p>	<p><b>Consistent:</b> The project is not located within a Specific Plan area as indicated on the General Plan Diagram. The City requires parks and recreational space to be provided for new residential development (land or in-lieu fees) at the ratio of 5 acres per 1,000 residents, not including parkland needed due to non-residential development in the form of plazas and mini-parks. With upwards of 4,438 residents at buildout, the project would require 22.19 acres for parks. The Final Development Plan includes a proposal for approximately 27.3 acres of recreation and parkland, including various locally accessible park spaces throughout the project site, thus exceeding the parkland requirements for residential uses. Public parks and amenities would be offered for dedication to the City and maintenance by the City, while other open area and community facilities would be maintained by homeowners associations. There would be a trail corridor along the western portion of the site (see the discussion below under <i>Bike Trails</i>). An all-weather soccer field consisting of artificial turf is planned for public use with maintenance proposed to be provided by the City of Rohnert Park.</p>

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**Community Design Element**

<p><b>Goal CD-A:</b> Create pedestrian-oriented activity centers that serve as community focal points.</p>	<p><b>Consistent:</b> The Village Square, as a community focal point, is proposed as a central gathering space within the project around which would be clustered a variety of functions and uses. Shopping, community events and entertainment functions are envisioned, accessible to residents throughout the project site via bicycle and pedestrian connections. The provision of local goods and services is planned for emphasis as a convenience to residents. Surrounding buildings would range from three to seven stories in height. The street level building plan is proposed to offer a hotel, multi-screen cinema, restaurants, farmers market specializing in organic locally-grown goods, coffee houses, personal</p>
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**Table 3.10-2**  
**Consistency Analysis of Sonoma Mountain Village and its Development Components with the Relevant Provisions of the Rohnert Park General Plan**

Goals and Policies	Consistency Analysis
<p><b>Goal CD-B:</b> Establish strong connections between adjacent neighborhoods and between neighborhoods and activity centers, in order to encourage walking and biking.</p>	<p>services, and shops. Upper building levels are proposed to contain single- and multi-story lofts and condominiums with balconies overlooking the square.</p> <p><b>Consistent:</b> The project is planned to characterize “small block perimeter design” to create an interconnected street network and encourage pedestrian and bicycle travel. The project is proposed to establish linkages to off-site locations via a bike trail proposed along the east side of the Northwestern Pacific Railroad right-of-way and (if requested) the addition of a Class 1 bike lane along the southern portion of Bodway Parkway on the east side of the property.</p> <p>The Final Development Plan recognizes the existing Northwestern Pacific Railroad right-of-way as a possible future rail commute corridor, with a potential station located about .75 miles northwest of the project site at Cotati Avenue and Industrial Road. Should a commute corridor come to fruition, pedestrian and bicycle access as proposed throughout the site would include signage to emphasize connections north to the commuter station.</p>
<p><b>Goal CD-C:</b> Establish an open space network that links residential neighborhoods, parks, and open space areas.</p>	<p><b>Consistent:</b> Refer to the discussion above under Goal CD-B.</p>
<p><b>Goal CD-D:</b> Preserve and enhance views of the eastern ridgeline.</p>	<p><b>Consistent with Mitigation:</b> Due to building height limitations, the project would not be expected to substantially obstruct views toward the Sonoma Mountains except from interior portions of the site where new building structures would fill the field of view. The direct west/ east alignment of the project's street grid system would facilitate long range views east toward the Sonoma Mountains where the view from the site's interior would not be obstructed by street trees or project buildings.</p> <p>Further, Mitigation Measure 3.1-1 in EIR Section 3.1, Aesthetics and Urban Design, states: “Prior to development of detailed project plans along the western boundary of project, the project sponsor shall prepare a view corridor analysis in order to determine whether revised maximum building setback and height limits should be established within the T-4 General Urban Zone transect, so as not to obstruct views of the Sonoma Mountains from existing properties immediately west of the project site...Maintaining existing views to the Sonoma Mountains from off-site locations would reduce Impact 3.1-1 to a less-than-</p>

**Table 3.10-2**

**Consistency Analysis of Sonoma Mountain Village and its Development Components with the Relevant Provisions of the Rohnert Park General Plan**

Goals and Policies	Consistency Analysis
<p><b>Goal CD-F:</b> Maintain a distinct urban edge, while creating a gradual transition between urban uses and open space.</p>	<p>significant level under Impact Criterion #1 regarding an adverse impact on a scenic vista.”</p> <p><b>Consistent:</b> Taller buildings of the project with more intense commercial and office land uses as provided for in the T-5 Urban Center and T-6 Urban Core Transects would be generally clustered around or near the existing Agilent buildings in the north portion of the site. In this way, a transition in building intensity and bulk from the center of the site outward to the edges of the site would be achieved providing a more harmonious appearance with the existing surrounding community as a whole.</p> <p>Removal of the existing berm along Camino Colegio and Bodway Parkway would allow greater visual access to buildings near streets surrounding the project site. However, the Final Development Plan Rendering indicates substantial tree plantings would be provided to improve the pedestrian and street environment urban edge surrounding the project site. Tree plantings would define the project edge through repetition in form, provide added texture and color to the project edge, screen views to buildings, and provide shade for pedestrians where the trees would be located along the outer sidewalk edge.</p>
<p><b>Goal CD-H:</b> Promote a mix of uses and variety of housing types and sizes with residential neighborhoods.</p>	<p><b>Consistent:</b> Housing, a major project component, is planned to encompass a diverse cross section of lot sizes, home sizes, and prices. The homes would include a combination of single family, mixed-use, live/work, and attached units, as well as high, medium, and low development densities. Adaptive reuse of the existing buildings would include provision for mixed-use functions wherein residential uses would be combined with office and retail uses. Housing is planned to include a mix of both rental and for-sale units with a range of pricing to assist in affordability requirements.</p> <p>Housing styles are planned to include a mix of design formats. The housing component of the project is also planned to include accessory dwellings or “secondary” units to provide homeowners with the choice of using them as a home office, an income-generating rental unit, or for accommodating a larger family including the care of parents or a relative.</p>
<p><b>Policy CD-17:</b> Allow townhomes and multifamily dwellings to be integrated with single-family residences.</p>	<p><b>Consistent:</b> Refer to the discussion under Goal CD-H above.</p>

**Table 3.10-2**  
**Consistency Analysis of Sonoma Mountain Village and its Development Components with the Relevant Provisions of the Rohnert Park General Plan**

Goals and Policies	Consistency Analysis
<p><b>Policy CD-18:</b> Prepare a design standards checklist for design reviews.</p>	<p><b>Consistent:</b> The project sponsor is proposing project development according to the provisions of the SmartCode, which is a document that establishes design criteria for streets, blocks, open spaces, and buildings.</p> <p>The SmartCode contains numerous details supplanting a typical zoning ordinance regarding building function; building configuration and height; setbacks from streets; density of development; lot coverage; parking requirements; architectural standards inclusive of materials, exterior finishes, use of balconies and porches, fences, windows and shutters, openings, roofs and corner treatments, etc.; landscape development standards; use of signage; sound level limits; and other requirements and standards which vary by location and use.</p> <p>There are also design requirements for “Thoroughfare Assemblies” consisting of boulevards, avenues, commercial streets, roads, rear alleys, bicycle lanes, paths, transit routes, etc. with specific right-of-way widths, pavement widths, traffic lanes, parking lanes, curb radii, design speeds, pedestrian crossing times, and other factors as prescribed.</p>
<p><b>Policy CD-19:</b> As part of updating the City's zoning regulations or applicable specific plans, adopt standards to foster pedestrian orientation of new development in Mixed-Use and Neighborhood commercial areas by:</p> <ul style="list-style-type: none"> <li>• Developing a coherent set of standards for buildings, such that building facades and entrances define the streetscape and promote street activity.</li> <li>• Maintaining volumetric building standards that require buildings to be located at the street by establishing maximum setback or “build-to lines,” with appropriate setbacks for upper stories.</li> <li>• Ensuring that primary entrances of buildings face the streets.</li> <li>• Requiring that parking is provided in the interior of the block, screened by the building or landscaping.</li> <li>• Requiring awnings and canopies for pedestrian comfort, where appropriate and</li> <li>• Establishing building transparency from sidewalks.</li> </ul>	<p><b>Consistent:</b> Refer to the discussion above under Policy CD-18 regarding the SmartCode and design standards.</p>

**Table 3.10-2**  
**Consistency Analysis of Sonoma Mountain Village and its Development Components with the Relevant Provisions of the Rohnert Park General Plan**

Goals and Policies	Consistency Analysis
<p><b>Policy CD-20:</b> Encourage buildings to foster a sense of place by providing transitions between the street and building, front setback variation for residential development, and building articulation and massing, as part of development standards or any design guidelines that may be prepared.</p>	<p><b>Consistent:</b> Refer to the discussion above under Policy CD-18 regarding the SmartCode and design standards.</p>
<p><b>Policy CD-21:</b> Minimize the visual dominance of garages by maintaining appropriate development standards in the City's zoning and subdivision regulations and/or design guidelines.</p>	<p><b>Consistent:</b> The SmartCode indicates residential development blocks would be accessed through the use of alleys within each block, with garages to be provided within the alleys rather than attached to building fronts facing directly on public streets thus minimizing the visual dominance of garages.</p>
<p><b>Policy CD-26:</b> Design local streets to not only accommodate traffic, but also to serve as comfortable pedestrian environments. These should include but not be limited to:</p> <ul style="list-style-type: none"> <li>• Street tree planting adjacent to curb and between the street and sidewalk to provide a buffer between the pedestrian and automobile, where appropriate;</li> <li>• Minimum curb cuts along streets; and</li> <li>• Sidewalks on both sides of streets, where feasible.</li> </ul>	<p><b>Consistent:</b> The SmartCode provides for street plantings throughout residential and commercial neighborhoods. Refer to the discussion above under Policy CD-18 regarding the SmartCode and design standards detailed under the SmartCode.</p>
<p><b>Policy CD-27:</b> Allow sound walls only for development along U.S. 101 and the NP Railroad.</p>	<p><b>Consistent with Mitigation:</b> Sound walls currently exist along Camino Colegio. Mitigation Measures 3.9-1 and 3.9-2 require to improve and upgrade the existing sound walls along Camino Colegio are provided in EIR Section 3.9, Noise.</p>
<p><b>Goal CD-K:</b> Provide safe, convenient, and comfortable pedestrian connections within commercial centers and between commercial centers and adjacent sites and residential neighborhoods.</p>	<p><b>Consistent:</b> As noted in the Sonoma Mountain Village Final Development Plan submittal, the project sponsor is proposing an “urban village” that incorporates a mix of housing types and affordability, interconnected and pedestrian-oriented public streets, civic buildings, a village square, parks and vertically-integrated mixed-use buildings in the village square.</p> <p>The project is planned to characterize “small block perimeter design” to create an interconnected street network and encourage pedestrian and bicycle travel. The project is proposed to establish linkages to off-site locations via a bike trail proposed along the east side of the Northwestern Pacific Railroad right-of-way and (if requested) the addition of a Class 1 bike lane along the southern portion of Bodway Parkway on the east side of the property.</p>

**Table 3.10-2  
Consistency Analysis of Sonoma Mountain Village and its Development Components with the  
Relevant Provisions of the Rohnert Park General Plan**

Goals and Policies	Consistency Analysis
<p><b>Goal CD-L:</b> Ensure that the location of buildings and the orientation of entrances within commercial centers allow for easy pedestrian access.</p> <p><b>Policy CD-56:</b> As part of the Zoning Ordinance, maintain development standards for all development within commercial districts that include, but are not limited to:</p> <ul style="list-style-type: none"> <li>• Maximum setbacks from the front lot-line;</li> <li>• Maximum length of the front lot line that can be used as the edge of a parking lot;</li> <li>• Landscaping requirements;</li> <li>• Design standards for parking lots, including landscaping and buffering;</li> <li>• Required orientation of main entrances to the streets;</li> <li>• Building transparency and pedestrian comfort;</li> <li>• Signage requirements; and</li> <li>• Height, overall size, materials, lighting, and location.</li> </ul>	<p>The Final Development Plan recognizes the existing Northwestern Pacific Railroad right-of-way as a possible future rail commute corridor, with a potential station located about .75 miles northwest of the project site at Cotati Avenue and Industrial Road. Should a commute corridor come to fruition, pedestrian and bicycle access as proposed throughout the site would include signage to emphasize connections north to the commuter station.</p> <p><b>Consistent:</b> Refer to the discussion above under Policy CD-18 and Goal CD-K.</p> <p><b>Consistent:</b> Refer to the discussion above under Policy CD-18 regarding the SmartCode.</p>

**Transportation Element**

**Goal TR-C:** Build new roads and improve existing roadways, where necessary, in conjunction with new development.

**Consistent with Mitigation:** Refer to the discussion above under Policy CD-18. Roadways internal to the project site would be constructed to serve the project residents and businesses. Mitigation measures 3.13-1 through 3.13-5 are provided in the EIR Section 3.13, Traffic and Circulation, to maintain and/or improve Levels of Service at study intersections.

The project includes a General Plan amendment to change Figure 2.2-1, General Plan Diagram, and Figure 4.1-1, Master Street Plan to include a modification to Bodway Parkway from a 4-lane Major Collector to a 2-lane Minor Collector on the east side of the project site south of Valley House Drive. Bodway Parkway does not currently exist south of



**Table 3.10-2**  
**Consistency Analysis of Sonoma Mountain Village and its Development Components with the Relevant Provisions of the Rohnert Park General Plan**

Goals and Policies	Consistency Analysis
<p><b>Goal TR-F:</b> Encourage alternative modes of travel—including transit, bicycles, and walking—by coordinating land use planning and development with transportation and by promoting compact, mixed-use development in targeted areas.</p> <p><b>Policy TR-2:</b> Require mitigation measures, as needed, for new development that increases traffic such that LOS levels fall below the established minimum standard. Ensure that mitigation measures are coordinated with roadway improvements programmed for funding through transportation-related impact fees.</p> <p><b>Goal TR.H:</b> Coordinate with regional agencies on transportation improvements in the Rohnert Park Planning Area</p> <p><b>Policy TR-21 A:</b> Work with Sonoma County, the City of Santa Rosa, the City of Cotati, and the City of Petaluma (“Contributing Jurisdictions”) and the Sonoma County Transportation Authority (SCTA) to plan and implement selected improvements necessary to mitigate impacts of increased traffic congestion on major roads and intersections in Penngrove (“Regional Mitigation Plan”)—and a financing plan that explains how those improvements will be funded and that determines each Contribution Jurisdiction's fair share. The City shall contribute its fair share of the total cost of the Regional Mitigation Plan provided that the City's participation is roughly proportional to the traffic impacts from new development in Rohnert Park.</p>	<p>Valley House Drive and it would be completed to connect to East Railroad Avenue as part of the project.</p> <p><b>Consistent:</b> Refer to the discussion above under Goal CD-K.</p> <p><b>Partially Consistent:</b> Where potentially significant or significant traffic and circulation impacts are noted, mitigation is provided to reduce the identified impact(s) to a less-than-significant level to the extent practicable (Section 3.13 of this EIR, Traffic and Circulation). i.e., Mitigation Measures 3.13-1 through 3.13-5. Under Baseline plus Project Conditions, the project sponsor is noted as fully funding the intersection improvements as recommended <u>except</u> where (1) an intersection already meets signal warrants or (2) the collection of fees is currently ongoing by the local jurisdiction to provide intersection improvements. In these two cases, the project sponsor is noted as providing a fair share of funding for intersection improvements. Under Cumulative plus Project Conditions, the project sponsor is noted as providing a fair share of funding for intersection improvements.</p> <p><b>NA:</b> While the project would require transportation improvements as identified in Mitigation Measures 3.13-1 through 3.13-5 among others, it would be the City’s responsibility to coordinate with Caltrans and with Sonoma County in the ways determined in Policies TR-14 through TR-20.</p> <p><b>NA:</b> As noted under General Plan Policy TR-21: “The City's payment or other contribution of its fair share shall be provided when all of the following occur: (1) A Regional Mitigation Project is approved by the Sonoma County Board of Supervisors, and each of the Contributing Jurisdictions; (2) a financing plan for the Regional Mitigation Project has been approved by the Sonoma County Board of Supervisors, and each of the Contributing Jurisdictions; (3) new development that contributes to the traffic impacts to be mitigated by the project receives final approval by the City; and (4) each of the Contributing Jurisdictions has appropriated its fair share to the Regional Mitigation Project. In the event that other jurisdictions do not contribute their fair share to the Regional Mitigation Project, and funding for their fair share is provided by some other means to ensure implementation of the Regional</p>

**Table 3.10-2**  
**Consistency Analysis of Sonoma Mountain Village and its Development Components with the Relevant Provisions of the Rohnert Park General Plan**

Goals and Policies	Consistency Analysis
<p><b>Policy TR-21B:</b> Work with the City of Cotati and Sonoma State University to determine feasible measures to mitigate impacts of increased traffic on East Cotati Avenue (within the City of Cotati, beginning with the La Plaza intersection)... The Canon Manor Specific Plan, University Specific Plan, and Southeast Specific Plan shall include a detailed analysis of intersections within and outside of the city that are projected to be impacted by the specific plan project area; an analysis of the traffic impacts of the specific plan project area on East Cotati Avenue; a cumulative impact analysis; and feasible mitigation measures for lessening the potential traffic impacts.</p> <p><b>Goal TR-I:</b> Develop a comprehensive transportation demand management (TDM) program that preserves Rohnert Park's quality of life, while maintaining a positive business environment.</p> <p><b>Goal TR-J:</b> Reduce peak-hour traffic congestion and associated impacts, including air pollution, energy consumption, and noise.</p>	<p>Mitigation Project, the City will contribute and be limited to its fair share.”</p> <p>See also the discussion above under Policy TR-2 for additional data on funding traffic mitigation measures.</p> <p><b>NA:</b> Refer to the discussion above under Policy TR-21 A.</p> <p><b>Consistent:</b> A goal of the project is to reduce traffic generation by reducing dependence on the automobile, and the need to move long distances, and the need for fossil fuel-based modes in general. The project would emphasize a pedestrian and bicycle lifestyle, locate jobs, restaurants, and services in close proximity to residences and create live/work opportunities. To support a low-carbon transportation system, the project plans include the provision of a biodiesel filling station, electric car charging stations, a plug-in hybrid carshare program, a rideshare program, and a program to promote bicycling providing either free bicycles or bicycle maintenance for several years. Also, the project would implement a ‘walking bus’ program to get kids to school safely without the need for driving.</p> <p>The project Final Development Plan recognizes the existing Northwestern Pacific Railroad right-of-way along the west margin of the project site as a possible future rail commute corridor, with a potential station located about .75 miles northwest of the project site at Cotati Avenue and Industrial Road. Should a commute corridor come to fruition, pedestrian and bicycle access as proposed throughout the site would include signage to emphasize connections north to the commuter station.</p> <p><b>Consistent:</b> Refer to the discussion above under Goal TR-I.</p> <p>Concerning the issue of energy consumption and conservation, in 2007, the project sponsor completed</p>

**Table 3.10-2**

**Consistency Analysis of Sonoma Mountain Village and its Development Components with the Relevant Provisions of the Rohnert Park General Plan**

Goals and Policies	Consistency Analysis
<p><b>Goal TR-K:</b> Reduce the need for roadway improvements by making more efficient use of existing roads, bikeways, transit service, and other transportation facilities and services.</p>	<p>the installation of 90,000 square feet of solar panels on the roof of existing building #3 (proposed theater building with parking garage) capable of generating 1.14 megawatts of power for up to 1,000 homes. This would be consistent with the project proposal for implementing a Sustainability Action Plan (see Chapter 2, Project Description, for further information regarding the issue of sustainability to be incorporated into the project).</p>
<p><b>Policy TR-30:</b> In consultation with Golden Gate Transit and Sonoma County Transit, determine appropriate locations of new bus stops, in conjunction with increased service and expanded routes.</p>	<p><b>Consistent:</b> The project’s increased demand for transit services would encourage greater ridership on preexisting transit lines, resulting in greater use and effectiveness of existing transit resources and pedestrian and bicycle circulation within and near the Sonoma Mountain Village site as facilitated by a network of sidewalks and bicycle lanes to be developed along with the roadway system.</p> <p>The Final Development Plan recognizes the existing Northwestern Pacific Railroad right-of-way as a possible future rail commute corridor, with a potential station located about .75 miles northwest of the project site at Cotati Avenue and Industrial Road. Should a commute corridor come to fruition, pedestrian and bicycle access as proposed throughout the site would include signage to emphasize connections north to the commuter station.</p>
<p><b>Policy TR-31:</b> Require project proponents to provide bus stops and shelters in conjunction with new development.</p>	<p><b>Consistent:</b> Refer to the discussion above under Goal TR-K. New bus stop locations incorporated into the project would need to be coordinated with officials of the relevant transit districts as a matter of district policy.</p> <p><b>Consistent:</b> Refer to the discussions above under Goal TR-K and Policy TR-30. A higher proportion of high and medium density residential units would occur in the area around the Village Square, and public transport stops would be located in the Village Square area to facilitate public transit uses.</p>
<p><b>Goal TR-N:</b> Promote safe, efficient, and comfortable circulation for cyclists and pedestrians throughout Rohnert Park.</p>	<p><b>Consistent:</b> Refer to the discussion above under Goal CD-K regarding bicycle and pedestrian linkages.</p>
<p><b>Goal TR-O:</b> Create pedestrian-friendly activity centers that encourage local walking trips between, to, and from adjacent uses.</p>	<p><b>Consistent:</b> Refer to the discussion above under Goal CD-K regarding bicycle and pedestrian linkages. The Village Square, as a community focal point, is proposed as a central gathering space within the project around which would be clustered a variety of functions and uses, accessible throughout the</p>

**Table 3.10-2**

**Consistency Analysis of Sonoma Mountain Village and its Development Components with the Relevant Provisions of the Rohnert Park General Plan**

Goals and Policies	Consistency Analysis
<p><b>Goal TR-Q:</b> Provide pedestrian routes and bikeways that link residential areas to City parks and open space areas outside the City.</p>	<p>community through the provision of pedestrian and bicycle connections.</p>
<p><b>Goal TR-R:</b> Continue to develop a comprehensive network of bikeways that promote bicycle riding for transportation and recreation.</p>	<p><b>Consistent:</b> Refer to the discussion above under Goal CD-K regarding bicycle and pedestrian linkages.</p>
<p><b>Policy TR-38:</b> Establish pedestrian-friendly amenities along streets that run through or adjacent to areas designated for Mixed Use, High Density Residential, Public, or Parks. Ensure that:</p> <ul style="list-style-type: none"> <li>• Sidewalks are wide enough to accommodate pedestrian use.</li> <li>• Sidewalk intersection bulbs -- are provided to reduce the walking distance across streets.</li> <li>• Pedestrian lighting, benches, street trees and other sidewalk amenities are provided, and</li> <li>• Landscaping complements pedestrian circulation and eliminates barriers to pedestrian access.</li> </ul>	<p><b>Consistent:</b> Refer to the discussion above under Goal CD-K regarding bicycle and pedestrian linkages. See also the discussion under Policy CD-18 regarding project design and provisions of the SmartCode.</p>

**Open Space, Parks and Public Facilities Element**

<p><b>Policy OS-8:</b> Explore the feasibility of integrating natural and restored wetlands and vernal pool areas with new development or open space areas.</p>	<p><b>Consistent with Mitigation:</b> There are no vernal pools on the project site. Mitigation for the potential filling of wetlands is provided in EIR Section 3.3, Biological Resources under Mitigation Measure 3.3-5.</p>
<p><b>Goal OS-F:</b> Provide an integrated system of parks and trails throughout the City to meet the community's recreational needs.</p>	<p><b>Consistent:</b> Refer to the discussion above under Goal CD-K regarding bicycle and pedestrian linkages.</p>
<p><b>Goal OS-G:</b> Develop additional parkland in the City to meet the standards of required park acreage for new residents.</p>	<p><b>Consistent:</b> The City requires parks and recreational space be provided for new residential development (land or in-lieu fees) at the ratio of 5 acres per 1,000 residents, not including parkland needed due to non-residential development in the form of plazas and mini-parks. With upwards of 4,438 residents at buildout, the project would require 22.19 acres for parks. The Final Development Plan includes a proposal for approximately 27.3 acres of recreation and parkland, including various locally accessible park spaces throughout the project site, thus exceeding the residential requirement. Public parks and amenities would be offered for dedication to the City and maintenance by the City, while other open area and community facilities would be maintained by</p>

**Table 3.10-2**  
**Consistency Analysis of Sonoma Mountain Village and its Development Components with the Relevant Provisions of the Rohnert Park General Plan**

Goals and Policies	Consistency Analysis
	homeowners associations. There would be a trail corridor along the western portion of the site (see the discussion below under <i>Bike Trails</i> ). An all-weather soccer field consisting of artificial turf is planned for public use with maintenance proposed to be provided by the City of Rohnert Park.
<b>Policy OS-12:</b> Acquire and develop new parks in the approximate locations and sizes shown on Figure 5.2-1 and Table 5.2-2.	<b>Consistent:</b> Refer to the discussion above under Goal OS-G. Although General Plan Figure 5.2-1 does not show any parkland on the project site, the project includes the development of 27.3 acres of recreation and parkland.
<b>Policy OS-16:</b> Expand the City's network of bike and pedestrian paths in areas of new development.	<b>Consistent:</b> Refer to the discussion above under Goal CD-K regarding bicycle and pedestrian linkages.
<b>Goal PF-D:</b> Ensure that adequate wastewater facilities and services are available to meet the needs of existing and new development.	<b>Consistent:</b> Refer to the discussion above under Goal GM-F regarding the provision of utilities and public services to meet demand.
<b>Policy PF-9:</b> Require developers to install or pay for new sewer lines and other sewer improvements needed to accommodate new development.	<b>Consistent:</b> Refer to the discussion above under Goal GM-F regarding the provision of utilities and public services to meet demand.
<b>Goal PF-E:</b> Provide sufficient quantities of water for Rohnert Park residents and businesses, while ensuring that safe groundwater yield is not exceeded.	<b>Consistent:</b> Refer to the discussion above under Goal GM-F regarding the provision of utilities and public services to meet demand. A Water Supply Assessment has been prepared for the project and is included as Appendix E in this EIR.
<b>Goal PF-F:</b> Utilize purchased water supplies and reduce reliance on groundwater drawn from municipal wells, except for emergency use.	<b>Consistent:</b> A Water Supply Assessment has been prepared for the project and is included as Appendix E in this EIR. The WSA concludes the availability of sufficient supplies over the next 20 years while limiting groundwater pumping at a fixed amount below historic pumping levels.
<b>Goal PF-G:</b> Continue to encourage water conservation through use of reclaimed water and reduction of water consumption and discharge, for both existing and new development.	<b>Consistent:</b> In order to maximize the potable water supply efficiency, the project sponsor intends to explore the storage and use of stormwater runoff for non-potable water uses (see also EIR Section 3.7, Hydrology and Water Quality, for further information regarding water conservation and use).  A Water Supply Assessment has been prepared for the project and is included as Appendix E in this EIR.
<b>Policy PF-15:</b> Continue to require water-conserving devices for all new development.	<b>Consistent:</b> Water conserving devices would be included in the project consistent with the Sustainability Action Plan developed for the project. A Sustainability Action Plan has been prepared to the project sponsor to address the project's efforts to provide conservation.

**Table 3.10-2**  
**Consistency Analysis of Sonoma Mountain Village and its Development Components with the Relevant Provisions of the Rohnert Park General Plan**

Goals and Policies	Consistency Analysis
<b>Policy PF-16:</b> Require non-residential uses to implement water conservation devices as a condition of development.	<b>Consistent:</b> Water conserving devices would be included in the project consistent with the Sustainability Action Plan developed for the project.
<b>Policy PF-21:</b> Continue to use reclaimed wastewater to irrigate parks, recreational facilities, and landscaping.	<b>Consistent:</b> The use of municipally-supplied reclaimed water and harvested rainwater is planned for use in landscape irrigation. This would be in accordance with the provisions of the <i>Water Plan</i> prepared for the project. <sup>2</sup>

**Environmental Conservation Element**

**Goal EC-A:** Conserve historic and archaeological resources for the aesthetic, educational, economic, and scientific contribution they make to Rohnert Park’s identity and quality of life.

**Consistent with Mitigation:** A professional project-specific cultural resource investigation revealed no historic structures or known archaeological resources on the project site or in the immediate vicinity of the project site. Mitigation Measures 3.4-1 and 3.4-2 are provided in the EIR to address any unexpected discovery of historic-period or prehistoric cultural resources (Section 3.4, Cultural Resources).

**Policy EC-1:** Undertake an inventory of historic resources to determine sites or buildings of federal, State or local historic significance.

**Consistent:** A professional project-specific cultural resource investigation revealed no historic-period resources on the project site or in the immediate vicinity of the project site.

**Policy EC-2:** Ensure the protection of known archaeological resources in the city by requiring a records review for any development proposed in areas that are considered archaeologically sensitive for Native American and/or historic remains.

**Consistent:** A records search of the Northwest Information Center at Sonoma State University revealed no known archaeological resources, Native American resources, or historic remains on the project site or in the immediate vicinity of the project site. These findings were confirmed by a pedestrian survey of the project site by professional archaeologists.

**Policy EC-3:** In accordance with CEQA and the State Public Resources Code, require the preparation of a resource mitigation plan and monitoring program by a qualified archaeologist in the event that archaeological resources are discovered.

**Consistent with Mitigation:** The Draft EIR includes Mitigation Measure 3.4-1 which addresses any unexpected archaeological finds. The mitigation measures include consultation with a professional archaeologist in the event resources are discovered. The mitigation measures are included in the Mitigation

Monitoring and Reporting Program prepared for the project.

**Goal EC-B:** Protect special status species and supporting habitats within Rohnert Park, including species that are State or federally listed as Endangered, Threatened, or Rare.

**Consistent with Mitigation:** Focused surveys conducted on the project site have not revealed the presence of any special-status plant or animal species known from the region. Nonetheless, mitigation is provided in Mitigation Measures 3.3-1 through 3.3-3

<sup>2</sup> *Water Plan*, October 10, 2007, submitted by Coddling Enterprises. This document is on file and available for public review at the Rohnert Park Planning Department, 130 Avram Avenue, Rohnert Park, Calif. 94928.

**Table 3.10-2**  
**Consistency Analysis of Sonoma Mountain Village and its Development Components with the Relevant Provisions of the Rohnert Park General Plan**

Goals and Policies	Consistency Analysis
	of the EIR (Section 3.3, Biological Resources) in order to protect special status species, should any appear or be discovered.
<b>Goal EC-C:</b> Protect sensitive habitat areas and wetlands in the following order of protection preference: (1) avoidance, (2) on-site mitigation, and (3) off-site mitigation.	<b>Partially Consistent—Requires Mitigation:</b> Project construction would require the filling of 0.6 acres of potential jurisdictional wetlands. Mitigation for the filling of wetlands is provided in EIR Section 3.3, Biological Resources under Mitigation Measure 3.3-5. On-site and/or off-site mitigation would be required.
<b>Policy EC-4:</b> Cooperate with State and federal agencies to ensure that development does not substantially affect special status species appearing on any State or federal list of Rare, Endangered, or Threatened species. Require assessments of biological resources prior to approval of any development within 300 feet of any creeks, high potential wetlands, or habitat areas of identified special status species, as depicted in Figure 6.2-1.	<b>Consistent with Mitigation:</b> Refer to the discussion above under Goal EC-B.
<b>Goal EC-E:</b> Comply with the Regional Water Quality Control Board’s regulations and standards to maintain and improve the quality of both surface water and groundwater resources.	<b>Consistent with Mitigation:</b> Existing regulations are described and mitigation measures provided that require conformance with the Regional Water Quality Control Board’s regulations and standards to maintain and improve water quality and protect groundwater resources (Section 3.7 of this EIR, Hydrology and Water Quality). Groundwater recharge would not be adversely affected by the project.
<b>Goal EC-F:</b> Enhance the quality of surface water and groundwater resources and prevent their contamination.	<b>Consistent with Mitigation:</b> Refer to the discussion above under Goal EC-E.
<b>Goal EC-G:</b> Undertake steps to minimize the depletion of groundwater resources.	<b>Consistent:</b> Groundwater recharge would not be adversely affected by the project. A Water Supply Assessment has been prepared for the project and is included as Appendix E in this EIR.
<b>Goal EC-H:</b> Where feasible, given flood control requirements, maintain the natural condition of waterways and flood plains and protect watersheds to ensure adequate groundwater recharge and water quality.	<b>Consistent with Mitigation:</b> Groundwater recharge would not be adversely affected by the project. Project construction would require the filling of 0.6 acres of potential jurisdictional wetlands. Mitigation for the filling of wetlands is provided in EIR Section 3.3, Biological Resources as Mitigation Measure 3.3-5. On-site and/or off-site mitigation would be required.
<b>Policy EC-15:</b> Continue working with the Regional Water Quality Control Board to protect water quality.	<b>Consistent:</b> Measures are described that require conformance with the Regional Water Quality Control Board’s regulations and standards to maintain and improve water quality and protect groundwater resources (Section 3.7 of this EIR, Hydrology and

**Table 3.10-2**  
**Consistency Analysis of Sonoma Mountain Village and its Development Components with the Relevant Provisions of the Rohnert Park General Plan**

Goals and Policies	Consistency Analysis
	Water Quality). Other City and County regulations regarding water quality apply as well.
<b>Policy EC-18:</b> Protect waterways by prohibiting the dumping of debris and refuse in and near waterways and storm drains.	<b>Consistent:</b> Refer to the discussion above under Policy EC-15 regarding the protection of water quality.
<b>Policy EC-19:</b> Require new construction to utilize site preparation, grading, and foundation designs for erosion control to prevent sedimentation and contamination of streams.	<b>Consistent:</b> Refer to the discussion above under Policy EC-15 regarding the protection of water quality.
<b>Goal EC-K:</b> Continue to work toward improving air quality and meeting all federal and State ambient air quality standards and by reducing the generation of air pollutants both from stationary and mobile sources, where feasible.	<b>Consistent:</b> A goal of the project is to reduce traffic generation by reducing dependence on the automobile, the need to move long distances, and the need for fossil-fuel-based modes in general. The project would emphasize a pedestrian and bicycle lifestyle, locate jobs, restaurants, and services in close proximity to residences and create live/work opportunities. To support a low-carbon transportation system and reduce air emissions, the project plans include the provision of a biodiesel filling station, electric car charging stations, a plug-in hybrid carshare program, a rideshare program, and a program to promote bicycling providing either free bicycles or bicycle maintenance for several years. See also the discussion under goal TR-1 above for further information.
<b>Goal EC-L:</b> Encourage land use and transportation strategies that promote use of alternatives to the automobile for transportation, including bicycling, bus transit, and carpooling.	<b>Consistent:</b> Refer to the discussion above under Goal EC-K.
<b>Policy EC-23:</b> Use the City’s development review process and the California Environmental Quality Act (CEQA) regulations to evaluate and mitigate the local and cumulative effects of new development on air quality.	<b>Consistent with Mitigation:</b> Air quality impacts are evaluated in this EIR (Section 3.2, Air Quality). Mitigation measures to reduce construction dust to less-than-significant levels as recommended by the Bay Area Air Quality Management District (BAAQMD) are specified in this EIR under Mitigation Measure 3.2-1A through 3.2-1C.
<b>Policy EC-24:</b> Adopt the standard construction dust abatement measures included in BAAQMD’s CEQA Guidelines.	<b>Consistent with Mitigation:</b> Refer to the discussion above under Policy EC-23.
<b>Policy EC-26:</b> Encourage new residential development and remodeled homes to install clean-burning fireplaces and wood stoves.	<b>Consistent:</b> The project would be required to comply with Rohnert Park Municipal Code Chapter 8.26 regarding the installation of wood-burning appliances to minimize the increase in particulate emissions.



**Table 3.10-2**  
**Consistency Analysis of Sonoma Mountain Village and its Development Components with the Relevant Provisions of the Rohnert Park General Plan**

Goals and Policies	Consistency Analysis
<b>Health and Safety Element</b>	
<p><b>Goal HS-A:</b> Minimize the risk to life and property from seismic and geologic hazards in Rohnert Park.</p>	<p><b>Consistent:</b> Regulatory requirements and standards designed to minimize the risk to life and property from seismic and geologic hazards are presented in this EIR in Section 3.5, Geology and Soils.</p>
<p><b>Policy HS-1:</b> Require new construction to utilize site preparation, grading, and foundation designs in accordance with site specific soil conditions. Require submittal of a preliminary soils report, prepared by a registered civil engineer.</p>	<p><b>Consistent:</b> Refer to the discussion above under Goal HS-A. Soils reports and foundation design by registered professionals is as required and noted in EIR Section 3.5, Geology and Soils.</p>
<p><b>Policy HS-2:</b> Continue requiring all new buildings in the City to be built under the seismic requirements of the Uniform Building Code and Uniform Plumbing Code.</p>	<p><b>Consistent:</b> Refer to the discussion above under Goal HS-A.</p>
<p><b>Goal HS-B:</b> Minimize the risk to life and property from flooding.</p>	<p><b>Consistent:</b> The project site is not located in a flood prone area.</p>
<p><b>Goal HS-C:</b> Control erosion and sedimentation to provide flood protection and protect water quality.</p>	<p><b>Consistent:</b> Measures are described in this EIR that require conformance with the Regional Water Quality control Board’s regulations and standards to maintain and improve water quality and protect groundwater resources (Section 3.7 of this EIR, Hydrology and Water Quality). See also the discussion above under Goal HS-B regarding flooding.</p>
<p><b>Policy HS-3:</b> Prepare and implement a Storm Water Management Plan to ensure protection of the surface and groundwater resources.</p>	<p><b>Consistent:</b> Required Storm Water Management Plans are described in Section 3.7 of this EIR, Hydrology and Water Quality).</p>
<p><b>Policy HS-6:</b> As part of the building permit process, require new development greater than five acres in size to prepare and implement a site-specific storm water pollution prevention plan (SWPPP) that effectively reduces discharges of stormwater containing sediment and other pollutants resulting from site construction activities.</p>	<p><b>Consistent:</b> Refer to the discussion above under Goal HS-C and Policy HS-3. The project would include a SWPPP.</p>
<p><b>Goal HS-D:</b> Reduce the generation of solid waste and recycle those materials that are used, to slow the filling of local and regional landfills, in accord with the California Integrated Waste Management Act of 1989 (AB939).</p>	<p><b>Consistent:</b> The City offers recycling services to all residential, commercial, and multi-family customers. Rohnert Park Disposal is responsible for providing recycling services to all residential, commercial, and multi-family customers. The County Integrated Waste Management Plan (CoIWMP) includes a Source Reduction and Recycling Element (SRRE), which is comprised of the following four main elements: source reduction, recycling, composting, and special waste. The SRRE puts forth goals and objectives to help meet AB 939 waste diversion requirements.</p>

**Table 3.10-2**  
**Consistency Analysis of Sonoma Mountain Village and its Development Components with the Relevant Provisions of the Rohnert Park General Plan**

Goals and Policies	Consistency Analysis
<p><b>Policy HS-12:</b> Continue to work toward reducing solid waste and increasing recycling, in compliance with the Sonoma County Integrated Waste Management Plan (CoIWMP).</p> <p><b>Policy HS-13:</b> As part of development review and environmental analysis, ensure that new multifamily residential and all non-residential development comply with the City’s Source Reduction and Recycling Element (SRRE) and Household Hazardous Waste Element (HHWE), as well as the Sonoma County Integrated Waste Management Plan (CoIWMP).</p>	<p><b>Consistent:</b> Refer to the discussion above regarding Goal HS-D.</p> <p><b>Consistent:</b> Refer to the discussion above regarding Goal HS-D. The project sponsor would be responsible for ensuring that project residents are aware of the SRRE, HHWE, and CoIWMP when the project residences are first sold. (New residents should receive brochures provided by SRRE, HHWE, and CoIWMP)</p>
<b>Noise Element</b>	
<p><b>Goal NS-B:</b> Minimize the exposure of noise-sensitive uses – including residences, schools, churches, hospitals, and other public uses – to excessive noise levels.</p> <p><b>Policy NS-2:</b> For all residential uses, establish 45 dB Ldn as the standard for interior noise levels and 60 dB Ldn as the standard for exterior noise levels. Require appropriate siting of residential uses and/or mitigation measures to meet the standards.</p> <p><b>Policy NS-4:</b> Continue to require control of noise or mitigation measures for any noise-emitting construction equipment or activity.</p> <p><b>Policy NS-6:</b> Require buffers or site planning techniques for all new development within 65 dB Ldn noise contours. However, avoid visible sound walls except along US 101 and NP Railroad right-of-way.</p> <p><b>Policy NS-7:</b> Require new development within existing or projected 65 dB Ldn noise contours to undergo a technical acoustical analysis, which shall serve as the basis for designing mitigation measures.</p>	<p><b>Partially Consistent:</b> Measures to reduce the exposure of new residents on the project site due to increased noise levels are described in Section 3.9 of this EIR, Noise. Certain instances require mitigation, and not all instances of exposure to increases in noise can be fully mitigated.</p> <p><b>Partially Consistent:</b> Refer to the discussion above under Goal NS-B.</p> <p><b>Consistent:</b> Measures to reduce the exposure of residents to construction noise are described in Section 3.9 of this EIR, Noise.</p> <p><b>Consistent:</b> Measures to reduce the exposure of residents to construction noise are described in Section 3.9 of this EIR, Noise.</p> <p><b>Consistent:</b> An acoustical analysis has been conducted for the project. Refer to the discussion above under Policy NS-6.</p>
<b>Housing Element</b>	
<p><b>Goal HO-A:</b> Promote opportunities for housing development to accommodate projected growth and facilitate mobility within the ownership and rental markets.</p>	<p><b>Consistent:</b> The Sonoma Mountain Village project does not specifically call for rental housing, although it is expected that rental housing would be provided by future residential owners because of the construction of Accessory (“granny”) units. Overall, opportunities</p>

**Table 3.10-2**  
**Consistency Analysis of Sonoma Mountain Village and its Development Components with the Relevant Provisions of the Rohnert Park General Plan**

Goals and Policies	Consistency Analysis
	for housing presented by the project would be controlled by the City's implementation of Ordinance No. 667 adding Chapter 17.66, the Growth Management Program to the Rohnert Park Municipal Code. The Program is to assure that the rate of population growth will not exceed the average annual growth rates established in the General Plan. An objective is to ensure new residential development occurs concurrently with the necessary infrastructure and public service improvements and maintain an average population growth rate of one percent per year.
<b>Policy HO-2:</b> Facilitate residential development within the growth areas.	<b>Consistent:</b> An objective of the project is to provide a variety of housing types on the market. Refer to the discussion above under Goal HO-A.
<b>Policy HO-4:</b> Promote a diversity of housing types, including single-family detached and attached residences, mobile homes, multi-family rental and ownership units, second units, and units combined with non-residential uses.	<b>Partially Consistent:</b> The project would provide a variety of housing types, including single family detached units, townhouses, rowhouses, condominiums, live/work units, flats, flats over flats and accessory units. Mobile homes are not proposed for inclusion in the project. Some residential units would be combined with retail/commercial and office land uses in the same building(s).
<b>Goal HO-C:</b> Address to the maximum extent feasible the housing needs of all economic segments of the present and future community, giving highest priority to lower-income households.	<b>Consistent:</b> Refer to the discussion above under Policy HO-4. The broad range of housing styles proposed would be expected to appeal to a broad range of economic segments of the community.
<b>Policy HO-6:</b> Facilitate the availability of market-rate housing to low- and moderate-income, first-time home buyers.	<b>Consistent:</b> The project sponsor would be required to comply with City Ordinance No. 677 regarding the provision of affordable housing.
<b>Policy HO-9:</b> Require the provision of affordable housing as part of residential development throughout the community.	<b>Consistent:</b> The project sponsor would be required to comply with City Ordinance No. 677 regarding the provision of affordable housing.

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## 3.11 POPULATION AND HOUSING

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### Introduction

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This section of the EIR examines population and housing growth characteristics of the Sonoma Mountain Village project as compared to existing and projected population and housing characteristics of the City of Rohnert Park as a whole. The analysis is based on population, employment, and housing data published in *Projections 2007*, by the Association of Bay Area Governments (ABAG),<sup>1</sup> the Rohnert Park 2020 General Plan and other demographic information from the Demographic Research Unit of the California Department of Finance.<sup>2</sup> The analysis also incorporates information generated from the following project specific technical studies:

- Sonoma Mountain Village Economic Development Info Analysis for the period of 2010-2020 (March 2009)
- Economic Development Action Plan for the City of Rohnert Park (July 2007)
- Sonoma Mountain Village Project Description (April 2009)

This section of the EIR evaluates if changes in population and housing characteristics resulting from the proposed project would either induce substantial population growth or displace a substantial number of housing units or people, or necessitate the construction of new or replacement housing. The analysis of potential impacts is based upon City of Rohnert Park adopted thresholds of impact significance as explained further below.

### Setting

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#### Population

The City of Rohnert Park is located in the south-central portion of Sonoma County, immediately south of the City of Santa Rosa. Sonoma County is the northernmost and geographically the largest of the nine Bay Area counties. It also has the most undeveloped acreage in the Bay Area. Urban development and population centers are concentrated in the southern half of the County along the US 101 corridor including the cities of Petaluma, Cotati, Rohnert Park, Santa Rosa, and Windsor. Almost two-thirds of the County's population lives in these five cities. The 2009 population of Sonoma County is 486,630,

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<sup>1</sup> ABAG *Projections 2009* is the most recent projections document and will be available for incorporation by August 2009.

<sup>2</sup> ABAG data presented in *Projections 2007* is a function of the following four elements: (1) ABAG Executive Board policies, which are based on the Smart Growth Vision; (2) General Plan policies for each particular jurisdiction; (3) Economic trends; and (4) available land and prevailing land use pattern data, which is based on discussions between ABAG staff and planning staff in each particular jurisdiction.

according to the California Department of Finance).<sup>3</sup> The 2009 population of Rohnert Park is 43,020.<sup>4</sup> Rohnert Park thus represents approximately 8.8 percent of the total County population.

At the time of its incorporation in 1962, Rohnert Park had a population of 2,775 and the City encompassed an area of about 2.1 square miles. Today the City of Rohnert Park encompasses an area of about seven square miles and its population has grown along with the rest of the Bay Area. Projections indicate the City would have a population of 49,900 by the year 2035.<sup>5</sup> This compares to a population of Sonoma County as a whole of 568,900 in 2035. These projections indicate that the population of the City of Rohnert Park would remain 8.8 percent of the total County population in 2035. This would represent a 12.6 percent increase in population for Rohnert Park between 2009 and 2035. According to the City's housing element, nearly half the land in the City is dedicated to residential land uses.<sup>6</sup> Despite the availability of rural land, ABAG projects that only ten percent of the County's growth will occur in rural areas as a whole, with population growth concentrated in urban areas.

## Housing

The number of households in Rohnert Park for 2009 is listed by California Department of Finance as 16,544. A household is defined as an occupied dwelling unit that includes all persons who occupy the dwelling unit (i.e., can include more than one family). The number of households for Sonoma County in 2009 is listed at 199,018. Rohnert Park thus represented 8.3 percent of the total County households. Consistent with population growth as indicated above, the number of households in Rohnert Park is projected to grow to a total of 18,590 by the year 2035, an increase of approximately 13.9 percent over 2009.<sup>7</sup> Thus, population growth to 2035 is projected to be roughly equal to housing growth.

The Housing Element of the Rohnert Park General Plan notes that only about 900 dwelling units existed when the City incorporated as a general law City in 1962. The Housing Element also states that much of the City has been developed using a neighborhood concept in accordance with a master plan. "Each neighborhood area includes single-family housing types arranged around a school and park. Shopping centers have been designed to be within convenient walking distance from local neighborhoods."<sup>8</sup> The General Plan goes on to note housing needs: "At the beginning of 2000, approximately 3.6 percent of housing units in the City were vacant according to the California Department of Finance (DOF). This rate was less than half of the county's and state's average 7.3 percent vacancy rate reported by DOF."

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<sup>3</sup> State of California, Department of Finance, *City/County Population and Housing Estimates*, January 1, 2009, [www.dof.ca.gov/research/demographic/reports/estimates/e-1\\_2008-09/documents/E-1table.xls](http://www.dof.ca.gov/research/demographic/reports/estimates/e-1_2008-09/documents/E-1table.xls), accessed May 25, 2009.

<sup>4</sup> *Ibid.*

<sup>5</sup> Association of Bay Area Governments, *Projections 2007 Forecast for the San Francisco Bay Area*.

<sup>6</sup> *City of Rohnert Park General Plan*, Adopted by the City Council July 2000, p. 1-1.

<sup>7</sup> Association of Bay Area Governments, *Projections 2007, Forecasts for the San Francisco Bay Area to the year 2035*, p. 224.

<sup>8</sup> City of Rohnert Park General Plan, Housing Element, July 2000, pp. 9-3 and 9-4.

## Employment

The top employment sectors in Rohnert Park, according to the 2007 Rohnert Park Economic Development Action Plan and the US Census, are the educational, health and social services sector (16.7 percent of total employment), the retail trade sector (15.2 percent), manufacturing (13.4 percent), and the finance, insurance, real estate, and rental and leasing sector (10.7).<sup>9</sup> Most employees work in office, professional, sales, or service jobs. However, approximately 20 percent of the population works in either the construction and maintenance sector or the production and transportation sector.<sup>10</sup> The Rohnert Park General Plan notes that nearly two-thirds of the new jobs projected within the City could be in the service and retail sectors, which tend to pay lower wages. The General Plan states the increase in low-paying jobs would have an associated increase in the demand for affordable housing.<sup>11</sup> Accordingly, General Plan Housing Element goals and policies address the existing and projected housing needs of the City. Housing goals and policies are discussed in Section 3.9, Planning Policy and Relationship to Plans, of this EIR.

Based on the Sonoma Mountain Village site's existing industrial zoning, the maximum employment potential of the project site is 3,818 jobs.<sup>12</sup> This total includes a small number of administrative and office jobs as well as jobs in industrial sectors. The maximum employment potential of the project site is based on buildout of the project site and assumes up to 3,800,000 square feet of development. However, existing development on the project site includes only 700,000 square feet of developed floor area. Therefore the maximum employment potential given adaptation of the existing facilities for general industrial uses would be about 700 jobs.

## Impacts and Mitigation Measures

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### Standards of Significance

Based on City of Rohnert Park thresholds of impact significance, a project would normally have a significant adverse population and/or housing impact if the project would:

- **Impact Criterion #1:** Induce substantial growth in an area either directly (e.g., by proposing new homes or businesses) or indirectly (e.g., through extension of roads or other infrastructure)?
- **Impact Criterion #2:** Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

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<sup>9</sup> US Census Bureau, 2000. Census 2000 Summary File 3, Rohnert Park, California.

<sup>10</sup> *Ibid.*

<sup>11</sup> City of Rohnert Park General Plan, Housing Element, July 2000, p. 9-32.

<sup>12</sup> Employee counts on based on Association of Bay Area Governments (ABAG) 1987 Input-Output Model and Economic Multipliers for the San Francisco Bay Region, Table 4, Square Feet Requirement per Employee by Floor Area and Industry, p. 19. This number assumes that maximum allowable buildout of the project site is 3,818,050 square feet (based on a FAR of 0.5). The buildout square footage is multiplied by a square foot/per employee economic multiplier of 1 employee/1,000 square feet, the multiplier for the transportation sector (represents a mid-range value for industrial sectors).

- **Impact Criterion #3:** Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

## **Project Evaluation**

### **Impact Criterion #1**

**Growth:** *Would the project induce substantial growth in an area either directly (e.g., by proposing new homes or businesses) or indirectly (e.g., through extension of roads or other infrastructure)?*

#### **Impact 3.11-1**

*Development of the proposed project would directly generate an unanticipated residential population increase within the City of Rohnert Park.*

Growth associated with the Sonoma Mountain Village project would be due to an increase in housing that would accommodate a larger population within the City and new employment opportunities provided on the project site due to new/revitalized office space and new retail/commercial activities. The year 2020 is used to forecast potential growth impacts because 2020 is the horizon year on which the current Rohnert Park General Plan is based in setting goals and policies for each of the General Plan chapters, including growth management.

**Housing:** At buildout, the proposed project would accommodate approximately 4,438 residents.<sup>13</sup> This would represent 9.4 percent of the total 47,100 population of Rohnert Park (as projected by ABAG) in the year 2020.<sup>14</sup> Because the project site is designated for industrial rather than residential uses in the General Plan, this population increase would be in addition to growth projected by the General Plan. However, the proposed project has been factored into the City's economic projections and would be required to comply with the growth management goals and policies contained in the General Plan by instituting a phasing program that complies with General Plan policies and Zoning Ordinance Chapter 17.19 regarding growth.<sup>15</sup>

As explained in Chapter 2 of this EIR, Project Description, the project construction would occur over six phases beginning in 2010, with buildout completed anywhere from 12 to 20 years from groundbreaking, depending on market conditions. The construction phasing would ultimately depend on the City's implementation of Chapter 17.19, Title 17, Zoning, the Growth Management Program, of the Rohnert Park Municipal Code. The Program is to assure that the rate of population growth would not exceed the average annual growth rates established in the General Plan and as further described in the Program (with certain exceptions noted). Other factors influencing the rate of project

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<sup>13</sup> The Rohnert Park General Plan assumes that each household contains approximately 2.62 persons; 1,694 units x 2.62 persons/unit = 4,438 persons.

<sup>14</sup> Association of Bay Area Governments, Projections 2007, Forecasts for the San Francisco Bay Area to the year 2035, ABAG projects a Rohnert Park Sphere of Influence population of 47,100 for the year 2020.

<sup>15</sup> City of Rohnert Park, Economic Development Action Plan for the City of Rohnert Park, July 2007.

buildout would include market conditions and the demand for housing in the Rohnert Park/central Sonoma County area.

The Growth Management Program contains a formula for applying a “Trigger Cap” which is the threshold at which a cap on residential development will be established. Its purpose is to maintain an average population growth rate of one percent per year. The Growth Management Program goes on to note that the City Council may establish priority development areas, after calculating the Trigger Cap and determining the need for a residential development cap based on policies in the Land Use and Growth Management Element of the General Plan. The City’s Growth Management Allocation System (GMAS) is to be implemented through development agreements with the developer of each property that chooses to participate in the GMAS. It should be noted that the Trigger Cap calculation does not include residential infill projects or portions thereof that are adaptive reuse projects (i.e., the redevelopment of an existing property from a non-residential use to a residential use), live/work projects, residential projects developed on commercial properties that have mixed-use components or are under five acres in size or one hundred units or less, or special needs residential units (i.e., single-family units designed for disabled residents).

Overall, implementation of the City’s Growth Management Program would serve to control the rate of project buildout consistent with the intent of the Program and goals and policies of the General Plan. In addition, the provision of housing in the project is viewed as a beneficial impact because it would be consistent with General Plan goals and policies to accommodate projected growth (Goal HO-A), promote a diversity of housing types (Policy HO-4), address the housing needs of varied economic segments of the community (Goal HO-C), provide a range of housing types and prices (Goal LU-1), and facilitate the availability of market-rate housing to low- and moderate-income first-time home buyers (Policy HO-6).

Due to the proposed increase in residential uses not previously anticipated by the City, the proposed project would be required to negotiate a development agreement ensuring compliance with the GMAS. In view of the above statement and policy, the project would not directly induce substantial residential growth in the area by proposing new homes due to the residential phasing plan. However upon buildout, the proposed project would exceed the existing 1:1 jobs housing balance the project would result in a significant and unavoidable adverse impact under Impact Criterion #1. No mitigation measure would reduce anticipated impacts.

**Employment:** The office portion of the project including the existing reuse site would accommodate about 1,704 employees; the retail portion of the project would accommodate about 618 employees; and the remaining uses including the hotel, health club, theater, and civic building uses would accommodate about 265 employees for a total of approximately 2,576 employees (see Table 3.11-1). This compares with a total of 1,892 housing units that would be associated with the project, and which translates into an approximately 1.36:1 jobs:housing ratio. This exceeds the City’s existing jobs/housing balance of 1:1 and would likely encourage employees from outside of Sonoma Mountain Village, including the adjacent Southeast Specific Plan to work within the project area.<sup>16</sup>

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<sup>16</sup> *Ibid*, comparing total households to jobs for Rohnert Park.



**Table 3.11-1  
Sonoma Mountain Village—Employment Generation**

<b>Employment Type</b>	<b>Area (sf)</b>	<b>Employees</b>
Office General	396,819	1,587
Office (business incubator)	29,159	117
Retail (includes restaurant and grocery uses)	191,801	618
Enclosed Promenade	11,528	5
Daycare	15,000	23
Civic Space	35,000	140
Theater	25,000	25
Hotel (100 rooms)	91,000	32
Health club (30,000 sf)	30,000	30
<b>Total Project Employment</b>		<b>2576</b>
Maximum Existing Employment Potential (Based on General Plan Buildout)		3,818
<b>Difference (Existing Potential - Project Employment)</b>		<b>1,242</b>

*Source:* Sonoma Mountain Village Economic Development Analysis for the Period 2010–2020.

The office complex portion of the project would be expected to house a variety of businesses, including professional, technical, and other services. Retail/commercial uses would be expected to include locally serving enterprises, including a grocery store and a variety of shopping services. The office portion of the project would operate on a typical weekly office schedule with the majority of office tenants operating on a standard eight-hour workday five days a week, with the option of workers occupying the office spaces on weekends and holidays to suit their business needs. Retail and commercial uses including the grocery store, theater, and spa and health center would be available for daily use with hours of operation likely based on market demand. The hotel portion of the project would be expected to be operational every day of the year. However, about half of hotel and visitor use employment would be on-site on any given weekday, and a lesser amount on weekends. It is likely that staff would be distributed among four different shifts (7:00 a.m. to 3:00 p.m.; 9:00 a.m. to 6:00 p.m.; 3:00 p.m. to 11:00 p.m.; and overnight). Civic building space and use would be as negotiated between the project sponsor and City of Rohnert Park officials.

There are currently about 430 office workers using existing facilities on the project site. Therefore, relative to existing conditions, the net gain in employment on the project site would be approximately 2,226.<sup>17</sup> However, relative to the employment that would be generated at buildout of the site under existing land use designations, the proposed project would result in approximately 1,242 fewer jobs.

As discussed previously, the proposed project would generate more jobs than residents; therefore, this loss of jobs would not impair the City’s total jobs-to-housing ratio, though it would affect the

<sup>17</sup> Existing office occupancy count update provided by Kristine Moore, Coddling Enterprises, email to Jose Bodipo-Memba, PBS&J, July 4, 2009.

distribution with an increase in retail and office jobs and a decrease in industrial sector employment. In fact, the decrease in jobs would occur almost entirely within the industrial sector, and, as discussed in Section 3.8, Land Use, the project site represents approximately one-third of the total industrially zoned land within the City. However, the project site is currently underutilized, and no applications have been submitted to the City for its industrial re-development. Although the proposed project would preclude future development of the project site for industrial uses, the proposed project would not displace existing industrial uses or jobs.

The net result of the proposed project, relative to existing conditions, would be a contribution to employment opportunities in Rohnert Park and adjacent areas. The increase in jobs resulting from the project as well as the office space to accommodate space for workers as a result of project construction would provide more opportunities for persons currently living in the City of Rohnert Park who travel out of the City to work to find employment opportunities and work space in the City. The rate of job growth would be required to remain proportional to the rate of project development under the City's Growth Management Program. Therefore the creation of work space, types of jobs, amount of office space to be leased would be phased in a manner that would coincide with the availability in the labor force and business opportunities prevalent within the project area and City as a whole. Jobs would be provided in a number of economic sectors with varying wage levels. Job creation and job opportunities stimulated by the project and work space provided can be viewed as a beneficial effect that would be expected to stimulate economic development and tax revenues to the City. Therefore, the project would not directly induce substantial growth in proposing new businesses or space to accommodate new businesses and there would be no significant adverse impact associated with employment under Impact Criterion #1.

**Roads and Infrastructure:** The Sonoma Mountain Village project would be implemented on a partially developed site on the east side of the City, and its development would involve the construction and operation of new roads and utilities infrastructure. In general, a project is considered to have a significant growth impact under CEQA if it would expand existing infrastructure, allowing additional indirect development. However, extension of roads and infrastructure associated with the proposed project would not be expected to stimulate substantial indirect growth in the project area, as discussed below.

Roads serving the project site include Camino Colegio (a Major Collector), Bodway Parkway (a proposed four-lane Major Collector to go to a 2-lane minor collector), and Valley House Road (a proposed Major Arterial). East Railroad Avenue would provide direct access to the project site upon buildout. Although a street grid would be developed within the project site, no major arterials would be extended as a result of the proposed project. Therefore, the proposed project would not allow additional growth in the project area by extending the existing street network.

The north portion of the project site is currently served by existing utility systems, such as sewers, storm drainage features, electricity and telecommunications lines, water supply infrastructure, and natural gas lines. New construction on the site would require the extension of the private utility infrastructure on the project site; however, as discussed in Section 3.14, Utilities, existing shared off-site facilities would not need to be expanded to accommodate the demand for utilities capacity that

would be generated by the proposed project. The project would not, therefore, otherwise directly or indirectly induce population growth by providing new off-site infrastructure. Therefore, the proposed project would have a less-than-significant direct or indirect potential to induce substantial population growth under Impact Criterion #1. For further information regarding growth, refer to Chapter 4, Growth Inducement, of this EIR. See also Section 3.14, Utilities and Service Systems, regarding infrastructure.

### **Impact Criterion #2**

**Housing Displacement:** *Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?*

### **Impact Criterion #3**

**Population Displacement:** *Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?*

The north portion of the project site (98.3 acres) contains the former Agilent Technologies campus. Portions of the adaptively reused buildings in the campus area are currently used for office space by existing companies. The creation of new office space within the buildings would accommodate the existing plus new and/or relocated businesses. No people working in the existing office spaces would be expected to be permanently displaced as a result of the project. The existing buildings would also go through a process of adaptive reuse design and construction to accommodate residential uses as well. No existing residences would be displaced to allow for project construction because there are no residences on the project site.

The south portion of the project site (76.9 acres) is currently vacant. No existing occupied, marketable housing units would be required to be demolished to allow for project construction and no substantial replacement housing would be required due to the displacement of persons because of the project as a result. No substantial segment of the population would be displaced such that the construction of replacement housing units elsewhere would be required. In view of the above, no adverse impacts are identified with respect to Impact Criteria #2 and #3 regarding housing or population displacement requiring the construction of replacement housing elsewhere.

## **Cumulative Development**

The context for the cumulative population and housing analysis is the proposed buildout of the City's General Plan. This cumulative analysis examines the effects of the proposed developments at the Sonoma Mountain Village, in combination with other current projects, probable future projects, and projected future growth within the City in the next 20 years.

The proposed project, in combination with other projected growth in the City, would increase population, employment, and housing opportunities in the City. The cumulatively considered development projects within the City involve commercial, industrial, office, mixed-use, hotel, and

residential developments. According to the General Plan, the City's population is anticipated to grow annually by 1 percent and ultimately by 14.6 percent at buildout (2020), when compared to existing conditions. This population growth would be supported by an approximately 17.1 percent increase in new housing units. The General Plan anticipates an annual increase in employment opportunities of 1.9 percent, resulting in 5,408 new jobs within the City by 2020. The proposed project as constituted was not factored into the General Plan projections, due to the site's existing industrial land use designation. As a result, the proposed project site would contribute approximately 61.3 percent (compared to General Plan Projections) of the anticipated new population and 55 percent of the anticipated new housing units by General Plan buildout, constituting a far higher contribution than originally projected. Conversely, the proposed project site would generate 41.1 percent of anticipated new employment opportunities, which is an approximately 29 percent decrease in job generation than originally projected for the site. While the proposed mixed use project type was not anticipated in the current General Plan, the project site was planned for development and consequently any physical impacts associated with that development have been adequately addressed. The generation of new jobs, homes, and residents would not result in direct physical impacts, as stated in CEQA Guidelines 15131 (a). Therefore, no cumulatively adverse population or housing growth impacts have been identified for the proposed project. The proposed project, in combination with cumulative developments would not result in a substantial change in the City's overall jobs housing balance, which would remain at a level of approximately 1:1 upon buildout. Consequently, the project would not contribute to any potentially cumulatively considerable adverse population or housing impacts.



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## 3.12 PUBLIC SERVICES

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### Introduction

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This section of the EIR addresses potential impacts of the proposed project on the providers of public services. The setting is described followed by an analysis of the potential for public service impacts in accordance with City of Rohnert Park adopted thresholds of impact significance. The subject areas examined include police, fire and emergency services, schools, and parks and recreation. The analysis examines the effect of the proposed project on the ability of the service providers to deliver the services for which they are responsible. Information on existing conditions and service levels was collected from local authorities and service providers.

### Setting

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#### Department of Public Safety (Police and Fire Services)<sup>1</sup>

The City's Department of Public Safety (DPS) provides police and fire protection services to Rohnert Park residents. The DPS headquarters is located approximately three miles from the project site at 500 City Center Drive. DPS is divided into the Police Services Division and the Fire Services Division and provides police, fire, and other related services under a single administrative umbrella. DPS employs Public Safety Officers who are cross-trained in fire fighting and law enforcement and serve as patrol officers and firefighters.

The Rohnert Park Department of Public Safety Communications Center (Dispatch Center) screens, prioritizes, and dispatches calls for appropriate police and/or fire resources. The Dispatch Center is currently staffed with one dispatch supervisor and 12 full-time dispatchers that work four 10-hour days per week. The unit's multi-frequency equipment is capable of handling police, fire, and medical emergencies. The Dispatch Center handles all incoming 911, emergency, and non-emergency calls for service.

DPS uses a four-minute response time standard for emergencies. In 2008, the average police and fire emergency response times were four minutes and forty-two seconds and four minutes and four seconds respectively. The average police non-emergency response times were six minutes and thirty-six seconds for urgent calls (Code 2) and fourteen minutes and 49 seconds for non-urgent calls (Code 1). The average fire non-emergency response time was nine minutes and 42 seconds for urgent and non-urgent calls. During 2008, the Dispatch Center handled a total of 45,714 police and fire events.<sup>2</sup>

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<sup>1</sup> Information contained in this subsection was obtained from the City of Rohnert Park Department of Public Safety personal communication with Commander David Frazier, Fire Marshal Daniel Adam, and records Supervisor Christine Giordano, provided August 10, 2009, August 12, 2009, and August 17, 2009 respectively.

<sup>2</sup> Personal Communication, Christine Giordano, City of Rohnert Park, Department Public Safety, August 17, 2009.

There is no officer-to-population ratio standard adopted for Rohnert Park. The appropriate number of cross-trained officers is determined by DPS based on response time performance, crime rates, size of service area, and other variables that contribute to service needs. The City Council authorizes the number of employees that can be hired by DPS based on needs for adequate service levels.

**Police.** The City Council has authorized 70 Public Safety Officers for the DPS in order to meet existing services needs; 51 Public Safety Officers are assigned to the Police Services Division. Based on the Rohnert Park population of about 43,000 people, the existing need for City Public Safety Officers is about 1.18 per 1,000 people.

In addition to Public Safety Officers, DPS is authorized to staff one Director, three Lieutenants (one assigned to the Fire Division), one civilian manager, 8 Sergeants (three assigned to the Fire Division), 12 dispatchers, and five full-time and five part-time personnel. Public Safety Officers primarily enforce municipal codes, penal codes, and vehicle codes through issuing citation and criminal complaints and perform some law enforcement-related reporting duties. Due to recent budget troubles, the staffing levels have been reduced throughout DPS. As fiscal conditions improve, DPS will work to fill staff positions for the proposed West Side Station and the anticipated joint fire and police facility assumed as a part of the proposed project. The DPS's needs that are above the appropriated staffing needs are based on both an existing demand and an anticipated demand from approved projects within the City.

In carrying out police services, patrol officers work in teams and are assigned to a geographical area known as a beat. Rohnert Park occupies about 4,416 acres (6.9 square miles) and is divided into three 1,472-acre (2.3-square-mile) beats for patrolling purposes. Patrol teams are composed of three Public Safety Officers and one Sergeant. Patrol shifts are divided into a day shift, a swing shift, and a graveyard shift in one 24-hour period. The Sonoma Mountain Village project site is currently patrolled as part of a designated beat (Beat 3).

**Fire.** The Fire Services Division is a fully integrated operation within DPS. There are currently 18 DPS authorized sworn positions for the Fire Services Division: one Lieutenant, three Sergeants, and 15 Public Safety Officers. There is one Fire Commander assigned to the Fire Division. While only 18 positions are designated to the Fire Services Division, DPS has approximately 57 cross trained officers are expected to supplement engine crews to respond to fires. Thus, the existing authorized firefighter-to-population ratio is also 1.4 firefighters per 1,000 people. Additionally, Rohnert Park operates under the County Law Enforcement and Fire Mutual Aid Agreements, and has Automatic Aid Agreements with the Rancho Adobe Fire District and Rincon Valley Fire District. Additionally, the Fire Services Division is supported by a voluntary auxiliary firefighter program. Requests for mutual aid from other agencies are made through the Dispatch Center and, if available, the requested resources are sent to Rohnert Park. The City's minimum firewater pressure standard is between 50 and 55 pounds per square inch (PSI). The City requires that all fire related engineering standards be in compliance with the California Fire Code.

Under the Fire Services Division, the following four fire stations serve the City:

- Station One at Headquarters, 500 City Hall Drive, is an “on call” station that is not staffed in a traditional, round-the-clock method. Personnel working in this building are assigned to other responsibilities and staff a fire engine when an emergency occurs.
- Station Two at County Club Drive and Golf Course Drive is staffed in a traditional fashion.<sup>3</sup> Station Two is located approximately 2.8 miles from the project site.
- Station Three on Southwest Boulevard at Boris Court is an “on call,” unstaffed station that responds with off duty personnel and volunteers. Station Three is located approximately 1.4 miles from the project site.
- Station Four, located at East Cotati Avenue and Maurice Avenue is staffed in a traditional fashion. Station Four is located approximately 0.8 miles from the project site.

## Emergency Services<sup>4</sup>

The California Health and Safety Code requires that each county which develops an emergency medical services program to designate a local Emergency Medical Services (EMS) agency. Consistent with this requirement, the Sonoma County Department of Health Services has been designated as the local EMS agency, also known as the Coastal Valleys Emergency Medical Services Agency (CVEMSA), for Sonoma, Napa, and Mendocino Counties. CVEMSA develops plans for the delivery of emergency medical services (paramedic treatment, ambulance transport, trauma services, etc.) and incorporates medical emergency agencies and facilities into an emergency medical care delivery system that is focused on rapid access to emergency locations, patient assessment, and stabilization of patients and their transportation.

CVEMSA operations are coordinated through written agreements with providers, facilities, and counties, policies and procedures, training standards, quality improvement programs, and other mechanisms. Rohnert Park coordinates its planning with CVEMSA to keep emergency plans on the City level up to date. DPS has developed and maintains a City-wide Standardized Emergency Management System consistent with the California Emergency Services Act. DPS has been designed to function as an Emergency Operations Center for the City. DPS also maintains a hazardous materials response plan and hazardous materials response personnel who mitigate minor incidents and work closely with the County’s hazardous materials team during larger incidents.

In July 1999, the Sonoma County Department of Health Services entered into an exclusive franchise contract with Sonoma Life Support to provide emergency ambulance and Advanced Life Support (ALS) services to a specified portion of the County, including Rohnert Park. Sonoma Life Support is the only

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<sup>3</sup> Traditional fashion staffing = Six Public Safety Officers work alternating 24-hour shifts to staff the station with two officers/firefighters 24 hours per day, seven days per week.

<sup>4</sup> Information contained in this subsection was obtained from the *City of Rohnert Park General Plan* Fourth Edition, adopted July 2000; from the Coastal Valleys Regional Emergency Medical Services Agency, [www.sonoma-county.org/cvremms/about.htm](http://www.sonoma-county.org/cvremms/about.htm), accessed June 20, 2009; and from personal communication with Kent Coxon, EMS Regional Administrator, Coastal Valleys Regional EMS Agency, July 13, 2009.



emergency/ALS ambulance provider for Rohnert Park. CVEMSA monitors Sonoma Life Support to ensure it maintains the required service levels.

Sonoma Life Support operates a 24-hour-a-day ALS ambulance that is assigned to Rohnert Park. A single ambulance station serves Rohnert Park. The station is housed in a leased space generally located near the center of the City. A paramedic and other necessary personnel staff the station at all times. By policy, an ALS ambulance is required to have one licensed paramedic and one certified Emergency Medical Technician. Providers are required to maintain a minimum drug and equipment inventory in all in-service ambulances as specified by CVEMSA. The ambulance contains full communications, including radio and phone, linking the ambulance with hospitals in Santa Rosa and Petaluma.

Units located elsewhere in the County provide backup service as needed. Back-up units include two ambulances in Petaluma and eight ambulances in the Sebastopol and Santa Rosa areas. As the primary unit is deployed, it is usually replaced by a Specialized Life Support ambulance that is moved to Rohnert Park from Santa Rosa. Additionally, when emergency medical system levels (i.e., the number of ambulances available for response) are high, an additional Basic Life Support ambulance is moved into the area. Upon occasion, a paramedic-staffed Quick Response Vehicle is also deployed.

In 2009, CVEMSA received an estimated average of 41.5 calls per day or 15,042 calls annually in Sonoma County. The CVEMSA response time standard for Rohnert Park is 7 minutes or less, 90 percent of the time.<sup>5</sup>

## **Schools<sup>6</sup>**

Rohnert Park schools are operated under the authority of the Cotati-Rohnert Park Unified School District (CRPUSD). CRPUSD is composed of 15 schools, i.e. eight elementary schools, two middle schools, one community day school, and four high schools including one technology high school and one continuation high school. CRPUSD has a total student capacity of about 8,500 students. The 2008/09 school year student enrollment was approximately 6,594. Therefore, the CRPUSD student population is below capacity by about 1,906 students. Table 3.12-1 shows the student capacity and enrollment at the various educational levels. Additionally, CRPUSD has experienced significant declines in total enrollment over the last five years. According to the CRPUSD, these declines are expected to continue over the next five years with a total enrollment in the year 2012 declining to about 5,000 to 6,000 students district-wide. Figure 3.12-1 illustrates CRPUSD enrollment from the 1997/98 school year through the 2006/07 school year.

Sonoma State University (SSU) is located about two miles north of the project site on the east side of Rohnert Park. SSU is just outside the City limits but is within the City's 20-year Urban Growth Boundary (UGB). There are currently 8,100 students enrolled at SSU, with on-campus housing for about 2,400

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<sup>5</sup> Currently, CVEMSA calculates does not provide call average information for the City of Rohnert Park. The Urban Service Area, which includes Rohnert Park, received 15,042 calls over the last year and CVEMSA responded to over 93 percent in less than 7 minutes. City-specific information will become available in August 2009.

<sup>6</sup> Information contained in this subsection was obtained from the Cotati-Rohnert Park Unified School District website [www.crpUSD.sonoma.edu/district.html](http://www.crpUSD.sonoma.edu/district.html), accessed on July 3, 2009.

students.<sup>7</sup> The revised Master Plan for SSU (approved in 2000) identified development that would accommodate an ultimate capacity of 10,000 fulltime students.<sup>8</sup> The identified development includes additions to the main campus and a musical arts center and university housing on about 89 acres adjacent to the main campus. The development also includes a public safety building to house SSU's Police Services Department.

**Table 3.12-1  
Cotati-Rohnert Park Unified School District Student Capacity and Enrollment—2007/08**

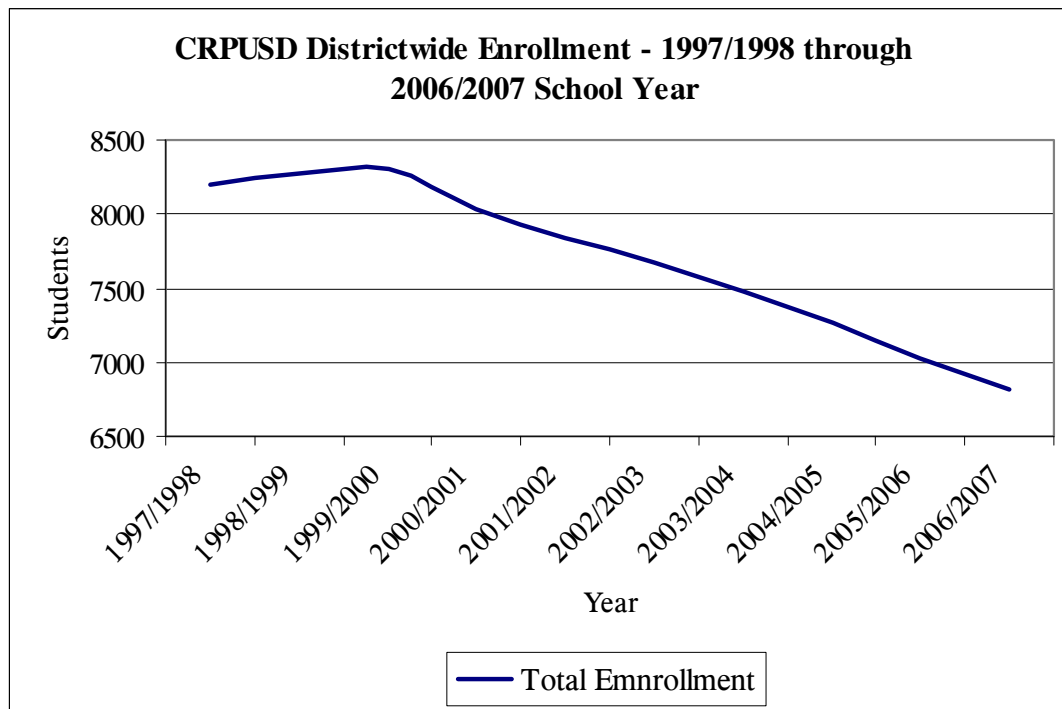
Grade	Existing Capacity	2007/08 Enrollment	Existing Student Deficit
K-5 (elementary)	3,411	2,917	494
6-8 (middle school)	2,388	1,617	771
9-12 (high school) <sup>a</sup>	2,170	1,616	554
Other Schools <sup>b</sup>	654	444	210
<b>Total</b>	<b>8,623</b>	<b>6594</b>	<b>2,029</b>

Source: CRPUSD, Demographics Report 2007-2008, October 2007.

Notes:

1. Capacity and enrollment reflects only the Rancho Cotate High School
2. Other schools = Technology High School, El Camino High School, Phoenix High School, and Community Day School.

**Figure 3.12-1**



<sup>7</sup> Sonoma State University, <http://www.sonoma.edu/university>, accessed July 3, 2009.

<sup>8</sup> Sonoma State University Facilities Services Department, *Sonoma State University Master Plan Revision EIR Addendum*, August 22, 2001.

## Recreation<sup>9</sup>

Rohnert Park currently has 469 acres of park and recreation land managed by the Recreation Department. Out of this number, about 116 acres are dedicated to the City's 14 neighborhood parks, mini-parks, and Roberts Lake, a five-acre man-made lake. Neighborhood parks include various amenities such as shaded picnic areas, tot-lots and playgrounds, and green areas for field sports. The City's two municipal golf courses, located at 100 Golf Course Drive, cover 310 acres. The remaining 43 acres are occupied by recreation facilities, such as a community center. Community centers include a senior center, sports and fitness center, and community garden.

CRPUSD schools include playing fields and other urban open space areas that are open for public use during non-school hours. Most schools within the CRPUSD are located adjacent to City parks. The total acreage of CRPUSD lands is 180 acres. Assuming that 30 percent of CRPUSD lands are occupied by buildings, the amount of recreational lands that school facilities would add to City parklands is about 126 acres.<sup>10</sup> Therefore, the City contains about 595 acres of recreational land in parks, mini-parks, community centers, golf courses, and schools.<sup>11</sup> (Rohnert Park also has 96 acres of creekside open space and 26 acres of open space adjacent to street rights-of-way.) The City adopted a standard of five acres of parkland per 1,000 residents. Assuming a current population of about 43,000, Rohnert Park contains about 2.7 acres of parkland for every 1,000 residents, including neighborhood parks and mini-parks.<sup>12</sup> Including other City-operated recreational facilities, golf courses, and recreational lands in schools, Rohnert Park contains about 13.8 total acres of recreational land for every 1,000 residents.<sup>13</sup> The Recreation Services Manager of the Rohnert Park Recreation Department has stated that the existing parkland and recreational acreage meets the present demand.

There are no existing public recreational facilities within the Sonoma Mountain Village project site. The nearest parks are the 13-acre Magnolia Park and pool and the 5-acre Ladybug Park and pool. These parks are each located about 0.4 miles from the Sonoma Mountain Village project site.

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<sup>9</sup> Information contained in this subsection was obtained from the *City of Rohnert Park General Plan*, Fourth Edition, adopted July 2000, accessible at [www.rpcity.org/cityhall/generalplan.cfm](http://www.rpcity.org/cityhall/generalplan.cfm); and written communications with Guy Miller, Recreation Services Manager, Rohnert Park Recreation Department, July 26, 2007.

<sup>10</sup> *City of Rohnert Park General Plan* Fourth Edition, adopted July 2000.

<sup>11</sup> 469 acres of parkland and recreational facilities + 126 acres of CRPUSD recreational facilities = 595 acres.

<sup>12</sup> 116 acres of neighborhoods and mini-parks ÷ 43,000 Rohnert Park residents x 1,000 = 2.7 acres per 1,000 people.

<sup>13</sup> 595 acres of neighborhood and min-parks, golf courses, recreational facilities and school recreational facilities ÷ 43,000 Rohnert Park residents x 1,000 = 13.8 acres per 1,000 people.

## Impacts and Mitigation Measures

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### Standards of Significance

Based on City of Rohnert Park thresholds of impact significance, a project would normally have a significant adverse public service impact if the project would:

- **Impact Criterion #1:** Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically-altered governmental facilities, the construction of which would cause significant environmental impacts in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:
  - i. Fire and police protection;
  - ii. Schools; and
  - iii. Other public facilities;
- **Impact Criterion #2:** Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment; or
- **Impact Criterion #3:** Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

### Project Evaluation

#### Impact Criterion #1.i

**Police and Fire Services:** *Would the project require the provision of new Department of Public Safety facilities, the construction of which would result in substantial adverse environmental impacts?*

As described in Section 3.11, Population and Housing, the Sonoma Mountain Village project would result in the construction of a maximum of 1,694 dwelling units and up to 198 accessory dwelling units at buildout of the project. Based on a 100 percent occupancy rate, the Sonoma Mountain Village project would add approximately 4,438 residents to the City of Rohnert Park. The Sonoma Mountain Village project would also result in a net increase of on-site employment of approximately 2,226 employees. Also, as described in Chapter 2, Project Description, the Sonoma Mountain Village project would be phased over a period of 12 to 20 years, with the introduction of new residents and employees to the site during each of the anticipated phases.

Based on the existing ratio of 1.4 Public Safety Officers per 1,000 persons, the projected 4,438 residents at buildout of the Sonoma Mountain Village project would generate a need for an additional seven Public Safety Officers, support staff, and equipment.<sup>14</sup> The project would also contribute to a need for a new

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<sup>14</sup>  $4,438 \div 1,000 \times 1.18$  (existing ratio of Public Safety Officers to 1,000 people) = 5.23 Public Safety Officers.

station in the project area. While the demand of the Sonoma Mountain Village project at buildout would result in the additional service demands, because the 4,438 residents would be phased in over time, the project's demand for fire and police services would also be phased. The following is a detailed inventory of the needs of the DPS at buildout of the Sonoma Mountain Village project.<sup>15</sup> Impacts from the project on fire and police services would be based on the need for a new station; however, staffing and equipment needs are provided below for informational purposes.

- **Five Public Safety Officers (Patrol) and Associated Equipment:** Current Patrol staffing (Public Service Officers and Sergeants assigned to Patrol) within the DPS is 51, which equates to about 1.18 officers per 1,000 residents. An additional five officers would be needed in Patrol to maintain the current service ratio.<sup>16</sup> The addition of the Sonoma Mountain Village project would not require its own Patrol beat; however, the inclusion of the project area with the other east side specific plan areas would require the DPS to go from the current three-beat system to a four-beat system in order to maintain the current level of service and response times to emergencies.
- **Two Public Safety Officers (Fire) and Associated Equipment:** Current Fire staffing (Public Service Officers and Sergeants assigned to Fire) within the DPS is 17, which equates to about 0.4 officers per 1,000 residents. An additional two Public Service Officers would be needed in Fire to maintain the current service ratio.<sup>17</sup>
- **East Side Station and Associated Equipment:** The current Station 4, which is a retrofitted residential building, does not allow for the necessary expansion to meet future needs. According to the DPS, buildout of the east side of Rohnert Park, inclusive of the proposed project, would require an east or a southeast side station (location has not been determined). This station would provide Fire and Emergency Medical Services to the east and southeast sides of Rohnert Park. Staffing for the station would minimally include six Public Service Officers (Fire) and one Sergeant. There may also be a need for an additional Type I or Type III engine at this station. The Sonoma Mountain Village project would be partly responsible for the needed station and associated staffing (two Public Service Officers and a half of a Sergeant position) and equipment to this station.
- **Information Services Lieutenant and Associated Equipment:** With the increase in population from the Sonoma Mountain Village project and the associated public safety personnel to accommodate this population increase comes an increased demand for record keeping, dispatching, recruitment and hiring, scheduling, media relations, administrative investigations, overhead at emergency scenes, and other personnel issues. This increased demand dictates a need for an Information Service Lieutenant (Battalion Chief), who is responsible for the management of the above-listed functions. The Sonoma Mountain Village project would be partly responsible for the needed staffing and associated equipment.

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<sup>15</sup> David Frazier, Police Commander, Rohnert Park Department of Public Safety, electronic communication with PBS&J, August 12, 2009.

<sup>16</sup>  $4,438 \div 1,000 \times 1.18$  (existing ratio of Public Safety Officers assigned to Patrol to 1,000 people) = 4.88 Public Safety Officers.

<sup>17</sup>  $4,438 \div 1,000 \times 0.4$  (existing ratio of Public Safety Officers assigned to fire to 1,000 people) = 1.77 Public Safety Officers.

- **Detective (PSO) and Associated Equipment:** The addition of the Sonoma Mountain Village project and the other east side specific plans would force the DPS to go to a four-beat system. Currently, the DPS assigns one Detective (PSO) to each beat. The DPS would need an additional detective to maintain this ratio to provide adequate investigative follow-up to crimes committed in this area. The Sonoma Mountain Village project would be partly responsible for the needed staffing and associated equipment.
- **Traffic Officer and Associated Equipment:** Additional traffic enforcement would be required on the east side of the City due to the increased population and associated traffic-related issues. The Sonoma Mountain Village project would be partly responsible for the needed staffing and associated equipment.
- **Community Services Officer and Associated Equipment:** The addition of the Sonoma Mountain Village project and the other east side specific plans would require the DPS to go to a four-beat system. Currently, the DPS has one Community Services Officer assigned to each beat. Their duties are to maintain beat integrity, handle abatement and blight issues, enforce municipal codes, provide animal control services, and to assist in neighborhood watch programs. The DPS would need an additional Community Services Officer to maintain this ratio to provide adequate beat coverage and service. The Sonoma Mountain Village project would be partly responsible for the needed staffing and associated equipment.
- **Dispatchers:** The DPS's Communications Unit currently operates 24 hours per day, 7 days a week. Dispatchers handle calls for service for both police and fire related issues. The current Dispatch staffing is 12, which equates to about 0.3 dispatchers per 1,000 residents. An additional 2 Dispatchers would be needed to maintain the current service ratio.<sup>18</sup>
- **Records Personnel:** With the increase in population from the Sonoma Mountain Village project and the associated increase in calls for service, there would be an increase in associated reports, paperwork, and clerical support. The DPS would need an additional Records person to absorb the extra workload. The Sonoma Mountain Village project would be partly responsible for this additional staffing.
- **Vehicle Mechanic:** Increased staffing and call volumes would increase maintenance demands on police and fire vehicles. This would demand additional support staff for equipment maintenance and repair. The Sonoma Mountain Village project would be partly responsible for this additional staffing.
- **Fire Inspector and Associated Equipment:** The City currently functions with two Fire Safety Inspectors (one position is in the process of being upgraded to a Fire Marshall position). Increased development, public education needs, cause and origin investigations, and inspections related to the addition of the Sonoma Mountain Village project would necessitate an additional Fire Inspector. The Sonoma Mountain Village project would be partly responsible for the need for this additional staffing and associated equipment.

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<sup>18</sup>  $4,438 \div 1,000 \times 0.3$  (existing ratio of Dispatchers to 1,000 people) = 5.03 Public Safety Officers.

- **Animal Shelter Personnel:** The increase in population from the Sonoma Mountain Village project would result in an increase in animal-related issues and impounds. The increased demand would require the Animal Shelter to upgrade one part-time person to full-time status to absorb the additional workload.

As noted above, the Sonoma Mountain Village project would be expected to increase the need for patrol services to the area. However, the Sonoma Mountain Village project by itself would not necessitate the creation of an additional beat to the existing three-beat police patrol system. Also, while there is potential need for the construction of new facilities as a result of inclusion of the Sonoma Mountain Village project within the service area, construction of the Sonoma Mountain Village project by itself would not warrant the construction of an additional station or the expansion of existing stations.

The proposed project would provide water supply to the project site for the purposes of fire suppression through the use of reclaimed water. Due to the level elevation of the City's water system would provide adequate pressure for fire fighting, meeting the City's minimum firewater pressure standard of 50 to 55 pounds per square inch (PSI).

Because development of the project by itself would not warrant the construction of any additional structures or the expansion of existing stations, there would be no significant adverse environmental impact under Impact Criterion #1.i resulting from the construction of new or the expansion of existing police and/or fire protection facilities.

### **Impact Criterion #1.ii**

**Schools:** *Would the project require the provision of new or physically altered school facilities, the construction of which would result in substantial adverse environmental impacts?*

Previous estimates by CRPUSD indicate an average student yield of 0.4 elementary school students, 0.1 middle school students, and 0.2 high school students per household, including single- and multiple-family dwellings.<sup>19</sup> The 1,892 dwelling units proposed under the Sonoma Mountain Village project would thus, produce a maximum of 757 elementary school students, 190 middle school students, and 379 high school students, for a total of 1,326 students.<sup>20</sup>

Based on Table 3.12-2, the proposed project may cause the capacity to be exceeded for elementary schools by 321 students. The project would not result in an exceedance of capacity at middle schools or high schools. The estimated maximum number of students projected to be yielded by the project is a conservative estimate because it assumes 100 percent occupancy of the proposed dwelling units. Also, the analysis assumes that future CRPUSD enrollment would be the same as the current CRPUSD enrollment, which is a conservative estimate because enrollment within the district has been declining over the past seven years. According to the CRPUSD Superintendent, the district anticipates that it would therefore be

<sup>19</sup> CRPUSD, *Developer Study*, 2001.

<sup>20</sup> 1,694 residential units x 0.4 (elementary students per residential unit) = 677.6 elementary students. 1,694 residential units x 0.1 (middle school students per residential unit) = 169.4 middle school students. 1,694 residential units x 0.2 (high school students per residential unit) = 338.8 high school students.

able to accommodate students from the Sonoma Mountain Village project within the existing facilities. Furthermore, it is important to note that not all 678 new elementary students generated by the Sonoma Mountain Village project would enter the CRPUSD in one year. The increase in students would occur over an extended period of time, according to the anticipated phasing plan of the project. Therefore, the current surplus capacity would enable CRPUSD to accommodate additional students generated by the project within its existing facilities. Thus, there would be no significant adverse environmental impacts under Impact Criterion #1.ii resulting from the construction of new or the expansion of existing school facilities.

**Table 3.12-2  
Capacity and Enrollment within Cotati-Rohnert Park Unified School District**

School (Grade) <sup>a</sup>	Capacity	2007/08 Enrollment	Existing Student Deficit	Number of Students Generated by Sonoma Mountain Village Project	2007/08 Enrollment Plus Number of Students Generated by Sonoma Mountain Village Project <sup>b</sup>
K-5 (elementary)	3,411	2,917	494	757	3,764
6-8 (middle school)	2,388	1,617	771	190	1,807
9-12 (high school)	2,170	1,616	554	379	2,170
<b>Total</b>	<b>7,969</b>	<b>6,454</b>	<b>2,029</b>	<b>1,326</b>	<b>7,741</b>

Source: CRPUSD, 2007; PBS&J 2009.

Notes:

- a. This does not include capacity and enrollment information for the Technology High School, El Camino High School, Phoenix High School, and Community Day School.
- b. The data in this column assumes that the current enrollment will continue to stay the same. This is a conservative assumption because CRPUSD enrollment has been in decline for the last seven years.

In addition, Section 65996 of the State Government Code explains that payment of school impact fees enabled by the Leroy F. Greene School Facilities Act of 1998 is deemed to constitute full and complete mitigation for school impacts. The CRPUSD has enacted development fees in accordance with the Leroy F. Greene School Facilities Act and levies these fees on development projects within its service area. The project sponsor would be required to pay \$1.65 per square foot of residential development and \$0.27 for square foot per commercial development for the purposes of school improvements. Fulfillment of this requirement is considered full mitigation and would ensure that student enrollments affecting schools would remain less than significant.

### **Impact Criterion #1.iii**

***Emergency Services: Would the project require the provision of new or physically altered emergency service facilities, the construction of which would result in substantial adverse environmental impacts?***

The Sonoma Mountain Village project and the associated increase in population therein would generate an additional demand on emergency medical services. Accordingly, Sonoma Life Support would be expected to increase ambulance use and trained personnel serving the City in order to meet the increase in demand.



However, a new facility to accommodate the additional ambulances and trained personnel would not be necessary as there are already crew quarters on the east side of U.S. 101.<sup>21</sup> Since the project would not require the construction of new or physically altered emergency service facilities, there would be no significant adverse environmental impact under Impact Criterion #1.iii.

### **Impact Criteria #2 and #3**

**Recreation:** *Would the project require new or expanded recreational facilities, the construction of which would result in substantial adverse environmental impacts, or increase recreational facility uses such that substantial physical deterioration of the facility would occur or be accelerated?*

The City of Rohnert Park calculates parkland needs based on a City standard of five acres of parkland for every 1,000 residents. This means that the project would need to provide 22.19 acres of parkland to meet the demand of an additional 4,438 residents. The proposed 27.3 acres of parkland would thus exceed the City's standard of five acres per 1,000 residents and would be considered adequate to serve the new project residents. Also, according to the City's Recreation Manager, most of the existing recreational lands are not at or near capacity, except soccer fields. The proposed project would include development of a soccer field, which could reduce an overall City demand for this type of recreational facility. Because the Sonoma Mountain Village project's recreational demands would be met on the project site, the project would not significantly accelerate deterioration of existing recreational facilities. Since the project would not require the construction of new recreational facilities that might have an adverse physical effect on the environment or accelerate the deterioration of the City's existing recreational facilities, there would be no significant adverse environmental impacts under Impact Criteria #2 and #3 regarding recreational facilities.

### **Cumulative Development**

The discussion of cumulative development impacts is as described in the Introduction section of this EIR under the title *Cumulative Impact Assessment* and includes collectively the Sonoma Mountain Village project and cumulative development projects as noted therein. The analysis above shows the project would not specifically require the provision of new Department of Public Safety facilities, new or physically altered school or emergency service facilities, or new or expanded recreational facilities. Therefore, the project would not result in substantial adverse environmental impacts through the construction of such facilities under Impact Criterion #1. It was also shown that the project would not increase recreational facility uses such that substantial physical deterioration of facilities would be accelerated under Impact Criterion #3. Accordingly, the project's public service construction impacts would be less than considerable, rendering the cumulative construction impact less than significant under Impact Criteria #1, #2 and #3. Although the project's impact would be less than significant, the following additional information is provided with reference to cumulative development.

**Police and Fire Services:** As explained previously, implementation of the Sonoma Mountain Village project would generate increased demand for police and fire services. The increased demand for services

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<sup>21</sup> Kent Coxon, EMS Regional Administrator, Coastal Valleys Regional EMS Agency, personal communication with PBS&J, November 30, 2007.

generated by the project would contribute to the overall demand generated by other development that is proposed within the City. Using population estimates from the City's 2020 General Plan and the existing ratio of 1.4 Public Safety Officers for every 1,000 population, the cumulative development under the City's 2020 General Plan would require a total of 71 cross-trained Public Safety Officers.<sup>22</sup> As discussed above, the Sonoma Mountain Village project would require an additional seven Public Safety Officers for a total of 78 Public Safety Officers. Currently, the City Council has authorized 60 Public Safety Officers for the DPS. Therefore, cumulative development plus the Sonoma Mountain Village project would result in the need for 18 additional cross-trained Public Safety Officers based on cumulative population levels.<sup>23</sup> Additionally, the proposed Graton Rancheria Resort Hotel/Casino Project would add 300 hotel rooms and increase the City's daytime population. This would place additional demand on the DPS.

However, basing the anticipated demand for Public Safety Officers on sheer population numbers does not take into account the demographic considerations based on current and anticipated patterns of land use. For example, in order to service the entire area within the Urban Growth Boundary, upon buildout five police beats would be necessary. The two new beats would require an estimated additional 12 Public Safety Officers, two Sergeants, two Community Safety Officers, and additional support staff such as detectives, dispatchers, school resource officers, and records personnel. Auxiliary vehicles and equipment would also be needed. According to the DPS, the Sonoma Mountain Village project would partially contribute to the need for a new beat to be added to the system.

General Plan policies provide for additional police and fire manpower and equipment to accommodate cumulative development within the City. However, an increase in the demand for police and fire services would not constitute a significant public services impact. An increase in demand for public services could lead to potentially significant environmental impacts only if constructing or expanding a new facility was required that adversely affected the physical environment as noted in the City's thresholds of significance. According to the DPS, individually the proposed project would require additional staff, but would not in itself generate enough demand for a new station. However, in addition to other developments that would occur in the east side of Rohnert Park, DPS anticipates that a new station in the east or southeast area of the City would be required in order to adequately serve the east area of the City. The station would need to be large enough to accommodate sleeping arrangements for at least six firefighters with enough office space for at least three on-duty personnel. The three bays would be needed to house a Type I engine, a truck, and other support apparatuses. The location of this station has not been identified; however DPS anticipates that the location of the fire station would need to be in the area of Bodway Parkway and East Cotati Avenue, in order to adequately serve the expanded eastern portions of the City. A location within the Sonoma Mountain Village project site has been identified as a potential site for a new station.

The City has implemented a Public Facilities Finance Plan (PFFP), which is designed to provide funding for necessary public service facilities improvements, including police and fire station expansion and

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<sup>22</sup> 50,400 residents in 2020 ÷ 1,000 x 1.4 (existing ratio of Public Safety Officers to 1,000 people) = 70.56 Public Safety Officers.

<sup>23</sup> 78 Public Safety Officers required to meet the existing ratio of 1.4 Public Safety Officers per 1,000 people by year 2020 – 60 existing Public Safety Officers = 18 additional Public Safety Officers to meet the 1.4 Public Safety Officer per 1,000 people ratio.

equipment. Funding for additional staff would not be covered by the PFFP. Funding for a new station would be addressed in the PFFP and as development occurs. Existing facilities would be used until such time any new facilities are operational. To the extent a new station would be required in the future as would be limited under the City's Growth Management Program, the City would be responsible for determining and implementing any needed environmental impact mitigation measures associated with new facility construction or operation<sup>24</sup> under Impact Criterion #1.i.

**Schools:** Cumulative development under the City's General Plan would result in an additional 4,450 dwelling units through growth and annexation of the University District Specific Plan area, the Northeast Specific Plan area, the Northwest Specific Plan area, Southeast Specific Plan project area, the Wilfred/Dowdell Specific Plan area and the Canon Manor Specific Plan area.<sup>25</sup> Current CRPUSD boundaries do not include the Northwest Specific Plan area and the Wilfred/Dowdell Specific Plan area in the west side of the City, or the Northeast Specific Plan area and part of the University District Specific Plan area in the east side of the City. Efforts are underway to adjust CRPUSD boundaries to include Rohnert Park's UGB so that all areas to be annexed would be part of CRPUSD's area of responsibility. CRPUSD targets that the new and expanded boundaries would be established within two years. The Sonoma Mountain Village project site falls within the current CRPUSD boundaries.

The Rohnert Park General Plan, based on Association of Bay Area Governments projections, indicates that enrollment at elementary, middle, and high school levels would increase upon buildout in 2020. Table 3.12-3 presents enrollment estimates based upon buildout under two scenarios: with the existing CRPUSD boundaries and with the expanded CRPUSD boundaries that include cumulative development under the City's General Plan plus the Sonoma Mountain Village project.

Table 3.12-3 indicates that with the existing and expanded CRPUSD boundaries grade levels 6-8 (middle school) would have sufficient capacity to accommodate projected growth, while grade levels K-5 (elementary school) and 9-12 (high school) would not. CRPUSD anticipates that it would be able to accommodate the growth in students even if it exceeds the existing capacity because more buildings can be added to most existing school sites and CRPUSD owns 22 acres of undeveloped land that can serve as a site for a new school.

As explained previously, the payment of development fees in accordance with the Leroy F. Green School Facilities Act is considered to be full mitigation of school impacts. Since project sponsors would be

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<sup>24</sup> This EIR assesses effects on public services and facilities in the context of changes wrought by the 1995 appellate court decision of *Goleta Union School District v. The Regents of the University of California*. This decision stipulates that public service resources (equipment, personnel) and facility impacts associated with increased demand for public services and facilities may be social and economic impacts that do not require extensive assessment or mitigation under CEQA. Under the decision, an increase in demand for public services and facilities could lead to potentially significant environmental impacts only if the service or facility provider needed to construct or expand a new facility, the operation or construction of which might adversely affect the physical environment. Further, the courts found that the affected public service or facility agency would be responsible for selecting the method of responding to increased demand, such as constructing a new facility, and it would be responsible for implementing any needed environmental impact mitigation measures associated with new facility construction or operation.

<sup>25</sup> *City of Rohnert Park General Plan* Fourth Edition, adopted July 2000.

required to pay development fees, the Sonoma Mountain Village project’s contribution to cumulative school impacts would be less than significant.

**Table 3.12-3  
Enrollment Estimates Upon UGB Buildout  
(With Existing CRPUSD Boundaries/With Expanded CRPUSD Boundaries)**

Grade <sup>a</sup>	Existing Capacity <sup>b</sup>	Current (2007/08) Enrollment	General Plan Buildout Enrollment plus Sonoma Mountain Village (2020)	Change in Enrollment from 2007/08 to 2020	Student Surplus or (Deficit)
K-5 (elementary)	3,411	2,917	3,967/4,724	984/1,299	627/942
6-8 (middle school)	2,388	1,617	2,100/2,290	477/661	(229)/(45)
9-12 (high school)	2,170	1,616	2,853/3,232	1,107/1,347	693/933
<b>Total</b>	<b>7,969</b>	<b>6,454</b>	<b>8,920/9,659</b>	<b>2,568/3,307</b>	<b>1,091/1,830</b>

*Source:* City of Rohnert Park General Plan, 2000; and CRPUSD, 2007.

*Notes:*

- a. This does not include capacity and enrollment information for the Technology High School, El Camino High School, Phoenix High School, and Community Day School.
- b. The existing CRPUSD capacity is not expected to change for at least another three to five years and in the near term would not be affected by boundary changes. Capacity estimates are not available for 2020.

In addition, General Plan policies provide for additional school facilities to accommodate cumulative development. However, an increase in the demand for new school facilities would not constitute a significant public services impact under Impact Criterion #1.ii. An increase in demand for new school facilities could lead to potentially significant environmental impacts only if constructing or expanding new facilities were required that adversely affected the physical environment as noted in the City’s thresholds of significance. Therefore, to the extent new school facilities would be required in the future as would be limited under the City’s Growth Management Program, the CRUPSD would be responsible for determining and implementing any needed environmental impact mitigation measures associated with new school facility construction or operation under Impact Criterion #1.ii.

**Emergency Services:** In order to adequately serve the Sonoma Mountain Village project site and other development within the City, Sonoma Life Support would most likely need to provide two ambulances stationed in the overall catchment area.<sup>26</sup>

Cumulative development would require emergency preparedness that exceeds the capabilities of existing programs. General Plan policies provide for additional emergency services manpower and equipment to accommodate cumulative development within the City. However, an increase in the demand for emergency services would not constitute a significant public services impact under Impact Criterion #1.iii. An increase in demand for emergency services could lead to potentially significant environmental impacts only if

<sup>26</sup> Kent Coxon, EMS Regional Administrator, Coastal Valleys Regional EMS Agency, electronic communication with PBS&J, July 13, 2009.

constructing or expanding a new facility was required that adversely affected the physical environment as noted in the City's thresholds of significance. Therefore, to the extent new emergency service facilities would be required in the future as would be limited under the City's Growth Management Program, the City would be responsible for determining and implementing any needed environmental impact mitigation measures associated with new facility construction or operation under Impact Criterion #1.iii.

**Recreation:** The General Plan anticipates an additional 4,450 dwelling units citywide at buildout under cumulative development. Assuming a population of 3.2 persons per single-family unit and 2.0 persons per multi-family unit (with 10 percent of all residential units constructed as multi-family units) and 100 percent occupancy, the 4,450 additional dwelling units would generate approximately 13,706 additional residents. Based on the City standard of five acres of parkland per 1,000 residents, cumulative development would require about 68 additional acres of neighborhood and community parkland.<sup>27</sup> Upon buildout in 2020, the City anticipates an addition of about 60 to 91 acres of parkland, excluding mini-parks, and greenways, which may be required for non-residential developments in urban settings. Therefore, the additional parkland to be built as part of cumulative development would be expected to satisfy the City standard of five acres for every 1,000 residents. This represents a conservative analysis because the population estimate of 13,706 persons is based on 100 percent occupancy of the additional 4,450 dwelling units and does not account for projected vacancies. Including projected vacancies, the General Plan has anticipated an additional population of 9,400 upon buildout.<sup>28</sup> Based on a standard of five acres of parkland per 1,000 residents and an additional population of 9,400 persons upon buildout, cumulative development would require about 47 additional acres of neighborhood and community parkland.

The above notwithstanding, the 27.3 acres of parkland to be developed as part of the Sonoma Mountain Village project would offset the project's contribution to the cumulative demand resulting from cumulative development because it would be sufficient to serve the additional population in the Sonoma Mountain Village project site. While the Sonoma Mountain Village project by itself would not result in significant accelerated deterioration of existing facilities as a result, cumulative development could potentially result in the accelerated deterioration of the existing facilities. According to the City's Recreation Services Manager, the increased demand for recreational facilities within the City would occur as new land and residential developments are implemented. However, the increased demand for recreational facilities would be alleviated by the development of new recreational facilities within each of the new development areas.<sup>29</sup>

Recreational facilities could lead to potentially significant environmental impacts only if constructing or expanding recreational facilities adversely affected the physical environment as noted in the City's thresholds of significance under Impact Criterion #2. Therefore, to the extent new or expanded parkland or recreational facilities would be required in the future as would be limited under the City's Growth

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<sup>27</sup> This estimate, which was extracted from the 2000 General Plan, is based on an additional population of about 11,700 persons under cumulative development and a 100 percent occupancy rate of the additional 4,450 homes anticipated to be built under cumulative development. The General Plan estimate of 9,400 additional persons upon buildout includes projected vacancies. Therefore, the estimated 68 additional acres of neighborhood and community parkland is a conservative estimate.

<sup>28</sup> *City of Rohnert Park General Plan*, Fourth Edition, adopted July 2000.

<sup>29</sup> Guy Miller, Recreation Services Manager, Rohnert Park Recreation Department, written communication with PBS&J, July 26, 2007.

Management Program, the City would be responsible for determining and implementing any needed environmental impact mitigation measures associated with new facility construction or operation under Impact Significance Criteria #2 and #3.



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## 3.13 TRAFFIC AND CIRCULATION

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### Introduction

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This section of the EIR addresses the potential traffic and circulation impacts of the proposed Sonoma Mountain Village project (the project). The project sponsor proposes to build a mixed-use development including 1,892 dwelling units, a 100-room hotel, 425,978 square feet (sf) of office space, 107,329 sf of retail space, and a 35,000 sf Civic Building. New trips associated with the proposed project are determined using industry standard trip generation rates provided in the Institute of Transportation Engineers' (ITE) *Trip Generation*, Seventh Edition, 2003. To assess the project's effect on the surrounding transportation network, the following five scenarios are examined:

#### Non-Project Scenarios:

- **Existing Conditions.** Operating conditions at nearby intersections, roadways, freeways, transit systems, bicycle facilities, and pedestrian facilities are outlined using the most recent data available.
- **Baseline Conditions.** An existing plus near-term projects scenario is developed called the "Baseline Conditions." The Baseline Condition assigns traffic from nearby near-term projects to the existing roadway network. It should be noted that Baseline Conditions do not assume the completion of General Plan related improvements.
- **Cumulative Conditions (year 2020).** Based on a combination of the most recent versions of the Rohnert Park Traffic Model and the Sonoma County Transportation Authority (SCTA) Countywide Model, future traffic volumes for the study area are projected. The 2020 model projections includes traffic growth associated with all local projects which can be expected to be completed by the year 2020, as well as increased traffic roadway facilities associated with regional growth. It should be noted that the Cumulative Conditions do not include growth associated with the Sonoma Mountain Village project itself. A separate "Cumulative plus Project" scenario is developed to provide a direct comparison of with and without project conditions.

#### With-Project Scenarios:

- **Baseline plus Project Conditions.** Because completion and occupation of all uses within the Sonoma Mountain Village project can be expected to take several years, the near-term analysis of potential project impacts is done relative to the Baseline Conditions (which considers traffic from approved projects which can reasonably be expected to be completed in the near future). Traffic associated with the proposed project is manually added to the Baseline Conditions roadway network. Differences in the operating conditions of nearby intersections, roadways, freeways, transit systems, bicycle facilities, and pedestrian facilities from Baseline Conditions can be directly attributed to the Sonoma Mountain Village project.



- **Cumulative plus Project Conditions (year 2020).** The long-term analysis of potential project impacts is done relative to the Cumulative Conditions. Traffic associated with the proposed project is manually added to the Cumulative Conditions roadway network. Differences in the operating conditions of nearby intersections, roadways, freeways, transit systems, bicycle facilities, and pedestrian facilities from Cumulative Conditions can be directly attributed to the Sonoma Mountain Village project.

For these five scenarios, the project's effect on intersection, roadway segment, freeway segment, transit, bicycle, and pedestrian conditions are evaluated. Mitigation measures to reduce any identified significant traffic and circulation impact to less-than-significant levels are identified in accordance with specified impacts significance criteria.

## Setting

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### Existing Transportation Network

#### Existing Roadway Network

##### *Regional Access*

U.S. 101 - is a north-south freeway that connects Los Angeles with San Jose, San Francisco, and northern California. Nearest to the project site is U.S. 101, which has two lanes in each direction. The average daily traffic volume (ADT) in the project area ranges from 90,000 south of East Washington Street (in Petaluma) to 103,000 north of the Rohnert Park Expressway.<sup>1</sup>

##### *Local Access*

East Cotati Avenue – is an east-west major arterial roadway that extends from Petaluma Hill Road in the east to Old Redwood Highway in the west. In the vicinity of the project area, this roadway has four travel lanes with no on-street parking allowed on either side of the street. West of Bodway Parkway, East Cotati Avenue provides sidewalks on both sides of the street. East of Bodway Parkway, East Cotati Avenue does not provide sidewalks.

Petaluma Hill Road – is a north-south minor arterial roadway that extends from the City of Santa Rosa in the north to the community of Penngrove in the south. In the vicinity of the project area, this roadway has two travel lanes, no sidewalks, and no parking is allowed on either side of the street.

Old Redwood Highway – is a north-south major arterial roadway that extends from Gravenstein Highway in the north to Stony Point Road in the south. In the vicinity of the project area, this roadway has two travel lanes with a two-way left-turn lane, no on-street parking, and no pedestrian facilities.

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<sup>1</sup> Caltrans, *Year 2006 Traffic Volumes on the State Highway System*.

Rohnert Park Expressway – is an east-west major arterial roadway that extends from Petaluma Hill Road in the east to Stony Point Road in the west. In the vicinity of the project area, this roadway has four travel lanes, sidewalks on both sides of the street, and no on-street parking allowed.

Snyder Lane – is a north-south major arterial roadway that extends from Petaluma Hill Road in the north to East Cotati Avenue in the south. In the vicinity of the project area, this roadway has four travel lanes, sidewalks on both sides of the street, and no on-street parking is allowed.

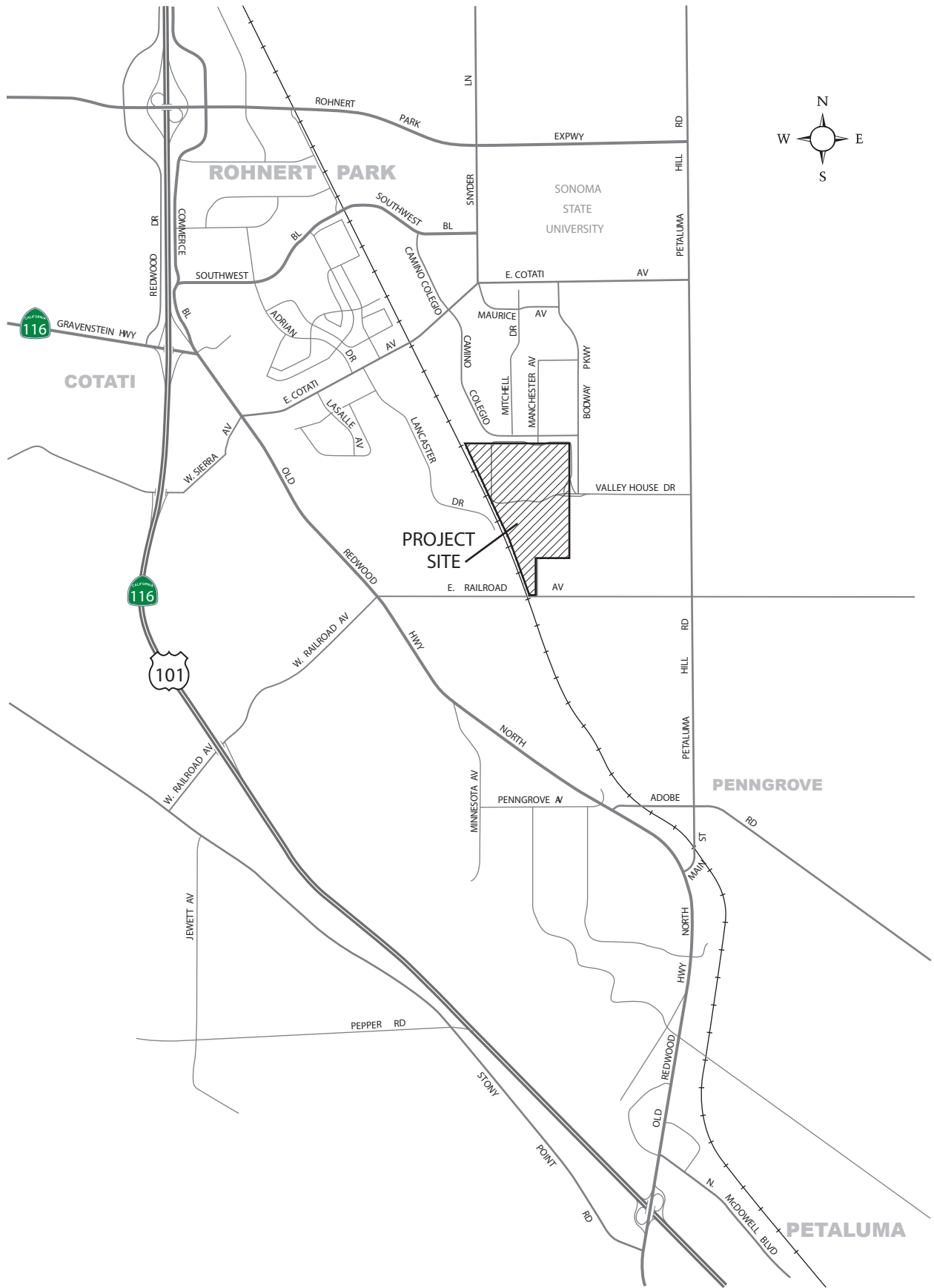
East Railroad Avenue – is an east-west local roadway that extends from Petaluma Hill Road in the east to Stony Point Road in the west. A northbound off-ramp from U.S. 101 is provided at East Railroad Avenue. In the vicinity of the project area, this roadway has two travel lanes, no on-street parking allowed on either side of the street, and no pedestrian facilities. East Railroad Avenue would provide direct access to the project site upon buildout.

Valley House Drive – is an east-west local roadway that extends from Petaluma Hill Road in the east to Bodway Parkway in the west. In the vicinity of the project area, this roadway has two travel lanes, no on-street parking allowed on either side of the street, and a sidewalk provided on the north side of the street. Valley House Drive would provide direct access to the project site upon buildout. It should be noted that Valley House Drive is private on the project site, and currently is a public right-of-way from Bodway Parkway to Petaluma Hill Road.

Bodway Parkway – is a north-south local roadway that extends from Sonoma State University (SSU) in the north to Valley House Drive in the south. In the vicinity of the project area, this roadway has two travel lanes, a landscaped median continuously on the west side of the street and limited on the east side, no on-street parking allowed on either side of the street, and pedestrian facilities. Bodway Parkway would provide direct access to the project site upon buildout.

Camino Colegio – is a southeast to northwest major collector roadway that extends from Bodway Parkway in the southeast to Southwest Boulevard in the northwest. In the vicinity of the project area, this roadway has four travel lanes, sidewalks on the north side of the street, a pedestrian path on the south side of the street, and no on-street parking allowed on either side of the street. Camino Colegio would provide direct access to the project site upon buildout.

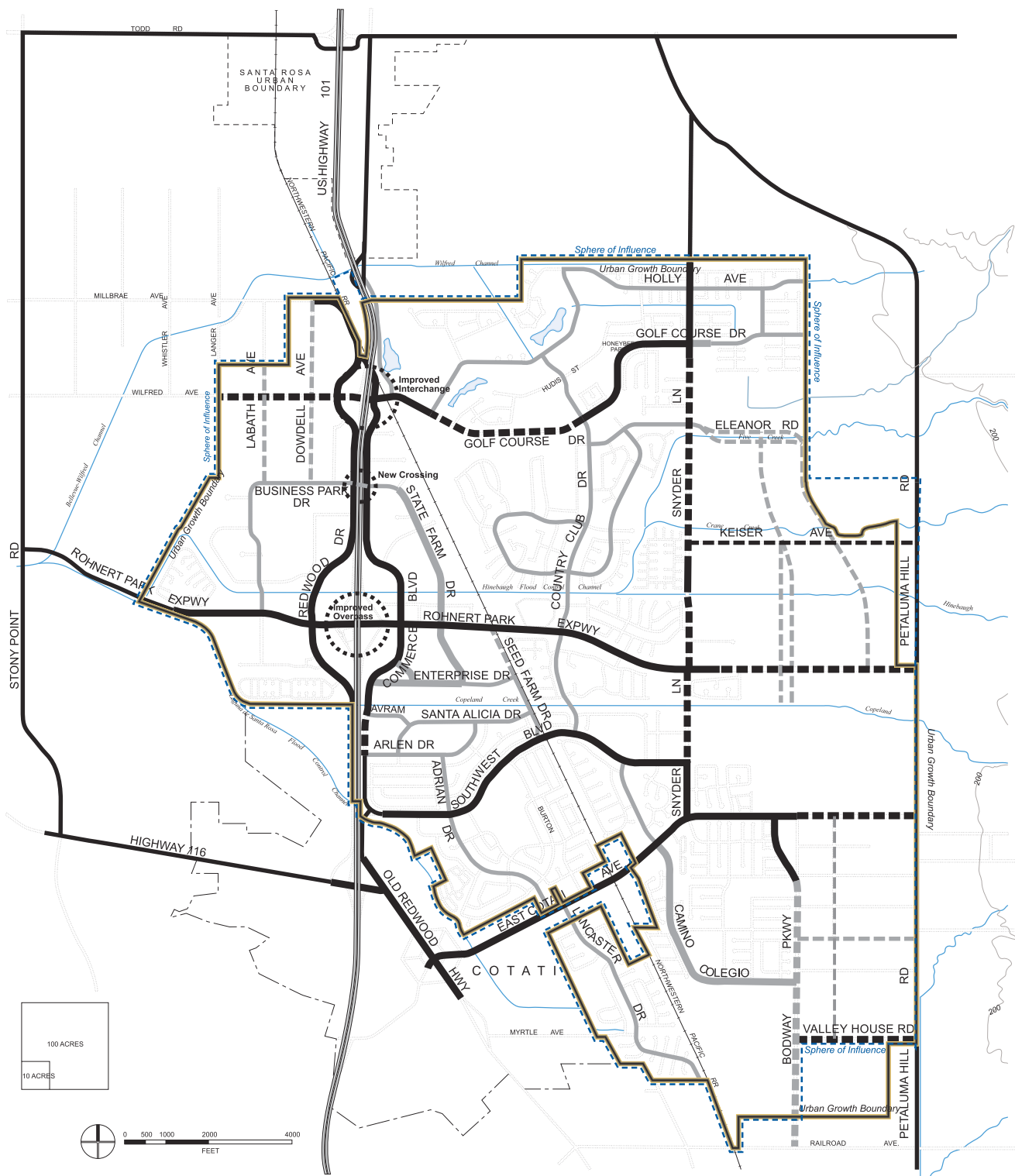
A map of the traffic circulation study area is provided in Figure 3.13-1. For reference, the Master Street Plan from the City of Rohnert Park General Plan is provided in Figure 3.13-2.



**FIGURE 3.13-1**  
**Study Area**

Source: DMJM HARRIS - AECOM





- EXISTING PROPOSED
- - Major Arterial (4 or 6 lanes)
  - Minor Arterial (2 lanes)
  - Major Collector (4 lanes)
  - Minor Collector (2 lanes)

**FIGURE 3.13-2**  
**Rohnert Park General Plan - Master Street Plan**

Source: Dyett & Bhatia - Urban and Regional Planners



## Existing Transit Services

### *Regional Service*

Regional transit in the area is provided by Golden Gate Transit, which connects Santa Rosa and San Francisco via Rohnert Park. Route 80 service runs through the City of Rohnert Park with the only current access point via a park-and-ride facility at Rohnert Park Expressway and U.S. 101, which is approximately three miles from the project site entrance on Camino Colegio. Routes 72, 73 and 75 are limited service commuter bus lines that connect the Santa Rosa Transit Mall to the San Rafael Bus facility via Rohnert Park. These lines run southbound during the morning hours and northbound during the evening hours with access points from park-and-ride facilities at Roberts Lake Road at U.S. 101 and Rohnert Park Expressway at U.S. 101. Transit service routes are shown on Figure 3.13-3.

Future potential transit improvements in the area include implementation of the Sonoma-Marín Area Rail Transit (SMART) Project. The SMART Project is a commuter rail corridor project which would extend from Cloverdale in Sonoma County to a San Francisco bound ferry terminal in Larkspur. The project would provide passenger rail service along approximately 70 miles of the Northwestern Pacific Railroad alignment. Utilizing the publicly owned railroad right of way, the commuter rail project would serve a total of fourteen stations, including a potential station in Rohnert Park north of Golf Course Drive at Roberts Lake Road, and a potential station in Cotati on East Cotati Avenue at Santero Way.

### *Local Service*

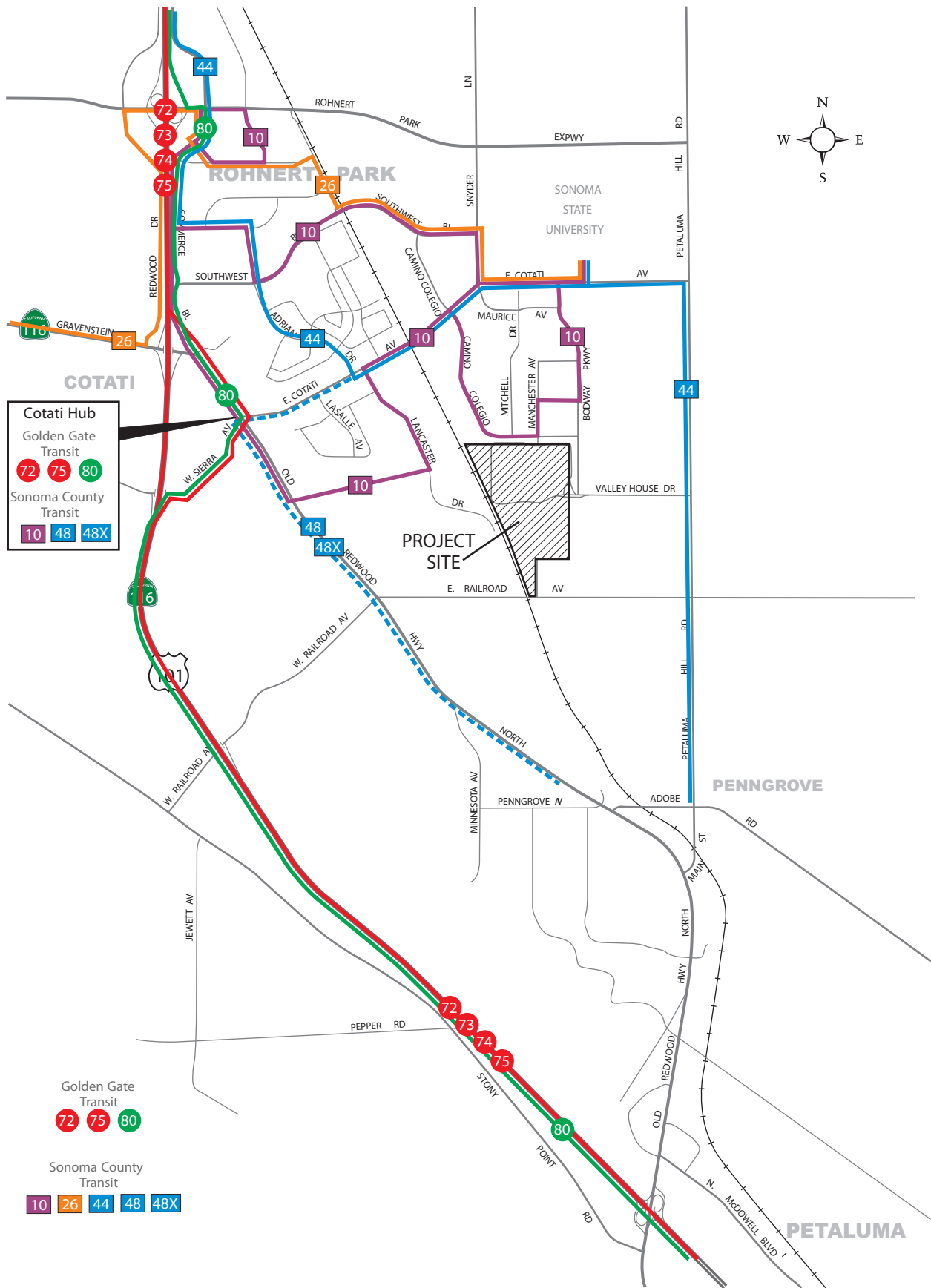
Local transit in the vicinity of the project site is provided by Sonoma County Transit, which runs throughout Sonoma County.

Line 10 provides service between Hunter Drive/Senior Center in the west, to SSU in the east. This line operates along Camino Colegio, Manchester and Bodway Parkway with stops at Camino Colegio/Manchester Avenue and Bodway Parkway/Middlebrook Way in the vicinity of the project. This is the only bus service that provides direct access to the project site.

Line 26 provides service from State Route 116 (SR 116) in the west to SSU on the east side of the City. In the project vicinity, this line has a stop at University Square on East Cotati Avenue and another at SSU, both of which are approximately 1.5 miles from the site entrance on Camino Colegio.

Line 44 runs along East Cotati Avenue and Old Redwood Highway in the project vicinity. It does not provide direct access to the project site. The nearest stop is at the Cotati Hub, which is approximately two miles from the site entrance on Camino Colegio.

Line 48 runs along East Cotati Avenue via SSU and continues south on Petaluma Hill Road. This service does not provide direct access to the project site. The nearest stop from the project site is at SSU.



**FIGURE 3.13-3**  
**Transit Service**

Source: DMJM HARRIS - AECOM



Line 48X runs along Commerce Boulevard and Old Redwood Highway with the nearest stop at the Cotati Hub. This line does not provide direct access to the project site.

### Existing Bikeways

Class I, Class II, and Class III bicycle routes are available in the vicinity of the project site. Class I bicycle facilities provide dedicated off-street bike paths, Class II bicycle facilities have separate bicycle lanes adjacent to the curb lane, and Class III bicycle facilities provide shared use with pedestrians or motor vehicles. The following are the major bicycle routes within the immediate vicinity of the project site:

#### Class I Facilities:

- Along Bodway Parkway between Camino Colegio and Valley House Drive;
- Along Camino Colegio between East Cotati Avenue and Bodway Parkway;
- Along Southwest Boulevard between Adrian Drive and Snyder Lane; and
- Along Copeland Creek between U.S. 101 and SSU.

#### Class II Facilities:

- Along East Cotati Avenue between Petaluma Hill Road and U.S. 101;
- Along Snyder Lane between East Cotati Avenue and Rohnert Park Expressway; and
- Along Old Redwood Highway between Gravenstein Highway and Eucalyptus Avenue.

#### Class III Facilities:

- Along Rohnert Park Expressway between U.S. 101 and SSU;
- Along Lancaster Drive south of East Cotati Avenue;
- Along Adrian Drive north of East Cotati Avenue; and
- Along Burton Avenue between Adrian Drive and Bernice Avenue.

Existing and proposed bicycle routes in the study area are illustrated on Figure 3.13-4.

### *Planned Facilities*

Future bicycle improvements are outlined in the SCTA's Master Bicycle Plan. Near the project area, the Bicycle Plan calls for the development of:

#### Class I Facilities:

- Adjacent to the Northwest Pacific Railroad tracks.

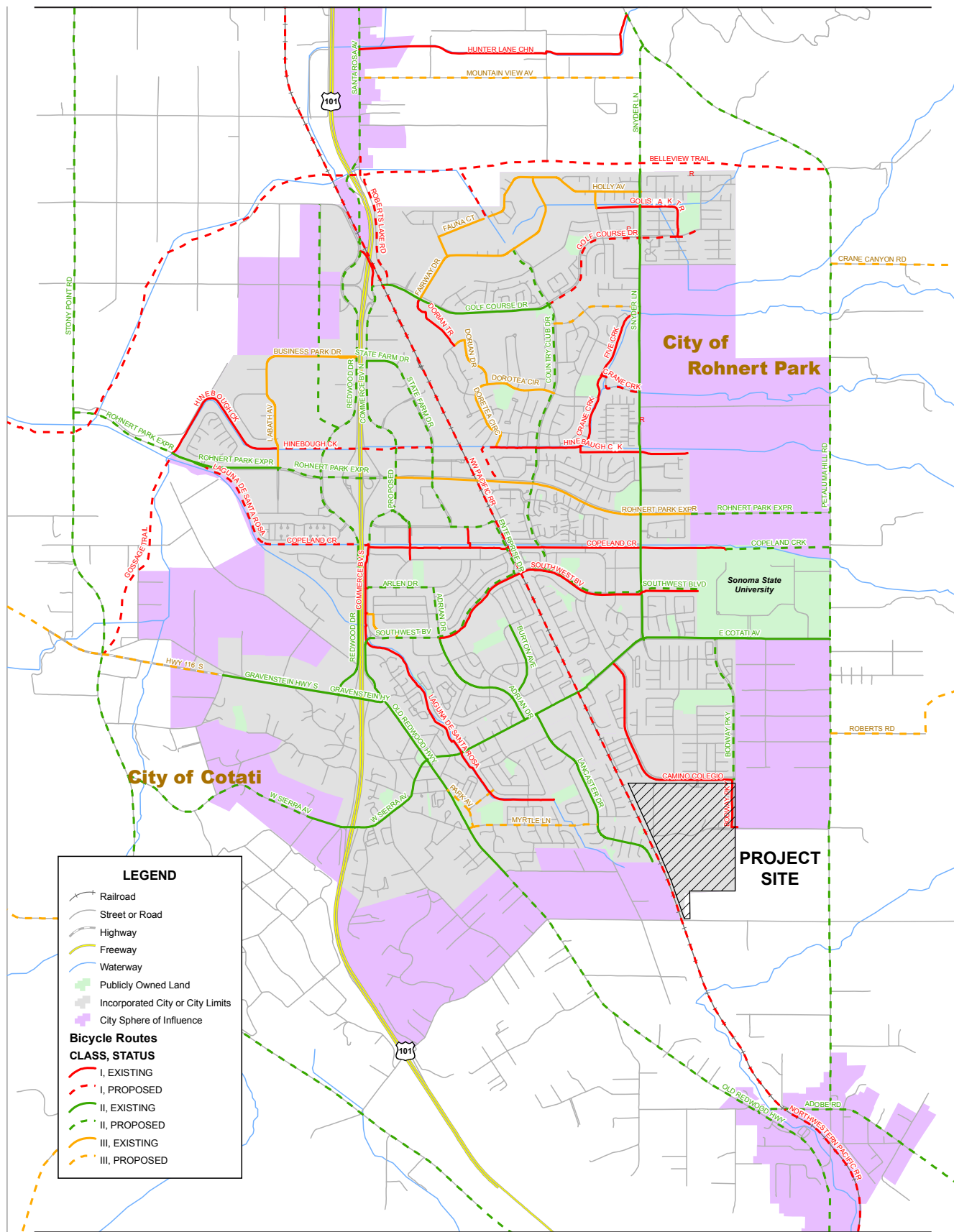


FIGURE 3.13-4  
Bicycle Facilities

Source: DMJM HARRIS - AECOM; Sonoma County Transportation Authority





#### Class II Facilities:

- Along Petaluma Hill Road between the City of Santa Rosa and Adobe Road;
- Along Southwest Boulevard between SSU and U.S. 101;
- Along Old Redwood Highway south of Eucalyptus Avenue; and
- Along Bodway Parkway between East Cotati Avenue and Camino Colegio.

#### Class III Facilities:

- Along Myrtle Lane between Lancaster Drive and Old Redwood Highway.

### **Traffic Volumes and Levels of Service**

#### Level of Service

The operation of a local roadway network is commonly measured and described using the term Level of Service (LOS). The LOS grading system qualitatively characterizes traffic conditions associated with varying levels of vehicle traffic, ranging from LOS A (indicating free-flow traffic conditions with little or no delay experienced by motorists) to LOS F (indicating congested conditions where traffic flows exceed design capacity and result in long queues and delays). This LOS grading system applies to both signalized and unsignalized intersections. LOS A, B, and C are generally considered satisfactory service levels. The influence of congestion becomes more noticeable at LOS D. At LOS E and F, congestion and delay reach unacceptable levels.

#### Traffic Analysis Methodology

For the purposes of this study, the Transportation Research Board's *2000 Highway Capacity Manual* (HCM) is used for intersection analysis. The appropriate analysis methodology from the 2000 HCM is used for each facility type.

#### *Signalized Intersections*

Signalized intersection analyses are conducted using the 2000 HCM operations methodology. The operational analysis uses various intersection characteristics (e.g., traffic volumes, lane geometry, and signal phasing/timing) to estimate the average control delay experienced by motorists traveling through an intersection.<sup>2</sup> Table 3.13-1 summarizes the relationship between delay and LOS for signalized intersections.

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<sup>2</sup> Control delay, which is the portion of total delay attributed to traffic signal operation for signalized intersections, includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. The use of control delay as the basis for defining LOS differs from earlier versions of HCM methodology, which used "stopped delay" (i.e., a portion of the total control delay) to define LOS.

**Table 3.13-1  
Level of Service Criteria for Signalized and Unsignalized Intersections**

Level of Service	Traffic Flow Conditions	Delay (seconds/vehicle)	
		Signalized Intersections	Unsignalized Intersections
A	Little or no delay	$\leq 10.0$	$\leq 10.0$
B	Short traffic delay	$> 10.0$ and $\leq 20.0$	$> 10.0$ and $\leq 15.0$
C	Average traffic delay	$> 20.0$ and $\leq 35.0$	$> 15.0$ and $\leq 25.0$
D	Long traffic delay	$> 35.0$ and $\leq 55.0$	$> 25.0$ and $\leq 35.0$
E	Very long traffic delay	$> 55.0$ and $\leq 80.0$	$> 35.0$ and $\leq 50.0$
F	Extreme traffic delay	$> 80.0$	$> 50.0$

*Source:* Transportation Research Board, 2000 Highway Capacity Manual.

### *Unsignalized Intersections*

For the unsignalized (stop-controlled) study intersections, traffic conditions were evaluated using the 2000 HCM operations methodology. With this methodology, the LOS is related to the delay per vehicle for each stop-controlled movement or approach. Delay is defined as the total elapsed time from when a vehicle stops at the end of the queue until the vehicle departs from the stop line. This time includes the time required for a vehicle to travel from the last-in-queue position to the first-in-queue position. Table 3.13-1 summarizes the relationship between control delay and LOS for unsignalized intersections.

### *Freeways*

The freeway analysis methodology contained in Chapter 23 of the HCM, “Basic Freeway Segments,” was used to determine levels of service on U.S. 101. The method uses variables such as traffic volumes, geometric configuration of the freeway (i.e., number of lanes, widths of lanes and shoulders), topography, the percentage of heavy vehicles, and free-flow speeds to determine LOS criteria including the “service flow rate.” Service flow rates are indicative of the travel demand on a freeway facility and are measured in the number of passenger cars per hour per lane. The ranges of service flow rates associated with the various Levels of Service are indicated in Table 3.13-2.

### Existing Conditions

Existing conditions levels of service were evaluated at 26 intersections and three freeway segments using the most recent data available. These locations were selected for analysis because they are most likely to be affected by traffic associated with buildout of the Sonoma Mountain Village project.

### Study Intersections:

1. Petaluma Hill Road/East Cotati Avenue (Sonoma County jurisdiction);
2. Petaluma Hill Road/Valley House Drive (Sonoma County jurisdiction);

**Table 3.13-2  
Level of Service Criteria for Freeway Segments**

Level of Service	Maximum Service Flow Rate (pc/hr/ln <sup>a</sup> )
A	710
B	1,170
C	1,680
D	2,090
E	2,350
F	Greater than 2,350

*Source:* Transportation Research Board, 2000 *Highway Capacity Manual*.

*Notes:* Criteria assume a free flow speed of 65 miles per hour.

a. One passenger car per hour per lane.

3. Petaluma Hill Road/East Railroad Avenue (Sonoma County jurisdiction);
4. Petaluma Hill Road/Adobe Road (Sonoma County jurisdiction, Penngrove community);
5. Old Redwood Highway/Main Street (Sonoma County jurisdiction, Penngrove community);
6. Old Redwood Highway/North McDowell Boulevard (Petaluma jurisdiction);
7. Old Redwood Highway/U.S. 101 Northbound Ramps (Petaluma jurisdiction);
8. Bodway Parkway/East Cotati Avenue (Rohnert Park jurisdiction);
9. Bodway Parkway/Camino Colegio (Rohnert Park jurisdiction);
10. Bodway Parkway/Valley House Drive (Rohnert Park jurisdiction);
11. Bodway Parkway/East Railroad Avenue (future proposed intersection, Sonoma County jurisdiction);
12. Old Redwood Highway/East and West Railroad Avenue (Sonoma County jurisdiction);
13. U.S. 101 Northbound Off-Ramp/West Railroad Avenue (Sonoma County jurisdiction);
14. Snyder Lane/Rohnert Park Expressway (Rohnert Park jurisdiction);
15. Snyder Lane/Southwest Boulevard (Rohnert Park jurisdiction);
16. Snyder Lane/East Cotati Avenue (Rohnert Park jurisdiction);
17. Camino Colegio/East Cotati Avenue (Rohnert Park jurisdiction);
18. Mitchell Drive/East Cotati Avenue (Rohnert Park jurisdiction);
19. Manchester Avenue/East Cotati Avenue (Rohnert Park jurisdiction);
20. Old Redwood Highway/East Cotati Avenue (Cotati jurisdiction);
21. Adrian Drive/East Cotati Avenue (Rohnert Park/Cotati jurisdiction);

22. Lancaster Drive/East Cotati Avenue (Rohnert Park/Cotati jurisdiction);
23. LaSalle Avenue/East Cotati Avenue (Rohnert Park/Cotati jurisdiction);
24. Old Redwood Highway/Gravenstein Way (Cotati jurisdiction);
25. U.S. 101 Northbound Off-Ramp/SR 116 Gravenstein Highway (Cotati jurisdiction); and
26. U.S. 101 Southbound Off-Ramp/SR 116 Gravenstein Highway (Cotati jurisdiction).

Study Freeway Segments:

1. U.S. 101 north of Rohnert Park Expressway;
2. U.S. 101 between Sierra Avenue and SR 116; and
3. U.S. 101 between Washington Street and Petaluma Boulevard North.

The location of each study intersection is shown in Figure 3.13-5. The existing lane geometry of each study intersection is illustrated in Figure 3.13-6.

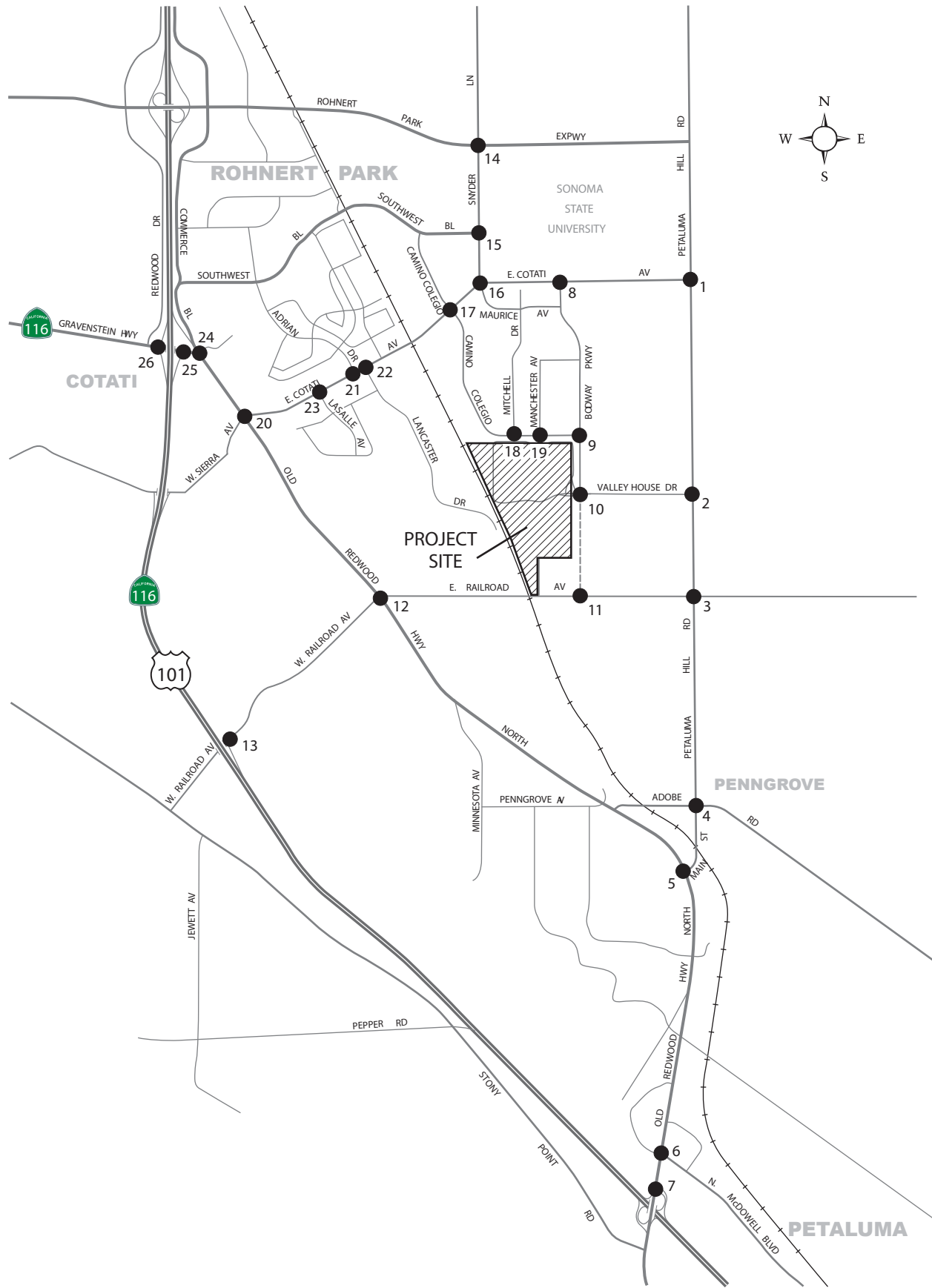
*Intersection Levels of Service*

Weekday intersection turning movement counts were collected during the spring of 2007 on non-holiday weeks during the AM (between 7:00 and 9:00 AM) and PM (between 4:00 and 6:00 PM) peak hours. The peak hour traffic volumes, intersection lane geometry, and signal timing information were used to compute the intersection LOS. The results of this analysis are shown in Table 3.13-3. Existing peak hour traffic volumes are shown in Figure 3.13-7.

As shown in Table 3.13-3, the following five intersections were found to operate at unacceptable conditions under Existing Conditions:

3. Petaluma Hill Road/East Railroad Avenue (Sonoma County jurisdiction, LOS E during the AM peak hour, LOS F during the PM peak hour);
4. Petaluma Hill Road/Adobe Road (Sonoma County jurisdiction, Penngrove community, LOS F during the PM peak hour);
12. Old Redwood Highway/East and West Railroad Avenue (Sonoma County jurisdiction, LOS F during the PM peak hour);
20. Old Redwood Highway/East Cotati Avenue (Cotati jurisdiction, LOS E during the PM peak hour); and
23. LaSalle Avenue/East Cotati Avenue (Rohnert Park/Cotati jurisdiction, LOS E during the PM peak hour).

It should be noted that the Snyder Lane/Rohnert Park Expressway intersection would operate at LOS D, which is generally considered an unacceptable operating condition within the City of Rohnert Park. However, per the Rohnert Park General Plan, LOS D can be considered an acceptable operating condition if no feasible mitigation measure for this intersection exists. In the case of the Snyder



**FIGURE 3.13-5**  
**Study Intersections**

Source: DMJM HARRIS - AECOM



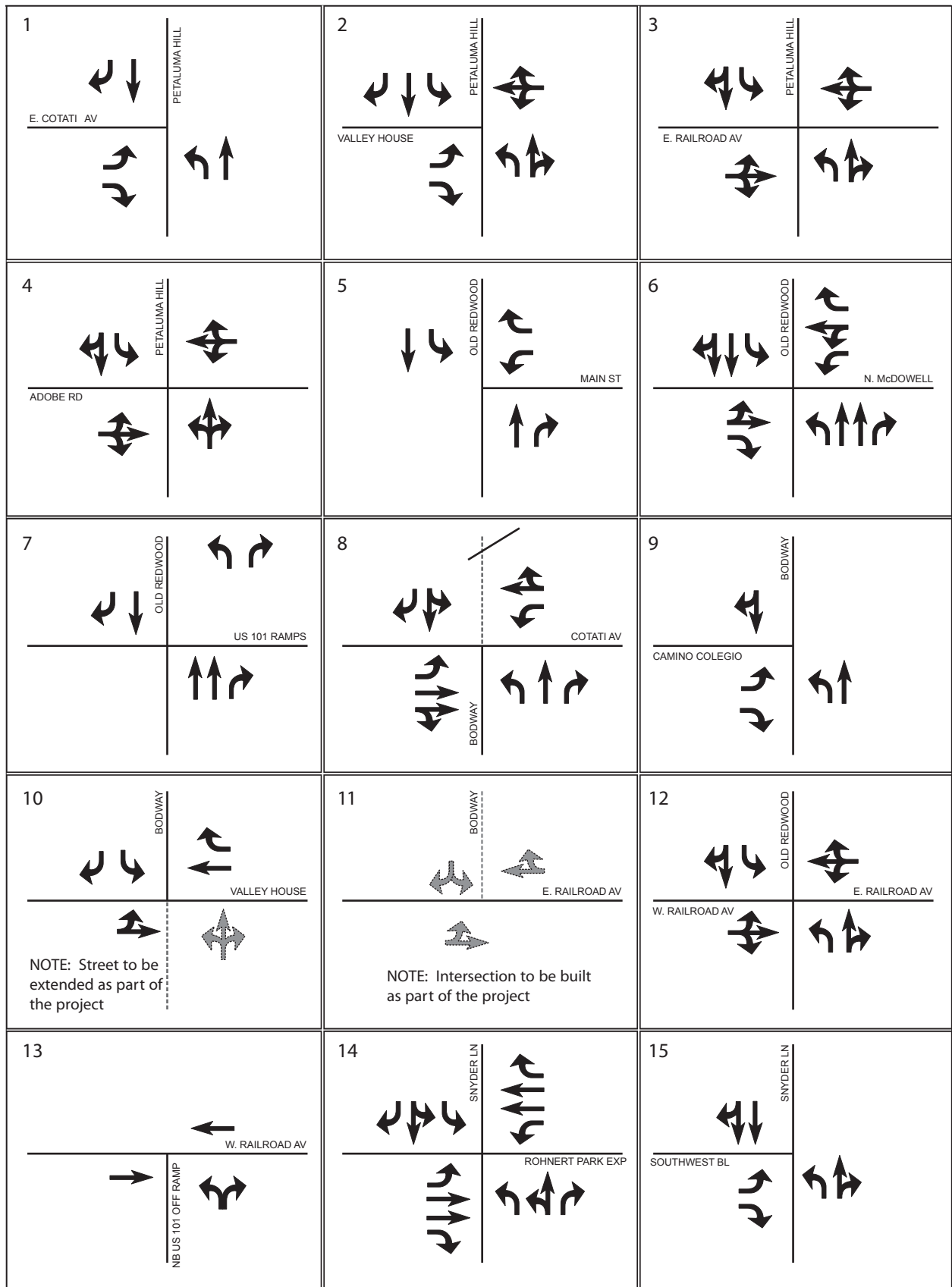


FIGURE 3.13-6a  
Existing Intersection Lane Geometry

Source: DMJM HARRIS - AECOM



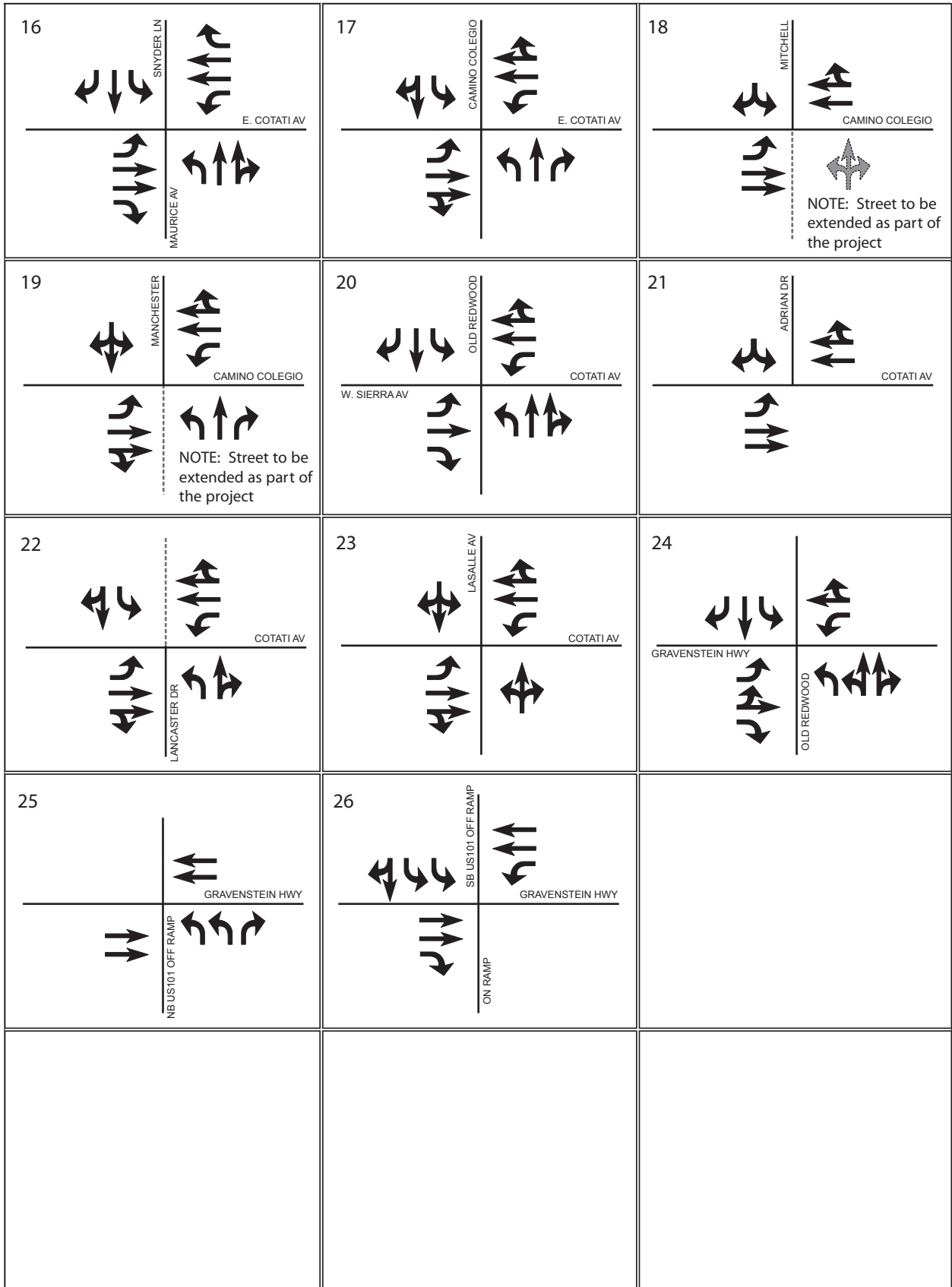


FIGURE 3.13-6b  
Existing Intersection Lane Geometry

Source: DMJM HARRIS - AECOM



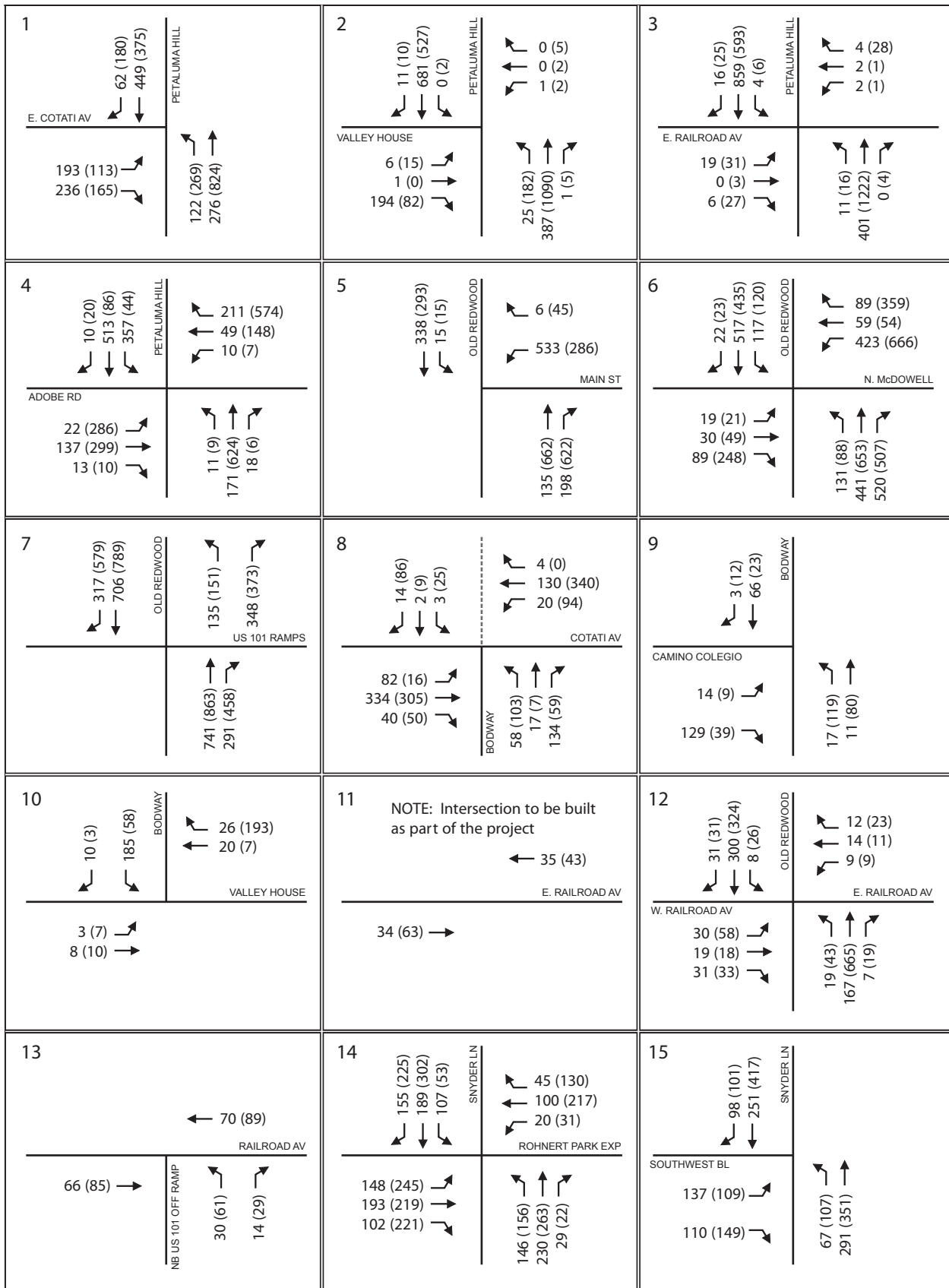


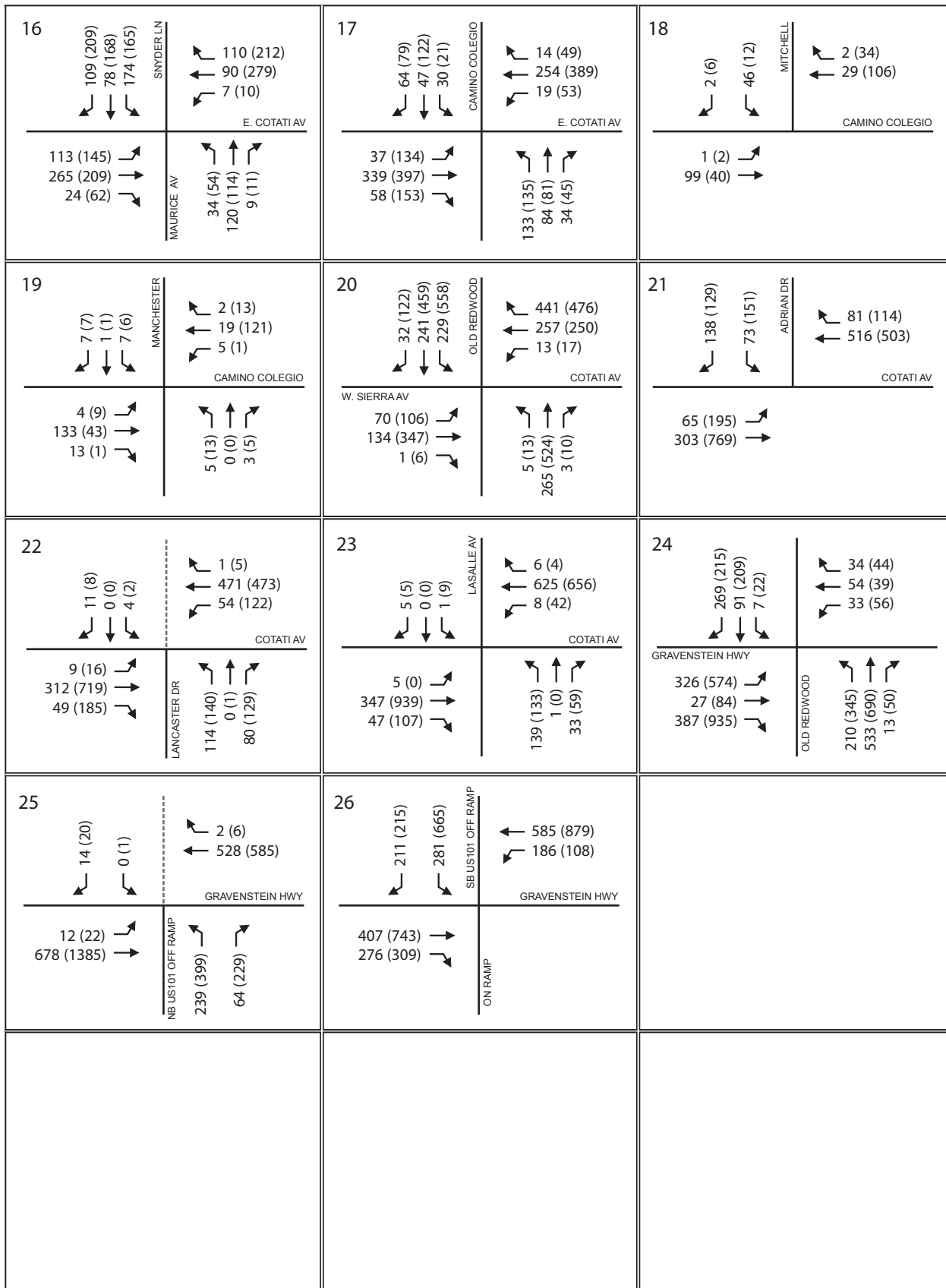
FIGURE 3.13-7a

Existing Traffic Volumes AM (PM) Peak Hour

Source: DMJM HARRIS - AECOM







**FIGURE 3.13-7b**  
**Existing Traffic Volumes AM (PM) Peak Hour**

Source: DMJM HARRIS - AECOM



**Table 3.13-3  
Intersection Levels of Service – Existing Conditions**

No	North-South Street	East-West Street	Jurisdiction	Control	AM		PM	
					Delay	LOS	Delay	LOS
1	Petaluma Hill Road	East Cotati Avenue	County	Signal	22.4	C	19.4	B
2	Petaluma Hill Road	Valley House Drive	County	Signal	14.6	B	13.2	B
3	Petaluma Hill Road	E. Railroad Avenue	County	TWSC	<b>38.6</b>	<b>E</b>	<b>208.7</b>	<b>F</b>
4	Petaluma Hill Road	Adobe Road	County	Signal	28.3	C	<b>139.7</b>	<b>F</b>
5	Old Redwood Highway	Main Street	County	Signal	22.3	C	12.5	B
6	Old Redwood Highway	N. McDowell Boulevard	Petaluma	Signal	24.3	C	30.7	C
7	Old Redwood Highway	U.S. 101 NB Ramps	Petaluma	Signal	15.8	B	18.0	B
8	Bodway Parkway	East Cotati Avenue	Rohnert Park	Signal	23.4	C	25.5	C
9	Bodway Parkway	Camino Colegio	Rohnert Park	TWSC	9.2	A	9.1	A
10	Bodway Parkway	Valley House Drive	Rohnert Park	AWSC	9.2	A	8.1	A
11	Bodway Parkway	E. Railroad Avenue	County	—	—	—	—	—
12	Old Redwood Highway	E. Railroad Avenue	County	TWSC	14.3	B	<b>61.4</b>	<b>F</b>
13	U.S. 101 NB Off-ramp	W. Railroad Avenue	County	TWSC	9.3	A	9.8	A
14	Snyder Lane	Rohnert Park Expressway	Rohnert Park	Signal	38.4	D	42.6	D
15	Snyder Lane	Southwest Boulevard	Rohnert Park	Signal	22.0	C	22.3	C
16	Snyder Lane	East Cotati Avenue	Rohnert Park	Signal	29.4	C	29.1	C
17	Camino Colegio	East Cotati Avenue	Rohnert Park	Signal	22.1	C	24.7	C
18	Mitchell Drive	Camino Colegio	Rohnert Park	TWSC	9.2	A	9.3	A
19	Manchester Avenue	Camino Colegio	Rohnert Park	TWSC	9.4	A	9.3	A
20	Old Redwood Highway	East Cotati Avenue	Cotati	Signal	26.7	C	<b>59.4</b>	<b>E</b>
21	Adrian Drive	East Cotati Avenue	RP/Cot	Signal	16.4	B	17.8	B
22	Lancaster Drive	East Cotati Avenue	RP/Cot	Signal	14.6	B	15.0	B
23	LaSalle Avenue	East Cotati Avenue	RP/Cot	AWSC	13.6	B	<b>38.0</b>	<b>E</b>
24	Old Redwood Highway	Gravenstein Way	Cotati	Signal	28.1	C	33.6	C
25	U.S. 101 NB Off-ramp	Gravenstein Way	Cotati	Signal	7.9	A	11.3	B
26	U.S. 101 SB Off-ramp	Gravenstein Way	Cotati	Signal	14.1	B	14.9	B

Source: DMJM Harris, 2009.

Notes: AWSC = All-Way Stop Control; TWSC = Two-Way Stop Control

TWSC Intersection Delay and LOS values based on worst approach.

The Bodway Parkway/East Railroad Avenue intersection does not exist in Existing Conditions.

**Bold** indicates unacceptable LOS.

Lane/Rohnert Park Expressway intersection, no lane reconfigurations or signal modifications exist which would result in intersection operations of LOS C or better. To achieve these results, a widening of Snyder Lane would be required, which would be considered an infeasible improvement considering the physical constraints present and the right-of-way acquisitions required. All other study intersections were found to operate at acceptable conditions.

### Freeway Segment Levels of Service

Existing freeway levels of service for U.S. 101 segments adjacent to the project site are shown in Table 3.13-4 and were calculated using the *HCM* method. As shown, all freeway segments in the vicinity of the project site currently operate at an acceptable LOS D or better during either peak hour.

**Table 3.13-4  
Freeway Segment Levels of Service – Existing Conditions**

Freeway Segment	Direction	AM Peak Hour			PM Peak Hour		
		Flow Rate	LOS	V/C Ratio	Flow Rate	LOS	V/C Ratio
U.S. 101 North of Rohnert Park Expressway	Northbound	1,884	D	0.819	1,938	D	0.843
	Southbound	2,057	D	0.894	1,712	D	0.744
U.S. 101 between Sierra Avenue and SR-116	Northbound	1,665	C	0.724	1,712	D	0.744
	Southbound	1,817	D	0.79	1,513	C	0.658
U.S. 101 between Washington Street and Petaluma Boulevard North	Northbound	1,682	D	0.731	1,731	D	0.753
	Southbound	1,837	D	0.799	1,529	C	0.665

*Source:* DMJM Harris, 2009.

*Notes:* Flow Rate measured in passenger cars per hour per lane.

Ideal freeway capacity assumed to be 2,300 vehicles per lane.

**Bold** indicates unacceptable LOS.

### Baseline Conditions

Completion and occupation of all uses within the Sonoma Mountain Village project is expected to take several years. Consequently, a near-term analysis is done which assigns traffic from nearby projects to the existing roadway network. This scenario is considered the Baseline for the traffic analysis. Baseline Conditions do not assume the completion of General Plan related improvements.

Per discussions with City of Rohnert Park staff, the Graton Rancheria Casino and Hotel, and the Stadium Area Master Plan were identified as the nearby pending projects which may affect the LOS of any of the study intersections in the Baseline Condition. Projected traffic from each project was added to the Existing Conditions traffic counts to determine the Baseline Conditions traffic volumes. Figure 3.13-8 illustrates Baseline Conditions traffic volumes at each of the study intersections. Table 3.13-5 summarizes the LOS for the Baseline Conditions. It should be noted that other pending and approved projects, including the Northeast Specific Plan, Northwest Specific Plan, Southeast Specific Plan,

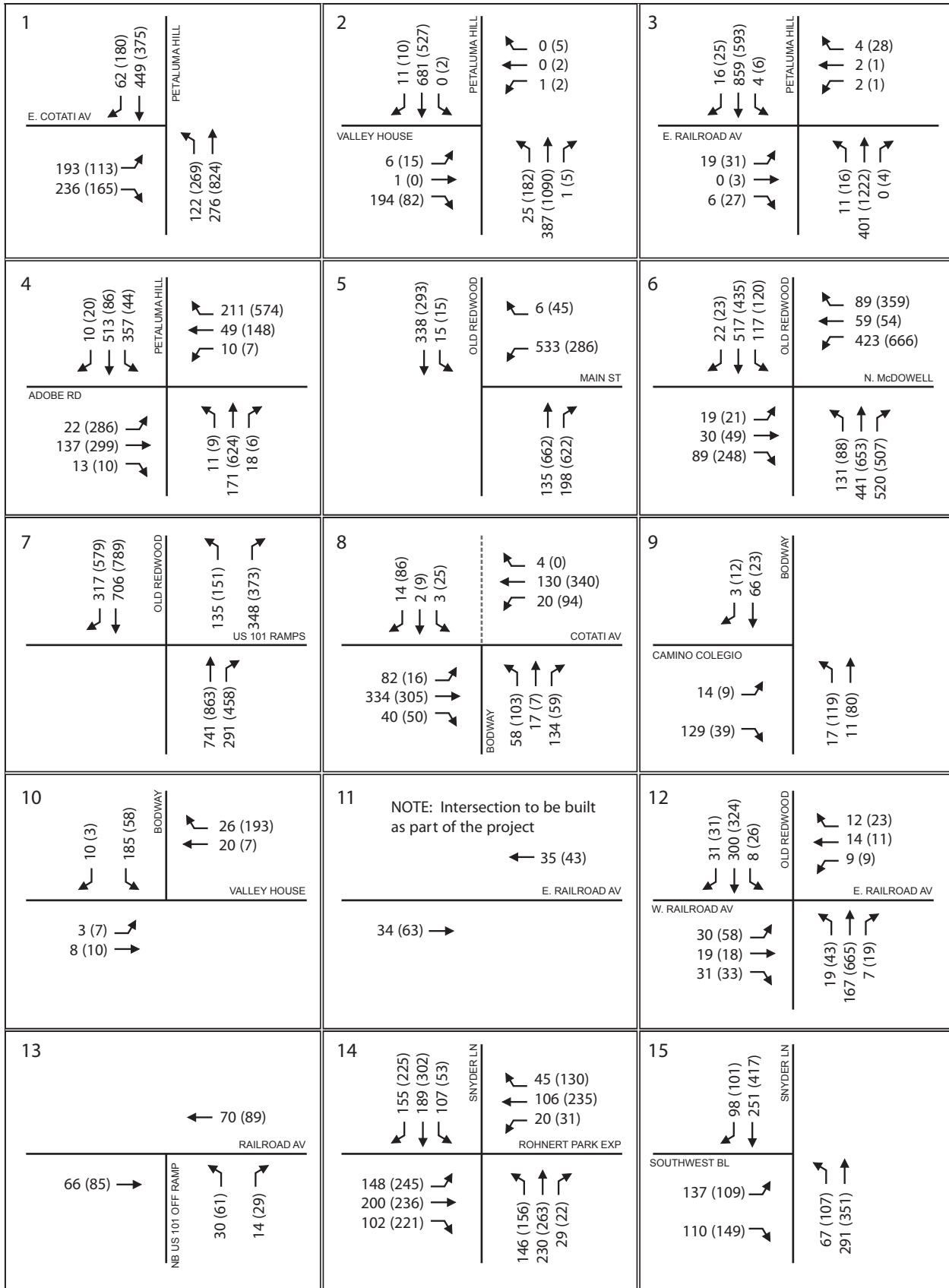


FIGURE 3.13-8a  
**Baseline Traffic Volumes AM (PM) Peak Hour**

Source: DMJM HARRIS - AECOM



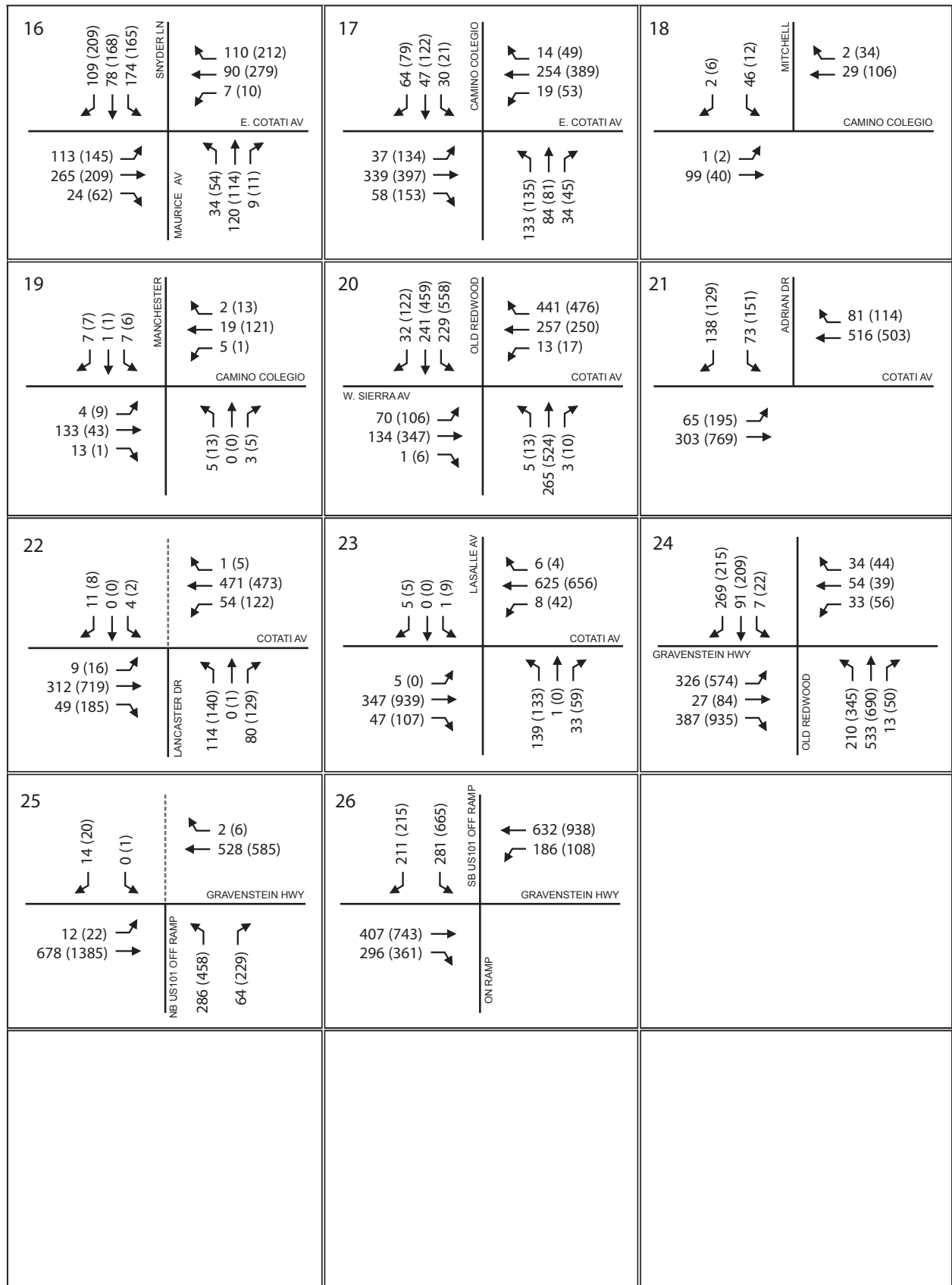


FIGURE 3.13-8b

Baseline Traffic Volumes AM (PM) Peak Hour

Source: DMJM HARRIS - AECOM



**Table 3.13-5  
Intersection Levels of Service – Baseline Conditions**

No	North-South Street	East-West Street	Jurisdiction	Control	AM		PM	
					Delay	LOS	Delay	LOS
1	Petaluma Hill Road	East Cotati Avenue	County	Signal	22.4	C	19.4	B
2	Petaluma Hill Road	Valley House Drive	County	Signal	14.6	B	13.2	B
3	Petaluma Hill Road	E. Railroad Avenue	County	TWSC	<b>38.6</b>	<b>E</b>	<b>208.7</b>	<b>F</b>
4	Petaluma Hill Road	Adobe Road	County	Signal	28.3	C	<b>139.7</b>	<b>F</b>
5	Old Redwood Highway	Main Street	County	Signal	22.3	C	12.5	B
6	Old Redwood Highway	N. McDowell Boulevard	Petaluma	Signal	24.3	C	30.7	C
7	Old Redwood Highway	U.S. 101 NB Ramps	Petaluma	Signal	15.8	B	18.0	B
8	Bodway Parkway	East Cotati Avenue	Rohnert Park	Signal	23.4	C	25.5	C
9	Bodway Parkway	Camino Colegio	Rohnert Park	TWSC	9.2	A	9.1	A
10	Bodway Parkway	Valley House Drive	Rohnert Park	AWSC	9.2	A	8.1	A
11	Bodway Parkway	E. Railroad Avenue	County	—	—	—	—	—
12	Old Redwood Highway	E. Railroad Avenue	County	TWSC	14.3	B	<b>61.4</b>	<b>F</b>
13	U.S. 101 NB Off-ramp	W. Railroad Avenue	County	TWSC	9.3	A	9.8	A
14	Snyder Lane	Rohnert Park Expressway	Rohnert Park	Signal	38.5	D	42.8	D
15	Snyder Lane	Southwest Boulevard	Rohnert Park	Signal	22.0	C	22.3	C
16	Snyder Lane	East Cotati Avenue	Rohnert Park	Signal	29.4	C	29.1	C
17	Camino Colegio	East Cotati Avenue	Rohnert Park	Signal	22.1	C	24.7	C
18	Mitchell Drive	Camino Colegio	Rohnert Park	TWSC	9.2	A	9.3	A
19	Manchester Avenue	Camino Colegio	Rohnert Park	TWSC	9.4	A	9.3	A
20	Old Redwood Highway	East Cotati Avenue	Cotati	Signal	26.7	C	<b>59.4</b>	<b>E</b>
21	Adrian Drive	East Cotati Avenue	RP/Cot	Signal	16.4	B	17.8	B
22	Lancaster Drive	East Cotati Avenue	RP/Cot	Signal	14.6	B	15.0	B
23	LaSalle Avenue	East Cotati Avenue	RP/Cot	AWSC	13.6	B	<b>38.0</b>	<b>E</b>
24	Old Redwood Highway	Gravenstein Way	Cotati	Signal	28.1	C	33.6	C
25	U.S. 101 NB Off-ramp	Gravenstein Way	Cotati	Signal	8.6	A	11.8	B
26	U.S. 101 SB Off-ramp	Gravenstein Way	Cotati	Signal	14.0	B	14.8	B

Source: DMJM Harris, 2009.

Notes: AWSC = All-Way Stop Control; TWSC = Two-Way Stop Control

TWSC Intersection Delay and LOS values based on worst approach.

The Bodway Parkway/East Railroad Avenue intersection does not exist in Existing Conditions.

**Bold** indicates unacceptable LOS.

University District Specific Plan, Wilfred-Dowdell development, Creekwood Apartments, Jiffy Lube, Kokalis Commercial development, North Bay Center, and Vida Nueva development are included in this study's Cumulative analysis (i.e., not the Baseline analysis).

As shown in Table 3.13-5, with the addition of traffic associated with nearby approved projects, average delay would increase slightly at some of the study intersections. The following five intersections would continue to operate at unacceptable conditions under Baseline Conditions:

3. Petaluma Hill Road/East Railroad Avenue (Sonoma County jurisdiction, LOS E during the AM peak hour, LOS F during the PM peak hour);
4. Petaluma Hill Road/Adobe Road (Sonoma County jurisdiction, Penngrove community, LOS F during the PM peak hour);
12. Old Redwood Highway/East and West Railroad Avenue (Sonoma County jurisdiction, LOS F during the PM peak hour);
20. Old Redwood Highway/East Cotati Avenue (Cotati jurisdiction, LOS E during the PM peak hour);
23. LaSalle Avenue/East Cotati Avenue (Rohnert Park/Cotati jurisdiction, LOS E during the PM peak hour).

It should be noted that although the Snyder Lane/Rohnert Park Expressway intersection would operate at LOS D, this is considered an acceptable operating condition for this intersection per the Rohnert Park General Plan. All other study intersections except for the five intersections noted above were found to operate at acceptable conditions.

### *Freeway Segment Levels of Service*

Baseline freeway levels of service for U.S. 101 segments adjacent to the project site are shown in Table 3.13-6. As shown, with the addition of traffic associated with nearby near-term projects, the freeway segment north of Rohnert Park Expressway would operate at LOS E in the northbound and southbound directions during the AM peak hour. During the PM peak hour, all three freeway segments in the northbound direction would operate at LOS E. All other segments would operate at LOS D.

## **Cumulative Conditions, Year 2020**

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### **Methodology**

#### General

Future traffic volume projections for the study area that include projected area growth were based on a combination of the most recent versions of the Rohnert Park Traffic Model and the SCTA Countywide Model. The 2020 model projections include traffic associated with all planned developments in Sonoma County likely to be constructed by the year 2020, including:

- Sonoma Mountain Village;

**Table 3.13-6  
Freeway Segment Levels of Service – Baseline Conditions**

Freeway Segment	Direction	AM Peak Hour			PM Peak Hour		
		Flow Rate	LOS	V/C Ratio	Flow Rate	LOS	V/C Ratio
U.S. 101 North of Rohnert Park Expressway	Northbound	<b>2,111</b>	<b>E</b>	<b>0.918</b>	<b>2,257</b>	<b>E</b>	<b>0.981</b>
	Southbound	<b>2,159</b>	<b>E</b>	<b>0.939</b>	1,975	D	0.859
U.S. 101 between Sierra Avenue and SR-116	Northbound	2,000	D	0.87	<b>2,148</b>	<b>E</b>	<b>0.934</b>
	Southbound	1,972	D	0.857	1,902	D	0.827
U.S. 101 between Washington Street and Petaluma Boulevard North	Northbound	2,018	D	0.877	<b>2,166</b>	<b>E</b>	<b>0.942</b>
	Southbound	1,992	D	0.866	1,919	D	0.834

Source: DMJM Harris, 2009.

Notes: Flow Rate measured in passenger cars per hour per lane.

Ideal freeway capacity assumed to be 2,300 vehicles per lane.

**Bold** indicates unacceptable LOS.

- Stadium Area Master Plan;
- Graton Rancheria Casino & Hotel;
- Northeast Specific Plan;
- Northwest Specific Plan;
- Southeast Specific Plan;
- University District Specific Plan;
- Wilfred-Dowdell;
- City of Cotati Long Range Plan
- Creekwood Apartments;
- Jiffy Lube;
- Kokalis Commercial;
- North Bay Center; and
- Vida Nueva.

Since the model projections include buildout of the Sonoma Mountain Village project, the associated traffic was removed from the future projections in order to establish future baseline conditions (year 2020) that include no new development on the Sonoma Mountain Village parcels. In other words, the Cumulative Conditions analysis without the project assumes no growth from the project site. By employing this process it is possible to determine the project's contributions to cumulative impacts both with and without the proposed project. Figure 3.13-9 illustrates Cumulative Conditions traffic volumes at each of the study intersections. Table 3.13-7 summarizes the LOS for the Cumulative Conditions.



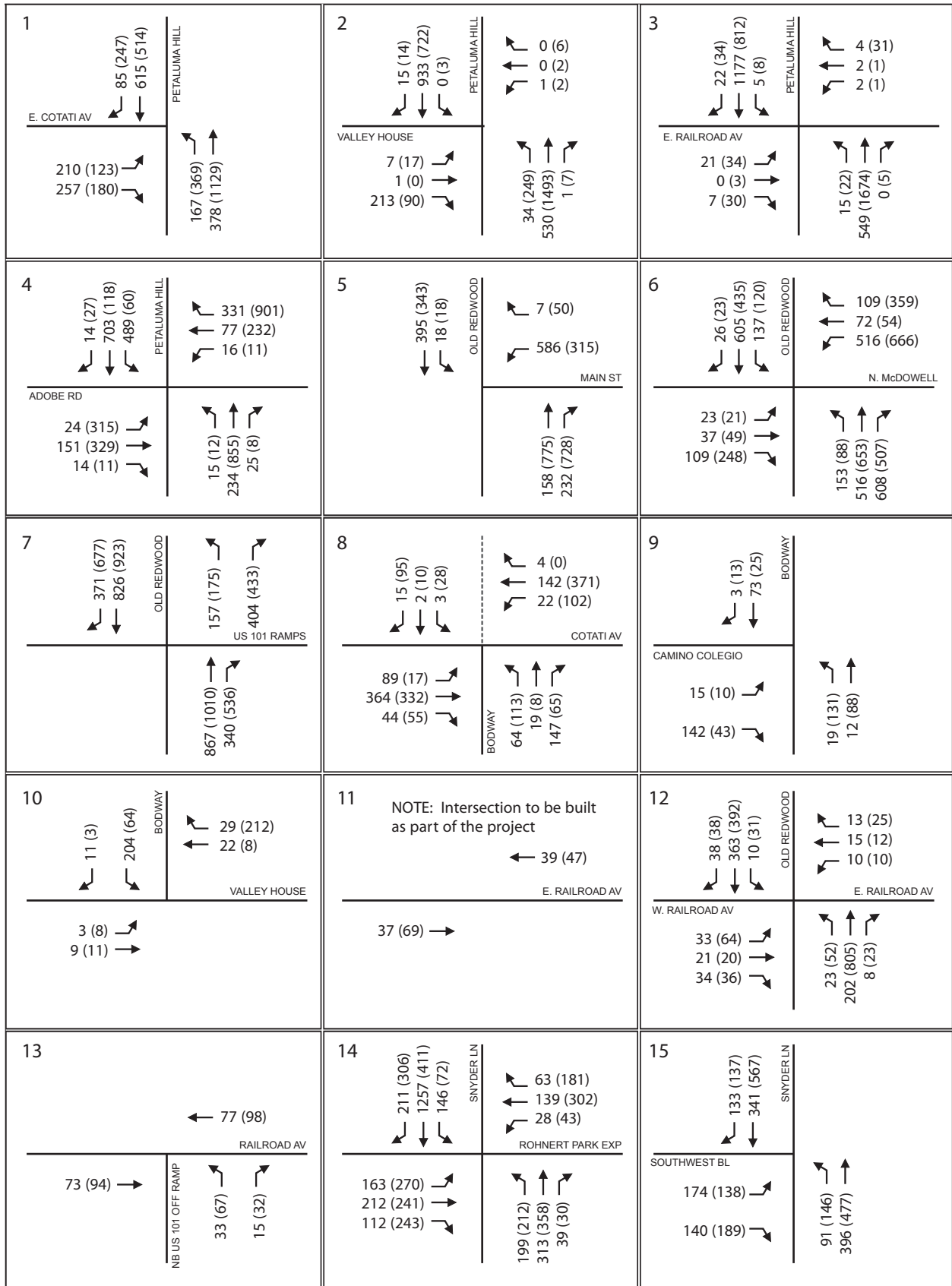
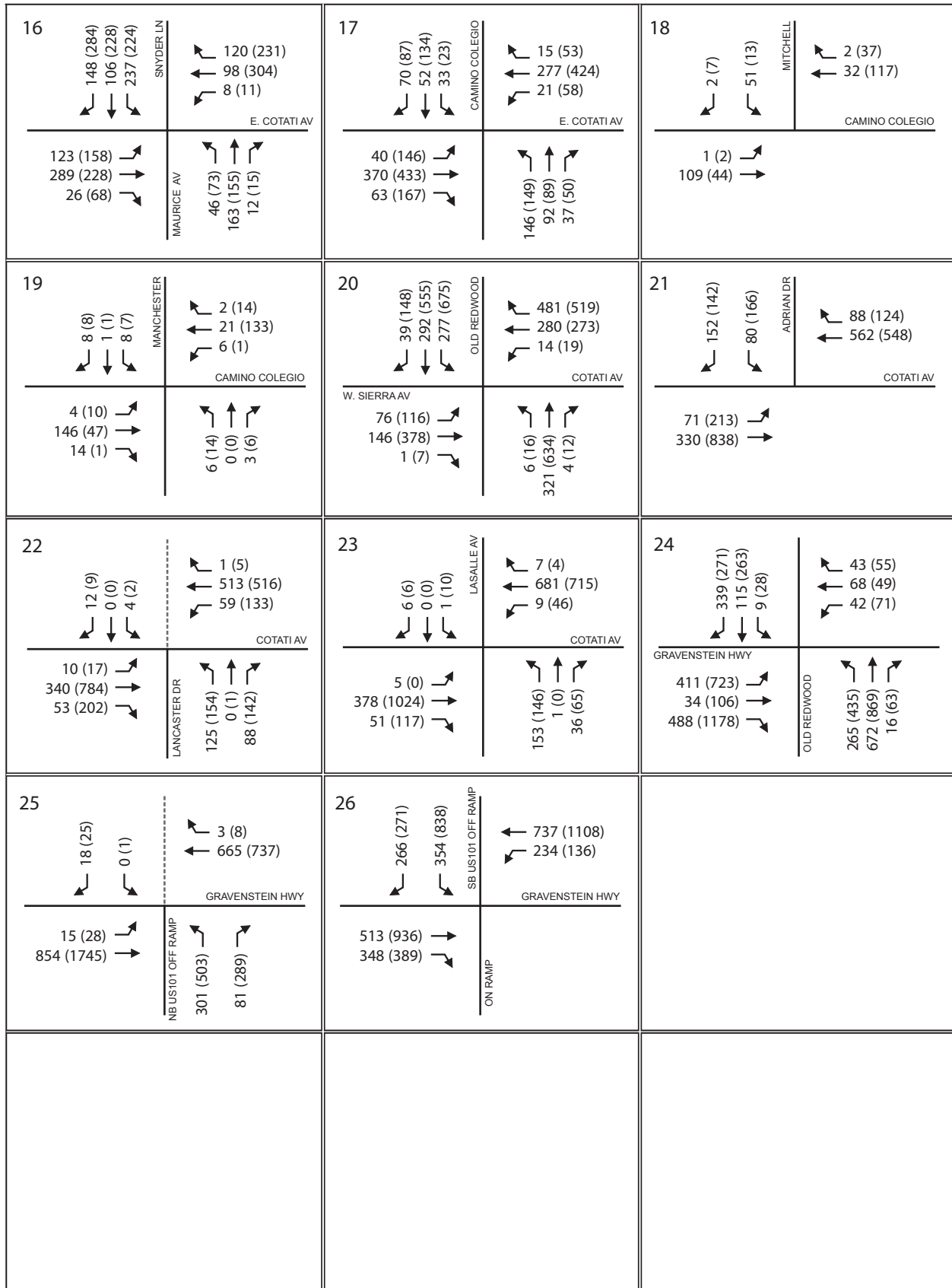


FIGURE 3.13-9a

Cumulative Traffic Volumes AM (PM) Peak Hour

Source: DMJM HARRIS - AECOM





**FIGURE 3.13-9b**  
**Cumulative Traffic Volumes AM (PM) Peak Hour**

Source: DMJM HARRIS - AECOM



**Table 3.13-7  
Intersection Levels of Service – Cumulative Conditions**

No	North-South Street	East-West Street	Jurisdiction	Control	AM		PM	
					Delay	LOS	Delay	LOS
1	Petaluma Hill Road	East Cotati Avenue	County	Signal	24.6	C	22.6	C
2	Petaluma Hill Road	Valley House Drive	County	Signal	17.9	B	27.2	C
3	Petaluma Hill Road	E. Railroad Avenue	County	TWSC	<b>120.7</b>	<b>F</b>	<b>OVR</b>	<b>F</b>
4	Petaluma Hill Road	Adobe Road	County	Signal	<b>45.3</b>	<b>D</b>	<b>339.9</b>	<b>F</b>
5	Old Redwood Highway	Main Street	County	Signal	24.8	C	13.7	B
6	Old Redwood Highway	N. McDowell Boulevard	Petaluma	Signal	25.9	C	<b>36.4</b>	<b>D</b>
7	Old Redwood Highway	U.S. 101 NB Ramps	Petaluma	Signal	17.9	B	22.7	C
8	Bodway Parkway	East Cotati Avenue	Rohnert Park	Signal	23.7	C	25.9	C
9	Bodway Parkway	Camino Colegio	Rohnert Park	TWSC	9.3	A	9.2	A
10	Bodway Parkway	Valley House Drive	Rohnert Park	AWSC	9.5	A	8.3	A
11	Bodway Parkway	E. Railroad Avenue	County	—	—	—	—	—
12	Old Redwood Highway	E. Railroad Avenue	County	TWSC	16.8	C	<b>216.7</b>	<b>F</b>
13	U.S. 101 NB Off-ramp	W. Railroad Avenue	County	TWSC	9.4	A	10.0	B
14	Snyder Lane	Rohnert Park Expressway	Rohnert Park	Signal	39.9	D	49.2	D
15	Snyder Lane	Southwest Boulevard	Rohnert Park	Signal	22.5	C	23.1	C
16	Snyder Lane	East Cotati Avenue	Rohnert Park	Signal	30.1	C	29.9	C
17	Camino Colegio	East Cotati Avenue	Rohnert Park	Signal	22.3	C	25.4	C
18	Mitchell Drive	Camino Colegio	Rohnert Park	TWSC	9.3	A	9.4	A
19	Manchester Avenue	Camino Colegio	Rohnert Park	TWSC	9.5	A	9.5	A
20	Old Redwood Highway	East Cotati Avenue	Cotati	Signal	29.6	C	<b>96.1</b>	<b>F</b>
21	Adrian Drive	East Cotati Avenue	RP/Cot	Signal	16.7	B	18.2	B
22	Lancaster Drive	East Cotati Avenue	RP/Cot	Signal	14.8	B	15.6	B
23	LaSalle Avenue	East Cotati Avenue	RP/Cot	AWSC	15.3	C	<b>57.8</b>	<b>F</b>
24	Old Redwood Highway	Gravenstein Way	Cotati	Signal	29.5	C	40.6	D
25	U.S. 101 NB Off-ramp	Gravenstein Way	Cotati	Signal	8.3	A	16.0	B
26	U.S. 101 SB Off-ramp	Gravenstein Way	Cotati	Signal	15.7	B	17.6	B

Source: DMJM Harris, 2009.

Notes: AWSC = All-Way Stop Control; TWSC = Two-Way Stop Control

TWSC Intersection Delay and LOS values based on worst approach.

The Bodway Parkway/East Railroad Avenue intersection does not exist in Existing Conditions.

**Bold** indicates unacceptable LOS.

As shown in Table 3.13-7, with the addition of traffic associated with projected growth throughout the Rohnert Park area, average delay would increase at all study intersections. The following six intersections are projected to operate at unacceptable conditions under Cumulative Conditions:

3. Petaluma Hill Road/East Railroad Avenue (Sonoma County jurisdiction, LOS F during both peak hours);
4. Petaluma Hill Road/Adobe Road (Sonoma County jurisdiction, Penngrove community, LOS D during the AM peak hour, LOS F during the PM peak hour);
7. Old Redwood Highway/U.S. 101 Northbound Ramps (Petaluma jurisdiction, LOS D during the PM peak hour);
12. Old Redwood Highway/East and West Railroad Avenue (Sonoma County jurisdiction, LOS F during the PM peak hour);
20. Old Redwood Highway/East Cotati Avenue (Cotati jurisdiction, LOS F during the PM peak hour); and
23. LaSalle Avenue/East Cotati Avenue (Rohnert Park/Cotati jurisdiction, LOS E during the PM peak hour).

It should be noted that although the Snyder Lane/Rohnert Park Expressway intersection would operate at LOS D, this is considered an acceptable operating condition for this intersection per the Rohnert Park General Plan. All other study intersections except for the six intersections noted above were found to operate at acceptable conditions.

### *Freeway Levels of Service*

Cumulative freeway levels of service for U.S. 101 adjacent to the project site are shown in Table 3.13-8. As shown, with the addition of projected growth throughout the Rohnert Park area, the freeway segment north of Rohnert Park Expressway would operate at LOS F in the northbound and southbound directions during the AM peak hour. The freeway segments between Sierra Avenue and SR-116, and between Washington Street and Petaluma Road would operate at LOS E in the northbound and southbound directions during the AM peak hour. During the PM peak hour, freeway segment north of Rohnert Park Expressway would operate at LOS F in the northbound direction and LOS E in the southbound direction. At both the freeway segments between Sierra Avenue and SR-116, and between Washington Street and Petaluma Road during the PM peak hour, the freeway segments would operate at LOS E in the northbound direction and LOS D in the southbound direction.

**Table 3.13-8  
Freeway Segment Levels of Service – Cumulative Conditions**

Freeway Segment	Direction	AM Peak Hour			PM Peak Hour		
		Flow Rate	LOS	V/C Ratio	Flow Rate	LOS	V/C Ratio
U.S. 101 North of Rohnert Park Expressway	Northbound	<b>2,374</b>	F	<b>1.032</b>	<b>2,442</b>	F	<b>1.062</b>
	Southbound	<b>2,591</b>	F	<b>1.127</b>	<b>2,157</b>	E	<b>0.938</b>
U.S. 101 between Sierra Avenue and SR-116	Northbound	<b>2,097</b>	E	<b>0.912</b>	<b>2,158</b>	E	<b>0.938</b>
	Southbound	<b>2,289</b>	E	<b>0.995</b>	1,906	D	0.829
U.S. 101 between Washington Street and Petaluma Boulevard North	Northbound	<b>2,120</b>	E	<b>0.922</b>	<b>2,181</b>	E	<b>0.948</b>
	Southbound	<b>2,315</b>	E	<b>1.007</b>	1,927	D	0.838

Source: DMJM Harris, 2009.

Notes: Flow Rate measured in passenger cars per hour per lane.

Ideal freeway capacity assumed to be 2,300 vehicles per lane.

**Bold** indicates unacceptable LOS.

## Impacts and Mitigation Measures

### Methodology

#### General

This section evaluates transportation related impacts of the proposed project. It focuses on traffic operations and potential traffic impacts at study intersections and freeway segments in the vicinity of the project site under both the Baseline Conditions and Cumulative Conditions background traffic volumes. Mitigation measures to improve the study intersections are provided where project impacts are identified that would result in potentially significant impacts. Additionally, this section addresses potential impacts related to transit, pedestrian, and bike facilities, as well as potential impacts related to the project construction period.

#### Project Trip Generation

Trip generation estimates are based on rates from the ITE *Trip Generation* (Seventh Edition, 2004). The Seventh Edition is the latest in the series providing the most up-to-date database of land use-based trip rates. Both a weighted average rate and a regression equation with which to calculate trip generation for each land use are provided. Generally, in cases where ITE has surveyed at least 20 sites for a particular land use, where the proposed project is within the range of sizes of the surveyed sites, and where the coefficient of determination<sup>3</sup> is greater or equal to 0.75, the regression equation is used to determine that land use's trip generation. In cases where ITE studied fewer than 20 sites and where

<sup>3</sup> The coefficient of determination ( $R^2$ ) is an estimate of the accuracy of the fit of the regression equation.

the coefficient of determination is lesser than 0.75, the weighted average is used to determine the land use's trip generation.

Table 3.13-9 presents a summary of which ITE land use has been assumed for each land use outlined in the project description. Table 3.13-10 summarizes the proposed project's total trip generation. It should be noted that due to the mixed-use nature of the project, a percentage of trips generated can be expected to be internally linked. Internally linked trips refer to a single trip made to more than one project land use (i.e. an inbound trip to a residential use may stop at one of the retail uses first). Also, a percentage of the new retail development can be expected to draw pass-by trips from existing residential uses in the area (i.e., existing traffic whose origin and destination are unrelated to the project, but would stop at a project retail use). Chapters Five and Seven of the *ITE Trip Generation Handbook* (2001) provide data regarding the internally linked trip and pass-by trip characteristics of mixed-use developments. Using this data, appropriate internally linked trip and pass-by trip reductions are applied to the project's trip generation. It should be noted that pedestrian trips between project uses are accounted for as part of the internally linked trip reduction. Also, with minimal existing uses presently on the project site, so no credit is taken for these uses in the overall project trip generation. Therefore, the analysis of project impacts can be considered conservative.

As shown, the project can be expected to generate approximately 20,316 new daily trips, including 1,266 trips in the AM peak hour (625 inbound and 641 outbound), and 2,018 trips in the PM peak hour (1,007 inbound and 1,011 outbound).

**Table 3.13-9  
Project Description and ITE Land Use Codes**

Land Use Type	Amount	Unit	Corresponding ITE Land Use (Code)
Residential (Detached Units)	324	DU	Single Family Detached Housing (210)
Residential (Attached Units)	1,370	DU	Residential Condominium/Townhouse (230)
Residential (Auxiliary Units)	198	DU	Residential Condominium/Townhouse (230)
Retail (General)	173.3	KSF	Shopping Center (820)
Retail (Supermarket)	45	KSF	Supermarket (850)
Office	426	KSF	General Office Building (710)
Hotel	100	Rooms	Hotel (310)
Movie Theater	25	KSF	Movie Theater with Matinee (444)
Health Club	30	KSF	Health/Fitness Club (492)
Civic Building	35	KSF	Recreational Community Center (495)

Source: ITE, *Trip Generation*, 7th Edition, 2004.

**Table 3.13-10  
Project Trip Generation**

ITE Land Use (Code)	Amount	Unit	Daily Trips	AM Peak Hour			PM Peak Hour			
				In	Out	Total	In	Out	Total	
<b>Raw Trip Generation</b>										
Single Family Detached Housing (210)	324	DU	3,066	59	177	236	195	114	309	
Residential Condominium/Townhouse (230)	1,370	DU	5,938	71	348	419	344	170	514	
Residential Condominium/Townhouse (230)	198	DU	1,147	15	74	89	70	35	105	
Shopping Center (820)	173.3	KSF	8,172	120	76	196	343	371	714	
Supermarket (850)	45	KSF	4,601	89	57	146	253	243	496	
General Office Building (710)	426	KSF	2,976	380	52	432	67	329	396	
Hotel (310)	100	Rooms	522	25	16	41	31	28	59	
Movie Theater with Matinee (444)	25	KSF	950	0	0	0	61	34	95	
Health/Fitness Club (492)	30	KSF	988	15	21	36	62	60	122	
Recreational Community Center (495)	35	KSF	801	35	22	57	17	40	57	
			<i>Subtotal</i>	<i>29,161</i>	<i>809</i>	<i>843</i>	<i>1,652</i>	<i>1,443</i>	<i>1,424</i>	<i>2,867</i>
<b>Internal Trip Capture and Pass-By Trip Reductions (Percentage Reduction)</b>										
Residential Internal Trip Capture (21%)			(2,132)	(30)	(126)	(156)	(128)	(67)	(195)	
General Retail Internal Trip Capture (13%)			(1,062)	(16)	(10)	(26)	(44)	(48)	(92)	
Supermarket Internal Trip Capture (13%)			(598)	(12)	(7)	(19)	(33)	(32)	(65)	
Office Internal Trip Capture (12%)			(357)	(46)	(6)	(52)	(8)	(39)	(47)	
Hotel, Movie, Health, Civic Bldg Internal Trip Capture (13%)			(424)	(10)	(8)	(18)	(22)	(21)	(43)	
General Retail Pass-By Trip Reductions (32%)			(2,615)	(38)	(24)	(62)	(110)	(119)	(229)	
Supermarket Pass-By Trip Reductions (36%)			(1,656)	(32)	(21)	(53)	(91)	(87)	(178)	
			<i>Subtotal</i>	<i>(8,845)</i>	<i>(184)</i>	<i>(202)</i>	<i>(386)</i>	<i>(436)</i>	<i>(413)</i>	<i>(849)</i>
<b>Net Trip Generation</b>										
Single Family Detached Housing (210)			2,422	47	140	187	154	90	244	
Residential Condominium/Townhouse (230)			4,691	56	275	331	272	134	406	
Residential Condominium/Townhouse (230)			906	12	58	70	55	28	83	
Shopping Center (820)			4,495	66	42	108	189	204	393	
Supermarket (850)			2,347	45	29	74	129	124	253	
General Office Building (710)			2,619	334	46	380	59	290	349	
Hotel (310)			454	22	14	36	27	24	51	

**Table 3.13-10  
Project Trip Generation**

ITE Land Use (Code)	Amount	Unit	Daily Trips	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Movie Theater with Matinee (444)			827	0	0	0	53	30	83
Health/Fitness Club (492)			860	13	18	31	54	52	106
Recreational Community Center (495)			697	30	19	49	15	35	50
			<b>Total</b>	<b>20,316</b>	<b>625</b>	<b>641</b>	<b>1,266</b>	<b>1,007</b>	<b>1,011</b>

Source: PBS&J/DMJM Harris, 2009.

Notes: DU = Dwelling Units; KSF = 1,000 sf

### Trip Distribution and Assignment

Once the number of trips generated by the proposed project is calculated, they must be distributed to and from the project site, and then specifically assigned to roadways in the vicinity of the project site. The distribution of project traffic was determined based on an analysis of the SCTA model output. Due to the fact that the retail uses are expected to primarily serve residents of Rohnert Park (including project residents), separate trip distribution patterns were developed for residential and office uses, and for retail uses. In general, the residential and office trips were assigned to specific paths to and from the project site. The resulting trip distribution pattern is shown in Figure 3.13-10a. Retail trips were assigned to nearby neighborhoods (in Rohnert Park, Cotati, and Penngrove) based on their relative density, using local roadways (see Figure 3.13-10b). The Project trips were assigned to the roadways by applying the trip distribution percentages to the project trip generation. The assignment of project trips is illustrated in Figures 3.13-11a and 3.13-11b.

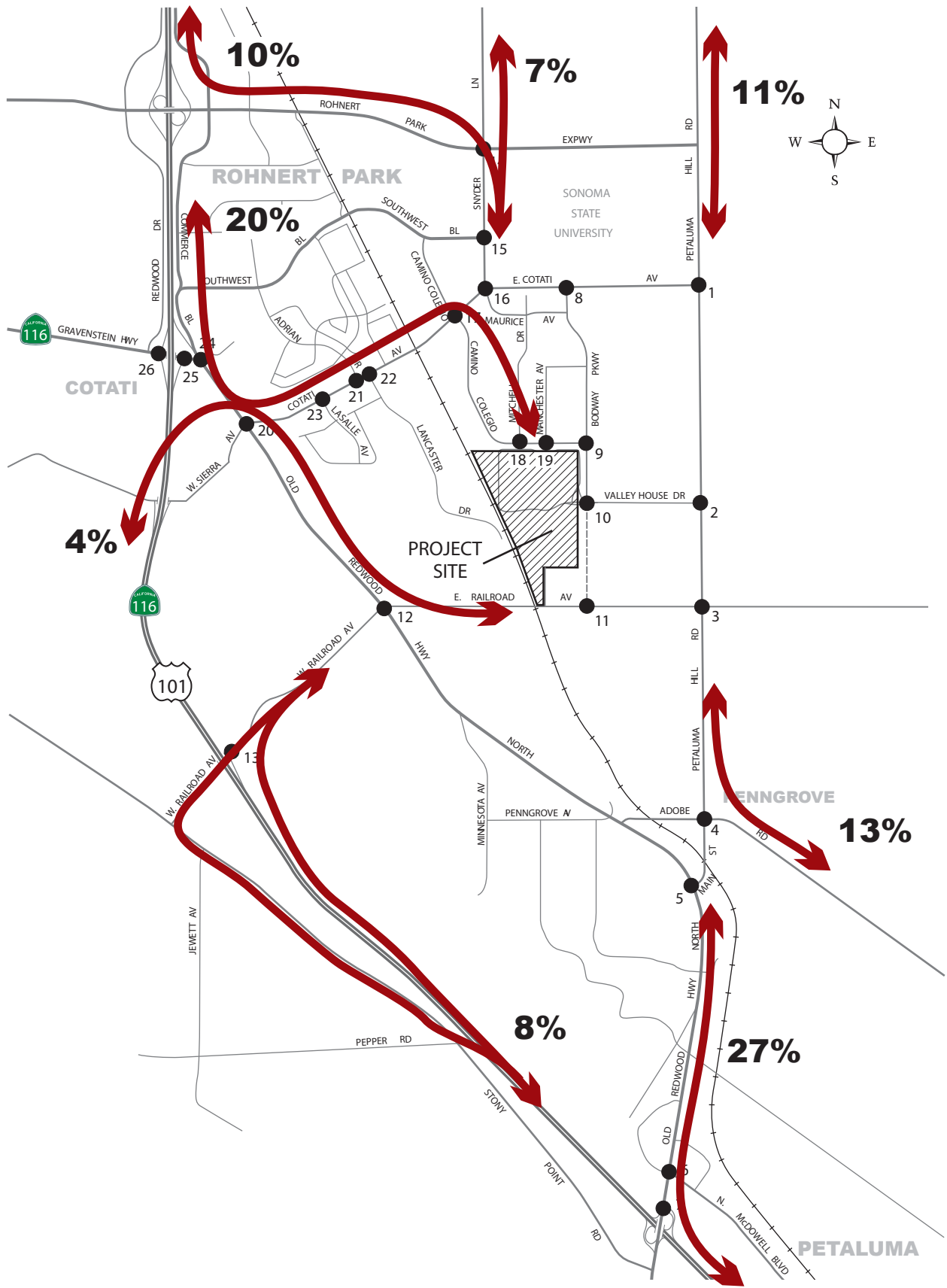
### Standards of Significance

#### City of Rohnert Park

Based on City of Rohnert Park thresholds of significance, traffic and circulation impacts would be considered significant if one or more of the following conditions were created by implementation of the Sonoma Mountain Village project:

- **Impact Criterion #1:** Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections).





**FIGURE 3.13-10a**  
**Residential/Office Trip Distribution Pattern**

Source: DMJM HARRIS - AECOM



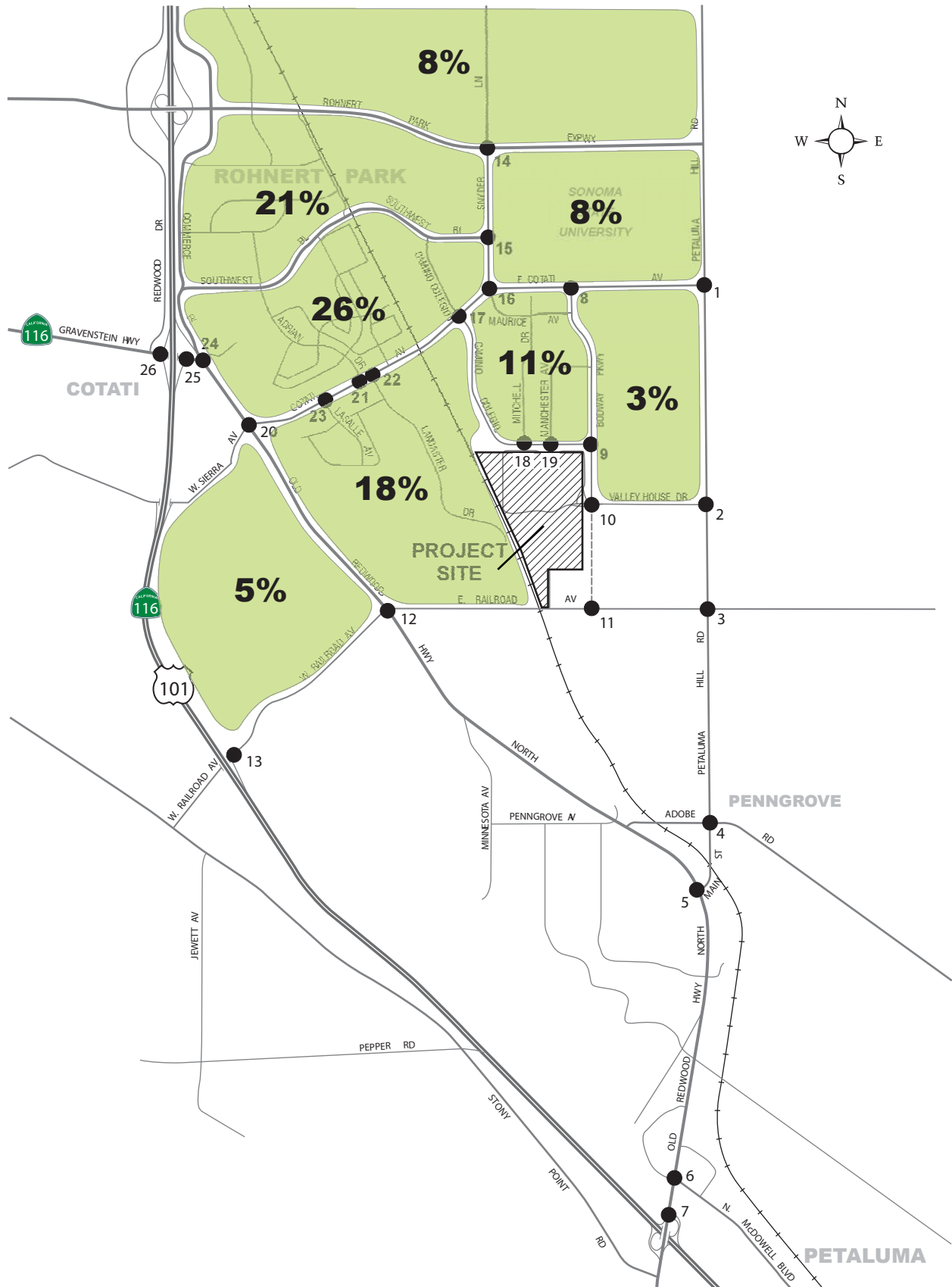


FIGURE 3.13-10b  
Retail Trip Distribution Pattern

Source: DMJM HARRIS - AECOM



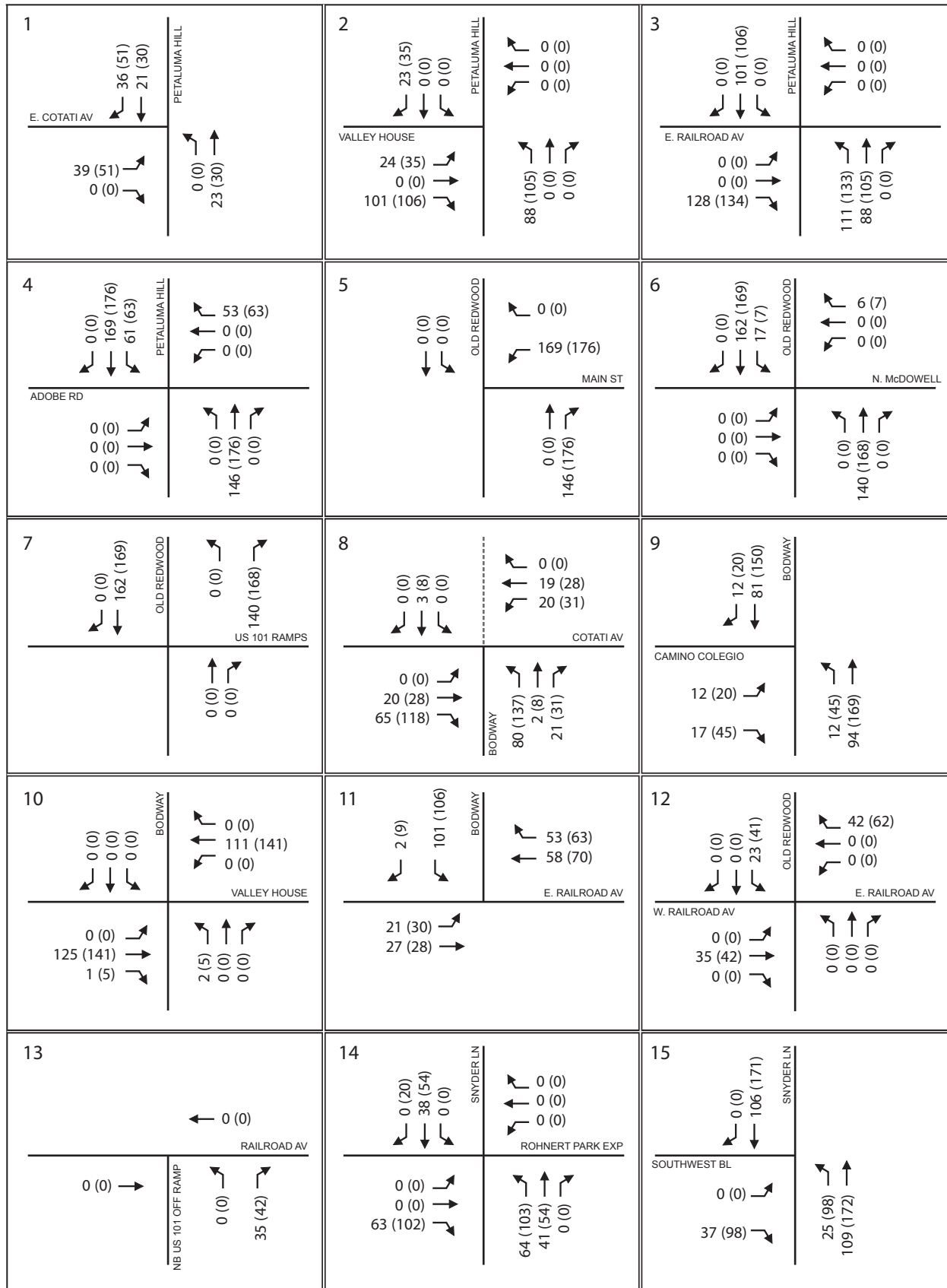


FIGURE 3.13-11a  
**Project Traffic Volumes AM (PM) Peak Hour**

Source: DMJM HARRIS - AECOM



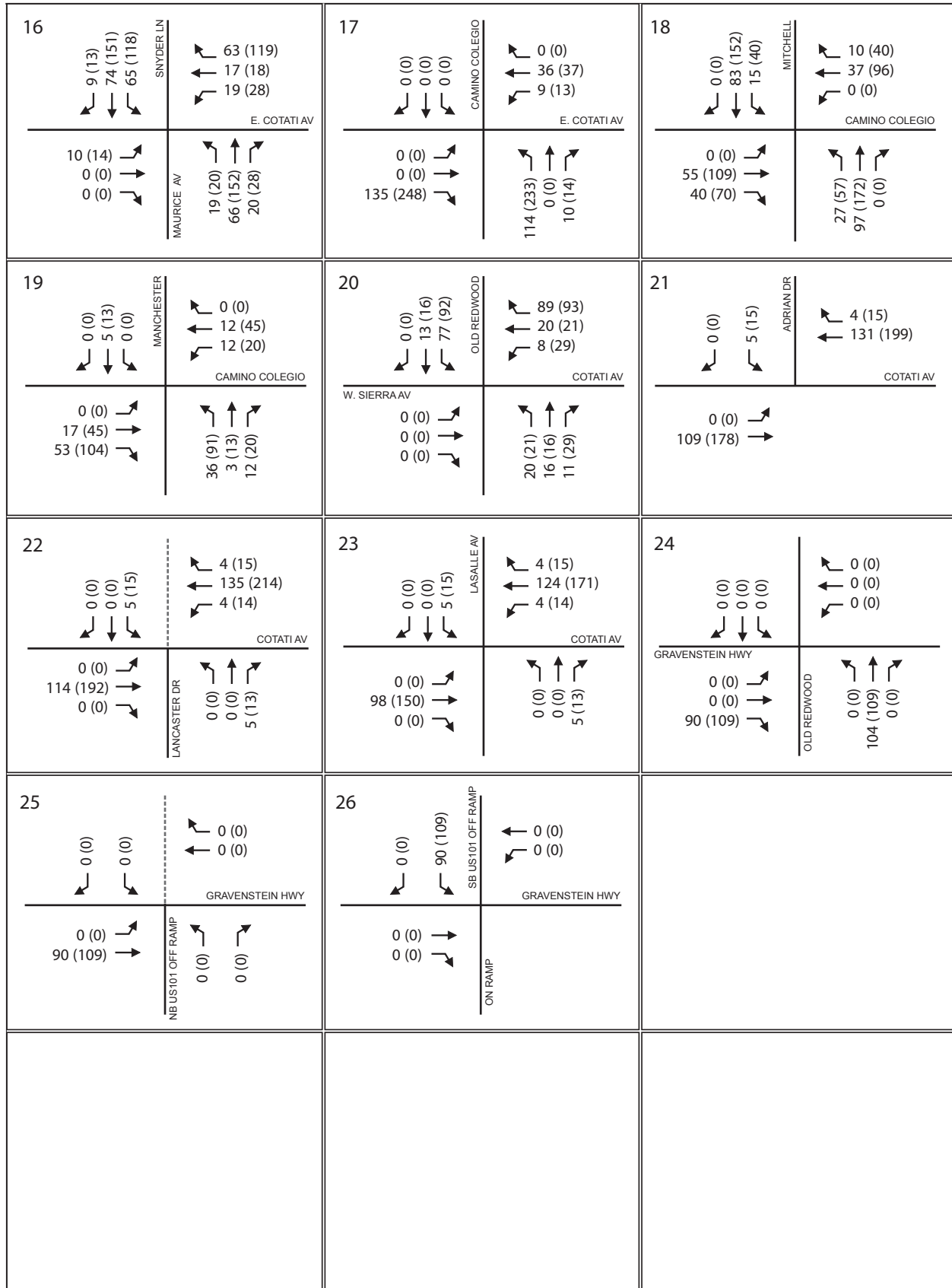


FIGURE 3.13-11b

Project Traffic Volumes AM (PM) Peak Hour

Source: DMJM HARRIS - AECOM



- LOS C is the minimum standard for intersections in Rohnert Park, with the exception of the Snyder Lane/East Cotati Avenue and Snyder Lane/Rohnert Park Expressway intersections, where LOS D is the minimum standard according to the General Plan.<sup>4</sup>
- **Impact Criterion #2:** Generate hazards to safety from design features (e.g., sharp curves or dangerous intersections) or incompatible uses.
- **Impact Criterion #3:** Provide inadequate emergency access or access to nearby uses.
- **Impact Criterion #4:** Provide insufficient parking or capacity on-site or off-site.
- **Impact Criterion #5:** Establish hazards or barriers for pedestrians or bicyclists.
- **Impact Criterion #6:** Conflict with adopted policies supporting alternative transportation (e.g., bus turnouts, bicycle racks).
- **Impact Criterion #7:** Generate rail, waterborne or air traffic impacts.

### *Caltrans*

The Project would result in, or create a significant traffic circulation impact if it would result in:

- Failure to maintain operation on U.S. 101 at or above the LOS C/D threshold, or in cases where the freeway is already projected to operate deficiently at LOS E or F without the project, failure to maintain the existing measure of effectiveness (MOE). For such instances where the freeway is anticipated to operate at LOS E or F, the freeway volume-to-capacity (v/c) ratio is calculated and used as the MOE. The v/c ratio is calculated using projected flow rates and an ideal capacity of 2,300 vehicles per hour per lane.

### *Sonoma County*

The Project would result in, or create a significant traffic circulation impact if it would result in:

- Failure to maintain LOS D as the minimum standard for intersections. In the County of Sonoma, for intersections that are already operating at LOS E or F without the project, a significant impact would occur if the average delay increases by 5 seconds or more.

### *City of Cotati*

Signalized Intersections: The City of Cotati's adopted LOS Standard is contained in their 1998 General Plan. This standard allows for a minimum operation of LOS D for all intersections.

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<sup>4</sup> See General Plan Policy TR-1 which establishes LOS C as the minimum standard for all arterial and collector roadway segments and intersections, except for (1) those specified segments and intersections for which allowable LOS standards are otherwise established in Table 4.1-2; and (2) segments and intersections that are operating at LOS D or lower at the time an application for a development project or a specified plan is submitted if no feasible improvements exist to improve the LOS. The then-existing LOS may be permitted to be the standard for those segments and intersections in category (2), provided that the LOS not be permitted to deteriorate further due to the proposed development project or specific plan.

All-Way Stop Controlled Intersections: For intersections with stop controls on all approaches, LOS D operation was considered the minimum acceptable condition. Where lower levels of service were encountered, signalization or other modifications to the control scheme were considered as a potential mitigation to improve operation.

Unsignalized Intersections: On sections of certain arterials, it is not unusual to have all of the side streets operating at LOS E or F with long traffic delays, even where side street volumes are very low. It may be operationally, physically, and/or financially infeasible to provide mitigation that would allow LOS D conditions or better from all side streets during peak hours. The most typical mitigation measure used to improve operation for the side street is a traffic signal, and it is both operationally and financially undesirable to provide a traffic signal at every intersection along most road segments. Mitigation measures were considered when LOS F conditions were projected for the minor movements. The volume of traffic associated with the LOS was also considered. Where lower levels of service were encountered for significant volumes of traffic, signalization or other lane improvements were considered as a potential mitigation to improve operation.

### *City of Petaluma*

The City of Petaluma's current level of service standard is LOS C. Based on existing CEQA and City of Petaluma standards, traffic impacts are identified as significant if the project would cause:

- Operations (LOS) at a signalized intersection to deteriorate from an acceptable level (LOS C or better) under conditions without the project to an unacceptable level (LOS D, E, or F);
- For signalized intersections that operate at an LOS D or E under conditions without the project, the LOS to deteriorate to the next lowest level;
- For signalized intersections operating at LOS F without the project, any additional vehicle trips to the intersection;
- For unsignalized intersections operating acceptably (LOS C or better) under conditions without the project, the LOS to deteriorate to unacceptable (LOS D, E, or F) conditions AND the traffic volumes at the intersection would satisfy the Manual on Uniform Traffic Control Devices (MUTCD) peak-hour volume warrant criteria for traffic signal installation; or
- For unsignalized intersections operating at unacceptable levels (LOS D, E, or F) under conditions without the project, average delay to increase by five or more seconds AND the traffic volumes at the intersection would satisfy the MUTCD peak-hour volume warrant criteria for traffic signal installation.

### **Project Mitigation Requirements**

Where potentially significant traffic and circulation impacts are noted, mitigation is provided to reduce the identified impact(s) to a less-than-significant level to the extent practicable. Under Baseline plus Project Conditions, the project sponsor is noted as fully funding the intersection improvements as recommended except where (1) an intersection already meets MUTCD signal warrants or (2) the collection of fees is currently ongoing by the local jurisdiction to provide intersection improvements. In

these two cases, the project sponsor is noted as providing a fair share of funding for intersection improvements. Under Cumulative plus Project Conditions, the project sponsor is noted as providing a fair share of funding for intersection improvements.

It should be noted that Policies TR-21A and TR-21B in the Rohnert Park General Plan call for the City to cooperate with neighboring jurisdictions to address regional traffic problems and contribute a fair share of the total mitigation costs. Specific infrastructure improvements and costs remain unknown for traffic mitigation projects in neighboring jurisdictions, and correspondingly, the feasibility and effectiveness of such mitigation measures also remains unknown. For this reason, project impacts outside of the City of Rohnert Park should be considered significant and unavoidable.

## **Project Evaluation — Intersection Impact Analysis**

### **Impact Criterion #1**

**Traffic Volumes and Level of Service (LOS):** *Would the project cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system?*

#### **Baseline plus Project Conditions**

The traffic generated by the proposed project was subsequently added to the Baseline Conditions traffic volumes to derive the Baseline plus Project Conditions traffic volumes. The Baseline plus Project Conditions AM and PM peak hour turning movement volumes at the study intersections are illustrated in Figures 3.13-12a and 3.13-12b. The Baseline plus Project Conditions intersection levels of service for each study intersection is shown in Table 3.13-11.

As shown in Table 3.13-11, with the addition of project-related trips to Baseline traffic volumes, average delay would increase at all study intersections. The following five intersections are projected to operate at unacceptable conditions under Baseline plus Project Conditions:

3. Petaluma Hill Road/East Railroad Avenue (Sonoma County jurisdiction, LOS F during both peak hours);
4. Petaluma Hill Road/Adobe Road (Sonoma County jurisdiction, Penngrove community, LOS F during the PM peak hour);
12. Old Redwood Highway/East and West Railroad Avenue (Sonoma County jurisdiction, LOS F during the PM peak hour);
20. Old Redwood Highway/East Cotati Avenue (Cotati jurisdiction, LOS F during the PM peak hour); and
23. LaSalle Avenue/East Cotati Avenue (Rohnert Park/Cotati jurisdiction, LOS F during the PM peak hour).

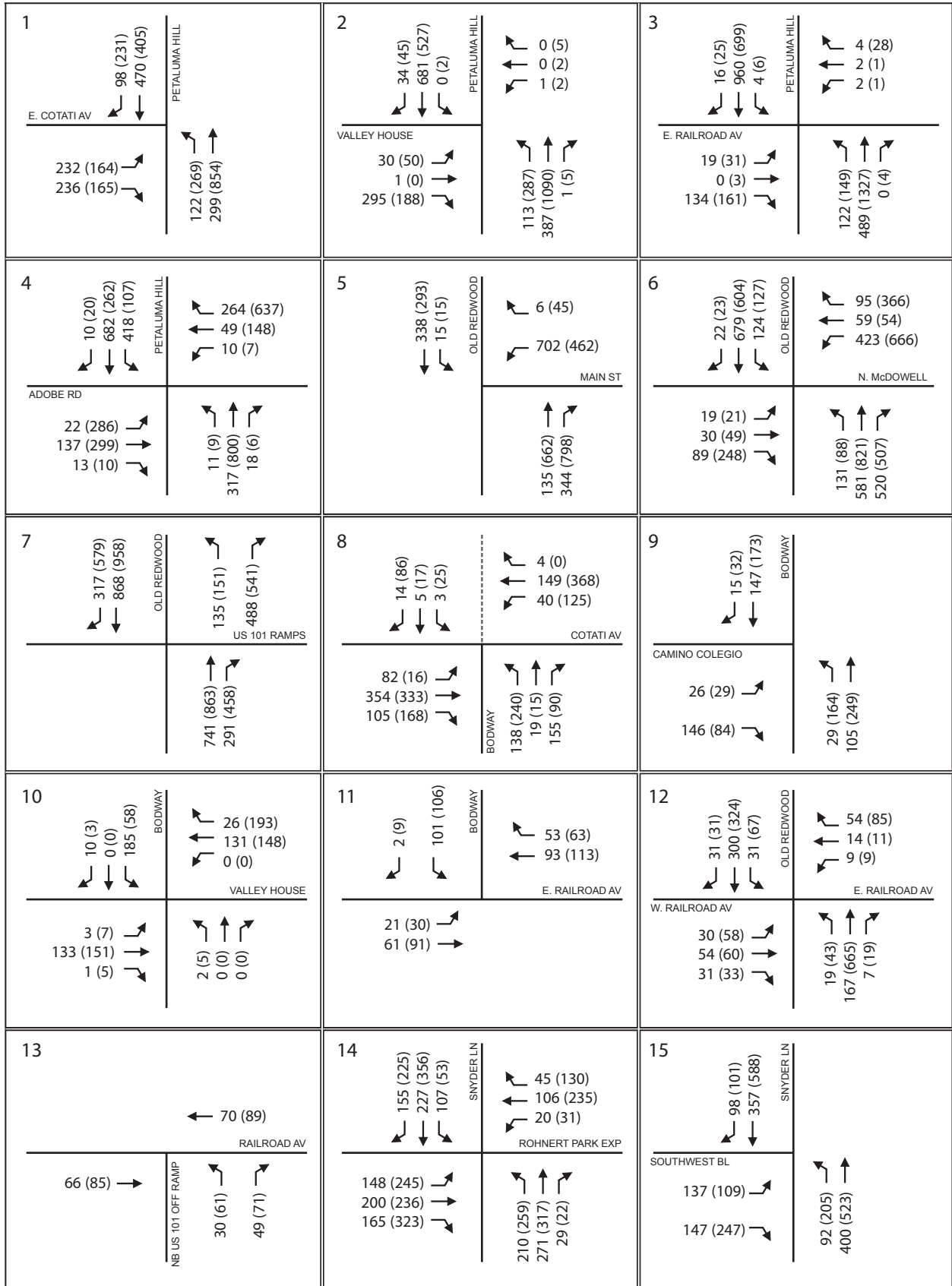


FIGURE 3.13-12a

Baseline Plus Projct Traffic Volumes AM (PM) Peak Hour

Source: DMJM HARRIS - AECOM





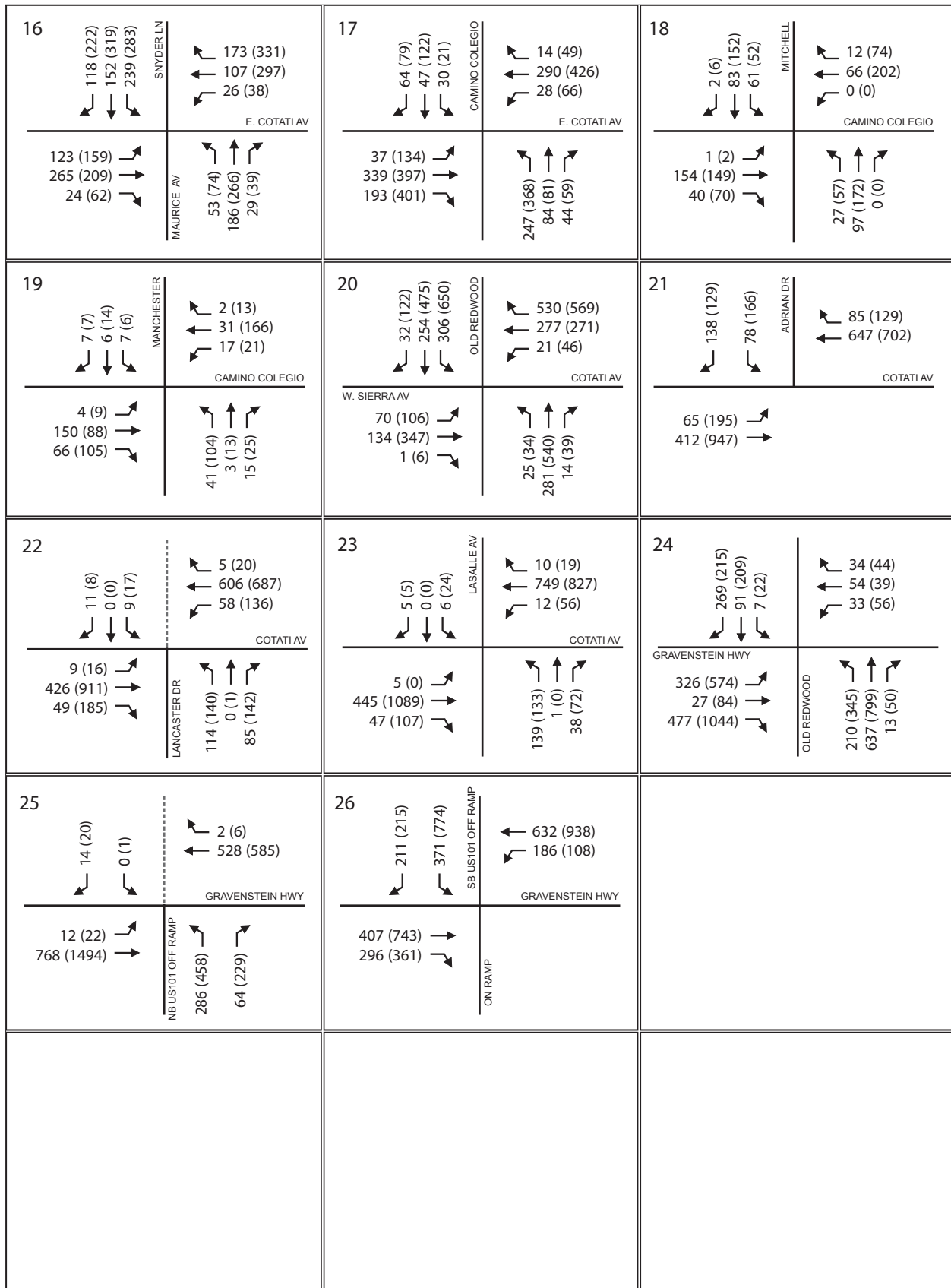


FIGURE 3.13-12b

Baseline Plus Projct Traffic Volumes AM (PM) Peak Hour

Source: DMJM HARRIS - AECOM



**Table 3.13-11  
Intersection Levels of Service – Baseline plus Project Conditions**

No	North-South Street	East-West Street	Jurisdiction	Control	AM Peak Hour				PM Peak Hour			
					Baseline		Plus Project		Baseline		Plus Project	
					Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1	Petaluma Hill Road	East Cotati Avenue	County	Signal	22.4	C	22.4	C	19.4	B	20.1	C
2	Petaluma Hill Road	Valley House Drive	County	Signal	14.6	B	24.2	C	13.2	B	22.0	C
3	Petaluma Hill Road	East Railroad Avenue	County	TWSC	<b>38.6</b>	<b>E</b>	<b>119.1</b>	<b>F</b>	<b>208.7</b>	<b>F</b>	<b>994.4</b>	<b>F</b>
4	Petaluma Hill Road	Adobe Road	Penngrove	Signal	28.3	C	40.6	D	<b>139.7</b>	<b>F</b>	<b>253.9</b>	<b>F</b>
5	Old Redwood Highway	Main Street	Penngrove	Signal	22.3	C	23.1	C	12.5	B	16.3	B
6	Old Redwood Highway	McDowell Boulevard	Petaluma	Signal	24.3	C	24.6	C	30.7	C	32.4	C
7	Old Redwood Highway	U.S. 101 Ramps	Petaluma	Signal	15.8	B	22.4	C	18.0	B	33.6	C
8	Bodway Parkway	East Cotati Avenue	Rohnert Park	Signal	23.4	C	24.0	C	25.5	C	28.8	C
9	Bodway Parkway	Camino Colegio	Rohnert Park	TWSC	9.2	A	10.1	B	9.1	A	12.1	B
10	Bodway Parkway	Valley House Drive	Rohnert Park	AWSC	9.2	A	10.1	B	8.1	A	9.0	A
11	Bodway Parkway	E. Railroad Avenue	County	TWSC	—	—	10.3	B	—	—	10.9	B
12	Old Redwood Highway	E. Railroad Avenue	County	TWSC	14.3	B	17.4	C	<b>61.4</b>	<b>F</b>	<b>274.0</b>	<b>F</b>
13	U.S. 101 NB Off-ramp	W. Railroad Avenue	County	TWSC	9.3	A	9.3	A	9.8	A	9.9	A
14	Snyder Lane	Rohnert Park Expressway	Rohnert Park	Signal	38.5	D	37.6	D	42.8	D	43.6	D
15	Snyder Lane	Southwest Boulevard	Rohnert Park	Signal	22.0	C	22.0	C	22.3	C	26.3	C
16	Snyder Lane	East Cotati Avenue	Rohnert Park	Signal	29.4	C	31.4	C	29.1	C	32.0	C
17	Camino Colegio	East Cotati Avenue	Rohnert Park	Signal	22.1	C	22.6	C	24.7	C	30.5	C
18	Mitchell Drive	Camino Colegio	Rohnert Park	TWSC	9.2	A	13.1	B	9.3	A	25.2	D
19	Manchester Avenue	Camino Colegio	Rohnert Park	TWSC	9.4	A	10.7	B	9.3	A	12.3	B
20	Old Redwood Highway	East Cotati Avenue	Cotati	Signal	26.7	C	31.5	C	<b>59.4</b>	<b>E</b>	<b>96.5</b>	<b>F</b>
21	Adrian Drive	East Cotati Avenue	RP/Cot	Signal	16.4	B	14.8	B	17.8	B	16.9	B

**Table 3.13-11  
Intersection Levels of Service – Baseline plus Project Conditions**

No	North-South Street	East-West Street	Jurisdiction	Control	AM Peak Hour				PM Peak Hour			
					Baseline		Plus Project		Baseline		Plus Project	
					Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
22	Lancaster Drive	East Cotati Avenue	RP/Cot	Signal	14.6	B	13.3	B	15.0	B	14.4	B
23	LaSalle Avenue	East Cotati Avenue	Cotati	AWSC	13.6	B	17.4	C	<b>38.0</b>	<b>E</b>	<b>81.8</b>	<b>F</b>
24	Old Redwood Highway	Gravenstein Way	Cotati	Signal	28.1	C	27.0	C	33.6	C	33.7	C
25	U.S. 101 NB Off-ramp	Gravenstein Way	Cotati	Signal	8.6	A	8.3	A	11.8	B	12.2	B
26	U.S. 101 SB Off-ramp	Gravenstein Way	Cotati	Signal	14.0	B	14.3	B	14.8	B	15.8	B

Source: PBS&J/DMJM Harris, 2009.

Notes: AWSC = All-Way Stop Control; TWSC = Two-Way Stop Control

TWSC Intersection Delay and LOS values based on worst approach.

**Bold** indicates unacceptable LOS.

It should be noted that although the Snyder Lane/Rohnert Park Expressway intersection would operate at LOS D with or without project traffic, this is considered an acceptable operating condition for this intersection per the Rohnert Park General Plan. All other study intersections would continue to operate at acceptable conditions.

### **Impact 3.13-1**

*Under Baseline Conditions, the addition of project traffic would cause LOS to degrade, and delay to reach unacceptable levels at the Petaluma Hill Road/East Railroad Avenue intersection (Sonoma County jurisdiction) during both AM and PM peak hours. As a direct result of the addition of project traffic, the intersection would meet the requirements of the MUTCD Peak Hour Volume Signal Warrant. This would be a significant impact.*

During both peak hours, the project would increase average delay by over five seconds at the two-way stop controlled Petaluma Hill Road/East Railroad Avenue intersection. Also, the addition of project traffic would cause the intersection to meet the requirements of the MUTCD Peak Hour Volume Signal Warrant (this warrant would not be met prior to the addition of project traffic).

#### **Mitigation Measure 3.13-1**

3.13-1 As the Petaluma Hill Road/East Railroad Avenue intersection would meet the requirements of the MUTCD Peak Hour Volume Signal Warrant after project trips have been added, signalization of this intersection is required. The signal shall be built to current Sonoma County standards. After implementation of this measure, the intersection would operate at an acceptable LOS B during both peak hours.

It should be noted that Policies TR-21A and TR-21B in the Rohnert Park General Plan call for the City to cooperate with neighboring jurisdictions to address regional traffic problems and contribute a fair share of the total mitigation costs. The mitigation for the proposed infrastructure improvement is currently included in the Public Facilities Financing Plan (PFFP). As a result, the City of Rohnert Park shall pay its fair share fee in accordance with the PFFP and in coordination with Sonoma and if deemed appropriate, collect a fair-share allocation from the developers of the Sonoma Mountain Village Project. After implementation of this measure, the impact would be reduced to a less-than-significant level.

### **Impact 3.13-2**

*Under Baseline Conditions, the addition of project traffic would cause unacceptable LOS at the Petaluma Hill Road/Adobe Road intersection (Sonoma County jurisdiction) during the PM peak hour. This would be a significant impact.*

During the PM peak hour, the project would cause an increase in average delay of over five seconds at the signal controlled Petaluma Hill Road/Adobe Road intersection.

### Mitigation Measure 3.13-2

- 3.13-2 As acknowledged in the Rohnert Park General Plan, traffic congestion presently exists in the Penngrove community at the Petaluma Hill Road/Adobe Road intersection during AM and PM peak hours. The buildout of the Rohnert Park General Plan would result in additional traffic in this area. One design solution at the Petaluma Hill Road/Adobe Road intersection would be to widen and reconfigure the intersection. The northbound approach could be reconfigured to include one shared through-left turn lane, and one shared through-right turn lane. The eastbound approach could be reconfigured to include a left-turn lane and a shared through-right turn lane. The westbound approach could be reconfigured to include a shared through-left turn lane, and an overlapped right-turn lane. It should be noted that although limited pedestrian facilities are available, pedestrian conditions are of utmost concern at this intersection; especially considering that there is a school located at the northwest corner of the intersection. Thus, the right-of-way acquisition required to complete the necessary widening would need to include space for full pedestrian facilities.

In order to implement Mitigation Measure 3.13-2, the City of Rohnert Park would be required to work with Sonoma County to determine a fair-share portion of improvements to this intersection, and if deemed appropriate, collect a fair-share allocation from the developers of the Sonoma Mountain Village Project. Implementation of this measure would allow the intersection to operate at an acceptable LOS D during the PM peak hour.

However, since the intersection is controlled by Sonoma County, the project sponsor and the City can not ensure that Sonoma County will support and permit construction of these or other equally effective improvements. Long-term solutions to traffic congestion on Petaluma Hill Road would require a cooperative, regional approach by Sonoma County, the Penngrove community, SSU, and the cities of Cotati, Petaluma, Santa Rosa, and Rohnert Park. Policies TR-21A and TR-21B in the Rohnert Park General Plan call for the City to cooperate with neighboring jurisdictions to address regional traffic problems and contribute a fair share of the total mitigation costs. Specific infrastructure improvements and costs remain unknown for traffic mitigation projects in Sonoma County, and correspondingly, the feasibility and effectiveness of such mitigation measures also remains unknown, since the mitigation would occur outside of the jurisdiction of the City of Rohnert Park. For this reason the impact is considered significant and unavoidable.

### **Impact 3.13-3**

***Under Baseline Conditions, the addition of project traffic would cause LOS to degrade, and delay to reach unacceptable levels at the Old Redwood Highway/East Railroad Avenue intersection (Sonoma County jurisdiction) during the PM peak hour. As a direct result of the addition of project traffic, the intersection would meet the requirements of the MUTCD Peak Hour Volume Signal Warrant. This would be a significant impact.***

During the PM peak hour, the project would cause an increase in average delay of over five seconds at the two-way stop controlled Old Redwood Highway/East Railroad Avenue intersection. Also, the addition of project traffic would cause the intersection to meet the requirements of the MUTCD Peak Hour Volume Signal Warrant (this warrant would not be met prior to the addition of project traffic).

#### Mitigation Measure 3.13-3

3.13-3 As the Old Redwood Highway/East Railroad Avenue intersection would meet the requirements of the MUTCD Peak Hour Volume Signal Warrant after project trips have been added, signalization of this intersection is required. The signal would be subject to current Sonoma County standards. Implementation of this measure would allow the intersection to operate at an acceptable LOS B during the PM peak hour.

It should be noted, however, that Policies TR-21A and TR-21B in the Rohnert Park General Plan call for the City to cooperate with neighboring jurisdictions to address regional traffic problems and contribute a fair share of the total mitigation costs. The City of Rohnert Park has no jurisdiction over the identified intersection and therefore cannot formally introduce and/or implement mitigation. Specific infrastructure improvements and costs remain unknown for traffic mitigation projects in Sonoma County, and correspondingly, the feasibility and effectiveness of such mitigation measures also remains unknown. For this reason the impact is considered significant and unavoidable.

#### **Impact 3.13-4**

***Under Baseline Conditions, the addition of project traffic would cause unacceptable LOS at the Old Redwood Highway/East Cotati Avenue intersection (City of Cotati jurisdiction) during the PM peak hour. This would be a significant impact.***

During the PM peak hour, the project would cause an increase in average delay of over five seconds at the signal controlled Old Redwood Highway/East Cotati Avenue intersection.

#### Mitigation Measure 3.13-4

3.13-4 One design solution at the Old Redwood Highway/East Cotati Avenue intersection would be to reconfigure the southbound and westbound approaches to the intersection (without widening), and update the traffic signal phasing. The southbound through lane shall be reconfigured into a shared through-left turn lane, and the northbound-southbound signal phasing shall be changed from protected phasing to split phasing. The westbound through-right turn lane shall be reconfigured into an exclusive right turn lane. This reconfigured right turn lane shall be overlapped with the southbound split phase.

Should Mitigation Measure 3.13-4 be implemented, the City of Rohnert Park shall work with the City of Cotati to determine a fair-share portion of improvements to this intersection, and if deemed appropriate, collect a fair-share allocation from the developers of the Sonoma Mountain Village Project. After implementation of this measure, the intersection would operate

at an acceptable LOS D during the PM peak hour, reducing the impact to a less-than-significant level.

However, since the intersection is controlled by the City of Cotati, the project sponsor and the City can not ensure that Cotati will support and permit construction of these or other equally effective improvements. It should be noted that Policies TR-21A and TR-21B in the Rohnert Park General Plan call for the City to cooperate with neighboring jurisdictions to address regional traffic problems and contribute a fair share of the total mitigation costs. Specific infrastructure improvements and costs remain unknown for traffic mitigation projects in the City of Cotati, and correspondingly, the feasibility and effectiveness of such mitigation measures also remains unknown for this project. For this reason the impact is considered significant and unavoidable.

### **Impact 3.13-5**

***Under Baseline Conditions, the addition of project traffic would cause unacceptable LOS at the LaSalle Avenue/East Cotati Avenue intersection (City of Cotati jurisdiction) during the PM peak hour. With and without the addition of project traffic, the intersection would meet the requirements of the MUTCD Peak Hour Volume Signal Warrant. This would be a significant impact.***

During the PM peak hour, the project would increase average delay by over five seconds at the all-way stop controlled LaSalle Avenue/East Cotati Avenue intersection. Also, this intersection meets the requirements of the MUTCD Peak Hour Volume Signal Warrant.

### **Mitigation Measure 3.13-5**

3.13-5 As the LaSalle Avenue/East Cotati Avenue intersection would meet the requirements of the MUTCD Peak Hour Volume Signal Warrant with and without the addition of project trips, signalization of this intersection is required. Implementation of this measure would improve intersection operations to an acceptable LOS B during the PM peak hour.

However, since the intersection is controlled by the City of Cotati, the project sponsor and the City can not ensure that the City of Cotati will support and permit construction of these or other equally effective improvements. It should be noted that Policies TR-21A and TR-21B in the Rohnert Park General Plan call for the City to cooperate with neighboring jurisdictions to address regional traffic problems and contribute a fair share of the total mitigation costs. Specific infrastructure improvements and costs remain unknown for traffic mitigation projects in Sonoma County, and correspondingly, the feasibility and effectiveness of such mitigation measures also remains unknown. For this reason the impact is considered significant and unavoidable.

## Cumulative plus Project Conditions

Traffic generated by the proposed project was subsequently added to the Cumulative Conditions traffic volumes to derive the Cumulative plus Project Conditions traffic volumes. The Cumulative plus Project Conditions AM and PM peak hour turning movement volumes at the study intersections are illustrated in Figures 3.13-13a and b. The Cumulative plus Project Conditions intersection levels of service for each study intersection is shown in Table 3.13-12.

As shown in Table 3.13-12, with the addition of project-related trips to Cumulative traffic volumes, the average delay would increase at all study intersections. The following six intersections are projected to operate at unacceptable conditions under Cumulative plus Project Conditions:

3. Petaluma Hill Road/East Railroad Avenue (Sonoma County jurisdiction, LOS F during both peak hours);
4. Petaluma Hill Road/Adobe Road (Sonoma County jurisdiction, Penngrove community, LOS D during the AM peak hour, LOS F during the PM peak hour);
7. Old Redwood Highway/U.S. 101 Northbound Ramps (Petaluma jurisdiction, LOS D during the PM peak hour);
12. Old Redwood Highway/East and West Railroad Avenue (Sonoma County jurisdiction, LOS F during the PM peak hour);
20. Old Redwood Highway/East Cotati Avenue (Cotati jurisdiction, LOS D during the AM peak hour, LOS F during the PM peak hour); and
23. LaSalle Avenue/East Cotati Avenue (Rohnert Park/Cotati jurisdiction, LOS F during the PM peak hour).

It should be noted that although the Snyder Lane/Rohnert Park Expressway intersection would operate at LOS D with and without project traffic, this is considered an acceptable operating condition for this intersection per the Rohnert Park General Plan. Also, although the Old Redwood Highway/McDowell Boulevard intersection would operate at LOS D with or without project traffic, this would be considered acceptable since the project does not deteriorate the intersection LOS from D to E. All other study intersections would continue to operate at acceptable conditions.

### **Impact 3.13-6**

***Under Cumulative Conditions, the addition of project traffic would cause LOS to degrade, and delay to reach unacceptable levels at the Petaluma Hill Road/East Railroad Avenue intersection (Sonoma County jurisdiction) during both AM and PM peak hours. As a direct result of the addition of project traffic, the intersection would meet the requirements of the MUTCD Peak Hour Volume Signal Warrant. This would be a significant impact.***



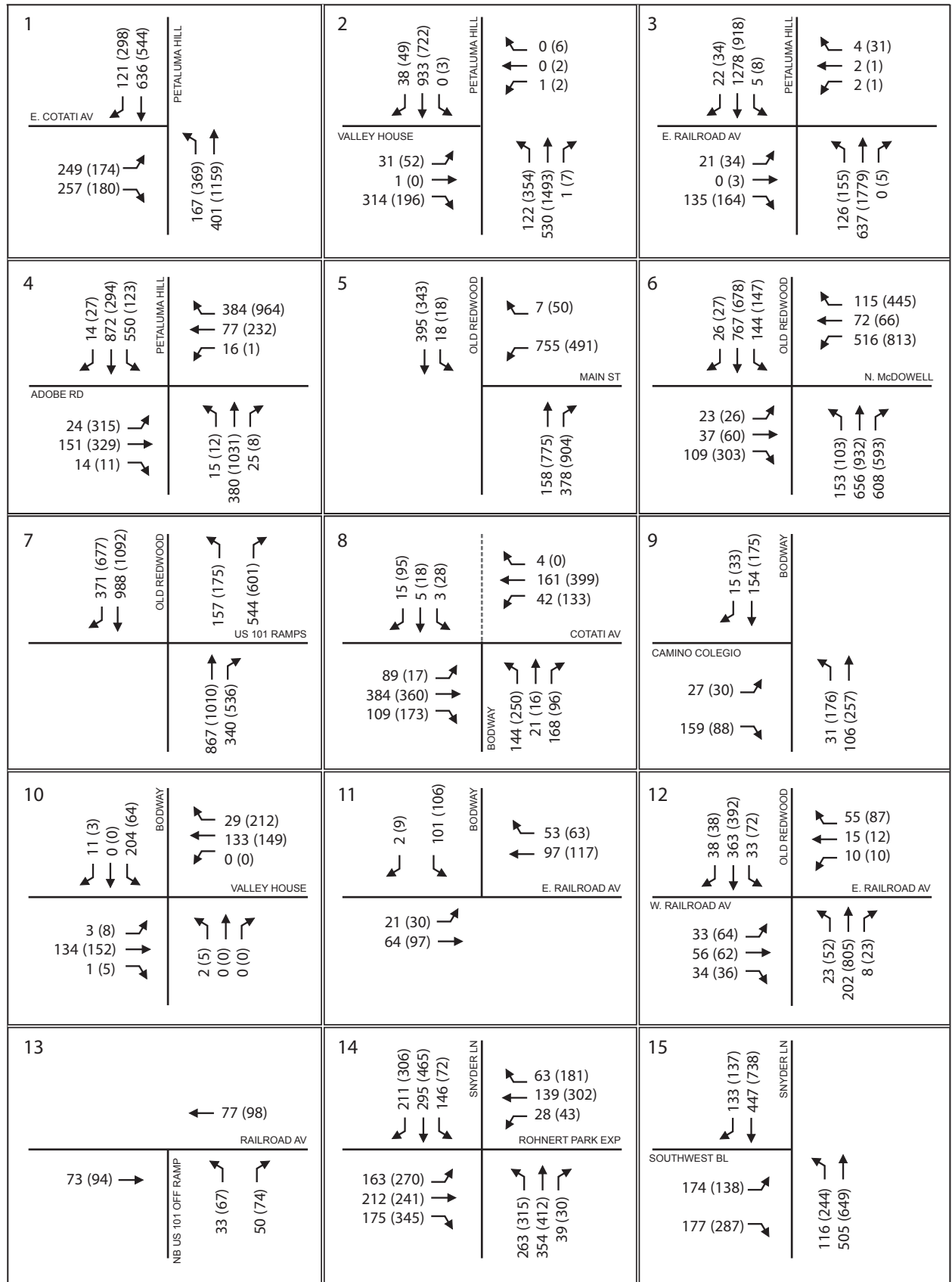


FIGURE 3.13-13a

Cumulative Plus Project Traffic Volumes AM (PM) Peak Hour

Source: DMJM HARRIS - AECOM



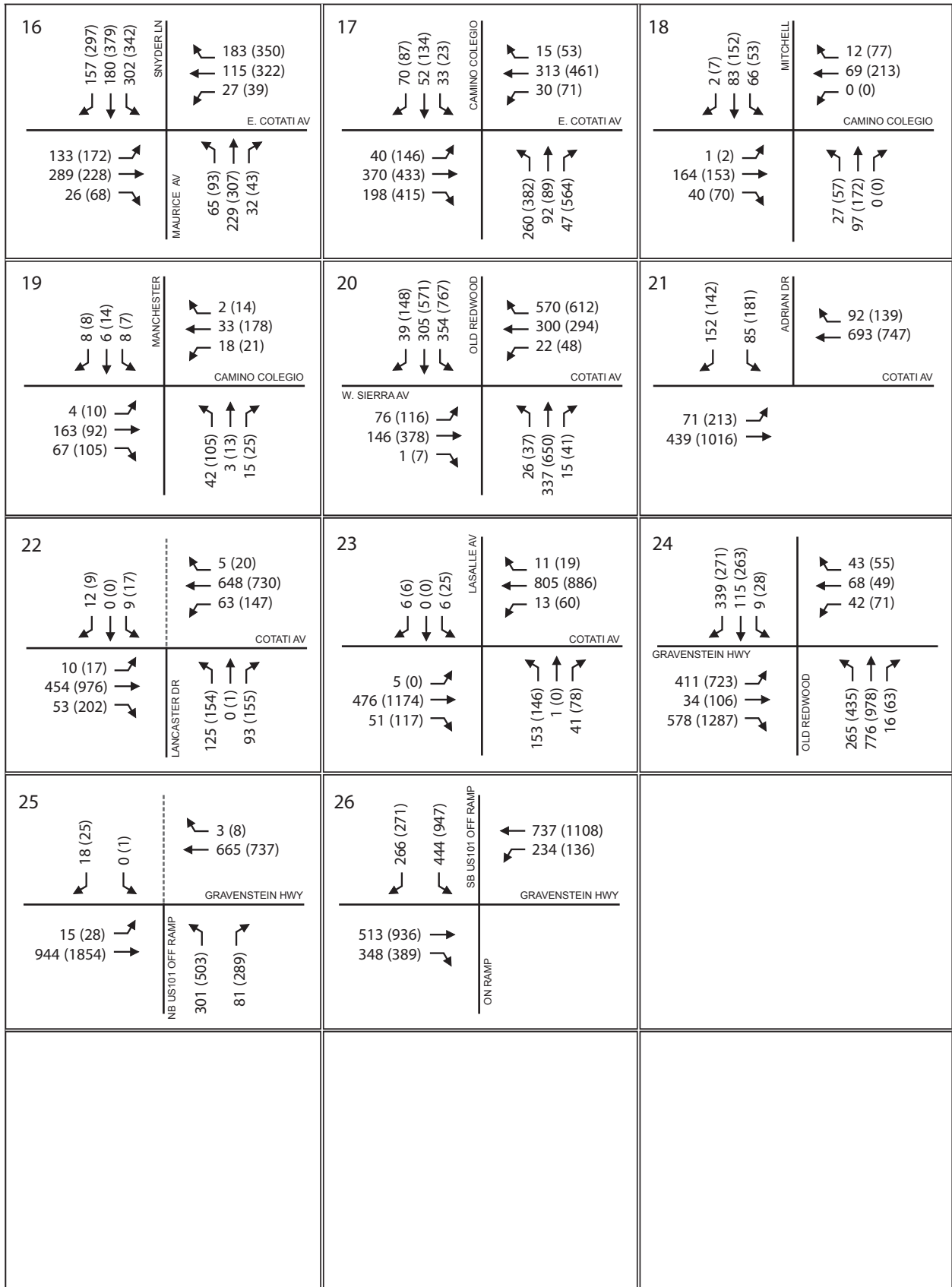


FIGURE 3.13-13b

**Cumulative Plus Project Traffic Volumes AM (PM) Peak Hour**

Source: DMJM HARRIS - AECOM



**Table 3.13-12  
Intersection Levels of Service – Cumulative plus Project Conditions**

No	North-South Street	East-West Street	Jurisdiction	Control	AM Peak Hour				PM Peak Hour			
					Baseline		Plus Project		Baseline		Plus Project	
					Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1	Petaluma Hill Road	East Cotati Avenue	County	Signal	24.6	C	24.9	C	22.6	C	24.0	C
2	Petaluma Hill Road	Valley House Drive	County	Signal	17.9	B	34.2	C	27.2	C	48.2	D
3	Petaluma Hill Road	East Railroad Avenue	County	TWSC	<b>120.7</b>	<b>F</b>	<b>OVR</b>	<b>F</b>	<b>OVR</b>	<b>F</b>	<b>OVR</b>	<b>F</b>
4	Petaluma Hill Road	Adobe Road	Penngrove	Signal	<b>45.3</b>	<b>D</b>	<b>97.6</b>	<b>F</b>	<b>339.9</b>	<b>F</b>	<b>484.0</b>	<b>F</b>
5	Old Redwood Highway	Main Street	Penngrove	Signal	24.8	C	27.8	C	13.7	B	18.8	B
6	Old Redwood Highway	McDowell Boulevard	Petaluma	Signal	25.9	C	26.5	C	36.4	D	41.1	D
7	Old Redwood Highway	U.S. 101 Ramps	Petaluma	Signal	17.9	B	30.9	C	22.7	C	53.0	D
8	Bodway Parkway	East Cotati Avenue	Rohnert Park	Signal	23.7	C	24.3	C	25.9	C	29.5	C
9	Bodway Parkway	Camino Colegio	Rohnert Park	TWSC	9.3	A	10.2	B	9.2	A	12.3	B
10	Bodway Parkway	Valley House Drive	Rohnert Park	AWSC	9.5	A	10.3	B	8.3	A	9.2	A
11	Bodway Parkway	E. Railroad Avenue	County	TWSC	—	—	10.4	B	—	—	11.0	B
12	Old Redwood Highway	E. Railroad Avenue	County	TWSC	16.8	C	21.6	C	<b>216.7</b>	<b>F</b>	<b>880.1</b>	<b>F</b>
13	U.S. 101 NB Off-ramp	W. Railroad Avenue	County	TWSC	9.4	A	9.4	A	10.0	B	10.1	B
14	Snyder Lane	Rohnert Park Expressway	Rohnert Park	Signal	39.9	D	39.5	D	49.2	D	52.6	D
15	Snyder Lane	Southwest Boulevard	Rohnert Park	Signal	22.5	C	22.7	C	23.1	C	28.0	C
16	Snyder Lane	East Cotati Avenue	Rohnert Park	Signal	30.1	C	31.5	C	29.9	C	32.5	C
17	Camino Colegio	East Cotati Avenue	Rohnert Park	Signal	22.3	C	23.1	C	25.4	C	32.7	C
18	Mitchell Drive	Camino Colegio	Rohnert Park	TWSC	9.3	A	13.4	B	9.4	A	26.5	D
19	Manchester Avenue	Camino Colegio	Rohnert Park	TWSC	9.5	A	10.9	B	9.5	A	12.5	B
20	Old Redwood Highway	East Cotati Avenue	Cotati	Signal	29.6	C	<b>37.6</b>	<b>D</b>	<b>96.1</b>	<b>F</b>	<b>139.2</b>	<b>F</b>
21	Adrian Drive	East Cotati Avenue	RP/Cot	Signal	16.7	B	15.2	B	18.2	B	17.6	B

**Table 3.13-12  
Intersection Levels of Service – Cumulative plus Project Conditions**

No	North-South Street	East-West Street	Jurisdiction	Control	AM Peak Hour				PM Peak Hour			
					Baseline		Plus Project		Baseline		Plus Project	
					Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
22	Lancaster Drive	East Cotati Avenue	RP/Cot	Signal	14.8	B	13.6	B	15.6	B	15.2	B
23	LaSalle Avenue	East Cotati Avenue	Cotati	AWSC	15.3	C	20.6	C	<b>57.8</b>	<b>F</b>	<b>113.0</b>	<b>F</b>
24	Old Redwood Highway	Gravenstein Way	Cotati	Signal	29.5	C	29.0	C	40.6	D	42.4	D
25	U.S. 101 NB Off-ramp	Gravenstein Way	Cotati	Signal	8.3	A	8.1	A	16.0	B	17.6	B
26	U.S. 101 SB Off-ramp	Gravenstein Way	Cotati	Signal	15.7	B	16.0	B	17.6	B	19.0	B

Source: DMJM Harris, 2009.

Notes: AWSC = All-Way Stop Control; TWSC = Two-Way Stop Control

TWSC Intersection Delay and LOS values based on worst approach.

**Bold** indicates unacceptable LOS.

During both peak hours, the project would cause an increase in average delay of over five seconds at the two-way stop controlled Petaluma Hill Road/East Railroad Avenue intersection. Also, the addition of project traffic would cause the intersection to meet the requirements of the MUTCD Peak Hour Volume Signal Warrant (this warrant would not be met prior to the addition of project traffic).

#### Mitigation Measure 3.13-6

3.13-6 To mitigate the project's contribution to the Cumulative impact at the Petaluma Hill Road/East Railroad Avenue intersection, Mitigation Measure 3.13-1 shall be implemented. This mitigation measure shall signalize the Petaluma Hill Road/East Railroad Avenue intersection. However, it should be noted that although the implementation of Mitigation Measure 3.13-1 would mitigate the project's contribution to the Cumulative impact, the intersection would continue to operate at unacceptable conditions due to cumulative development.

After signalization, Petaluma Hill Road is expected to operate at unacceptable conditions upon full buildout of the Rohnert Park General Plan, and would require additional improvements to operate acceptably. The proposed widening Petaluma Hill Road to include two through movements in each direction would reduce the identified impact under cumulative conditions. If Mitigation Measure 3.13-1 and Mitigation Measure 3.13-6 were implemented, the City of Rohnert Park would work with Sonoma County to determine a fair-share portion of funds to improve this intersection, and if deemed appropriate, collect a fair-share allocation from the developers of the Sonoma Mountain Village Project. After implementation of this measure, the intersection would operate at acceptable LOS B during both peak hours, reducing the impact to a less-than-significant level.

However, since the intersection is controlled by Sonoma County, the project sponsor and the City can not ensure that Sonoma County will support and permit construction of these or other equally effective improvements. It should be noted that Policies TR-21A and TR-21B in the Rohnert Park General Plan call for the City to cooperate with neighboring jurisdictions to address regional traffic problems and contribute a fair share of the total mitigation costs. Specific infrastructure improvements and costs remain unknown for traffic mitigation projects in Sonoma County, and correspondingly, the feasibility and effectiveness of such mitigation measures also remains unknown. For these reason, this impact is considered significant and unavoidable.

#### Impact 3.13-7

***Under Cumulative Conditions, the addition of project traffic would cause delay to reach unacceptable levels at the Petaluma Hill Road/Adobe Road intersection (Sonoma County jurisdiction) during both peak hours. This would be a significant impact.***

During both AM and PM peak hours, the project would cause an increase in average delay of over five seconds at the signal controlled Petaluma Hill Road/Adobe Road intersection.

Mitigation Measure 3.13-7

3.13-7 To restore acceptable operating conditions at the Petaluma Hill Road/Adobe Road intersection, Mitigation Measure 3.13-2 shall be implemented.

The design solution proposed for Mitigation Measure 3.13-2 recommends that the intersection be widened and reconfigured. The northbound approach could be reconfigured to include one shared through-left turn lane, and one shared through-right turn lane. The eastbound approach could be reconfigured to include a left-turn lane and a shared through-right turn lane. The westbound approach could be reconfigured to include a shared through-left turn lane, and an overlapped right-turn lane. It should be noted that although limited pedestrian facilities are available, pedestrian conditions are of utmost concern at this intersection; especially considering that there is a school located at the northwest corner of the intersection. Thus, the right-of-way acquisition required to complete the necessary widening would need to include space for full pedestrian facilities.

Should Mitigation Measure 3.13-2 be implemented, the City of Rohnert Park would work with Sonoma County to determine a fair-share portion of improvements to this intersection, and if deemed appropriate, collect a fair-share allocation from the developers of the Sonoma Mountain Village Project. After implementation of this measure, the intersection would operate at an acceptable LOS C during the AM peak hour and LOS D during the PM peak hour, reducing the impact to a less-than-significant level.

However, since the intersection is controlled by Sonoma County, the project sponsor and the City can not ensure that Sonoma County will support and permit construction of these or other equally effective improvements. As acknowledged in the Rohnert Park General Plan, traffic congestion presently exists in the Penngrove community at the Petaluma Hill Road/Adobe Road intersection during AM and PM peak hours. The buildout of the Rohnert Park General Plan will result in additional traffic in this area. Long-term solutions to traffic congestion on Petaluma Hill Road require a cooperative, regional approach by Sonoma County, the Penngrove community, SSU, and the cities of Cotati, Petaluma, Santa Rosa, and Rohnert Park. Policies TR-21A and TR-21B in the Rohnert Park General Plan call for the City to cooperate with neighboring jurisdictions to address regional traffic problems and contribute a fair share of the total mitigation costs. Specific infrastructure improvements and costs remain unknown for traffic mitigation projects in Sonoma County, and correspondingly, the feasibility and effectiveness of such mitigation measures also remains unknown. For this reason the impact is considered significant and unavoidable.

### **Impact 3.13-8**

*Under Cumulative Conditions, the addition of project traffic would cause delay to reach unacceptable levels at the Old Redwood Highway/U.S. 101 Ramps intersection (City of Petaluma jurisdiction) during the PM peak hour. This would be a significant impact.*

During the PM peak hour, the intersection would deteriorate from LOS C to LOS D with the addition of project traffic at the signal controlled Old Redwood Highway/U.S. 101 Ramps intersection.

#### **Mitigation Measure 3.13-8**

3.13-8 In order to mitigate transportation impacts at the Old Redwood Highway/US 101 ramp intersection proposes to widen the westbound approach (U.S. 101 northbound off-ramp) to include an additional right turn lane.

Should Mitigation Measure 3.13-8 be implemented, the City of Rohnert Park shall work with the City of Petaluma and Caltrans to determine a fair-share portion of improvements to this intersection, and if deemed appropriate, collect a fair-share allocation from the developers of the Sonoma Mountain Village Project. After implementation of this measure, the intersection would operate at an acceptable LOS C during the PM peak hour, reducing the impact to a less-than-significant level.

However, since the intersection is controlled by the City of Petaluma and the ramp is controlled by Caltrans, the project sponsor and the City cannot ensure that the City of Petaluma will support and permit construction of these or other equally effective improvements. Policies TR-21A and TR-21B in the Rohnert Park General Plan call for the City to cooperate with neighboring jurisdictions to address regional traffic problems and contribute a fair share of the total mitigation costs. Specific infrastructure improvements and costs remain unknown for traffic mitigation projects in the City of Petaluma, and correspondingly, the feasibility and effectiveness of such mitigation measures also remains unknown. For this reason the impact is considered significant and unavoidable.

### **Impact 3.13-9**

*Under Cumulative Conditions, the addition of project traffic would cause delay to reach unacceptable levels at the Old Redwood Highway/East Railroad Avenue intersection (Sonoma County jurisdiction) during the PM peak hour. This would be a significant impact.*

During the PM peak hour, the project would cause an increase in average delay of over five seconds at the two-way stop controlled Old Redwood Highway/East Railroad Avenue intersection. Also, the addition of project traffic would cause the intersection to meet the requirements of the MUTCD Peak Hour Volume Signal Warrant.

### Mitigation Measure 3.13-9

3.13-9 To mitigate the project's contribution to the Cumulative impact at the Old Redwood Highway/East Railroad Avenue intersection, Mitigation Measure 3.13-3 shall be implemented. This mitigation measure would signalize the intersection.

Should Mitigation Measure 3.13-3 be implemented, the City of Rohnert Park shall work with Sonoma County to determine a fair-share portion of funds to signalize this intersection, and if deemed appropriate, collect a fair-share allocation from the developers of the Sonoma Mountain Village Project. After implementation of this measure, the intersection would operate at an acceptable LOS B during the PM peak hour, reducing the impact to a less-than-significant level.

However, since the intersection is controlled by Sonoma County, the project sponsor and the City cannot ensure that Sonoma County will support and permit construction of these or other equally effective improvements. It should be noted that Policies TR-21A and TR-21B in the Rohnert Park General Plan call for the City to cooperate with neighboring jurisdictions to address regional traffic problems and contribute a fair share of the total mitigation costs. Specific infrastructure improvements and costs remain unknown for traffic mitigation projects in Sonoma County, and correspondingly, the feasibility and effectiveness of such mitigation measures also remains unknown. For this reason the impact is considered significant and unavoidable.

### **Impact 3.13-10**

*Under Cumulative Conditions, the addition of project traffic would cause delay to reach unacceptable levels at the Old Redwood Highway/East Cotati Avenue intersection (City of Cotati jurisdiction) during both peak hours. This would be a significant impact.*

During the AM peak hour, the project would cause the intersection to deteriorate from LOS C to LOS D. During the PM peak hour, the project would cause an increase in average delay of over five seconds.

### Mitigation Measure 3.13-10

3.13-10 To mitigate the project's contribution to the Cumulative impact at the Old Redwood Highway/East Cotati Avenue intersection, Mitigation Measure 3.13-4 would be implemented. This mitigation measure would reconfigure the lanes and retime the phasing of the signal at the intersection.

The design solution proposed for Mitigation Measure 3.13-4 recommends that the southbound and westbound approaches to the intersection be reconfigured (without widening), and that the signal phasing be updated. The southbound through lane shall be reconfigured into a shared through-left turn lane, and the northbound-southbound signal phasing shall be changed from protected phasing to split phasing. The westbound through-right turn lane shall be reconfigured



into an exclusive right turn lane. This reconfigured right turn lane shall be overlapped with the southbound split phase.

Should Mitigation Measure 3.13-4 be implemented, the City of Rohnert Park shall work with the City of Cotati to determine a fair-share portion of improvements to this intersection, and if deemed appropriate, collect a fair-share allocation from the developers of the Sonoma Mountain Village Project. After implementation of this measure, the intersection would operate at an acceptable LOS D during the PM peak hour, reducing the impact to a less-than-significant level.

However, since the intersection is controlled by the City of Cotati, the project sponsor and the City can not ensure that the City of Cotati will support and permit construction of these or other equally effective improvements. Policies TR-21A and TR-21B in the Rohnert Park General Plan call for the City to cooperate with neighboring jurisdictions to address regional traffic problems and contribute a fair share of the total mitigation costs. Specific infrastructure improvements and costs remain unknown for traffic mitigation projects in the City of Cotati, and correspondingly, the feasibility and effectiveness of such mitigation measures also remains unknown. For this reason the impact is considered significant and unavoidable.

### **Impact 3.13-11**

*Under Cumulative Conditions, the addition of project traffic would cause delay to reach unacceptable levels at the LaSalle Avenue/East Cotati Avenue intersection (City of Cotati jurisdiction) during the PM peak hour. This would be a significant impact.*

During the PM peak hour, the project would cause an increase in average delay of over five seconds at the all-way stop controlled LaSalle Avenue/East Cotati Avenue intersection. Also, the addition of project traffic would cause the intersection to meet the requirements of the MUTCD Peak Hour Volume Signal Warrant.

### **Mitigation Measure 3.13-11**

3.13-11 To mitigate the project's contribution to the Cumulative impact at the Old Redwood Highway/East Railroad Avenue intersection, Mitigation Measure 3.13-5 would be implemented. This mitigation measure would signalize the intersection.

Should Mitigation Measure 3.13-5 be implemented, the City of Rohnert Park shall work with the City of Cotati to determine a fair-share portion of funds to signalize this intersection, and if deemed appropriate, collect a fair-share allocation from the developers of the Sonoma Mountain Village Project. After implementation of this measure, the intersection would operate at an acceptable LOS B during the PM peak hour, reducing the impact to a less-than-significant level.

However, since the intersection is controlled by the City of Cotati, the project sponsor and the City can not ensure that the City of Cotati will support and permit construction of these or other equally effective improvements. It should be noted that Policies TR-21A and TR-21B in the Rohnert Park General Plan call for the City to cooperate with neighboring jurisdictions to

address regional traffic problems and contribute a fair share of the total mitigation costs. Specific infrastructure improvements and costs remain unknown for traffic mitigation projects in the City of Cotati, and correspondingly, the feasibility and effectiveness of such mitigation measures also remains unknown. For this reason the impact is considered significant and unavoidable.

## **Freeway Segment Impact Analysis**

### **Baseline plus Project**

The traffic generated by the proposed project is added to the Baseline Conditions freeway segment volumes to derive the Baseline plus Project Conditions freeway segment volumes. The Baseline plus Project Conditions levels of service for each freeway segment are intersection is shown in Table 3.13-13.

As shown in Table 3.13-13, with the addition of project-related trips to Baseline freeway volumes, the flow rates would increase at all freeway segments. In the AM peak hour, the segment north of Rohnert Park Expressway, and the segment between Washington Street and Petaluma Boulevard would operate at LOS E in both the northbound and southbound directions. In the PM peak hour, all three freeway segments shown would operate at LOS E in the northbound direction.

### **Impact 3.13-12**

***Under Baseline Conditions, the addition of project traffic would cause the U.S. 101 freeway segment north of Rohnert Park Expressway and the segment between Washington Street and Petaluma Boulevard to operate at unacceptable conditions during both peak hours. This would be a significant impact.***

During both peak hours, the project would cause an increase in v/c ratios of over 0.01 at both freeway segments. With the addition of project-related trips, the v/c ratios at each of the locations described as operating at LOS E would increase by over 0.01, with the exception of the segment between Sierra Avenue and SR-116. An increase in the v/c ratio of over 0.01 means that the established MOE would not be maintained, and the project would create a significant and unavoidable impact.

### **Mitigation Measure 3.13-12**

- 3.13-12 To mitigate the project's impact along U.S. 101, the project sponsor shall contribute funding to the proposed Marin-Sonoma Narrows HOV 101 Widening Project. The City of Rohnert Park shall cooperate with the appropriate agencies to determine a fair-share portion of funds to improve freeway operation, and if deemed appropriate, collect a fair-share allocation from the developers of the Sonoma Mountain Village Project. Also, future residents and employees of the project shall contribute to freeway projects through payment of Sonoma County's quarter-cent sales tax for transportation improvements.

**Table 3.13-13  
Freeway Segment Levels of Service – Baseline plus Project Conditions**

Freeway Segment	Direction	AM Peak Hour						PM Peak Hour					
		Baseline			Plus Project			Baseline			Plus Project		
		Flow Rate	LOS	V/C Ratio	Flow Rate	LOS	V/C Ratio	Flow Rate	LOS	V/C Ratio	Flow Rate	LOS	V/C Ratio
U.S. 101 North of Rohnert Park Expressway	Northbound	<b>2,111</b>	<b>E</b>	<b>0.918</b>	<b>2,192</b>	<b>E</b>	<b>0.953</b>	<b>2,257</b>	<b>E</b>	<b>0.981</b>	<b>2,342</b>	<b>E</b>	<b>1.018</b>
	Southbound	<b>2,159</b>	<b>E</b>	<b>0.939</b>	<b>2,229</b>	<b>E</b>	<b>0.969</b>	1,975	D	0.859	2,059	D	0.895
U.S. 101 between Sierra Avenue and SR-116	Northbound	2,000	D	0.87	2,000	D	0.87	<b>2,148</b>	<b>E</b>	<b>0.934</b>	<b>2,148</b>	<b>E</b>	<b>0.934</b>
	Southbound	1,972	D	0.857	1,982	D	0.862	1,902	D	0.827	1,913	D	0.832
U.S. 101 between Washington Street and Petaluma Boulevard	Northbound	2,018	D	0.877	<b>2,110</b>	<b>E</b>	<b>0.917</b>	<b>2,166</b>	<b>E</b>	<b>0.942</b>	<b>2,276</b>	<b>E</b>	<b>0.990</b>
	Southbound	1,992	D	0.866	<b>2,097</b>	<b>E</b>	<b>0.912</b>	1,919	D	0.834	2,029	D	0.882

Source: PBS&J/DMJM Harris, 2009.

Notes: Flow Rate measured in passenger cars per hour per lane.

Ideal freeway capacity assumed to be 2,300 vehicles per lane.

**Bold** indicates unacceptable LOS.

As such, the project's potential impact to U.S. 101 freeway segments is considered significant and unavoidable.

It should be noted that Long-Range Land Use and Circulation Policies are being developed by the City of Rohnert Park, County of Sonoma, and SCTA. Each of these jurisdictions recognizes that U.S. 101 will experience congestion into the foreseeable future, and that construction of major capacity enhancements such as expansions or new freeways is unlikely. All three jurisdictions concur in various planning and policy documents that long-range solutions to regional mobility must focus on better land use planning that supports transit and alternative transportation modes; stronger jobs-housing balances; and increased support of transportation demand measures.

### **Freeway Segment Impact Analysis**

#### **Cumulative Plus Project**

The traffic generated by the proposed project is added to the Cumulative freeway segment volumes to derive the Cumulative plus Project Conditions freeway segment volumes. The Cumulative plus Project Conditions levels of service for each freeway segment are shown in Table 3.13-14.

As shown in Table 3.13-14, with the addition of project trips to Cumulative freeway volumes, the flow rates would increase at all freeway segments. In the AM peak hour, all three segments shown in Table 3.13-14 would operate at unacceptable conditions in both the northbound and southbound directions. In the PM peak hour, the segment north of Rohnert Park Expressway would operate at unacceptable conditions in both directions, and the other two segments would operate at unacceptable conditions in the northbound direction only.

#### **Impact 3.13-13**

*Under Cumulative Conditions, the addition of project traffic would cause the U.S. 101 freeway segment north of Rohnert Park Expressway and the segment between Washington Street and Petaluma Boulevard to operate at unacceptable conditions during both peak hours. This would be a significant impact.*

During both AM and PM peak hours, the project would cause an increase in v/c ratios of over 0.01 at both freeway segments. With the addition of project-related trips, the v/c ratios at each of the locations described as operating unacceptably would increase by over 0.01, with the exception of the segment between Sierra Avenue and SR-116. An increase in the v/c ratio of over 0.01 means that the established MOE would not be maintained and the project would create a significant and unavoidable impact.

**Table 3.13-14  
Freeway Segment Levels of Service – Cumulative plus Project Conditions**

Freeway Segment	Direction	AM Peak Hour						PM Peak Hour					
		Baseline			Plus Project			Baseline			Plus Project		
		Flow Rate	LOS	V/C Ratio	Flow Rate	LOS	V/C Ratio	Flow Rate	LOS	V/C Ratio	Flow Rate	LOS	V/C Ratio
U.S. 101 North of Rohnert Park Expressway	Northbound	<b>2,374</b>	<b>F</b>	<b>1.032</b>	<b>2,455</b>	<b>F</b>	<b>1.067</b>	<b>2,442</b>	<b>F</b>	<b>1.062</b>	<b>2,527</b>	<b>F</b>	<b>1.099</b>
	Southbound	<b>2,591</b>	<b>F</b>	<b>1.127</b>	<b>2,661</b>	<b>F</b>	<b>1.157</b>	<b>2,157</b>	<b>E</b>	<b>0.938</b>	<b>2,242</b>	<b>E</b>	<b>0.975</b>
U.S. 101 between Sierra Avenue and SR-116	Northbound	<b>2,097</b>	<b>E</b>	<b>0.912</b>	<b>2,097</b>	<b>E</b>	<b>0.912</b>	<b>2,158</b>	<b>E</b>	<b>0.938</b>	<b>2,158</b>	<b>E</b>	<b>0.938</b>
	Southbound	<b>2,289</b>	<b>E</b>	<b>0.995</b>	<b>2,300</b>	<b>E</b>	<b>1.000</b>	1,906	D	0.829	1,917	D	0.833
U.S. 101 between Washington Street and Petaluma Boulevard	Northbound	<b>2,120</b>	<b>E</b>	<b>0.922</b>	<b>2,211</b>	<b>E</b>	<b>0.961</b>	<b>2,181</b>	<b>E</b>	<b>0.948</b>	<b>2,291</b>	<b>E</b>	<b>0.996</b>
	Southbound	<b>2,315</b>	<b>E</b>	<b>1.007</b>	<b>2,421</b>	<b>F</b>	<b>1.053</b>	1,927	D	0.838	2,037	D	0.886

Source: DMJM Harris, 2009.

Notes: Flow Rate measured in passenger cars per hour per lane.

Ideal freeway capacity assumed to be 2,300 vehicles per lane.

**Bold** indicates unacceptable LOS.

### Mitigation Measure 3.13-13

3.13-13 To mitigate the project's impact along U.S. 101, the project sponsor shall contribute funding to the proposed Marin-Sonoma Narrows HOV 101 Widening Project. The City of Rohnert Park shall cooperate with the appropriate agencies to determine a fair-share portion of funds to improve freeway operation, and if deemed appropriate, collect a fair-share allocation from the developers of the Sonoma Mountain Village Project. Also, future residents and employees of the Project shall contribute to freeway projects through payment of Sonoma County's quarter-cent sales tax for transportation improvements.

As such, the project's potential impact to U.S. 101 freeway segments would be considered significant and unavoidable.

It should be noted that Long-Range Land Use and Circulation Policies are being developed by the City of Rohnert Park, County of Sonoma, and SCTA. Each of these jurisdictions recognizes that U.S. 101 will experience congestion into the foreseeable future, and that construction of major capacity enhancements such as expansions or new freeways is unlikely. All three jurisdictions concur in various planning and policy documents that long-range solutions to regional mobility must focus on better land use planning that supports transit and alternative transportation modes, stronger jobs-housing balances, and increased support of transportation demand measures.

## **Construction Period Traffic**

### **Impact 3.13-14**

*During the construction period, temporary and intermittent traffic delays would result from truck movements as well as construction worker vehicles traveling to and from the project site. This construction-related traffic would result in a temporary reduction to the capacities of project area streets because of the slower movements and larger turning radii of construction trucks compared to passenger vehicles. Truck traffic that occurs during the peak commute hours (7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 6:00 p.m.) could result in worse levels of service and higher delays at local intersections than during off-peak hours. Also, parking of construction workers' vehicles would temporarily increase parking occupancy levels in the area. This would be a potentially significant impact.*

### Mitigation Measure 3.13-14

3.13-14 Prior to the issuance of each major building permit, the project sponsor and construction contractor shall develop a construction traffic management plan for review and approval by City staff. Construction traffic management strategies to reduce, to the maximum extent feasible, traffic congestion and the effects of

parking demand by construction workers shall be provided for in the Plan, which shall include at least the following items and requirements:

- A set of comprehensive traffic control measures, including scheduling of major truck trips and deliveries to avoid peak traffic hours, detour signs if required, lane closure procedures, signs, cones for drivers, and designated construction access routes.
- Notification procedures for adjacent property owners and public safety personnel regarding when major deliveries, detours, and lane closures would occur.
- Location of construction staging areas for materials, equipment, and vehicles (shall be located on the project site).
- Identification of haul routes for the movement of construction vehicles that would minimize impacts on vehicular and pedestrian traffic, circulation and safety.
- Provisions for monitoring surface streets used for truck routes so that any damage and debris attributable to the trucks can be identified and corrected.
- Subject to City review and approval, and prior to start of construction, a construction worker transportation demand management (TDM) program shall be implemented to encourage construction workers to carpool or use alternative transportation modes in order to reduce the overall number of vehicle trips associated with construction workers.
- A process for responding to, and tracking, complaints pertaining to construction activities, including the identification of an onsite complaint manager.

The implementation of Mitigation Measure 3.13-14 would reduce Impact 3.13-14 regarding construction period traffic to a less-than-significant level.

## **Impact Criterion #2**

### ***Hazards: Would the project generate hazards to safety from design features?***

No internal traffic or circulation features have been identified as specific hazards with respect to vehicular, bicycle, and pedestrian safety. As noted previously in Chapter 2, Project Description, of this EIR, it is the project sponsor's intent to design streets that characterize "small block perimeter design" to create an interconnected street network and encourages pedestrian travel in accordance with provisions of the SmartCode. The street network is designed to align with other existing streets in the project area.

The project is also proposed to establish linkages to off-site locations via a bike trail proposed along the east side of the Northwestern Pacific Railroad right-of-way and (if requested) the addition of a Class 1 bike lane along the southern portion of Bodway Parkway on the east side of the property. Although no significant hazard impact is identified, as the project's *Final Development Plan* is refined in the future (Figure 2-3 in Chapter 2, Project Description), the Plan shall incorporate the following mitigation measure to ensure safe and adequate internal circulation so the project would not generate hazards to safety from design features under Impact Criterion #2:

#### Mitigation Measure 3.13-15

3.13-15 The project sponsor shall:

- Design all internal roadways in accordance with Fire Department standards; provide adequate Fire Department turning radii at all intersections;
- Provide adequate access for trash collection vehicles;
- Avoid dead-end streets, or provide a turnaround at any dead-end street terminus;
- Minimize vehicle connections to Camino Colegio. Focus traffic on internal roadways to the two primary intersections;
- Avoid acute angle intersections;
- Avoid off-set intersections; and
- Provide adequate sight distance at all intersections in accordance with City Public Works Department standards.

All sidewalks and pedestrian ramps bordering the project site would be reconstructed and upgraded to full Americans with Disabilities Act (ADA) compliance.

### **Impact Criterion #3**

#### ***Emergency Access: Would the project provide inadequate emergency access?***

As indicated on Figure 2-3 in Chapter 2, Proposed Project Final Development Plan Rendering, project site access would be provided at six locations along Camino Colegio, seven locations along Bodway Parkway, and a single entry extending north from East Railroad Avenue for a total of 14 access/egress points.

Rohnert Park General Plan Policy HS-24 requires adequate access for emergency vehicles, “including adequate street width and vertical clearance, on new streets,” which would be designed for the project in accordance with the Street Standard Emergency Management Plan established by the Rohnert Park Department of Public Safety subject to approval by the City. The implementation of Mitigation Measure 3.13-15 would further insure that the project would not provide inadequate emergency access impact under Impact Criterion #3 regarding emergency access.



**Impact Criterion #4**

**Parking: *Would the project provide insufficient parking or capacity?***

Project parking standards, including parking sharing standards, for each Transect Zone would be as specified in the SmartCode (Appendix J). The standards would vary according to specific land use within each of the Transect Zones. Parking standards are provided for residential (1.0 to 2.0 spaces/dwelling), lodging (1.0 spaces per bedroom), office 2.0 to 3.0 spaces per 1,000 sf.), retail (3.0 to 4.0 spaces per 1,000 sf) and civic land uses for each of the Transect Zones. Parking spaces in the Civic Parking Reserve may be leased or bought from the Reserve to satisfy parking requirements for future individual or collective lot owners. Funding mechanisms for the construction of these parking reserves is to be determined. Parking sharing factors are as detailed in the SmartCode to reduce parking requirements in mixed-use buildings.

This EIR evaluates whether the project’s estimated parking supply would meet the City’s Municipal Code requirements for off-street parking. According to the City’s Municipal Code requirement (17.16.020 Basic requirements for off-street parking), the proposed project would require a total of 7,547 vehicle parking spaces, as shown in Table 3.13-15.

**Table 3.13-15  
Municipal Code Required Parking**

Land Use	Size	Unit	Municipal Code Requirement	Required Spaces
Single Family Detached Housing	324	DU	2 per unit	648
Residential Condominium/Townhouse	1,370	DU	2 per unit, plus 1 per every 4 units	3,083
Residential Condominium/Townhouse	198	DU	2 per unit, plus 1 per every 4 units	466
Shopping Center	146.8	KSF	1 per 300 sf	489
Supermarket	45	KSF	1 per 200 sf	225
General Office Building	425.9	KSF	1 per 250 sf	1,704
Hotel	100	Rooms	1 per room, plus 1 per employee on largest shift	120
Movie Theater with Matinee	25	KSF	1 per 4 seats <sup>a</sup>	372
Health/Fitness Club	30	KSF	1 per 100 sf	300
Recreational Community Center	35	KSF	1 per 250 sf	140
<b>Total</b>	—	—	—	<b>7,547</b>

Source: PBS&J, 2009.

Notes: DU = Dwelling Units; KSF = 1,000 sf

a. Assumes a relationship of 59.5 seats per 1,000 sf based on data provided in ITE, *Trip Generation*, 7th Edition, 2004.

It has not been determined at this time exactly how many parking spaces would be provided in the proposed project. However, the project would be required to provide the minimum number of spaces required by the Municipal Code unless determined otherwise by the City. It is worth noting that per the Municipal Code, a reduction of up to 25 percent of the spaces required for a combination of uses may be allowed where findings are made indicating that the uses share a common parking area and the demand for parking occurs over different time periods. Also, parking space reductions of up to 10 percent may be permitted by the planning and community development director or designee, if a rideshare, transit incentive program, or other transportation system management program is provided.

The total number of parking spaces to be required by the proposed project could be a policy decision for inclusion in a Development Agreement with the project sponsor pursuant to Title 17 of the Zoning Code, Chapter 17.21. In reviewing an application for a Development Agreement, the Planning commission and City Council are to give consideration to project development factors including the amount of parking to be provided for the project. Conformance with the Municipal Code regarding parking and/or City approval for the amount of parking to be provided for the project as proposed under the SmartCode would indicate the project would provide sufficient parking or capacity under Impact Criterion #4.

#### **Impact Criterion #5**

##### ***Barriers: Would the project establish hazards or barriers for pedestrians or bicyclists?***

The project proposes to establish linkages to off-site locations via a bike trail along the east side of the Northwestern Pacific Railroad right-of-way and, (if requested) the addition of a Class 1 bike lane along the southern portion of Bodway Parkway on the east side of the property. The project proposal includes shopping, community events and entertainment functions accessible to residents throughout the project site via bicycle and pedestrian connections. No off-site construction as part of the project is anticipated that would permanently establish barriers for pedestrians or bicyclists. All circulation features would be subject to City Design Review. Therefore, the project would not be anticipated to establish hazards barriers for pedestrians or bicyclists under Impact Criterion #5. See also the discussion above under Impact Criterion #2.

For informational purposes, bicycle needs are intended to be met by the City through a combination of the existing Class I bike path along Camino Colegio which runs from the intersection of Camino Colegio and Bodway Parkway and its connection to the existing Class II bike lanes that run along East Cotati Avenue, as well as planned Class II bike lane facilities that will run along Petaluma Hill Road and Bodway Parkway extending to the SSU campus.

#### **Impact Criterion #6**

##### ***Transportation Policies: Would the project conflict with adopted policies supporting alternative transportation?***

Refer to the discussion above regarding pedestrian and bicycle travel under Impact Criterion #5.

The Sonoma Mountain Village project and its development components shall be consistent with the relevant goals and policies of the General Plan. The project is evaluated for conformance with the provisions of the General Plan in Section 3.10, Planning Policy and Relationship to Plans. No conflicts of the project respecting policies supporting alternative transportation modes are noted.

Transit trip generation projected for the project was based on 2000 Census Journey to Work data. The project site lies within Census Tract 1513.11. According to the data presented for this census tract, about two percent of project trips can be expected to use public transit. This corresponds to approximately 27 AM peak hour trips (13 inbound, 14 outbound) and 42 PM peak hour trips (21 inbound, 21 outbound). This less than substantial level of ridership increase spread out over the five nearby local transit routes and four regional transit routes is not expected to cause overall ridership to exceed capacity.

The project's modest increased demand for transit services would encourage greater ridership on preexisting transit lines, resulting in enhanced use and effectiveness of existing transit resources and pedestrian and bicycle circulation within the project site as facilitated by a network of sidewalks and bicycle paths to be developed along with the roadway system. Therefore, there would be no adverse impact under Impact Criterion #6 regarding conflicts with adopted policies supporting alternative transportation.

In addition, it should be noted that a goal of the project is to reduce traffic generation by reducing the need to move long distances, and by reducing the need for fossil-fuel-based modes in general. The project would emphasize a pedestrian and bicycle lifestyle, locate jobs, restaurants, and services in close proximity to residences and create live/work opportunities. To support a low-carbon transportation system, the project plans include the provision of a biodiesel filling station, electric car charging stations, a plug-in hybrid carshare program, a rideshare program, and a program to promote bicycling providing either free bicycles or bicycle maintenance for several years. Also, the project would implement a 'walking bus' program to get kids to school safely without the need for driving.

The project Final Development Plan recognizes the existing former Northwestern Pacific Railroad right-of-way along the west margin of the project site as a possible future rail commute corridor, with a potential station located at East Cotati Avenue and Santero Way approximately 0.5 mile northwest of the northern section of the project site, and 1.25 miles northwest of the southern section of the project site. Should a commute corridor come to fruition, pedestrian and bicycle access as proposed throughout the site would include signage to emphasize connections north to the commuter station.

### **Impact Criterion #7**

#### **Transportation Modes: *Would the project generate rail, waterborne or air traffic impacts?***

The Sonoma Mountain Village project focuses on residential, office and retail land uses to the exclusion of industry and heavy manufacturing. Therefore, the project would not generate or produce large quantities of goods requiring transport to or from consumer destinations thereby taxing rail, waterborne or air traffic. The project site is not located adjacent to an active freight railroad facility,

water body or water transport facility, or airport. Therefore, there would be no adverse impact under Impact Criterion #7 regarding the generation of rail, waterborne or air traffic. It is acknowledged that if the Northwestern Pacific Railroad right-of-way along the west margin of the project is ever put to use as a commuter railroad under SMART, such a facility would be conveniently and closely available for use by project residents and businesses.

### **Cumulative Development**

Under Cumulative plus Project conditions, as noted under Impacts 3.13-6 through 3.13-11, a number of local intersections would operate at an unacceptable LOS with the addition of project traffic to the cumulative traffic volumes. However, these traffic impacts can be mitigated to less-than-significant levels and compliance with the mitigation measures as described would ensure the project's cumulative contribution would be reduced to a less-than-considerable level, rendering the cumulative impact less-than-significant under Impact Criterion #1. Under cumulative development conditions, as noted under Impact 3.13-13, the addition of project traffic would cause the U.S. 101 freeway segment north of Rohnert Park Expressway and the segment between Washington Street and Petaluma Boulevard to operate at unacceptable conditions during both AM and PM peak hours. The established MOE would not be maintained and the project would create a significant and unavoidable impact.

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## 3.14 UTILITIES

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### Introduction

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This section of the EIR describes existing utility services that would serve the Sonoma Mountain Village project site and addresses potential impacts the project would have on utility service providers. The setting is described followed by an analysis of the potential for utility service impacts in accordance with specified City of Rohnert Park impact significance criteria. Utility services described in this section include wastewater, stormwater drainage, domestic water supply, solid waste disposal, hazardous waste disposal, and energy.

### Setting

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#### Wastewater<sup>1</sup>

Rohnert Park is a partner in the City of Santa Rosa Subregional Water Reuse System, which recycles water and distributes it on behalf of the cities of Cotati, Rohnert Park, Santa Rosa, and Sebastopol, and portions of the unincorporated area of Sonoma County. The City of Santa Rosa is the managing partner of the system and has a contractual obligation to meet the wastewater treatment and disposal needs of the other partners. Wastewater from the subregional system is treated at the Laguna Water Reclamation Treatment Plant (Laguna Plant), located about two miles northwest of Rohnert Park.

The Laguna Plant provides primary, secondary, and tertiary wastewater treatment and has a current capacity rating of 21.3 million gallons a day (mgd), 3.43 mgd of which is allocated to Rohnert Park.<sup>2</sup> Disposal of recycled water from the system is by means of a combination of methods, including discharge to the Russian River, urban irrigation, created wetlands, and agricultural irrigation. More than 50 percent of the wastewater treated at the Laguna Plant (nearly 4 billion gallons annually) is reused for urban and agricultural irrigation, including approximately 5,700 acres of farmlands (pastures, hay crops, vineyards, and row crops) as well as golf courses, parks, school grounds, and both public and private urban landscaping. This system is one of the largest reclaimed water agricultural irrigation systems in the country. All of the water produced during the summer months is used for irrigation, and all of the winter water that can be stored is saved for irrigation for the following summer. River discharge of tertiary treated wastewater is conducted only as necessary during

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<sup>1</sup> Unless otherwise cited, the information in this subsection was derived from the following sources: City of Rohnert Park General Plan, 2000; Rohnert Park, *General Plan Revised Draft Environmental Impact Report*, 2000; City of Santa Rosa, Laguna Treatment Plant, <http://ci.santa-rosa.ca.us/departments/utilities/treatment/treatment/Pages/default.aspx>, accessed June 19, 2009; Sonoma Mountain Village Water Plan August 5, 2009; Sonoma County Water Agency, *Urban Water Management Plan*, 2005 (adopted August 2007).

<sup>2</sup> Primary wastewater treatment removes settleable and floatable solids from the wastewater stream. Secondary treatment removes additional suspended solids and to reduce the biological oxygen demand via activated sludge (microbial action). Tertiary treatment removes nutrients like nitrogen and phosphorus from the wastewater stream.

wet weather. After treatment, tertiary water is stored in containment ponds. Water levels in the ponds are monitored, and during times when they reach maximum capacity, water is discharged into the Laguna de Santa Rosa, which flows to the Russian River and empties into the Pacific Ocean. Based on the City of Santa Rosa's National Pollutant Discharge Elimination System (NPDES) permit for the Laguna Plant, discharge is permitted from October to May and may not exceed 5 percent of the Russian River flow.

To reduce river discharges, the City implemented the Geysers Recharge Project, which transports an average of 11 mgd (or about half of the Laguna Plant's average dry weather flow) of reclaimed water a day to the Geysers steamfield for the generation of electricity.<sup>3</sup> The implementation of the Geysers Recharge Project, which included the construction of a 42-mile, 30-to-48-inch diameter underground pipeline, and the 2008 Geyer Expansion Project, in which the City of Santa Rosa made an agreement with Calpine to expand the capacity by up to 3,209 mg, would increase the Laguna Plant's capacity from 19.2 mgd to 25.9 mgd.<sup>4</sup> All expansion projects would be funded by the City of Santa Rosa and the City of Rohnert Park on a fair share basis.

An Incremental Recycled Water Program (IRWP) has been developed to provide treatment, recycling, and/or disposal of the wastewater generated by the Subregional Water Reuse System members. To achieve the IRWP objectives, the future system must be capable of providing adequate, reliable capacity to accommodate future flows generated by population and employment growth of the member entities. An IRWP Master Plan was developed in 2004 and updated in August 2007 to accommodate wastewater flows through 2020. The IRWP Master Plan identifies potential alternatives that could be used to address the additional wastewater flows into the Subregional Water Reuse System from increased population growth from the cities of Rohnert Park and Santa Rosa, as a result of updating their general plans. When additional capacity is needed, all partners in the subregional wastewater disposal system, including Rohnert Park, would be encumbered with the requirement to contribute to the development of additional facilities.

## **Stormwater<sup>5</sup>**

Rohnert Park's storm drainage system is under joint management by the City and Sonoma County Water Agency (SCWA). The City maintains responsibility for the system of underground pipes that provides for minor and intermediate drainage, while SCWA maintains the system of open channels that diverts major drainage flows west towards the Laguna de Santa Rosa. Both the open channels and pipe systems are designed to meet SCWA standards and comply with the National Flood Hazard Insurance Program (Section 3.7 of this EIR, Hydrology and Water Quality, provides additional information regarding stormwater drainage facilities).

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<sup>3</sup> City of Santa Rosa, <http://ci.santa-rosa.ca.us/departments/utilities/irwp/geysers/Pages/default.aspx>, accessed July 27, 2007.

<sup>4</sup> City of Santa Rosa, *Incremental Recycled Water Program Geysers Expansion Project Addendum and checklist*, July 27, 2007.

<sup>5</sup> Information contained in this subsection was obtained from the *2000 Rohnert Park General Plan, 4<sup>th</sup> Edition*.

## Water

### Domestic Water Supply

The Sonoma County Water Agency (SCWA) is the primary water supplier for the City of Rohnert Park. The SCWA supplies the City with water from the Petaluma Aqueduct (which obtains the majority of its water from the Russian River). Other sources of water utilized by the City include groundwater and recycled water.<sup>6</sup>

#### *Sonoma County Water Agency*

SCWA provides potable water to a total population of more than 600,000 people in Sonoma and Marin Counties.<sup>7</sup> Water is delivered, on a wholesale basis, to SCWA customers, collectively known as water contractors, through the SCWA water transmission system. The primary water customers consist of the cities of Rohnert Park, Santa Rosa, Petaluma, Cotati, Sonoma, and the Town of Windsor; and the North Marin and Valley of the Moon Water Districts. It also has other customers, to which it sells water on a non-contract basis: California American Water Company, Kenwood, Lawndale, Penngrove, Forestville Water District, and Marin Municipal Water District. Each of the SCWA water contractors is responsible for maintaining its own distribution system, including storage tanks and pumping stations.<sup>8</sup> SCWA's relationship with its contractors is governed by the Restructured Agreement for Water Supply (Restructured Agreement), adopted in 2006. SCWA and its contractors are also party to a Memorandum of Understanding Regarding Water Transmission System Capacity Allocation during Temporary Impairment (MOU), which expires in September of 2008.<sup>9</sup> These agreements are described briefly below.

SCWA's principal water source is from the Russian River watershed. The Russian River drains a watershed of approximately 1,500 square miles, from the river's headwaters in Mendocino County to the mouth at Jenner. There are two federal reservoir systems in the watershed: Coyote Valley Dam, forming Lake Mendocino in Mendocino County, and Warm Springs Dam, on Dry Creek (a tributary to the Russian River), forming Lake Sonoma in Sonoma County. Lake Sonoma provides water for agriculture, municipal, and industrial uses, in addition to augmenting the minimum stream flows required by SCWA water rights permits through periodic releases. Most of the stream flow in the upper Russian River during the summer is provided by an interbasin transfer of water from the Eel River (via the Potter Valley Project's Lake Pillsbury), where water is diverted through PG&E power plants and released into the upper reaches of the East Fork of the Russian River. Minimum stream flows provide recreation and fish passage for salmon and steelhead.

As early as 1954, the SCWA applied to the State Water Resources Control Board (SWRCB), which has the authority over water rights, for rights to appropriate Russian River water. Riparian water rights

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<sup>6</sup> City of Rohnert Park, *Urban Water Management Plan*, 2005 (adopted August 2007).

<sup>7</sup> Sonoma County Water Agency, [http://www.scwa.ca.gov/about\\_us/](http://www.scwa.ca.gov/about_us/), accessed January 9, 2008.

<sup>8</sup> Sonoma County Water Agency, *Urban Water Management Plan*, 2005 (adopted August 2007)..

<sup>9</sup> PBS&J, *Sonoma Mountain Village, Water Supply Assessment*, July 2008.

entitle the owner of land containing or abutting a natural stream the right to use natural flows by direct diversions for beneficial purposes without a permit. If water is to be stored for use in another season, owners must obtain an appropriative water rights permit. The SCWA is required to maintain minimum stream flows at various points on the Russian River and Dry Creek in accordance with its water rights permits. The SCWA currently holds rights to divert 75,000 AFA of water, although SCWA has applied to the State Water Resources Control Board (SWRCB) to increase this limit to 101,000 AFA. A secondary source of water for the SCWA is groundwater, from wells located in the central Santa Rosa Plain subbasin. The SCWA plans to limit future groundwater pumping to 3,870 AFA, about 5 percent of its total annual supply.<sup>10</sup> The City's UWMP assumes that SCWA groundwater will only be used for emergencies and will not be part of the permanent water supply mix.

The 33-inch Petaluma Aqueduct, completed in 1962, provides water to Rohnert Park, in addition to the cities of Petaluma and Cotati and the North Marin Municipal Water District (NMMWD). The source of the Petaluma Aqueduct water is Lake Sonoma. This water is released and conveyed down Dry Creek to the Russian River, where it is diverted into the SCWA basins.<sup>11</sup> Rohnert Park has 12 active connections to the Petaluma Aqueduct.<sup>12</sup>

**The Water Supply, Transmission, and Reliability Project (Water Project):** In November 2004, SCWA adopted a resolution to prepare an EIR for the Water Project, a proposed expansion of services. The Water Project would provide a reliable water supply for future needs in the SCWA's service area, which would be achieved through an increase in SCWA's diversion rights (from 75,000 AFA to 101,000 AFA) and an expansion of its facilities. At this time, the EIR has not been completed or certified, and permits for increased diversions have not been secured.

**Restructured Agreement for Water Supply (Restructured Agreement):**<sup>13</sup> As described above, SCWA's relationship with its contractors is governed by the Restructured Agreement, adopted in 2006. This contractual document outlines how SCWA's water rights are allocated among its contractors in normal water years. Although diversions are currently at 75,000 AFA, water allotments to each contractor in the Restructured Agreement are premised on the assumption that SCWA's diversion/rediversion water rights will be increased to 101,000 AFA in the future. The City's annual maximum entitlement from SCWA is 7,500 AFA. SCWA's current water rights are highly reliable and there are no actions pending before the SWRCB that would in any way modify the current diversion rights.<sup>14</sup> However, SCWA's current water rights will not allow it to meet all of the water allocation commitments in the Restructured Agreement, which is based on a total SCWA water right of 101,000 AFA. The Water Shortage Allocation Methodology was used to estimate the amount of water the City could expect if SCWA's water rights remain limited to 75,000 AFA and SCWA groundwater was not used. This analysis yielded an expected supply of 6,372 AFA for the City of Rohnert Park.

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<sup>10</sup> Sonoma County Water Agency, *Urban Water Management Plan*, 2005 (adopted August 2007).

<sup>11</sup> City of Rohnert Park, *General Plan Revised Draft Environmental Impact Report*, 2000, p. 4-137.

<sup>12</sup> Sonoma County Water Agency, *Urban Water Management Plan*, 2005(adopted August 2007).

<sup>13</sup> PBS&J, *Sonoma Mountain Village, Water Supply Assessment*, June 2008.

<sup>14</sup> City of Rohnert Park, *Urban Water Management Plan*, 2005 (adopted August 2007), p. 3-7.



**Memorandum of Understanding, Water Transmission System Capacity Allocation during Temporary Impairment (MOU):** The purpose of the MOU is to establish a procedure to optimize allocation of the available supply of SCWA water among the eight contractors during periods of temporary impairment in SCWA's transmission system capacity. As part of the MOU, a temporary delivery capacity allocation, which remains in effect until September 30, 2008, was developed. Under the Temporary Impairment MOU, the City agreed to use its best efforts to limit its peak demand during Periods of Temporary Impairment to 5.4 mgd, although the SCWA's annual allocation of 7,500 AFA remains unchanged.<sup>15</sup>

### *Groundwater Municipal Wells*

According to the Rohnert Park 2005 Urban Water Management Plan (UWMP), the rated production capacity of the Rohnert Park municipal wells is 6.3 mgd. The reliable capacity is 4.0 mgd (two thirds of the rated production capacity with the largest well out of service). Resolution No. 2004-95 (the Water Policy Resolution), which was adopted on April 27, 2004, specifies that new development outside of the current City limits will not be approved if it would contribute to the City exceeding an average annual pumping rate of approximately 2,577 acre feet annually (AFA).<sup>16</sup>

### *Recycled Water*

Rohnert Park is currently a partner in the Subregional Water Reclamation System, owned and operated by the City of Santa Rosa, which provides wastewater treatment, disposal, and recycled, tertiary-treated wastewater to participating partners. Rohnert Park is the largest user of recycled water of the Subregional System partners, and has historically used as much as 1,165 AFA of recycled water. Recycled water use has averaged about 1,000 AFA since 2000.<sup>17</sup> The City of Rohnert Park's 2005 UWMP anticipates that the City could use as much as 300 AFA more recycled water for landscape irrigation in areas of new growth by 2015. A supply of 1,300 AFA of recycled water is anticipated to be available by 2015.

### *Municipal Water Infrastructure*

Rohnert Park's existing water distribution system is divided into two pressure zones. Most of the distribution mains are six to eight inches in diameter, although a small number of pipes with diameters of 10 to 12 inches are also used. Approximately 8,900 service connections supply water to residents, commercial businesses, and multi-family residents. Seven storage facilities located throughout Rohnert Park serve the water supply system. One reservoir of 1.3 million gallons, two reservoirs of 1 million gallons, and four reservoirs of 0.3 million gallons each make up Rohnert Park's total 4.5 million gallon storage capacity. The primary source of the City's drinking water is supplied by SCWA. SCWA's main aqueduct line runs north to south along the Northwestern Pacific Railroad tracks with 12 turnouts along this route feeding water directly into the City's water distribution system. Thirty one operational

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<sup>15</sup> *Ibid.*

<sup>16</sup> *Ibid.*

<sup>17</sup> *Ibid.*

wells, used primarily during the summer months, are located throughout the City. The water from the wells is pumped directly into the water distribution system.<sup>18</sup>

In June 2006, the City adopted a Public Facilities Finance Plan Update to fund infrastructure and storage to produce and distribute up to 1,480 AFA of recycled water, assuming there is sufficient demand.<sup>19</sup> The fees proposed in this plan provide a funding mechanism for the construction of 300 AFY of new recycled water storage.

### *Water Quality and Treatment*

The City's water supply and water system are regulated by the California Department of Public Health (CDPH), which requires that the City's water supply be tested on a regular basis to guarantee water quality. Tests are conducted to assure that maximum contaminant levels are not exceeded. The City and SCWA have conducted tests continually, and water supplies have consistently met primary and secondary drinking water standards.<sup>20</sup>

The City periodically obtains well water samples and submits them for laboratory analysis. The laboratory tests are capable of detecting minute levels of bacteria, pesticides, herbicides, fungicides, organic chemicals, inorganic chemicals, nitrates, radioactivity, corrosivity, triholomethanes, iron, manganese, and other substances, for a total of 139 separate items.

### Domestic Water Demand

#### *Total Demand*

In 2005, Rohnert Park consumed an average of 0.76 mgd (846 AFA) of water from its municipal wells, 4.20 mgd (4,697 AFA) of water from SCWA, and 1.01 mgd (1,135 AFA) of recycled water for a total of 5.96 mgd (6,678 AFA). In 2005, the City's population was approximately 41,640.<sup>21</sup> The UWMP estimates the City's water demand by calculating historic demand and consumption data by land uses. Adjustments are then made for plumbing code changes and water conservation practices and then applied to the land uses proposed under the General Plan. At General Plan buildout (assumed to be 2020), the expected potable water demand would be 7,325 AFA.<sup>22</sup>

#### *Water Conservation*

In 2002, the City signed the California Urban Water Conservation Council's MOU regarding Urban Water Conservation in California. In so doing, the City committed to implement 14 Best Management Practices (BMPs) for reducing general water consumption throughout the City. BMPs integrated into the MOU include metering with commodity rates for all new connections; system water audits, leak

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<sup>18</sup> Mike Bracewell, Public Works Supervisor, Utilities Services, Rohnert Park, electronic communication, February 28, 2005.

<sup>19</sup> City of Rohnert Park, Urban Water Management Plan, 2005 (adopted August 2007).

<sup>20</sup> *Ibid.*

<sup>21</sup> Sonoma County Water Agency, Urban Water Management Plan, 2005.

<sup>22</sup> City of Rohnert Park. 2007. 2005 Urban Water Management Plan (adopted August 2007).. Table 6-4, p. 6-4

detection, and repair; public education programs; and other practices for water use reduction. The City has also adopted a Water Waste Ordinance, which requires the use of recycled water when it is available and of appropriate quality.<sup>23</sup>

At a regional level, the SCWA implements water conservation BMPs and assists its water contractors in implementing water conservation programs. SCWA's 2005 UWMP describes existing and proposed water conservation programs within the SCWA service area and describes implementation status, implementation schedule, program effectiveness, and estimated water savings for each of its water contractors.

### *Water Regulations*

SB 221 and SB 610, effective January 1, 2002, were passed to advance water supply planning efforts in the State of California. The two bills coordinate local water supply and land use decisions to help provide California's cities and counties with adequate water supplies. SB 221 prohibits a city or county from approving a residential subdivision of more than 500 units unless there is written verification that a sufficient water supply is, or will be, available for the development. SB 610 requires cities and counties to obtain water supply assessments (WSA) when considering approval of certain development projects, to determine whether projected water supplies can meet the project's anticipated water demand. The projects as defined include residential development of 500 or more dwelling units or other projects with an equivalent water demand. The WSA that would be required as part of the CEQA process would include an identification of existing water supply assessments, water rights, or water service contracts relevant to the identified water supply for the proposed project and water received in prior years pursuant to those entitlements, rights, and contracts. If the water demand for the proposed development has been accounted for in a recently adopted UWMP, the water supplier may incorporate information contained in that Plan to satisfy certain requirements of a WSA.

The proposed Sonoma Mountain Village project would include up to approximately 1,694 dwelling units and over 800,000 sf of mixed uses, which is over the 500-unit threshold, and is therefore subject to SB 610. A WSA for the proposed project has been prepared and is included in this EIR as Appendix G.

### **Solid Waste**

The Integrated Waste Division of the Sonoma County Transportation and Public Works Department manages municipal solid waste disposal for the County. The existing solid waste management system includes a blend of private and public sector haulers, facilities, and facility operators. Solid waste transfer and disposal facilities are owned and run by the County and serve cities as well as unincorporated areas. These facilities consist of five transfer stations, the Central Disposal Site, and the Central Landfill. The Sonoma County Transportation and Public Works Department, jointly with the Sonoma County Waste Management Agency (SCWMA), also helps maintain the County Integrated Waste Management Plan (CoIWMP), which is a planning document designed to demonstrate reduction

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<sup>23</sup> Rohnert Park, Chapter 13.62, Rohnert Park Municipal Code, 2004.

of the amount of solid waste landfilled, long-term ability to ensure the implementation of countywide diversion programs, and the provision of adequate disposal capacity for local jurisdictions. SCWMA, formed in 1992, is the joint powers authority of Sonoma County and its nine cities. The main focus of SCWMA's efforts is the implementation of regional waste diversion programs.

The City of Rohnert Park is responsible for solid waste collections and diversions within the incorporated City limits. The collection and disposal of waste within the City is provided by Rohnert Park Disposal Company. Municipal solid waste is transported to the Central Disposal Site near Petaluma, approximately five miles southwest of Rohnert Park, in unincorporated Sonoma County. The Central Disposal Site does not currently landfill any waste. All solid waste delivered to the County's disposal sites, including the Central Disposal Site, is transferred to private landfills outside Sonoma County. The County of Sonoma has contracted adequate capacity for all County jurisdictions, except Petaluma, through 2010 and intends to continue to provide solid waste disposal services for all residents and businesses for the foreseeable future.<sup>24</sup>

In terms of regulatory requirements, at the state level the management of solid waste is governed by regulations established by the California Integrated Waste Management Board (CIWMB), which delegates local permitting, enforcement, and inspection responsibilities to Local Enforcement Agencies. In 1997, some of the regulations adopted by the State Water Quality Control Board pertaining to landfills (Title 23, Chapter 15) were incorporated with CIWMB regulations (Title 14) to form Title 27 of the California Code of Regulations.

In 1989, the State Legislature also adopted the California Integrated Waste Management Act (AB 939). AB 939 requires that each county prepare a new Integrated Waste Management Plan. The Plan was required to include a Source Reduction and Recycling Element prepared by each city within the State by July 1, 1991. Each source reduction element included a schedule providing for source reduction, recycling, or composting of 25 percent of solid waste in the jurisdiction by January 1, 1995, and 50 percent by January 1, 2000. The City of Rohnert Park includes policies for source reduction in Chapter 7.3, Solid Waste Management and Recycling, of their General Plan.

SB 2202 (Senate Environmental Quality Committee 2000) made a number of changes to the municipal solid waste diversion requirements under AB 939. These changes included a revision to the statutory requirement for 50 percent diversion of solid waste to clarify which local governments shall continue to divert 50 percent of all solid waste on and after January 1, 2000. Senate Bill 1374 requires local agencies to adopt an ordinance, not later than September 1, 2005, requiring no less than a 75 percent diversion of construction and demolition waste materials from landfills. AB 2176 prohibits local agencies from issuing building permits to a development project unless the development project provides adequate areas for collecting and loading recyclable materials. Also, Chapter 22 of the County Code (Section 22-7A) explicitly bans disposal of yard debris, recyclable wood waste, scrap metal, and corrugated cardboard at County disposal sites.

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<sup>24</sup> Ken Wells, Director, Sonoma County Waste Management Agency, personal communication with PBS&J, June 27, 2007.

The City offers recycling services to all residential, commercial, and multi-family customers. Rohnert Park Disposal is responsible for providing recycling services to all residential, commercial, and multi-family customers. The CIWMP includes a Source Reduction and Recycling Element (SRRE), which is comprised of the following four main elements: source reduction, recycling, composting, and special waste. The SRRE puts forth goals and objectives to help meet the AB 939 waste diversion requirements.

## **Hazardous Waste Disposal**

The U.S. Environmental Protection Agency has authorized the California Department of Toxic Substances Control to enforce hazardous waste laws and regulations in California. Requirements place “cradle-to-grave” responsibility for hazardous waste disposal on the shoulders of hazardous waste generators. Anyone who creates a hazardous waste is considered a hazardous waste generator. Generators must ensure that their wastes are disposed of properly, and legal requirements dictate the disposal requirements for many waste streams (e.g., banning many types of hazardous wastes from landfills). All hazardous waste generators must certify that, at a minimum, they make a good faith effort to minimize their waste and they select the best waste management method available. Hazardous waste laws and regulations are enforced locally by the Rohnert Park Department of Public Works and the SCWMA.

Hazardous waste is defined as material that meets criteria set forth in the Federal Resource Conservation and Recovery Act. Essentially, hazardous waste is a material that can cause harm to human health or the environment through its reactivity, flammability, corrosivity, or toxicity. Since many materials have these characteristics, the law has defined limits for each hazard class. Any material falling within those limits is considered characteristically hazardous and must be handled as hazardous waste. Waste generated by residents is called ‘household hazardous waste’ and examples of some common types of household hazardous waste include: pesticides, automotive products, paints and coatings, pool chemicals, and household cleaners. The CoIWMP includes a Household Hazardous Waste Element (HHWE), which puts forth goals and objectives on the provision of special waste and household hazardous waste handling and disposal services over the long term to all community residents. Additionally, the HHWE sets education goals and objectives in order to decrease the improper disposal and the generation of household hazardous waste.<sup>25</sup>

The management of hazardous waste in Rohnert Park occurs under the 1992 HHWE, which was incorporated into the Sonoma County Hazardous Waste Management Plan. The City’s household hazardous waste management program, outlined in the HHWE, emphasizes public education, source reduction and recycling, mobile and permanent collection facilities, and hazardous waste load checking. Household hazardous waste is collected and disposed of by licensed haulers.<sup>26</sup> Additionally, the SCWMA sponsors several Household Toxics Roundups a year. Residents of Sonoma County can dispose of their household toxins at any of these roundups. In addition to the Toxic Roundups, used oil

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<sup>25</sup> Sonoma County Waste Management Agency, *Sonoma County Countywide Integrated Waste Management Plan*, Chapter 5 – Household Hazardous Waste Element, 2003.

<sup>26</sup> Rohnert Park General Plan, Chapter 7, p. 7-19, 2000.

can be recycled at various businesses within the City, which are designated as Used Oil Redemption Centers, and used household batteries can be recycled at select City Buildings and community centers.<sup>27</sup> There are no hazardous material disposal sites in operation in the Rohnert Park area. The Safety Kleen Corporation operates a hazardous materials transfer station in Rohnert Park; however, the company does not treat or dispose of any hazardous materials on the Safety Kleen site in Rohnert Park.<sup>28</sup>

## Natural Gas and Electricity

The Sonoma Mountain Village project site would be served by the Pacific Gas & Electric Company (PG&E). PG&E serves 94,000 square miles of Northern and Central California. PG&E operates with a grid distribution system that channels all energy produced at the different sources into one large energy pool for distribution throughout the service territory. Currently, the onsite adaptive reuse buildings are provided electrical support by a 1.14 MW on-site solar photovoltaic panel arrangement. Coordination between the project sponsor and PG&E would be required prior to the full incorporation of solar energy onto the entire project upon buildout. Currently, solar power is owned by the project sponsor and net-metered to PG&E. A similar arrangement between residential homeowners and commercial uses with PG&E would likely occur upon buildout.

### Natural Gas

PG&E's gas piping system delivers natural gas from three major sources (Canada, southwestern United States, and California), to its residential, commercial, industrial, and agricultural customers. While most customers purchase their gas from PG&E, large customers can purchase gas from other third-party suppliers. Natural gas typically comes out of the ground via gas wells. Its pressure lets it rise to the surface naturally. Gas from a well is cleaned and treated, removing sand, dust, and water. The gas is also odorized (i.e., a smell is injected into the gas, so that its presence can be detected).

To meet customer demand all year round, gas is compressed in underground storage fields (usually depleted oil and gas wells) between April and November, when demand is lower. It is then drawn out during the cold weather months as needed. A compressor station increases gas pressure to move it into storage and through transmission lines. High-pressure transmission lines (61 to 1,000 pounds per square inch gauge - psig) transport the gas to the distribution system via a network of mostly underground lines. The higher pressures result from line packing (compressing the gas in the line) which provides limited storage of gas, sufficient enough to meet short-term peak demands. When necessary, pipelines are suspended in the air across canals or attached to bridges. Regulators reduce the pressure of the gas entering the distribution system. The distribution system consists of both high-pressure mains (less than 60 psig) and low-pressure mains (0.25 psig), which distribute gas from the regulator station to the customer. Valves can safely isolate smaller areas during construction and emergencies. Individual services connect the distribution system to the customer. Standard delivery pressure is 0.25 psig.

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<sup>27</sup> Rohnert Park, [www.rpcity.org/content/view/516/94](http://www.rpcity.org/content/view/516/94), accessed July 7, 2008; Rohnert Park Recycling Newsletter, Fall 2007, [http://unicycler.com/newsletters/rohnert\\_park/2007\\_fall.pdf](http://unicycler.com/newsletters/rohnert_park/2007_fall.pdf), accessed July 7, 2008.

<sup>28</sup> Rohnert Park General Plan, Chapter 7, p. 7-19, 2000.

PG&E owns and operates an underground gas transmission line (No. 21) which runs within Rohnert Park and is roughly aligned with U.S. 101. The line is part of a hierarchy of lines that transport gas from out of state into Sonoma County. Distribution within the City is provided by mains operating at pressures of 50 psig. The transition from the underground transmission line, operating at several hundred psig, to the distribution mains is effected through dual-run regulator stations.

## Electricity

Electrical power comes from a wide mix of generating sources, including fossil-fueled plants, hydroelectric powerhouses, and nuclear power plants. It is also bought from independent power producers and other utilities. After the power is produced or bought, it goes into the electric transmission and distribution system to be delivered to homes and businesses in the PG&E service territory. The electricity is carried in bulk over a network or “grid” of high-voltage transmission lines that connect power plants to substations, and connect the PG&E system to neighboring systems. Substations connect the transmission system to the distribution system. Transformers are used to “step down” the voltage of the electricity to lower levels. Substations are critical junctions and switching points in the electric system.

The distribution system links the transmission system and most customers. It includes main or “primary” lines and lower voltage or “secondary” lines, which deliver electric energy either overhead or underground; distribution transformers, which lower voltage to usage levels; and switching equipment to permit the lines to be connected together in various combinations and patterns. Individual services or “drops” connect the distribution system to the customer.

PG&E owns and operates a 115 kilovolt (kV) overhead electric transmission line which runs at the outskirts of Rohnert Park from the Penngrove substation in the south to the Bellevue substation in the north. In addition, PG&E maintains two 21 kV distribution lines from the Bellevue substation.

Title 24 of the California Code of Regulations includes standards mandating energy efficiency measures in new construction projects. The efficiency standards contained in this title apply to new construction of both residential and non-residential buildings, and regulate energy consumed for heating, cooling, ventilation, water heating, and lighting. The energy efficiency standards are enforced by the local county and city building departments when a project applicant submits plans for a building permit. Title 24 would apply to the proposed project.

## Impacts and Mitigation Measures

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### Standards of Significance

Based on the City of Rohnert Park thresholds of significance, utilities impacts would be considered significant if one or more of the following conditions were created by implementation of the Sonoma Mountain Village project.

- **Impact Criterion #1:** Result in a determination by the wastewater treatment provider that serves the project that it has inadequate capacity to serve the project’s projected demand in

addition to the provider's existing commitments. Require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

- **Impact Criterion #2:** Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- **Impact Criterion #3:** Require new or expanded entitlement or resources for water supplies.
- **Impact Criterion #4:** Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs.
- **Impact Criterion #5:** Conflict with federal, State, or local statutes and regulations related to hazardous waste disposal.
- **Impact Criterion #6:** Require or result in the construction of new energy facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

### **Impact Criterion #1**

***Wastewater: Would the project exceed wastewater treatment capacity or require the construction of new or expanded wastewater treatment facilities, the construction of which would result insignificant environmental impacts?***

The Sonoma Mountain Village Water Plan (Water Plan), prepared by Coddling Enterprises, includes the use of graywater collection for subsurface landscape irrigation, rainwater catchment and reclaimed water use for landscape irrigation, and use of water efficient fixtures throughout the project. The Water Plan has not been adopted by the City, and therefore does not represent City-sanctioned projections of project water demand. Moreover, the City of Rohnert Park's ability to approve graywater and rainwater water supply projects, such as those proposed in the Water Plan, is subject to the restrictions in Title 24, Part 5 of the California Administrative Code and the California Uniform Plumbing Code. Because design schematics have not been submitted for the recycling and rainwater collection systems proposed, the City is unable to determine whether the systems proposed would meet the requirements of State code.

The Water Plan estimates for net outflow from the Sonoma Mountain Village project are shown in Table 3.14-1. Based on the information in the table, wastewater generation would be approximately 212.3 acre feet annually (AFA) from residential uses and approximately 29.5 AFA from commercial uses, for a total of 241.8 AFA, or approximately 0.22 mgd.<sup>29</sup> This would represent about 6.4 percent of the existing contribution of Rohnert Park to the average dry flow at the Laguna Plant.<sup>30</sup>

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<sup>29</sup> 241.8 AFA/365 days\*325,851 gallons/acre-feet = 215,865 gallons per day or 0.22 million gallons per day.

<sup>30</sup> 0.22 mgd/3.43 mgd Rohnert Park average dry flow (existing) = 6.4 percent.



**Table 3.14-1  
Sonoma Mountain Village Estimated Annual Net Wastewater Generation (AFA)**

Water Plan Estimate by Use	Municipal Sewer	On-Site Graywater	Soil, Groundwater & Evapotranspiration	Total All Sources
Irrigation	0	0	108.9	108.9 <sup>a</sup>
Residential	212.3	0.4	0	212.7
Commercial	29.5	0	0	29.5
On-Site Cooling Tower	0	0	30.6	30.6
<b>Water Plan Estimate Total</b>	<b>241.8</b>	<b>0.4</b>	<b>139.6</b>	<b>381.8</b>

*Source:* Rohnert Park, Sonoma Mountain Village Water Supply Assessment, 2008, based on Table 4-4; Codding Enterprises, Sonoma Mountain Village Water Plan, 2007.

*Notes:*

Assumes a normal hydrologic year.

- a. Irrigation water is included in order to provide a conservative estimate. Typically irrigation water is kept out of the sewers.

As discussed above, the subregional wastewater disposal system, of which Rohnert Park is a member, is in the process of implementing the IRWP, which would address wastewater needs through approximately 2020. Implementation of the IRWP would ensure adequate wastewater capacity for Rohnert Park, including the proposed project, through 2020. In addition, the City has identified the need for two collection system capacity improvement projects to support the planned growth. These are the Interceptor Outfall Project and the Eastside Sewer Project.

To date, the subregional system has completed and certified a Program EIR on its IRWP and has completed CEQA on a project to expand recycled water deliveries to the Geysers and is working to finalize two project level EIRs that will allow for the construction of the Interceptor Outfall Project, which provides capacity for the development identified in the General Plan. The City has also completed planning, CEQA, design, and construction of phase 1 of the Eastside Sewer Project. Generation of 0.22 mgd of wastewater by the Sonoma Mountain Village project would represent about 4.3 percent of the anticipated Rohnert Park contribution of 5.15 mgd to average dry weather flow at the Laguna Plant. With the implementation of the IRWP Master Plan improvements and Master Plan improvements, there is adequate capacity to serve the planned development.

To accommodate wastewater flows generated by new residents and employees on the project site, new construction on the site would require the extension of existing utility systems and the provision of new on-site infrastructure which is included in the development plan.

In view of the above, the project would not exceed wastewater treatment capacity or require the construction of new or expanded wastewater treatment facilities, the construction of which would result in significant environmental impacts under Impact Criterion #1. The Sonoma Mountain Village would be required to pay fair share fees toward these facilities, pursuant to the Public Facilities Finance Plan. Therefore, wastewater impacts would be less than significant.

## **Impact Criterion #2**

**Stormwater:** *Would the project require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*

New on-site drainage facilities would need to be constructed to serve all project-generated drainage needs. The Hydrology and Water Quality analysis (Section 3.7 of this EIR), concludes that project site runoff would increase with implementation of the proposed project. In addition, regulatory agency requirements, controls, and mitigation measures proposed for the project would assure that the project sponsor implement a properly designed on-site storm drainage system. This system should result in off-site runoff that is not substantially different from existing conditions such that existing or planned stormwater drainage systems would not be exceeded. While specific drainage facilities (swales, rain gardens, and other facilities) have not yet been designed for the proposed project, the design of these facilities must comply with the City of Rohnert Park Storm Drain Design Standards. Therefore, the project would not require or result in the construction of new stormwater drainage facilities or expansion of existing facilities under Impact Criterion #2, the construction of which could cause significant environmental effects.

Control of the peak runoff rate and volume would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge (refer to Impact Criterion #2 in Section 3.7, Hydrology and Water Quality, of this EIR) and therefore would not adversely affect the adequacy and sufficiency of current and future water supplies derived from underground resources to meet current and future municipal water demands (for additional municipal water supply information, refer to Appendix G, Sonoma Mountain Village Water Supply Assessment).

## **Impact Criterion #3**

**Domestic Water Supply:** *Would the project require new or expanded entitlements or resources for water supplies?*

Rohnert Park's 2005 citywide UWMP (adopted in 2007) includes water supply/demand projections specific to the project site. The UWMP assumes that parcels at the Sonoma Mountain Village project site will be used for industrial uses pursuant to the site's existing zoning and current Master Plan, which proposes an industrial-use buildout of the site. The proposed project would re-zone the site for mixed uses and would replace the Master Plan to allow for a mixed use commercial and residential development. Because the land use assumptions of the UWMP are no longer accurate, the Sonoma Mountain Village project development plan was re-examined in a site-specific WSA.

The WSA for the Sonoma Mountain Village project (Appendix G of this EIR) describes the relationship between projected demands on the City's water supply and the availability of that supply under normal and dry conditions. Chapter 4 (Water Demand) of the WSA shows two projections of the proposed project's water demand. The first projection is based on the City's UWMP and assumes that the site

will be used for industrial purposes.<sup>31</sup> The City projects that the site’s total annual water consumption would be 72.0 AFA of recycled water and 287.1 AFA of municipal drinking water at buildout of existing zoning, a total of 359.1 AFA. The second projection is from the Sonoma Mountain Village Water Plan (Water Plan), prepared by Coddling Enterprises. The Water Plan projects that the project’s total annual water consumption would be 70.5 AFA of recycled water, and 274.4 AFA of municipal drinking water, a total of 344.9 AFA. This estimate is based on uses proposed as part of the project, which would require rezoning and a General Plan land use designation amendment. The Water Plan also incorporates use of recycled water, rainwater collection, and on-site graywater recycling, which could be used to supplement the supply (as allowable under state law<sup>32</sup>). Table 3.14-2 shows a comparison of these projections. The total demand estimated by the Water Plan would exceed the demand predicted in the UWMP by 22.6 AFA.

**Table 3.14-2  
Sonoma Mountain Village Projected Annual Water Demand (AFA)**

	Municipal Reclaimed/ Recycled	Harvested Rainwater <sup>d</sup>	On-Site Graywater <sup>d</sup>	Municipal Drinking Water	Total Demand
<b>UWMP Projections, Total<sup>a</sup></b>	<b>72.0</b>	—	—	<b>287.1</b>	<b>359.1</b>
<b>Water Plan Projections, by Use:<sup>b</sup></b>					
• Irrigation	50.0	21.2	0.44	37.3	108.9
• Residential	0.0	0.6	0	212.1	212.7
• Commercial	4.4	0.2	0	24.9	29.5
• On-Site Cooling Tower	16.2	14.4	0	0	30.6
<b>Water Plan Projections, Total</b>	<b>70.6</b>	<b>36.4</b>	<b>0.4</b>	<b>274.3</b>	<b>381.7</b>
<b>Surplus / (deficit)<sup>c</sup></b>					<b>(22.6)</b>

*Sources:*

- a. Rohnert Park, *Urban Water Management Plan*, 2005 (adopted August 2007). Based on calculations in Endnote 34. Assumes a normal hydrologic year. The City’s estimate is based on the industrial land uses in the current zoning code.
- b. Coddling Enterprises, 2009. *Sonoma Mountain Village Water Plan*, as reviewed in: PBS&J, *Sonoma Mountain Village Water Supply Assessment*, 2008. Data in this table is based on Table 4 3 in the WSA.
- c. Total demand estimated in UWMP minus total demand estimated in SMV WSA.
- d. This source is not considered in the City’s UWMP.

Table 3.14-3 shows the projected City water demand and supply for normal and single dry year scenarios from the City’s UWMP from 2010 through 2030. This table also shows a multiple dry year scenario modeled from 2016 through 2020.

<sup>31</sup> Based on General Industrial Zoning of 175 acres and 1.638 AFA/acre for potable water and 26 irrigated acres at 2.769 AFA/acre.

<sup>32</sup> State law restricts the use of greywater and rainwater to current uses.

Although the UWMP does not account for the Sonoma Mountain Village project, the UWMP demonstrates a surplus for all scenarios. This surplus could be used to meet the demand generated by the project. Even in the worst case scenario, there is evidence that the City would be able to cover shortages in supply through contingency strategies. The projected supply totals assume that 1,300 AFA of recycled water is available on an annual basis; however, the 2006 Public Facilities Finance Plan would finance infrastructure for up to 1,480 AFA of recycled water annually, assuming sufficient demand. Therefore, in a worst case scenario, additional recycled water use could partially cover the shortfall by supplementing the water supply for uses for which recycled water is permitted (such as landscaping). Supply could also be supplemented by on-site rainwater collection and graywater recycling strategies,<sup>33</sup> while demand could be reduced through water conservation strategies.

Under either supply scenario, the project’s demand would be expected to remain within anticipated City-wide demand. Currently, recycled water infrastructure does not fully extend to the project site.<sup>34</sup> The Sonoma Mountain Village project would pay fair share fees, required under a project development agreement, towards the expansion of such facilities.

In summary, the City of Rohnert Park would have sufficient water supply and water delivery infrastructure to serve the Sonoma Mountain Village project. Accordingly, there would be no significant adverse environmental impact respecting the project under Impact Criterion #3 regarding new or expanded water entitlements or resources.

**Table 3.14-3  
City of Rohnert Park Estimated Water Demand and Supply for Normal, Single Dry and Multiple Dry Years (AFA)**

	Normal Year/Single Dry Year				
	2010	2015	2020	2025	2030
Total Supply	10,149	10,249	10,249	10,249	10,249
Total Demand	8,316	8,680	8,962	9,067	9,131
<b>Difference</b>	<b>1,833</b>	<b>1,569</b>	<b>1,287</b>	<b>1,182</b>	<b>1,118</b>
	Multiple Dry Year Period (Modeled for 2016–2020)				
	2016	2017	2018	2019	2020
Total Supply	10,249	10,249	10,249	10,249	10,249
Total Demand	8,736	8,793	8,849	8,905	8,962
<b>Difference</b>	<b>1,513</b>	<b>1,456</b>	<b>1,400</b>	<b>1,344</b>	<b>1,287</b>

Source: Rohnert Park, *Urban Water Management Plan*, 2005 (adopted August 2007), Tables 8-10, 8-13, and 8-22.

<sup>33</sup> However, as noted in the Setting, the allowable uses of rainwater and greywater are more limited than standard water supply under state law and would only be applied to certain uses.

<sup>34</sup> Santa Rosa Subregional Water Reuse System, Incremental Recycled Water Program. 2007 Update to the Recycled Water Master Plan, <http://www.recycledwaterprogram.com/>, accessed January 10, 2008.

#### **Impact Criterion #4**

**Solid Waste: *Would the project be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs?***

According to the CIWMB's Jurisdictional Profile for SCWMA, a resident of Sonoma County generates about 3.73 pounds of solid waste per day and an employee in Sonoma County generates about 3.9 pounds of solid waste per day.<sup>35</sup> Based on the estimates shown in Section 3.11, Population and Housing, the proposed project would result in an additional 4,570 residents and an additional 1,347 employees. Applying the solid waste generation factors to the proposed development, upon buildout, residents of the proposed project would generate approximately 17,046 pounds of solid waste per day, or 2,810 tons of solid waste per year.<sup>36</sup> Sonoma Mountain Village employees would generate approximately 5,253 pounds of solid waste per day, or 870 tons of solid waste per year.<sup>37</sup> Thus, upon buildout, Sonoma Mountain Village operations would generate about an additional 22,299 pounds of solid waste per day or 3,680 tons of solid waste per year.

As discussed in the Setting portion of this section, Sonoma County has contracted the disposal of solid waste for all County jurisdictions, except Petaluma, through 2010 at private landfills outside Sonoma County. The SCWMA indicates there would be sufficient capacity contracted by the County and at the transfer station for solid waste generated by County jurisdictions and the Sonoma Mountain Village project, provided the proposed project implement recycling actions, and each of the project construction phases conforms to existing regulations regarding collection areas for recycling and the prohibition of the disposal of recyclable materials.<sup>38</sup> Accordingly, the Sonoma Mountain Village project would be required to provide adequate areas for collecting and loading recyclables.

The recycling plan would be required to address the major materials generated by the project and identify the means to divert these materials away from Sonoma County's Central Disposal Site. Materials which could be included in such a plan include, but are not limited to, soil, brush and other vegetative growth, dimensional lumber, metal scraps, cardboard packaging, plastic wrap, and other discarded building materials. If desired, the current waste hauler could assist the project sponsor in the development of the recycling plan. Thus, there would be no significant adverse environmental impact respecting the project under Impact Criterion #4 regarding a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs.

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<sup>35</sup> California Integrated Waste Management Board, <http://www.ciwmb.ca.gov/Profiles/County/CoProfile1.asp?COID=49>, accessed September 2, 2007.

<sup>36</sup>  $4,570 \text{ new residents} \times 3.73 \text{ pounds of solid waste per day} = 17,046 \text{ pounds of solid waste per day}$ .  $17,046 \text{ pounds of solid waste per day} \times 365 \text{ days} = 6,221,827 \text{ pounds of solid waste per year}$ , or 2,810 tons of solid waste per year.

<sup>37</sup>  $1,347 \text{ employees} \times 3.9 \text{ pounds of solid waste per day} = 5,253 \text{ pounds of solid waste per day}$ .  $5,253 \text{ pounds of solid waste per day} \times 365 \text{ days} = 1,917,455 \text{ pounds of solid waste per year}$ , or 870 tons per year.

<sup>38</sup> Ken Wells, Director, Sonoma County Waste Management Agency, personal communication with PBS&J, June 27, 2007.

## **Impact Criterion #5**

**Hazardous Waste Disposal: *Would the project conflict with federal, State, or local statutes and regulations related to hazardous waste disposal?***

Households generate hazardous waste as a routine consequence of handling hazardous materials. The U.S. Environmental Protection Agency considers hazardous waste to be a form of pollution because the recycling, treatment, and disposal of hazardous wastes results in air emissions and water discharges at recycling and treatment facilities, and in residuals that must be disposed of in hazardous waste landfills. Commercial businesses are subject to hazardous waste regulations set forth in Title 22 of the California Code of Regulations. Households are exempt from many of these hazardous waste handling requirements. These regulations are intended to minimize the potential hazards to humans and the environment posed by recycling, treating, and disposing of hazardous wastes. These environmental effects occur at recycling, treatment, and disposal facilities typically located far from where the wastes are generated. No hazardous waste recycling, treatment, or disposal facilities are proposed in the Sonoma Mountain Village area.

Historically, many small businesses have found complying with hazardous waste regulations to be difficult and expensive.<sup>39</sup> These waste generators have been known to store hazardous wastes indefinitely, flush wastes down sewers, combine hazardous wastes with nonhazardous solid waste for disposal, and pour wastes on the ground.<sup>40</sup> Households have faced similar disposal challenges. To provide households with convenient and affordable hazardous waste management options, SCWMA sponsors several Household Toxics Roundups a year as noted previously in the Setting discussion. Residents of the County can dispose of their household toxics at any of these roundups. The Household Toxics Roundups would continue to be available to serve the new Sonoma Mountain Village households.

In summary, due to existing hazardous waste controls and waste management options, the Sonoma Mountain Village households (and commercial businesses) would not be expected to generate substantial conflicts with federal, state, or local statutes and regulations regarding hazardous waste disposal under Impact Criterion #5.

## **Impact Criterion #6**

**Energy: *Would the project require or result in the construction of new energy facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?***

The north portion of the Sonoma Mountain Village site is currently served by existing utility systems. New construction on the site would require the extension of existing electrical and gas distribution

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<sup>39</sup> Association of Bay Area Governments, *The Disposal of Hazardous Waste by Small Quantity Generators: Magnitude of the Problem*, June 1985.

<sup>40</sup> Association of Bay Area Governments, *Toxics Away! The Alameda County Pilot Collection Program for Small Quantity Generators of Hazardous Wastes*, April 1988.

systems and the provision of new on-site infrastructure to serve new development on the project site. Such extensions would be provided by PG&E upon the request from the project sponsor.

Sonoma Mountain Village construction would incorporate green building principles, including LEED (commercial buildings), Green Point (residential buildings), and One Planet Community rating systems, and energy efficiency. The aforementioned ratings systems will be used for evaluation purposes. Currently, the property contains several existing buildings totaling 700,000 square feet of space, included in these buildings are about 90,000 square feet of solar panels on the roof of existing building #3 (proposed theater building with parking garage) capable of generating 1.14 megawatts of power for up to 1,000 homes solar panels. These systems would continue to operate for both business and residential uses with implementation of the Sonoma Mountain Village project and would require coordination with PG&E

The energy consumption demands of the Sonoma Mountain Village project would conform to the State's Title 24 energy conservation standards so that the proposed project would not be expected to wastefully use gas and electricity. Review of the project's compliance with Title 24 energy efficiency standards and service planning for the project would occur during the permit approval process by the City Building Department. Gas and electric service to the project site would be provided to meet the needs of the project as required by the California Public Utilities Commission, which obligates PG&E to provide service to its existing and potential customers.

Since the Sonoma Mountain Village project would comply with Title 24 conservation standards and would be adequately served by PG&E, the project would not require or result in the construction of new energy facilities or expansion of existing facilities, the construction of which could cause significant environmental effects under Impact Criterion #6.

## **Cumulative Development**

The discussion of cumulative development impacts is as described in the Introduction section of this EIR under the sub-heading, Cumulative Impact Assessment, and includes collectively the Sonoma Mountain Village project and cumulative development projects as noted therein. Although the on-site construction of utilities distribution/service lines and meters would be required in order to serve the project, which is required for any new development project, the analysis above shows the project would not specifically require or result in the construction of new and/or expanded wastewater treatment facilities, stormwater drainage facilities, entitlements or resources for water supplies, or new energy facilities under Impact Criteria #1, #2, #3 and #6, the construction of which could cause significant environmental effects. Also, the project would not be served by a landfill that could not accommodate the project, nor would the project conflict with statutes and regulations related to hazardous waste disposal under Impact Criteria #4 and #5. Because the project's utility impacts would be less than considerable, the project would not generate potentially cumulative significant adverse utility impacts under the Impact Criteria noted above.

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## **3.15 GLOBAL CLIMATE CHANGE**

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### **Introduction**

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This section of the EIR evaluates the potential impacts on global climate change resulting from construction and operation of the proposed Sonoma Mountain Village project. This includes the potential for the project to conflict with or obstruct implementation of greenhouse gas (GHG) emissions reduction goals under AB 32, Sonoma County Community Climate Action Plan (CCAP), or other State and City regulations. The City of Rohnert Park is a participant in the Sonoma County CCAP and has implemented a Green Building Ordinance which indirectly reduces GHG emissions by emphasizing energy efficiency, renewable energy source development, and resource and water conservation. Project design features intended to reduce GHG emissions are included in the analysis. The EIR evaluation is based upon the GHG emissions calculations and reduction quantification found in the Climate Change Technical Report, Sonoma Mountain Village (July 7, 2009) conducted by ENVIRON International Corporation. The technical report can be found in Appendix I of this EIR.

### **Setting**

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#### **Project Setting**

The Sonoma Mountain Village (SMV) development is proposed to be built within the City of Rohnert Park, in Sonoma County, California. The proposed mixed use community is to include approximately 1,892 new residential units, 790,307 square feet of commercial, and 35,000 square feet of municipal development at full build out conditions. The SMV development is planned with energy efficiency, conservation elements, renewable energy source development, and vehicle trip reduction features aimed at helping to attain California's long-term goal of reducing GHG emissions to 80 percent of 1990 levels by 2050.

#### **Global Climate Change Background**

Parts of the Earth's atmosphere act as an insulating blanket of just the right thickness, trapping sufficient solar energy to keep the global average temperature in a suitable range. The "blanket" is a collection of atmospheric gases called "greenhouse gases" (GHGs) based on the idea that the gases also "trap" heat like the glass walls of a greenhouse. These gases, mainly water vapor, carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), ozone(O<sub>3</sub>), and chlorofluorocarbons (CFCs) all act as effective global insulators, reflecting back to earth visible light and infrared radiation.

The participation of water vapor and ozone as GHGs is poorly understood. It is unclear the extent to which water vapor acts as a GHG. The uncertainty is due to the fact that water vapor can also produce cloud cover, which reflects sunlight away from Earth and can counteract its effect, if any, as a GHG. Also, water vapor tends to increase as the earth warms, so it is not well understood whether an increase in water vapor is contributing to global climate change or rather a reaction to global climate



change. Ozone tends to break down in the presence of solar radiation, but the mechanism is not well understood. For these reasons methodologies approved by the Intergovernmental Panel on Climate Change (IPCC), U.S. Environmental Protection Agency (EPA), and the California Air Resources Board (CARB) focus on carbon dioxide, nitrous oxide, methane, and chlorofluorocarbons as GHGs. The following provides a brief description of GHG emissions considered in this analysis:

**Carbon dioxide** (CO<sub>2</sub>) is an odorless, colorless gas with important natural sources and anthropogenic (human) sources. The natural production and absorption of CO<sub>2</sub> is achieved by numerous mechanisms throughout the terrestrial biosphere and the ocean. Human activities have contributed to the alteration of the natural carbon cycle by burning coal, oil, natural gas, and wood. Since the industrial revolution began in the mid 1700s, each of these human caused activities has increased in scale and distribution. Carbon dioxide was the first GHG demonstrated to be increasing in atmospheric concentration with the first conclusive measurements being made in the last half of the 20th century. Prior to the industrial revolution, atmospheric concentrations were fairly stable at 280 ppm. Today, the levels are around 370 ppm, an increase of well over 30 percent.<sup>1</sup> Left unchecked, the concentration of carbon dioxide in the atmosphere is projected to increase to a minimum of 540 ppm by 2100 as a direct result of anthropogenic sources (IPCC 2001). Such an increase could result in an average global temperature rise of at least two degrees Celsius (3.6 °F).<sup>2</sup>

**Methane** (CH<sub>4</sub>) is the main component of natural gas. Methane is an extremely effective absorber of radiation, its atmospheric concentration is less than carbon dioxide and its lifetime in the atmosphere (10-12 years) is brief compared to some other GHGs. Methane has both natural and anthropogenic (human) sources. It is released as part of the biological processes in low oxygen environments, such as in swamplands or in rice production (at the roots of the plants). Over the last 50 years, human activities such as growing rice, raising cattle, using natural gas and mining coal have added to the atmospheric concentration of methane.<sup>3</sup>

**Nitrous oxide** (N<sub>2</sub>O), more commonly known as “laughing gas,” is produced naturally by microbial processes in soil and water. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. It is used in rocket engines, race cars, and as an aerosol spray propellant. Global concentration of nitrous oxide in 1998 was 314 ppb (EPA 2006b).

**Chlorofluorocarbons** (CFCs) have no natural source, but were synthesized for uses as refrigerants, aerosol propellants, and cleaning solvents. Since their creation in 1928, the concentrations of CFCs in the atmosphere have been rising. Due to the discovery that they are able to destroy stratospheric ozone,

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<sup>1</sup> U.S. Environmental Protection Agency, Solid Waste Management and Greenhouse Gases: A Life-Cycle Assessment of Emissions and Sinks, Third Edition, September 2006.

<sup>2</sup> Intergovernmental Panel on Climate Change, Climate Change 2001: The Scientific Basis, Contribution of Working Group I to the Third Assessment Report of the Intergovernmental Panel on Climate Change. [www.ipcc.ch/pub/reports.htm](http://www.ipcc.ch/pub/reports.htm). 2001.

<sup>3</sup> U.S. Environmental Protection Agency, Solid Waste Management and Greenhouse Gases: A Life-Cycle Assessment of Emissions and Sinks, Third Edition, September 2006.

a global effort to halt their production was undertaken and has successfully reduced or stopped the increase in the levels of the major CFCs. However, due to the long atmospheric lifetimes, CFCs will remain in the atmosphere for over 100 years. CFCs, CF<sub>4</sub>, SF<sub>6</sub>, and HFCs have been banned and are no longer commercially available therefore, they are not considered any further in this analysis.

**Hydrofluorocarbons (HFCs)** are another set of synthesized compounds that are also considered GHGs, though they are less stable in the atmosphere and therefore have a shorter lifetime and less of an impact (EPA 2006b) than CFCs.

Global atmospheric concentrations of the above-mentioned GHG have increased markedly as a result of human activities and now far exceed pre-industrial values. The accumulation of GHG in the atmosphere regulates the earth's temperature. The evidence is now considerable that anthropogenic GHG emissions (i.e., from electricity production, motor vehicle use, etc.) have contributed to the elevated concentration of these gases in the atmosphere. The elevated concentration in turn is causing the Earth's temperature to rise. A warmer Earth may lead to changes in rainfall patterns, much smaller polar ice caps, a rise in sea level, and a wide range of impacts on plants, wildlife, and humans. Greenhouse gas emissions from California were comprised of approximately 81 percent CO<sub>2</sub> from fossil fuel combustion, 4 percent of CO<sub>2</sub> from process emissions, 6 percent from CH<sub>4</sub>, 7 percent from N<sub>2</sub>O, with the remainder comprised of other GHGs.

## **Regulatory Setting**

In an effort to stabilize global climate change and reduce impacts associated with global climate change, international agreements, as well as federal and state actions were implemented. The regulatory setting related to GHG emissions includes the international, federal, state, regional, and local government agencies discussed below. These agencies work jointly, as well as individually, to address GHG emissions through legislation, regulations, planning, policy-making, education, and a variety of programs.

**International.** In 1988, the United Nations established the Intergovernmental Panel on Climate Change (IPCC) to evaluate the impacts of global warming and to develop strategies that nations could implement to curtail global climate change. In 1992, the United States joined other countries around the world in signing the United Nations' Framework Convention on Climate Change agreement (Kyoto Protocol) with the goal of controlling GHG emissions. As a result, the Climate Change Action Plan was developed to address the reduction of GHG in the United States. The plan consists of more than 50 voluntary programs.

**Federal.** The United States Environmental Protection Agency (EPA) is responsible for implementing federal policy to address global climate change. The Federal government administers a wide array of public-private partnerships to reduce GHG intensity generated by the United States. These programs focus on energy efficiency, renewable energy, methane, and other non-CO<sub>2</sub> gases, agricultural practices, and implementation of technologies to achieve GHG reductions. The EPA implements several voluntary programs that substantially contribute to the reduction of GHG emissions.

In February 2002, the United States government announced a strategy to reduce the GHG intensity of the American economy by 18 percent over the 10-year period from 2002 to 2012. GHG intensity measures the ratio of GHG emissions to economic output. Meeting this commitment will prevent the release of more than 100 million metric tonnes of CO<sub>2</sub>e emissions to the atmosphere (annually) by 2012 and more than 500 million metric tonnes (cumulatively) between 2002 and 2012. This policy has three basic objectives: slowing the growth of emissions; strengthening science, technology, and institutions; and enhancing international cooperation.

The EPA is responsible for setting and enforcing the National Ambient Air Quality Standards (NAAQS) for atmospheric pollutants. It regulates emission sources that are under the exclusive authority of the federal government such as aircraft, ships, and certain locomotives.

In *Massachusetts v. Environmental Protection Agency* (Docket No. 05-1120), argued November 29, 2006 and decided April 2, 2007; the U.S. Supreme Court held that not only did the EPA have authority to regulate greenhouse gases, but the EPA's reasons for not regulating this area did not fit the statutory requirements. As such, the U.S. Supreme Court ruled that the EPA should be required to regulate CO<sub>2</sub> and other greenhouse gases as pollutants under the federal Clean Air Act (CAA).

**State.** The California Air Resources Board (CARB) is responsible for implementing state policy to address global climate change. CARB, which is a part of the California Environmental Protection Agency, is responsible for the coordination and administration of both the federal and State air pollution control programs within California. In this capacity, the CARB conducts research, sets California Ambient Air Quality Standards (CAAQS), compiles emission inventories, develops suggested control measures, provides oversight of local programs, and prepares the State Implementation Plan (SIP). In addition, the CARB establishes emission standards for motor vehicles sold in California, consumer products (e.g. hairspray, aerosol paints, and barbeque lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions.

California Assembly Bill 1493 enacted on July 22, 2002, required CARB to develop and adopt regulations that reduce GHG emitted by passenger vehicles and light duty trucks. In 2005, the CARB submitted a "waiver" request to the EPA from a portion of the federal Clean Air Act in order to allow the State to set more stringent tailpipe emission standards for CO<sub>2</sub> and other GHG emissions from passenger vehicles and light duty trucks. In December 2007, EPA initially denied the request for a waiver. However, on June 30, 2009, the EPA reversed its initial denial and announced that it has granted the California Request to Reduce Vehicle Greenhouse Gas Emissions "waiver" request.

In June 2005, California Governor Arnold Schwarzenegger issued Executive Order S-3-05, GHG Emissions, which established the following GHG reduction targets for the State as well as a process to ensure that the targets are met:

- 2010: Reduce greenhouse gas emissions to 2000 levels
- 2020: Reduce greenhouse gas emissions to 1990 levels

- 2050: Reduce greenhouse gas emissions to 80 percent below 1990 levels.

Executive Order S-3-05 directed the Secretary for the California EPA to report every two years on the State's progress toward meeting the Governor's GHG emission reduction targets. As a result of this executive order, the California Climate Action Team (CAT), led by the Secretary of the California EPA, was formed. The CAT is made up of representatives from a number of State agencies and was formed to implement global warming emission reduction programs and report on the progress made toward meeting State-wide targets established under the Executive Order. State agency members include the Business, Transportation and Housing Agency; Department of Food and Agriculture; Resources Agency; Air Resources Board; California Energy Commission; Public Utilities Commission; and Department of Water Resources. The CAT published its Climate Action Team Report to Governor Schwarzenegger and the Legislature in March 2006, in which it laid out 46 specific emission reduction strategies for reducing GHG emissions and reaching the targets established in the Executive Order.

In 2006, the California State Legislature adopted Assembly Bill 32 (AB 32), the California Global Warming Solutions Act of 2006. AB 32 requires CARB to adopt rules and regulations that would achieve GHG emissions equivalent to State-wide levels of 1990 by 2020 through an enforceable State-wide emission cap which will be phased in starting in the year 2012. Emission reductions shall include carbon sequestration projects (projects that would remove carbon from the atmosphere), and best management practices that are technologically feasible and cost effective.

An additional bill related to AB 32, Senate Bill 97 (SB 97) requires by July 1, 2009, that the California Office of Planning and Research (OPR), prepare, develop, and transmit to the Resources Agency guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, as required by the California Environmental Quality Act (CEQA), including but not limited to, effects associated with transportation or energy consumption. The Resources Agency will then be required to certify and adopt the guidelines by January 1, 2010, and to periodically update the guidelines to incorporate new information or criteria established by CARB pursuant to AB 32.

OPR released the CEQA guideline amendments for GHG emissions to the State Resource Agency on April 14, 2009. The State Resources Agency will certify and adopt the CEQA guideline amendments into law on or before January 2010. OPR does not identify a threshold of significance for GHG emissions, nor has it prescribed assessment methodologies or specific mitigation measures. The amendments encourage lead agencies to consider many factors in performing a CEQA analysis, but preserve the discretion granted by CEQA to lead agencies in making their own determinations based on substantial evidence. The amendments also encourage public agencies to make use of programmatic mitigation plans and programs from which to tier when they perform individual project analyses.

While the OPR has not yet adopted formal significance thresholds, OPR issued a guidance document on June 19, 2008 to provide interim advice to lead agencies regarding the analysis of GHG emissions in environmental documents. The technical advisory suggests three components for CEQA disclosure: quantification of GHG emissions from a project's construction and operation, determination of significance of the project's impact to global climate change, and if the project is found to be

significant, the identification of suitable alternatives and mitigation measures. The analysis contained herein follows this guidance.

On December 6, 2007, CARB released the calculated 1990 GHG emissions of 427 million metric tonnes of CO<sub>2e</sub>. In 2004, the emissions were estimated at 480 million metric tonnes of CO<sub>2e</sub>. A reduction of 13 percent was needed to reduce 2004 levels to 1990 levels. A series of early actions, tailpipe regulations, and the development of fuels with less carbon in them are estimated to provide reductions totaling 66 million tonnes of CO<sub>2e</sub>. CARB prepared a Scoping Plan to develop programs and measures to address the remaining 107 million tonnes of CO<sub>2e</sub> in order to reach the total of 173 million tonnes by the year 2020. The Scoping Plan was submitted to CARB in November of 2008 and was approved by CARB on December 11, 2008.

The California Air Pollution Control Officers Association (CAPCOA) released a white paper, entitled CEQA and Climate Change, in January, 2008. The white paper contains the disclaimer that it is “intended as a resource, not a guidance document,” and examines various threshold approaches available to air districts and lead agencies for determining whether GHG emissions are significant.

**Regional.** The Bay Area Air Quality Management District (BAAQMD) is the primary agency responsible for comprehensive air pollution control in the entire San Francisco Bay Area Air Basin, including the southwestern area of Sonoma County. To that end, the BAAQMD, a regional agency, works directly with the Association of Bay Area Governments, the Metropolitan Transportation Commission, and local governments and cooperates actively with all federal and state government agencies. The BAAQMD develops rules and regulations, establishes permitting requirements for stationary sources, inspects emissions sources, and enforces such measures through educational programs or fines, when necessary.

BAAQMD has published a document titled “BAAQMD CEQA Guidelines, Assessing the Air Quality Impacts of Projects and Plans (BAAQMD CEQA Guidelines, December 1999).” In that document BBAQMD provides guidance and recommendations on the methodologies of analysis and suggested thresholds of significance that Lead Agencies can use when analyzing air quality impacts during CEQA review of projects. Currently, BAAQMD does not have an adopted or recommended threshold of significance for GHG emissions. However, BBAQMD is in the process of updating the BAAQMD CEQA Guidelines, which includes the development of recommended significance thresholds, assessment methodologies, and mitigation strategies for GHG emissions. The draft approach that BAAQMD is considering in their update of the BAAQMD CEQA Guidelines includes consideration of a numeric “bright line” threshold of 1,175 metric tons (MT)/year of CO<sub>2e</sub>. This numeric “bright line” threshold for GHG emissions is based upon a threshold sensitivity analysis demonstrating that 90 percent of all GHG emissions generated by new land use development anticipated to occur within the Bay Area between now and 2020 would exceed the threshold (ninetieth percentile).

**Local.** Local jurisdictions, such as Sonoma County and the City of Rohnert Park, have the authority and responsibility to reduce air pollution through its police power and decision-making authority. Sonoma County released a Community Climate Action Plan in October 2008. This CCAP sets a target for reducing GHG emissions to 25 percent below 1990 levels by 2015. This plan is anticipated to

achieve most of the reductions from increased energy efficiency, increased renewable energy production, and reduced transportation. Due to their quantitative nature, local context and aggressive achievement goal, the Sonoma County CCAP targets have been incorporated by the City as measurable CEQA thresholds, for GHG impacts. Emissions are anticipated to be 4 percent, 15 percent, and 17 percent below minimally compliant emissions respectively.

The City of Rohnert Park currently has no policies or ordinances that have a direct impact on GHG emissions. However, Rohnert Park contributed to the Sonoma County CCAP and has adopted a Green Building Ordinance. The Green Building Ordinance requires individual buildings to comply with LEED Rating System and GreenPoint Rated System respectively for commercial and residential developments. This ordinance will aid the reduction in GHG emissions indirectly by emphasizing resource and water conservation along with increasing community and energy efficiency.

### **Significance Determination**

The Sonoma Mountain Village development cannot generate enough GHG emissions to influence global climate change on its own. The SMV development participates in potential global climate change by its incremental contribution (positive or negative) of GHG emissions that, when combined with the cumulative increase of all other anthropogenic sources of GHGs, impact global climate change. Therefore, global climate change is a cumulative impact and the SMV's participation in this cumulative impact is through its incremental contribution of GHG emissions. In Section 15064(h)(1) of the State CEQA Guidelines, "cumulatively considerable" is defined to mean "that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects."

The State CEQA Guidelines do not provide numeric or qualitative thresholds of significance for greenhouse gas emissions. Under CEQA, in order to determine whether or not a proposed project would cause a significant impact on the environment, the impact of a project must be determined by examining the types and levels of GHG emissions generated and comparing those to some threshold. In accordance with CEQA Guidelines (Section 15064 (h)(3)):

A lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program which provides specific requirements that will avoid or substantially lessen the cumulative problem (e.g., water quality control plan, air quality plan, integrated waste management plan) within the geographic area in which the project is located. Such plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency ...

The City, under CEQA Guidelines §15064(h)(3), has determined that, for the purposes of this analysis, the SMV development would result in a cumulatively considerable contribution of GHG emissions to the cumulative impact of global climate change if it would substantially conflict with or obstruct the implementation of GHG emission reduction goals under AB 32, Sonoma County CCAP, or other State and City regulations.

AB 32 adopted a goal that greenhouse gases emitted in California be reduced to 1990 levels by the year 2020, and to 80 percent below 1990 levels by 2050. The 2020 reduction target equates to a decrease of approximately 30 percent below current GHG emissions.

Under the Sonoma County CCAP, the County has set a goal of reducing GHG emissions to 25 percent below 1990 emissions by 2015. This goal is more stringent than the State goal as set forth in AB 32.

## **Methodology**

The method of analysis used for this EIR was to provide an estimated inventory of GHG emissions attributable to the Project at buildout, calculate GHG emissions reductions afforded by design features and mitigation, and determine the significance of the Project's incremental contribution of GHG emissions on global climate change impacts based upon the threshold discussion above. A greenhouse gas inventory is an accounting of the amount of greenhouse gases emitted to or removed from the atmosphere over a specified period of time attributed to activities associated with the Project. A greenhouse gas inventory also provides information on the activities that cause emissions and removals, as well as the methods used to make the calculations. The methods used in calculating GHG emissions include the California Climate Action Registry General Reporting Protocol, version 3.0 (January 2009). The paragraphs below provide a brief discussion of project assumptions used to determine GHG emissions sources and units of measure. A more detailed discussion of methodology can be found in the Climate Change Technical Report, Sonoma Mountain Village (July 7, 2009) conducted by ENVIRON International Corporation in Appendix I of this EIR.

## **Greenhouse Gas Emission Sources**

The SMV development will result in one-time (construction and land-use change) emission as well as annual direct and indirect emissions of GHGs. Total GHG emissions are the sum of emissions from both direct and indirect sources. Direct sources include mobile sources such as motor vehicles, landscape equipment, and stationary sources such as cooling and heating equipment. Indirect sources are comprised of electrical and potable water use, and the generation of solid waste and waste water. Direct Source Emissions are determined based on sources as follows:

- Emissions from mobile sources are associated with vehicle trips with respect to type and distance for each land use as well as emissions associated with the operation of construction equipment.
- Emissions from stationary sources are determined from electrical generation; the usage of natural gas for heating/cooling, cooking; and manufacturing.
- Area source emissions are associated with landscape equipment exhaust; and emissions from hearths including gas fireplaces, wood-burning fireplaces, and wood-burning stoves.

Indirect Sources Emissions are determined based on source as follows:

- Potable water usage is reported as the annual emissions from electrical demand on pumps and equipment needed for treatment and transport of potable water.

- Solid waste is reported as the sum of annual emissions from solid waste disposal, treatment, transportation, and fugitive emissions of methane during the life-cycle of the solid waste facilities.
- Wastewater usage is reported as the annual emissions from electrical demand on pumps and equipment needed for wastewater transport, treatment, and disposal.

## Units of Measurement

Atmospheric lifetimes vary from 1.5 (HFC-152a) to 50,000 years (tetrafluoromethane). One teragram (equal to one million metric tonnes) of carbon dioxide equivalent (Tg CO<sub>2</sub> Eq.) is the mass emissions of an individual GHG multiplied by its GWP.

Individual GHGs have varying global warming potentials (GWP) and atmospheric lifetimes. The reference gas for GWPs is carbon dioxide. Carbon dioxide (CO<sub>2</sub>) has a GWP of one (1). Compared to methane's GWP of 21 and nitrous oxide's GWP of 310, it is clear that they have a greater global warming effect than CO<sub>2</sub> on a molecule per molecule basis.<sup>4</sup> The GWP of the various GHGs is based upon a comparison with carbon dioxide (CO<sub>2</sub>), which is set at one. GHG emissions are combined based upon their global warming potential as carbon dioxide equivalents (CO<sub>2</sub>e) by multiplying the amount of each GHG by their respective GWP.

In this analysis, "tonnes" will be used to refer to metric tonnes (1,000 kilograms). "Tonnes," when used, will refer to short tonnes (2,000 pounds).

## Impacts and Design Measures

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### Standards of Significance

The State CEQA Guidelines do not provide numeric or qualitative thresholds of significance for greenhouse gas emissions. Based on the City of Rohnert Park thresholds of significance, global climate change impacts would be considered significant if the following condition was created by implementation of the Sonoma Mountain Village project.

- **Impact Criterion #1:** Conflict with or obstruct implementation of GHG emission reduction goals under AB 32, Sonoma County CCAP, or other State and City regulations.

The goals discussed below are recommended by the State and local governments in order to reduce the overall GHG emissions for the individual City and in turn the State with the ultimate goal of curbing the impacts of global climate change.

**Consistency with City of Rohnert Park Green Building Ordinance.** The City of Rohnert Park stipulates, through its Green Building Ordinance, that all new development will comply with the LEED Rating System for commercial and the GreenPoint Rating System for residential developments.

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<sup>4</sup> *Ibid.*



**Consistency with Sonoma County Community Climate Action Plan.** In October of 2008, all nine cities within Sonoma County and Sonoma County itself, established the Sonoma County Community Action Plan. Under this plan GHG emissions within the County are anticipated to be reduced to 25 percent below 1990 levels by 2015. This means a County wide reduction of 37 percent by 2015 or 46.3 percent by 2020. In order to normalize the reduction goals such that an evaluation for the SMV development can be made, reductions per capita are evaluated. Based on projected population for California in 2020 (42,210,000) in order to achieve the 2020 reduction of 46.3 percent, the per capita emissions would need to be reduced to 7.6 tonnes of CO<sub>2e</sub> per year. The proposed emissions reductions under the Sonoma County Community Climate Action Plan would be greater than goals provided in the State's AB 32 guidance material.

**Consistency with the AB 32.** In 2006, the California State Legislature adopted Assembly Bill 32 which requires CARB to adopt rules and regulations that would achieve GHG emissions equivalent to State-wide levels of 1990 by 2020. This means a County wide reduction of 28.4 percent by 2020. In order to normalize the reduction goals such that an evaluation for the SMV development can be made, reductions per capita are evaluated. Based on projected population for California in 2020 (42,210,000) in order to achieve the 2020 reduction of 28.4 percent, the per capita emissions would need to be reduced to 10.1 tonnes of CO<sub>2e</sub> per year.

## **Project Evaluation**

### **Impact Criterion #1**

***GHG Emission Reduction Goals: Would the project conflict with or obstruct implementation of GHG emission reduction goals under AB 32, Sonoma County CCAP, or other State and City Regulations?***

The emissions anticipated by the proposed SMV development<sup>5</sup> are significantly reduced by project design features. However, in order to determine the level of significance with respect to global climate change, the emission inventory from a “minimally compliant” development of the same nature is also needed. Both of these inventories are consistent with the methodologies established by the California Climate Action Registry where possible and is divided into seven emission categories. These emission categories include:

- Vegetation changes,
- Emissions from construction activities,
- Residential emissions,
- Nonresidential building emissions,
- Mobile source emissions,

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<sup>5</sup> ENVIRON International Corporation: Climate Change Technical Report Sonoma Mountain Village, July 7, 2009.

- Municipal emissions, and
- Area source emissions.

Emissions from construction and vegetation change are considered as one-time emission events and are annualized over forty years to incorporate their impacts into the development's annual emission impacts. The number of dwelling units and the square footage of commercial and municipal development will be identical for both the minimally compliant and proposed SMV development inventory analysis. The analysis discusses the minimally compliant emission's inventory, followed by the project design features incorporated into the project, and finally discusses the emissions anticipated from the proposed SMV development.

Typically, waste management emissions are incorporated into a GHG emissions analysis. Waste Management can include composting, landfilling, and recycling of generated waste. Emissions from these activities result from the energy consumption needed for the transportation, use, or disposal of an item, manufacturing emissions not related to energy consumption, and direct methane emissions from landfills. The project has committed to a diversion of 70 percent of all waste generated by the residential and commercial operations of the proposed SMV development. Given that the Sonoma County Central landfill has a gas-to-energy conversion process, such that methane emissions from landfilling operations are collected and converted to energy, the landfill processes are considered biogenic and therefore are not counted in the emission inventories for either the minimally compliant or proposed SMV project. Therefore, landfilling operations are not discussed further in this analysis with the exception of their mention in the project design features.

### **Minimally Compliant Emissions Inventory**

In order to show the benefits of the proposed SMV developments project design features with respect to meeting the County and State wide emission goals for 2015 and 2020, it is necessary to compare the GHG emissions inventory for the proposed SMV development with the GHG emissions that would occur without these project design features and energy reduction commitments. The following analysis discusses this “minimally compliant” variation of the proposed SMV development assuming that it was built according to current standards and without the project design features and energy reduction commitments. A description of each of the emission source categories, as well as their associated emissions is summarized below.

**Vegetation Change.** The permanent removal of existing vegetation can reduce existing carbon sequestration thereby increasing the contribution to net GHG emissions. Areas that are temporarily disturbed and subsequently re-vegetated with the same vegetation types as were removed are assumed to have no net impact. Those areas where temporary disturbance is followed by increased or diversified vegetation types have the potential to sequester more CO<sub>2</sub> than the pre-development conditions. Therefore, emissions from vegetation change are the sum of the positive and negative GHG emissions associated with vegetation removal and re-vegetation. The existing land in the SMV development area is fully developed or else graded and devoid of vegetation. For the minimally compliant inventory, vegetation emissions were calculated assuming that existing non-settlement areas remain undeveloped.

Additionally, it was assumed that no trees would be planted. Based on the minimally compliant vegetation change, a one-time sequestration of CO<sub>2</sub> would result in the reduction of 450 tonnes of CO<sub>2</sub>e over twenty years, the average lifespan designated by the IPCC.

**Construction Activities.** Construction activities for the SMV development are estimated to take place over a twenty year period. Emissions from construction activities are mostly attributed to fuel use from construction equipment, worker commuting, and vendor trips. The minimally compliant inventory assumes that all construction equipment operates on conventional diesel fuel. Emissions from worker commutes are attributed to the running emissions produced from driving, and start-up emissions produced by turning the vehicles on. The majority of the emissions from worker commuting are running emissions. Emissions from vendor trips are based on running and start-up emissions as well as idling emissions. Idling emissions were estimated only at residential sites.

The USEPA recommends that CH<sub>4</sub>, N<sub>2</sub>O, and HFCs account for 5 percent of the GHG emission from on-road vehicles. To incorporate these emissions into the overall construction emissions, the total CO<sub>2</sub> emissions estimated for worker commutes were divided by 0.95. CH<sub>4</sub>, N<sub>2</sub>O, and HFCs are not included in the calculation of CO<sub>2</sub>e from diesel vehicles as they are anticipated to be less than 1 percent of the total emissions of these vehicles. Emissions from construction activities are estimated as a one-time emissions event of 15,459 tonnes CO<sub>2</sub>e.

**Residential Buildings.** Greenhouse gas emissions are emitted as a result of the consumption of electricity and natural gas in residential buildings as well as the generation of this electricity from fossil fuels. Detached single-family homes, detached cottages, and second dwelling units, attached single family rowhouses and townhouses, and attached multi-family apartments are condominiums comprise the residential buildings included in the SMV development. For this inventory it was assumed that each of these new dwelling units will be minimally compliant with Title 24. Total CO<sub>2</sub>e emissions are anticipated to be 7,034 tonnes per year for the minimally compliant inventory.

**Nonresidential Buildings.** All structures within the development area with the exception of residential units are considered nonresidential buildings. These include government, municipal, commercial, retail, and office space. For this inventory it was assumed that each of these new dwelling units will be minimally compliant with Title 24. Similar to the residential units, GHG emissions result from the consumption of electricity and natural gas, as well as the generation of electricity from fossil fuels. Total CO<sub>2</sub>e emissions from nonresidential development are anticipated to be 5,846 tonnes per year for the minimally compliant inventory.

**Mobile Source Emissions.** Mobile source emissions are based upon all miles traveled by SMV residents regardless of the destination or purpose of the trip. To determine the minimally compliant mobile source emissions, the vehicle miles traveled under the proposed SMV development was compared to the annual vehicle miles traveled by light duty autos and trucks in Sonoma County based on the number of dwelling units. Based on the projected 2020 scenario for Sonoma County, 20,337 miles per dwelling unit is anticipated as compared to the proposed SMV 14,713 miles per dwelling unit. Therefore the anticipated minimally compliant emissions from mobile sources are estimated to be

25 percent greater than the proposed SMV development without the additional AB 1493 reductions or 14,938 tonnes CO<sub>2e</sub> annually.

**Municipal Emissions.** Emissions from municipal sources include those stemming from drinking water and wastewater supply and treatment, lighting in public areas, and municipal vehicles. Under the minimally compliant scenario all energy required for the various operations such as potable water supply and conveyance, treatment and distribution, non-potable water treatment and distribution, wastewater treatment, and public lighting is anticipated to be supplied by PG&E. Emissions from municipal vehicles are the direct emissions from burning fossil fuels. For this analysis, municipal vehicles include police cars, fire trucks, and garbage trucks. Total annual emissions from municipal sources under the minimally compliant inventory are estimated at 1,030 tonnes CO<sub>2e</sub> annually.

**Minimal Compliant Emissions Summary.** Table 3.15-1 summarizes the emissions from the proposed SMV development. Vegetation and construction emissions are one-time occurrences of -1,991 tonnes CO<sub>2e</sub> and 13,824 tonnes CO<sub>2e</sub> respectively. Because they are a one-time occurrence, they are annualized over forty years (296 tonnes CO<sub>2e</sub> per year for 40 years) and added to the emissions from the other five sources to provide a total annual emissions inventory for the proposed SMV development. Emissions from residential development, nonresidential buildings, and area sources are estimated at 0 tonnes CO<sub>2e</sub> per year as a result of commitments to the use of 100 percent renewable resources and the ban on small mobile combustion sources and gas and wood-burning stoves and fireplaces. Emissions from mobile and municipal sources are estimated at 9,049 tonnes CO<sub>2e</sub> and 596 tonnes CO<sub>2e</sub> per year respectively. The total annual emissions for the minimally compliant variation are estimated at 29,223 tonnes CO<sub>2e</sub> per year.

## **Project Design Features**

The Sonoma Mountain Valley development is actively incorporating many design features that will ultimately reduce GHG emissions. Some of these design features are quantifiable and are included in the Proposed SMV Emission Inventory while others, although proposed and likely to reduce emissions were not developed enough at this time to quantify the levels of reduction. These reduction measures will, when implemented, further reduce the emissions estimated for the project in this analysis.

**Project Design Features Incorporated and Quantified.** The following project design features are supported by existing programs as described in the SMV Sustainability Plan,<sup>6</sup> Smart Code,<sup>7</sup> SMV Water Plan,<sup>8</sup> and the City of Rohnert Park Green Building Ordinances.

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<sup>6</sup> Sonoma Mountain Village One Planet Communities Sustainability Action Plan version 1.3. 2008.

<sup>7</sup> Sonoma Mountain Village P-D Zoning District: Smart Code, revised April 28, 2009.

<sup>8</sup> Sonoma Mountain Village: Water Plan, August, 2009.

**Table 3.15-1  
Minimally Compliant GHG Emissions**

Source	GHG Emissions (tonnes of CO <sub>2</sub> e/year)
<b>One-Time Emissions</b>	
Vegetation Change	-450
Construction Emissions	15,459
<b>Total</b>	<b>15,009</b>
Annualized Emissions	375
<b>Annual Emissions</b>	
Residential	7,034
Nonresidential	5,846
Mobile	14,938
Municipal	1,030
<b>Total</b>	<b>28,848</b>
<b>Total Annualized Emissions</b>	
Annualized one-time Emissions	375
Annual Emissions	28,848
<b>Total</b>	<b>29,223</b>

*Source: Environ 2009*

*Mobile Sources:*

- The circulation system has been designed to encourage residents to make multiple stops per trip by allowing alternate routes and eliminating dead end streets;
- The jobs-housing balance at SMV will help reduce trip lengths in vehicles.

*Water Conservation:*

- SMV will not require any additional municipal drinking water;
- SMV will require less than half of the water per person in a traditional new community;
- Rainwater catchment and reclaimed water will be used for central irrigation;
- Super-efficient fixtures such as toilets, urinals, and irrigation systems, will be used;
- Turf area will be strictly limited; and
- A small graywater collection system will be used for subsurface irrigation.

*Energy Efficiency and Renewable Sources of Energy:*

- SMV's electrical, space heating, and hot water demands will all be met by on-site renewable sources of energy;

- SMV will decrease the amount of renewable energy required by implementing energy efficient measures as described in the City's Green Building Ordinance;
- New residential buildings will be 30 percent more efficient than 2005 Title-24 Building Standards;
- Existing commercial buildings will be retrofit over time to be 10 percent more efficient than 2005 Title-24 Building Standards;
- New commercial buildings will be 20 percent more efficient than 2005 Title-24 Building Standards;
- Design guidelines have incorporated the requirement for compressor based cooling; and
- The Sonoma County Water Agency, which will provide SMV's water service, has committed to provide 100 percent of its energy with renewable power sources by 2015.

*Area Sources:*

- Wood-burning stoves and fireplaces; natural gas heating and fireplaces; and gas-powered landscaping equipment are all prohibited within the SMV development.

**Project Design Features Incorporated that will Reduce Emissions, but are Not Quantified**

*Mobile Sources:*

- A travel coordinator will provide useful personalized information regarding transportation alternatives such as bus schedules, car pools, and access to bicycle and pedestrian pathways;
- A walkable site with bicycle network and public transit will help reduce its mobile emissions;
- A car share program will encourage carpooling;
- The Village Square will be located within a five-minute walk of all SMV residences and a short bike ride or drive from surrounding existing neighborhoods;
- Every residence will be near a park; and
- The use of biofuels and social marketing will help reduce mobile emissions.

*Green Waste Management:*

- An aggressive waste management plan is designed to achieve a 70 percent diversion rate, including recycling, composting, and reclaiming waste; and
- The waste management plan is designed to cut volume sent to landfill by 98 percent when waste reduction is taken into account.

## Proposed Sonoma Mountain Village Emissions Inventory

The following analysis discusses GHG emissions expected for the proposed SMV development after the incorporation of all of the above mentioned project design features. A description of each of the seven emission source categories, as well as their emissions is summarized below.

**Vegetation Change.** The SMV development anticipates replacing the existing native perennial grasslands, California annual grassland, riparian and bottomland vegetation types with approximately 2,739 trees of varying species. The loss of grasslands will result in an increase of CO<sub>2</sub>e emissions of 203 tonnes over the twenty year. However, the new trees are anticipated to sequester 2,194 tonnes of CO<sub>2</sub>e, resulting in a net reduction of 1,991 tonnes CO<sub>2</sub>e over the lifetime of the development.

**Construction Activities.** Construction activities for the proposed SMV development has committed to using B-20 biodiesel for all construction equipment as per the Sonoma Mountain Village One Planet Communities Sustainability Action Plan.<sup>9</sup> The B-20 biodiesel is a mixture of 80 percent diesel and 20 percent biodiesel. Based on CCAR methodology, the emissions resulting from biodiesel are considered biogenic and therefore are not included in the emissions inventory. All other construction emission sources from the proposed SMV development are identical to those discussed under the minimally compliant inventory. Emissions from construction activities under the proposed SMV development are estimated as a one-time emission event of 13,824 tonnes CO<sub>2</sub>e.

**Residential Buildings.** The proposed SMV development is committed to providing 100 percent of the electrical needs of the residential units through renewable resources. These resources include the use of photovoltaics, ground-source heat pumps, and solar hot water heaters. In addition, the use of natural gas for cooking is being banned within this development area. Based on these stipulations, there will be no annual emissions associated with the residential buildings. Further, the amount of renewable energy systems needed for the residential developments is anticipated to be reduced through the project commitment to increase the energy efficiency of the residential units to 30 percent beyond that required by the 2005 Title 24 Part 6 building standards.

**Nonresidential Buildings.** The proposed SMV development is committed to providing 100 percent of the electrical needs of the nonresidential development through renewable resources. Further, the amount of renewable energy systems needed for the residential developments is anticipated to be reduced through the project commitment to increase the energy efficiency of the residential units to 20 percent beyond that required by the 2005 Title 24 Part 6 building standards for all new developments and will renovate all existing nonresidential buildings to 10 percent beyond that required by the 2005 Title 24 Part 6 building standards. Based on these stipulations, there will be no annual emissions associated with the nonresidential buildings.

**Mobile Source Emissions.** Mobile source emissions are based upon all miles traveled by SMV residents regardless of the destination or purpose of the trip. As the existing and new commercial

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<sup>9</sup> Sonoma Mountain Village One Planet Communities Sustainability Action Plan version 1.3. 2008.

development is intended to serve the residential communities within the development area, it is anticipated to reduce shopping and work trip lengths when there is a high balance between residential and commercial developments as is the case with the SMV development area. Therefore, the new nonresidential growth is not considered to contribute to the mobile GHG emissions. The USEPA recommends that CH<sub>4</sub>, N<sub>2</sub>O, and HFCs account for 5 percent of the GHG emission from mobile sources. To incorporate these emissions into the overall emissions, the total CO<sub>2</sub> emissions estimated for mobile sources were divided by 0.95. Estimated mobile source emissions for the proposed SMV development is 11,270 tonnes CO<sub>2</sub>e annually.

On June 30, 2009, the EPA reversed its initial denial and announced that it has granted the California Request to Reduce Vehicle Greenhouse Gas Emissions “waiver” request to implement AB 1493. This will require further reductions in GHG emissions from passenger vehicles and light duty trucks. With the incorporation of reductions from the implementation of AB 1493, mobile source emissions from the proposed SMV development are estimated at 9,049 tonnes CO<sub>2</sub>e annually.

**Municipal Emissions.** Emissions from municipal sources include those stemming from drinking water and wastewater supply and treatment, lighting in public areas, and municipal vehicles. All water for the project will be supplied by the Sonoma County Water Agency (SCWA)<sup>10</sup>. The SCWA has committed to the use of 100 percent renewable energy sources by 2015 for all of its water supply and treatment operations. Under the proposed SMV development inventory municipal water use will produce no GHG emissions for indirect emissions, however direct emissions from wastewater treatment (methane and nitrous oxide from wastewater) will result in annual emissions of 375 tonnes CO<sub>2</sub>e. The SMV development has committed to providing energy to power all public lighting sources from renewable resources and therefore will not result in GHG emissions. Emissions from municipal vehicle use will be identical to that of the minimally compliant inventory, resulting in an additional 222 tonnes CO<sub>2</sub>e. This brings the annual total of CO<sub>2</sub>e emissions from municipal sources to 597 tonnes.

**Area Emission Sources.** Area source emissions result from the combustion of fuels from hearths including gas fireplaces, wood-burning fireplaces, and wood burning stoves. Also included in area emissions are the small mobile combustion sources such as gas powered lawnmowers and other landscaping equipment. The proposed SMV development has banned all gas and wood fireplaces along with gas powered landscape equipment.<sup>11</sup> Therefore, there will be no GHG emissions associated with area sources.

**Proposed SMV Emissions Summary.** Table 3.15-2 summarizes the emissions from the proposed SMV development. Vegetation and construction emissions are one-time occurrences of -1,991 tonnes CO<sub>2</sub>e and 13,824 tonnes CO<sub>2</sub>e respectively. Because they are a one-time occurrence, they are annualized over forty years (296 tonnes CO<sub>2</sub>e per year for 40 years) and added to the emissions from the other five sources to provide a total annual emissions inventory for the proposed SMV development. Emissions from residential development, nonresidential buildings, and area sources are

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<sup>10</sup> Sonoma County Water Agency: Sustainability, [www.scwa.ca.gov/environment/sustainability](http://www.scwa.ca.gov/environment/sustainability), July 8, 2009.

<sup>11</sup> Sonoma Mountain Village One Planet Communities Sustainability Action Plan version 1.3. 2008.



estimated at 0 tonnes CO<sub>2e</sub> per year as a result of commitments to the use of 100 percent renewable resources and the ban on small mobile combustion sources and gas and wood-burning stoves and fireplaces. Emissions from mobile and municipal sources are estimated at 9,049 tonnes CO<sub>2e</sub> and 596 tonnes CO<sub>2e</sub> per year respectively. The total annual emissions for the proposed SMV development are estimated at 9,941 tonnes CO<sub>2e</sub> per year.

<b>Table 3.15-2</b>	
<b>Proposed SMV Development GHG Emissions</b>	
<b>Source</b>	<b>GHG Emissions (tonnes of CO<sub>2e</sub> / year)</b>
<b>One-Time Emissions</b>	
Vegetation Change	-1,991
Construction Emissions	13,824
<b>Total</b>	<b>11,833</b>
Annualized Emissions	296
<b>Annual Emissions</b>	
Residential	0
Nonresidential	0
Mobile	9,049
Municipal	597
<b>Total</b>	<b>9,645</b>
<b>Total Annualized Emissions</b>	
Annualized One-Time Emissions	296
Annual Emissions	9,645
<b>Total</b>	<b>9,941</b>

Source: Environ 2009

Table 3.15-3 compares the emissions estimated generated by a minimally compliant variation of the proposed SMV development to the emissions generated by the proposed SMV development including the project features proposed for the project. The proposed SMV development will have a population of approximately 4,500 at buildout. Based on this population, estimated emissions from the SMV development are anticipated to be 9,941 tonnes CO<sub>2e</sub> per year or 2.7 tonnes CO<sub>2e</sub> per capita per year. This equates to a reduction in emissions that is 78 percent beyond the 2020 ARB required reductions (10.1 tonnes CO<sub>2e</sub> per capita per year) and 71 percent beyond the 2015 Sonoma County reduction requirements (to 7.5 tonnes CO<sub>2e</sub> per capita per year).

**Table 3.15-3  
GHG Emissions Comparison**

Source	GHG Emissions (tonnes of CO <sub>2</sub> e/year)		Percentage Improvement over Minimally Compliant
	Minimally Compliant	Proposed SMV	
<b>One-Time Emissions</b>			
Vegetation Change	-450	-1,991	342 percent
Construction Emissions	15,459	13,824	11 percent
<b>Total</b>	<b>15,009</b>	<b>11,833</b>	<b>21 percent</b>
Annualized emissions	375	296	21 percent
<b>Annual Emissions</b>			
Residential	7,034	0	100 percent
Nonresidential	5,846	0	100 percent
Mobile	14,938	9,049	39 percent
Municipal	1,030	597	42 percent
<b>Total</b>	<b>28,848</b>	<b>9,645</b>	<b>67 percent</b>
<b>Total Annualized Emissions</b>			
Annualized one-time Emissions	375	296	21 percent
Annual Emissions	28,848	9,645	67 percent
<b>Total</b>	<b>29,223</b>	<b>9,941</b>	<b>66 percent</b>
<b>Emissions per Capita</b>			
<b>Project variations</b>	<b>6.5</b>	<b>2.2</b>	<b>66 percent</b>
AB 32 requires	10.1	10.1	
Percent Difference	36 percent	78 percent	
Sonoma County CCAP required	7.6	7.6	
Percent Increase	15 percent	71 percent	

Source: Environ 2009

The proposed SMV development is compliant with, and furthers the GHG emission reduction goals under AB 32, Sonoma County CCAP, and the City of Rohnert Park Green Building Ordinance. The estimated SMV GHG emissions inventory and design features are within the Sonoma County CCAP GHG emission estimates and reduction measures needed to meet the Sonoma County CCAP goal of reducing GHG emissions 25 percent below 1990 levels by 2015. The SMV design features are all consistent with the City of Rohnert Park Green Building Ordinance. For these reasons, the Project's incremental contribution of GHG emissions is considered less than significant.

The proposed emissions estimate is conservative as described above. Even so, the proposed SMV development furthers both the AB 32 and Sonoma County reduction plans based on the incorporation of the design features that were incorporated into the project. It is anticipated that advances in technology, and increased legislation and regulatory mandates, along with the implementation of design features

that were not quantified in this analysis will provide additional reductions for the project by the time project buildout is achieved.



# Chapter 4

## Growth Inducement

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### GROWTH INDUCEMENT

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#### Introduction

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Section 15126.2(d) of the *CEQA Guidelines* requires a review of project-related growth inducement in an EIR:

Discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth (a major expansion of a wastewater treatment plant might, for example, allow for more construction in service areas). Increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. Also, discuss the characteristic of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.<sup>1</sup>

In summary, CEQA requires a discussion of how a project could increase population, employment, or housing growth in surrounding areas and the impacts resulting from this growth. CEQA Guidelines indicate that a project would normally have a significant effect on the environment if it would induce substantial growth or concentration of population. This section of the EIR discusses the manner in which the Sonoma Mountain Village project could affect such growth.

#### Growth Inducement

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##### Growth Defined

When CEQA refers to *induced growth*, CEQA means *all growth—direct or indirect*—induced by a project. Growth can be induced in a number of ways, including increases in population, employment, and housing, through the elimination of obstacles to growth, or through the stimulation of economic activity within a region.

Direct growth occurs on a project site and within the facilities to be constructed such as a housing development that would contain an increase in population or a commercial facility that would attract shoppers or workers from other locations. Indirect growth occurs beyond the project site but is stimulated by a proposed project's direct growth. Such growth is tied to increased direct and indirect investment and spending by residents, employees, and businesses.

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<sup>1</sup> California Office of Planning and Research, *CEQA – California Environmental Quality Act – Statutes and Guidelines*, as amended July 11, 2006.

Indirect growth stems from the “induced” employment generated by the economic activity resulting from a project. Indirect employment is generated by a direct increase in economic activity. It is due to the increases in spending that would occur on the part of the businesses, employees, and employee households related to an increase in direct economic activity. It is also due to the additional spending that would occur on the part of suppliers of the goods and services demanded by the projects’ direct economic activity (primary and secondary households, businesses, and employees). Production, employment, and households would increase with each new round of spending, but at a decreasing rate with each additional round. Indirect growth could have the potential for environmental impacts, but cannot be assumed to automatically create environmental impacts in and of itself.

In accordance with the State CEQA Guidelines, Section 15126.2, this discussion of growth inducement is not intended to be characterized as necessarily beneficial, detrimental, or of little significance to the environment. Consistent implementation of the mitigation measures as identified in this EIR are designed to mitigate the direct effects of project development and growth on the physical environment.

The analysis of growth inducement potential encompasses four areas of discussion: 1) Employment; 2) Housing and Population; 3) Infrastructure and Public Services; and 4) the Urban Growth Boundary.

## **Employment**

**Primary Employment:** As indicated in Section 3.11 of this EIR, Population and Housing, the proposed project would include up to 425,978 square feet (sf) of commercial office space, 107,329 sf of retail/commercial space, a 45,000 sf grocery center, a 25,000 sf movie theater, a 30,000 sf health club, 15,000 sf daycare facility, 39,472 sf of restaurant space, a 100 room and 91,000 sf hotel, and 35,000 sf of civic building space in addition to the 700,000 sf of existing light industrial land uses. These facilities would offer employment in a variety of permanent job opportunities ranging from service oriented to high tech and managerial positions. In addition to the diversity of jobs generated by the proposed project, the proposed 1892 residential units included in Sonoma Mountain Village provide employees with the opportunity to live and work in close proximity, thus adding to the sustainable nature of the project. The project would be capable of accommodating up to about 2,576 employees upon buildout, of which 72 percent are anticipated to be office or civic positions. The remaining 28 percent would consist of service/retail positions. This is considered the maximum potential that would be generated by the project at buildout, and assumes no vacancies which is an unlikely scenario. Therefore, actual employment generation would be somewhat lower than indicated, depending on the rate of project buildout and regional business and economic conditions. The actual employment due to purely economic conditions could be substantially less.

There are currently about 350 office workers employed at the existing facilities of the project site. Therefore, the net gain in employment on the project site would be approximately 2,226 new employees. Not all workers would be on the project site at the same time, thus reducing population and growth potential than otherwise would be the case if all employees were on the same schedule. A number of the businesses would be expected to serve the local population because of the goods and services offered, ease of access and close proximity to residents. The office complex portion of the project would be expected to house a variety of businesses, including professional, technical, and other

services. Retail and commercial uses would be expected to include locally serving enterprises, including a grocery store and a variety of shopping services.

The increase in employment and new office space to accommodate employees as a result of the project would provide more opportunities for persons currently living in the City of Rohnert Park who travel out of the City to work to find employment opportunities in the City. The rate of employment growth would be proportional to the rate of project development under the City's Growth Management Program (further discussed below) and the creation of work space, types of jobs to be created and business opportunities prevalent within the project area and in the city as a whole.

Job creation and job opportunities stimulated by the project and work space provided can be viewed as a beneficial effect in that it would be expected to stimulate economic development and generate tax revenues for the City. Overall, opportunities for employment provided by the project would be consistent with the General Plan Land Use and Growth Management Element goals and policies to increase the ability of people to live and work in the City (Goal LU-C); promote a diverse range of jobs within the City (Goal LU-K); require sites designated as mixed use and near Bodway Parkway/Valley House Road to be developed with a variety of residential and non-residential uses (Policy LU-2); and encourage new neighborhood commercial facilities and supermarkets to be located to maximize accessibility to all residential areas (Policy LU-7).

The rate of job growth would be generally proportional to the rate of project development anticipated under the City's Growth Management Program, resulting in a 1.3:1 jobs housing balance onsite upon buildout. The Sonoma Mountain Village project would also be consistent with the expected creation of work space, types of jobs to be created, amount of office space to be leased, availability in the labor force, and business opportunities prevalent within the project area and the City as a whole. The existing jobs/housing balance of the City is 1:1 and would not be altered by the project, whose anticipated 2,576 jobs are equivalent to the proposed 1,892 housing units.

**Secondary Employment:** Direct employment growth due to the project would lead to secondary employment growth. Secondary employment growth would stem from the "induced" employment generated by the economic activity occurring in the office and retail space provided by the project as noted previously.

The various commercial and office uses proposed in the project include retail uses, hotel, health club, restaurants (part of the hotel), theater, food industry (grocery) and office space to house professional and services enterprises (personal services, financial, real estate, legal, industry, research and development) and similar uses. To estimate the potential multiplier effect associated with project-related jobs, the Association of Bay Area Governments (ABAG) has developed local (Type I) and regional (Type II) economic multipliers for the San Francisco Bay Region based on an input-output model.<sup>2</sup>

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<sup>2</sup> Association of Bay Area Governments, Center for Analysis and Information Services, 1987 Input-Output Model and Economic Multipliers for the San Francisco Bay Region, March 1995, Table 6, 1987 Bay Area Employment Multipliers, p. 48.

The economic multipliers measure the direct, indirect, and induced employment attributable to a specific project. The jobs that would be generated by the project can be classified into the following sectors - office (personal, professional, civic and business services); retail (including grocery store); hotel and health club (lodging and personal services); and theater (amusement and recreation services). Table 4-1 presents the economic multipliers for the different job sectors. The Type I multiplier measures the indirect and induced jobs created locally and the Type II Multiplier measures the indirect and induced jobs created regionally.

**Table 4-1  
Sonoma Mountain Village  
Indirect/Induced Local and Regional Jobs**

<b>Job Sector</b>	<b>Total Jobs<sup>a</sup></b>	<b>Type I Multiplier<sup>b</sup></b>	<b>Type II Multiplier<sup>c</sup></b>	<b>Indirect/Induced Local Jobs</b>	<b>Indirect/Induced Regional Jobs</b>
Office (general)	1227 <sup>d</sup>	1.47	5.26	577	5,227
Office (business incubator) and Civic	262	1.12	3.36	32	593
Retail <sup>e</sup>	618	1.07	2.56	44	965
Daycare, Hotel and Health Club	85	1.24	2.92	21	164
Theater	25	1.44	3.19	11	55
<b>Total</b>	<b>2,226<sup>f</sup></b>	—	—	<b>685</b>	<b>7,004</b>

Source: Sonoma Mountain Village LLC.

Notes:

- a. Derived from Table 3.11-1.
- b. The Type I multiplier measures the indirect and induced jobs created locally.
- c. The Type II multiplier measures the indirect and induced jobs created regionally. Type II multipliers represent the most optimistic estimates of indirect and induced impacts. The Type II analysis assumes the jobs going into the buildings are new regional jobs and not being relocated, no imports for purchases, and all wages are only spent in the region. In practical terms, it is unlikely that the Type II multiplier level would ever be reached.
- d. Excludes existing 350 employees.
- e. Includes grocery and restaurant jobs.
- f. Total shown excludes 350 existing employees. Total with existing employees would be 2,576.

For example, the retail trade sector has a Type I Multiplier of 1.07 and Type II multiplier of 2.56, which means that for every retail job created, there would be 0.07 indirect and induced jobs created locally and 1.56 indirect and induced jobs created regionally. As shown in Table 4-1, the net increase of 2,226 direct jobs from the project would result in:

- About 685 indirect and induced local jobs
- About 7,004 indirect and induced regional jobs

Therefore, the combined total gross local employment growth (direct and indirect employment) with the project would be about 3,261 and the combined regional employment growth would be about 9,915. It must be noted that the Type II multiplier represents the most optimistic estimates of indirect



and induced impacts under the most optimistic assumptions, and in practical terms, it is unlikely that the Type II multiplier level would ever be reached.

Again, job creation and job opportunities stimulated by the project can be viewed as a beneficial effect through the expansion of economic activities, and would be consistent with General Plan Land Use and Growth Management Element goals and policies to increase the ability of people to work in the City under a range of work opportunities.

**Construction Employment:** Project construction would generate jobs in the construction, materials fabrication, and supply industries throughout the construction period up until the time of project buildout and completion. The provision of construction jobs would create an indirect demand for local goods and services. Expenditures for construction and expenditures by construction workers would indirectly stimulate employment and sales in the City of Rohnert Park and southern Sonoma County during the construction period. It is not expected that appreciable numbers of people would establish primary residence in the Rohnert Park area or that new businesses would be created as a result of project construction activities given the relatively standard nature of the construction work. Project construction would be expected to employ construction workers already living and working in Sonoma County and the wider Bay Area. As with all economic activity, some of the demand for products and services would be met by firms outside of the local economy. But no significant labor pool from outside the Bay Area would be expected to temporarily or permanently relocate or commute long distances as a result of constructing the Sonoma Mountain Village project.

## Housing and Population

**Project Housing and Population:** Housing and population issues are discussed in Section 3.11 of this EIR. The primary increase in population on the project site would be through the construction of housing. At buildout, the Sonoma Mountain Village project would potentially be able to accommodate up to approximately 4,438 residents representing about 9.4 percent of the total 47,100 population of Rohnert Park (as projected by ABAG) in the year 2020. While this ratio may seem high, the project would be required to comply with the growth management goals and policies contained in the General Plan by instituting a phasing program that complies with General Plan policies and Zoning Ordinance Chapter 17.19 regarding growth. Controlled growth would thus align the pace of project development with the ability of utility and public service providers to adequately serve the project.

Secondary housing and population growth would occur through the formation of new households as a result of new employees working in new businesses. These new households could choose residential locations within the City of Rohnert Park, including the project site. Housing on the project site would improve the jobs/housing balance and assist in reducing out-commuting. Currently, the average household in the City of Rohnert Park has about 1.45 employed residents.<sup>3</sup> Using this ratio to estimate the demand for housing from 2,226 new employees (net gain over existing), the housing demand would

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<sup>3</sup> Association of Bay Area Governments, *Projections 2007*. In 2005, number of employed residents = 23,140; number of households = 16,000; therefore, employed residents per household in 2005 = 1.45.

be about 1,536. This is, however, a conservative value under the assumption that all the employees generated from the proposed project would be residents of Rohnert Park.

Because the project proposes the construction of up to 1,892 housing units, depending on market conditions, the project can be considered growth accommodating in that it would meet the demand for housing resulting from an increase in employment on the site. The development of housing as part of the project would contribute to a more integrated land use profile, placing residents in closer proximity to a variety of employment opportunities.

Project construction to the point of buildout could encompass a period of years, as yet undetermined. Implementation of the City's Growth Management Program would serve to control the rate of project buildout consistent with the intent of the Program and goals and policies of the General Plan. In addition, the provision of housing in the project would be beneficial to the extent it would be consistent with General Plan goals and policies to accommodate projected growth (Goal HO-A), promote a diversity of housing types (Policy HO-4), address the housing needs of varied economic segments of the community (Goal HO-C), provide a range of housing types and prices (Goal LU-1), and facilitate the availability of market-rate housing to low- and moderate-income first-time home buyers (Policy HO-6).

## **Infrastructure and Public Services**

Growth in a geographic area may be induced by removing infrastructure barriers through the provision of new infrastructure (roads, sewers, water supply, storm drainage, energy) and/or improving transportation and circulation systems. Accordingly, the growth-inducing potential of the project would be significant if the project's infrastructure improvements substantially exceeded the capacity to accommodate the project above and beyond the level of development as currently proposed either on or off the project site.

The project site is located between developed residential areas to the north and west and planned development and semi-rural areas to the east and south. Today, more extensive existing infrastructure systems are associated with more intensive residential development north and west of the project site. Buildout of the site would require infrastructure development consistent with the level of infrastructure provided in developed areas north and west of the site. The Sonoma Mountain Village Final Development Phasing Plan sets forth the intent to allow the project to proceed while balancing the construction of infrastructure with market absorption, and with project staging to support the funding for subsequent phases.

There would be no new regional-serving infrastructure systems or transportation projects constructed to serve the project site (see Sections 3.13, Traffic and Circulation, and 3.14, Utilities and Service Systems, of this EIR for additional information). Vehicular access, sewer, water, and energy systems are already provided to serve the north portion of the project site. Infrastructure expansions would be required to serve the south portion of the project site. The construction of new infrastructure to serve new residential and retail/commercial areas on the site would be limited to that necessary to serve new development. The reconstruction of existing sewer, water, energy, and drainage facilities to serve

adaptive reuse of the existing structures would be limited to the necessary size and capacity to serve the new development. The project's use of "green technology" would reduce new energy demands on utilities due to the extensive energy conservation practices and materials incorporated into its construction.

While Bodway Parkway would be constructed on the east margin of the site between Valley House Drive and East Railroad Avenue, the road is proposed to be constructed as a two-lane Minor Collector rather than a four-lane Major Collector, a lesser facility than called for in the General Plan. Phased infrastructure improvements are to be included in a Development Agreement with the City, with development phasing based on the City's Growth Management Ordinance, which requires controlled development pursuant to the criteria that each development phase have the financial capability to fund the necessary infrastructure to serve subsequent development on the project site.

To the extent the project would increase the employee and resident population of Rohnert Park, there would be an increase in the demand for the provision of public services. This includes an increased demand for police protection, fire protection and emergency services; school facilities, and parks and recreation facilities proportional to the population increase of the project (see also Section 3.12, Public Services, in this EIR). The analysis indicates there would be no significant impacts on public services due to the project, but the project would contribute to the overall demand for public services in terms of cumulative development throughout the City as a whole. In this regard, the project would not in and of itself indicate a substantial growth inducing potential so as to inhibit the reasonable provision of public services. An increase in the demand for new public service facilities could lead to potential significant environmental impacts only if expanding or constructing new facilities were required that adversely affected the physical environment under the impact criteria established.

In summary, planning for the future expansion of utility and public service facilities and services would take account of the project population levels. As noted previously, the project would be required to comply with the growth management goals and policies contained in the General Plan and Zoning Ordinance Chapter 17.19 regarding growth. Controlled growth would thus align the pace of project development with the ability of utility and public service providers to adequately serve the project.

The increase in utility and public service personnel and equipment required to serve the project would not be implemented beyond what is required to accommodate the project and there would be no significant growth inducements as a result.

## **Growth and the Urban Growth Boundary**

The development of the Sonoma Mountain Village project would occur within the current City limit line and the City's Urban Growth Boundary (UGB). Rohnert Park's UGB was adopted in 2000 by Rohnert Park voters (Measure N). The UGB is the boundary in which urban development is to be contained within the timeframe of the General Plan until 2020. The UGB restricts development to a specific geographic area and defines where unincorporated open space generally begins.

Growth within the UGB is anticipated to be consistent with the General Plan. As outlined in the General Plan Land Use and Growth Management Element, Goal GM-G requires that all urban development in the Rohnert Park Planning Area be located within the UGB and prohibits urban development outside the UGB.

It is noted that competition can occur between urban land uses within the UGB and agricultural land uses outside the UGB. Lands east and south of the project site outside the UGB are predominantly semi-rural and some parcels are used for agriculture, though not extensively. Thus, development of the project site's vacant land (southerly parcel) could conceivably have the potential to adversely affect the agricultural viability of adjacent areas through stimulating further residential development outside the UGB leading to the attendant loss of agriculturally suitable land, depending on market conditions.

In response, various conditions are in place to protect existing land uses outside the UGB from growth within the UGB. Policies within the Sonoma County General Plan are designed to encourage the maintenance of agricultural activities. Objective LU-2.4 of the County General Plan Land Use Element states: "Coordinate with cities to maximize cooperative planning and implementation of the General Plan." Policy LU-2b states:

Evaluate all city or city/county projects which affect the unincorporated area for consistency with the County General Plan. Inform the Board of any project which may be inconsistent with the general plan. Work with the applicable city to resolve any inconsistencies in a manner which is consistent with the county general plan.<sup>4</sup>

The project is consistent with City and County General Plan policies regarding growth within the UGB as noted above and would therefore not be expected to substantially induce substantial growth outside the UGB.

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<sup>4</sup> Sonoma County General Plan, Land Use Element, adopted by the County, March 1989, pp. 30 - 33.

# Chapter 5

## Unavoidable Significant Adverse Impacts

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### 5.1 INTRODUCTION

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Section 15126 of the CEQA Guidelines requires that all aspects of a project must be considered when evaluating its impact on the environment, including planning, acquisition, development, and operation. As part of this analysis, the EIR must also identify (1) significant environmental effects of the proposed project; (2) significant environment effects that cannot be avoided if the proposed project is implemented; (3) significant irreversible environmental changes that would result from implementation of the proposed project.

### 5.2 SIGNIFICANT ENVIRONMENTAL EFFECTS

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Chapter 1 of this EIR, Summary, and Sections 3.1 through 3.15 of this EIR provide a comprehensive identification of the proposed project's environmental effects, including the level of significance both before and after mitigation.

### 5.3 SIGNIFICANT AND UNAVOIDABLE IMPACTS

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Section 15126.2(b) of the CEQA Guidelines requires that an EIR describe any significant impacts that cannot be avoided, even with the implementation of feasible mitigation measures. The environmental effects of the proposed project on various aspects of the environment are discussed in detail in Chapter 4 of this EIR. Project-specific and cumulative impacts that cannot be avoided if the project is approved as proposed are identified below.

#### **Project-Specific Significant and Unavoidable Impacts**

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- 3.2-2 Project operational activities would generate emissions of ozone precursors (ROG, NO<sub>x</sub>) and particulate matter (PM<sub>10</sub>) (criteria pollutants), that would exceed BAAQMD quantitative emission thresholds of 80 pounds per day each.
- 3.9-2 Residential uses fronting East Railroad Avenue east of Old Redwood Highway could be exposed to permanent increases in exterior traffic noise levels above accepted standards.
- 3.11-1 Development of the proposed project would directly generate an unanticipated residential population increase within the City of Rohnert Park.
- 3.13-2 Under Baseline Conditions, the addition of project traffic would cause unacceptable LOS at the Petaluma Hill Road/Adobe Road intersection (Sonoma County jurisdiction) during the PM peak hour.

- 3.13-3 Under Baseline Conditions, the addition of project traffic would cause LOS to degrade, and delay to reach unacceptable levels at the Old Redwood Highway/East Railroad Avenue intersection (Sonoma County jurisdiction) during the PM peak hour. As a direct result of the addition of project traffic, the intersection would meet the requirements of the MUTCD Peak Hour Volume Signal Warrant.
- 3.13-4 Under Baseline Conditions, the addition of project traffic would cause unacceptable LOS at the Old Redwood Highway/East Cotati Avenue intersection (City of Cotati jurisdiction) during the PM peak hour.
- 3.13-5 Under Baseline Conditions, the addition of project traffic would cause unacceptable LOS at the LaSalle Avenue/East Cotati Avenue intersection (City of Cotati jurisdiction) during the PM peak hour. With and without the addition of project traffic, the intersection would meet the requirements of the MUTCD Peak Hour Volume Signal Warrant.

### **Cumulative Significant and Unavoidable Impacts**

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- 3.2 Project operational activities would generate considerable emissions of ozone precursors (ROG, NOx) and particulate matter (PM<sub>10</sub>) (criteria pollutants), that would contribute to the cumulative exceedance of the BAAQMD quantitative emission thresholds of 80 pounds per day each.
- 3.9-4 Residential uses fronting East Railroad Avenue east of Old Redwood Highway could be exposed to permanent increases in exterior traffic noise levels above accepted standards under cumulative conditions.
- 3.9-5 Cumulative traffic would likely cause interior noise levels in some of the closest and oldest of the residential units along East Cotati Avenue to increase further above the 45 dBA Ldn standards set by the City of Cotati and Title 24.
- 3.13-6 Under Cumulative Conditions, the addition of project traffic would cause LOS to degrade, and delay to reach unacceptable levels at the Petaluma Hill Road/East Railroad Avenue intersection (Sonoma County jurisdiction) during both AM and PM peak hours. As a direct result of the addition of project traffic, the intersection would meet the requirements of the MUTCD Peak Hour Volume Signal Warrant.
- 3.13-7 Under Cumulative Conditions, the addition of project traffic would cause delay to reach unacceptable levels at the Petaluma Hill Road/Adobe Road intersection (Sonoma County jurisdiction) during both peak hours.
- 3.13-8 Under Cumulative Conditions, the addition of project traffic would cause delay to reach unacceptable levels at the Old Redwood Highway/U.S. 101 Ramps intersection (City of Petaluma jurisdiction) during the PM peak hour.

- 3.13-9 Under Cumulative Conditions, the addition of project traffic would cause delay to reach unacceptable levels at the Old Redwood Highway/East Railroad Avenue intersection (Sonoma County jurisdiction) during the PM peak hour.
- 3.13-10 Under Cumulative Conditions, the addition of project traffic would cause delay to reach unacceptable levels at the Old Redwood Highway/East Cotati Avenue intersection (City of Cotati jurisdiction) during both peak hours.
- 3.13-11 Under Cumulative Conditions, the addition of project traffic would cause delay to reach unacceptable levels at the LaSalle Avenue/East Cotati Avenue intersection (City of Cotati jurisdiction) during the PM peak hour.
- 3.13-12 Under Cumulative Conditions, the addition of project traffic would cause the U.S. 101 freeway segment north of Rohnert Park Expressway and the segment between Washington Street and Petaluma Boulevard to operate at unacceptable conditions during both peak hours.
- 3.13-13 Under Cumulative Conditions, the addition of project traffic would cause the U.S. 101 freeway segment north of Rohnert Park Expressway and the segment between Washington Street and Petaluma Boulevard to operate at unacceptable conditions during both peak hours.





# Chapter 6

## Alternatives

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### 6.1 INTRODUCTION

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The purpose of this chapter is to identify and describe the alternatives to the proposed project. Project alternatives are developed to reduce or eliminate the significant or potentially significant adverse environmental effects identified as a result of the proposed project, while still meeting most if not all of the basic project objectives. The analysis of alternatives is an important element of an EIR and is necessary to assure that the full range of options is examined, thus providing a complete understanding of the effects of full project implementation, partial project implementation, or no project. This section of the EIR describes alternatives to the Sonoma Mountain Village project and its development components as proposed including the No-Project alternative as required under CEQA.

The purpose of presenting alternatives in an EIR is to offer decision-makers and the general public options for avoiding or substantially lessening any potentially significant environmental effects of a project.

#### California Environmental Quality Act Requirements

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An EIR must evaluate a reasonable range of alternatives to the proposed project, or to the location of the proposed project, which could feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives (CEQA Guidelines, section 15126.6). An EIR need not evaluate the environmental effects of alternatives in the same level of detail as the proposed project, but must include enough information to allow meaningful evaluation, analysis, and comparison with the proposed project. CEQA provides the following guidelines for discussing alternatives to a proposed project:

The specific alternative of the “no project” shall also be evaluated along with its impacts....If the environmentally superior alternative is the “no project” alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives (CEQA Guidelines, section 15126.6 subd.(e)(2)).

The discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the proposed objectives, or would be more costly (CEQA Guidelines, section 15126.6 subd.(b)).

If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed (CEQA Guidelines, section 15126.6 subd.(d)).

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....The range of feasible alternatives shall be selected and discussed in a manner to foster meaningful public participation and informed decision making....An EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative (CEQA Guidelines, section 15126.6 subd.(f)).

The requirement that an EIR evaluate alternatives to the proposed project or alternatives that address the location of the proposed project is a broad one; the primary intent of the alternatives analysis is to disclose other ways that the objectives of the project could be attained while reducing the magnitude of, or avoiding, the environmental impacts of the proposed project. Alternatives that are included and evaluated in the EIR must be feasible alternatives. However, the Public Resources Code and the CEQA Guidelines direct that the EIR need “set forth only those alternatives necessary to permit a reasoned choice.” The CEQA Guidelines provide a definition for “a range of reasonable alternatives” and, thus, limit the number and type of alternatives that need to be evaluated in a given EIR. According to the CEQA Guidelines (section 15126.6(b)):

The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project.

First and foremost, alternatives in an EIR must be feasible. In the context of CEQA, “feasible” is defined as:

...capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors.

Further, the following factors may be taken into consideration in the assessment of the feasibility of alternatives: site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and the ability of the proponent to attain site control (CEQA Guidelines section 15126.6(f)(1)). Finally, an EIR is not required to analyze alternatives when the effects of the alternative “cannot be reasonably ascertained and whose implementation is remote and speculative (CEQA Guidelines section 15126.6(f)(3)).”

The selection of alternatives takes into account the project objectives provided in Chapter 2 (Project Description). The project objectives include:

- To Help Fulfill the City of Rohnert Park’s Redevelopment and Responsible Growth Goals
- To Reduce Greenhouse Gas Emissions as Compared to Standard Development Practice
- To Reduce Water Use and Impacts as Compared to Standard Development Practice
- To Create a Replicable Model for Sustainable Development
- To Create Jobs in Diverse Sectors Including Green Jobs

- To Increase Revenues to the City
- To Improve Public Safety
- To Provide Community Retail and Services
- To Create a Local Village Square
- To Enhance Housing Opportunities
- To Encourage a Local Balance Between Jobs and Housing
- To Provide Parks and Recreational Facilities
- To Restore Creeks and Waterways
- To Provide a Range of Housing Types and Affordability Levels
- To Provide Pedestrian-Friendly Neighborhoods and Access to Transit
- To Invite and Adopt Community Input

Equally important to attaining the project objectives is the reduction of some or all significant impacts, particularly those that could not be mitigated to a level below the threshold of significance. The project-specific and cumulative significant and unavoidable impacts of the proposed project, after mitigation, are:

### **Project-Specific Significant and Unavoidable Impacts**

- 3.2-2 Project operational activities would generate emissions of ozone precursors (ROG, NO<sub>x</sub>) and particulate matter (PM<sub>10</sub>) (criteria pollutants), that would exceed BAAQMD quantitative emission thresholds of 80 pounds per day each.
- 3.9-2 Residential uses fronting East Railroad Avenue east of Old Redwood Highway could be exposed to permanent increases in exterior traffic noise levels above accepted standards.
- 3.11-1 Development of the proposed project would directly generate an unanticipated residential population increase within the City of Rohnert Park.
- 3.13-2 Under Baseline Conditions, the addition of project traffic would cause unacceptable LOS at the Petaluma Hill Road/Adobe Road intersection (Sonoma County jurisdiction) during the PM peak hour.
- 3.13-3 Under Baseline Conditions, the addition of project traffic would cause LOS to degrade, and delay to reach unacceptable levels at the Old Redwood Highway/East Railroad Avenue intersection (Sonoma County jurisdiction) during the PM peak hour. As a direct result of the addition of project traffic, the intersection would meet the requirements of the MUTCD Peak Hour Volume Signal Warrant.

- 3.13-4 Under Baseline Conditions, the addition of project traffic would cause unacceptable LOS at the Old Redwood Highway/East Cotati Avenue intersection (City of Cotati jurisdiction) during the PM peak hour.
- 3.13-5 Under Baseline Conditions, the addition of project traffic would cause unacceptable LOS at the LaSalle Avenue/East Cotati Avenue intersection (City of Cotati jurisdiction) during the PM peak hour. With and without the addition of project traffic, the intersection would meet the requirements of the MUTCD Peak Hour Volume Signal Warrant.

### **Cumulative Significant and Unavoidable Impacts**

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- 3.1 Development of the proposed project in combination with cumulative development assumptions would result in project related considerable contribution to cumulative impacts on scenic vistas.
- 3.2 Project operational activities would generate considerable emissions of ozone precursors (ROG, NO<sub>x</sub>) and particulate matter (PM<sub>10</sub>) (criteria pollutants), that would contribute to the cumulative exceedance of the BAAQMD quantitative emission thresholds of 80 pounds per day each.
- 3.9-4 Residential uses fronting East Railroad Avenue east of Old Redwood Highway could be exposed to permanent increases in exterior traffic noise levels above accepted standards under cumulative conditions.
- 3.9-5 Cumulative traffic would likely cause interior noise levels in some of the closest and oldest of the residential units along East Cotati Avenue to increase further above the 45 dBA L<sub>dn</sub> standards set by the City of Cotati and Title 24.
- 3.13-6 Under Cumulative Conditions, the addition of project traffic would cause LOS to degrade, and delay to reach unacceptable levels at the Petaluma Hill Road/East Railroad Avenue intersection (Sonoma County jurisdiction) during both AM and PM peak hours. As a direct result of the addition of project traffic, the intersection would meet the requirements of the MUTCD Peak Hour Volume Signal Warrant.
- 3.13-7 Under Cumulative Conditions, the addition of project traffic would cause delay to reach unacceptable levels at the Petaluma Hill Road/Adobe Road intersection (Sonoma County jurisdiction) during both peak hours.
- 3.13-8 Under Cumulative Conditions, the addition of project traffic would cause delay to reach unacceptable levels at the Old Redwood Highway/U.S. 101 Ramps intersection (City of Petaluma jurisdiction) during the PM peak hour.
- 3.13-9 Under Cumulative Conditions, the addition of project traffic would cause delay to reach unacceptable levels at the Old Redwood Highway/East Railroad Avenue intersection (Sonoma County jurisdiction) during the PM peak hour.

- 3.13-10 Under Cumulative Conditions, the addition of project traffic would cause delay to reach unacceptable levels at the Old Redwood Highway/East Cotati Avenue intersection (City of Cotati jurisdiction) during both peak hours.
- 3.13-11 Under Cumulative Conditions, the addition of project traffic would cause delay to reach unacceptable levels at the LaSalle Avenue/East Cotati Avenue intersection (City of Cotati jurisdiction) during the PM peak hour.
- 3.13-12 Under Cumulative Conditions, the addition of project traffic would cause the U.S. 101 freeway segment north of Rohnert Park Expressway and the segment between Washington Street and Petaluma Boulevard to operate at unacceptable conditions during both peak hours.
- 3.13-13 Under Cumulative Conditions, the addition of project traffic would cause the U.S. 101 freeway segment north of Rohnert Park Expressway and the segment between Washington Street and Petaluma Boulevard to operate at unacceptable conditions during both AM and PM peak hours.

### **Alternatives Considered and Dismissed from Further Consideration**

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Consistent with CEQA, primary consideration was given to alternatives that would reduce significant impacts while still meeting most of the project objectives. Those alternatives that would have impacts identical to or more severe than the proposed project, or that would not meet most of the project objectives, were rejected from further consideration. The alternatives included in this chapter were derived after the establishment of significance thresholds for those issue areas with significant and unavoidable post-construction impacts: operational air emissions, solid waste generation, and traffic impacts. Alternatives exceeding the significance thresholds for the aforementioned issue areas would not substantially lessen any significant environmental impacts identified in Chapter 5 of the EIR and were rejected from further analysis. Although any number of alternatives could be designed that could result in the reduction or elimination of project impacts, a total of five representative alternatives, each intended to reduce or eliminate one or more of the significant impacts identified for the proposed project, are evaluated in this Draft EIR.

**Low Density Residential-Only Alternative:** To reduce or avoid effects that are associated with the population and employment intensity on the site that creates indirect effects on traffic, air quality, service demands, and similar uses, City staff considered the idea of developing the project as primarily lower density housing generally consistent with the density of single-family units found elsewhere to west and the north of the site. Due to the size of the lots, this alternative would reduce the number of proposed units and the population in the project area. However, the alternative would be economically infeasible due to the costs associated with site clean up and building removal, utilities extension, and construction versus the cost of the proposed units. Additionally, the development of a residential-only alternative would be inconsistent with existing General Plan land uses. It is likely that such an alternative would not generate revenues adequate to support the construction and operation of the project. A Low Density/Residential-Only Alternative would fail to meet the majority of the proposed objectives of both the City and the applicant.

This alternative would also place residential uses far from work and service providers, generating air quality, traffic and climate change impacts. Further, while the traffic and air quality effects caused by this alternative would be lower, it is reasonable to assume that the housing, office, retail, and other uses eliminated from the project to accommodate this alternative would be developed somewhere else in the City and the greater North Bay region. Thus, it is reasonable to assume that development that would have been developed under the proposed project would be developed at a greater distance from the project's urban core, resulting in greater dependence on the automobile, more vehicle miles traveled, and more land converted to urban uses. The net result of this type of development would be greater levels of congestion on regional roadways, higher levels of air pollutant emissions, greater consumption of land resulting in losses in biological habitat, and other effects caused by development typically considered to be sprawl.

Because the Low Density Residential-Only Alternative would result in greater environmental effects and because it would fail to meet most of the basic objectives of the Specific Plan, it is not further considered or evaluated in this EIR.

**City Museum/Exhibit Space/City Park Alternative:** In order to avoid environmental effects associated with bringing new population and employees to the Specific Plan Area, the City staff considered an alternative that would focus around the redevelopment of the existing buildings and provide a large-scale active and passive park space in the remainder of the project area. The proposed park would provide a link from the surrounding residential neighborhoods to a proposed museum/exhibit space. The proposed park would be a logical destination for tourists traveling the back roads of Sonoma County, visitors to Sonoma State University, and locals during their leisure time. Due to the proposed passive uses, the number of peak hour trips generated by the proposed alternative would be far less than the proposed project. The result would be much lower levels of congestion in the vicinity of the project site, less air pollutant emissions originating from the project, and fewer demands on public services and infrastructure.

This alternative would, however, fail to meet most of the stated objectives of the proposed project. Further, like the residential-only alternative discussed above, while the traffic and air quality effects caused by this alternative would be lower, it is reasonable to assume that such development would be generating vehicle trips from a greater distance, resulting in more vehicle miles traveled on special event days. The net result of this type of development would be greater levels of congestion on regional roadways, higher levels of air pollutant emissions, greater consumption of land resulting in losses of farmland and/or habitat, and other effects caused by development typically considered to be sprawl. In addition, the economic feasibility of such a project is limited

Because the City Museum/Exhibit Space/City Park Alternative would result in greater environmental effects and because it would fail to meet most of the objectives of the Specific Plan, it is not further considered or evaluated in this EIR.

**Different Location Alternative:** Section 15126.6(f)(2)(B) states that “[i]f the lead agency concludes that no feasible alternative locations exist, it must disclose the reasons for this conclusion, and should include the reasons in the EIR. For example, in some cases there may be no feasible alternative

locations for a geothermal plant or mining project which must be in close proximity to natural resources at a given location.”

It is infeasible to recommend an off-site alternative due to the project sponsor’s investment into the proposed site. The project sponsor has already begun the rehab process within the existing building and currently is occupying the site with active businesses. This represents the most important project objective: to improve and redevelop an existing industrial site with job creating and growth accommodating uses. While the mere construction of residential, office, retail, hotel, or other uses identified in the project could be accomplished at other locations in the region, no other location would meet the aforementioned primary objective of the project. As such, the evaluation of a Different Location Alternative is not further considered in this EIR.

In considering the environmental consequences of the project, the range of alternatives presented examines differing project development scenarios while seeking alternative and less involved or costly means of mitigating the identified significant and/or potentially significant impacts to less-than-significant levels. The Sonoma Mountain Village project alternatives include the following:

- No Project/No Development Alternative
- No Project/General Plan Buildout Alternative
- All Residential Development
- Reduced Density Alternative
- High Density Residential/Open Space Alternative

Each of the alternatives is described in more detail, below, followed by an assessment of the alternative’s impacts relative to the proposed project. The focus of this analysis is the difference between the alternative and the proposed project, with an emphasis on addressing the significant impacts identified under the proposed project. For each issue area, the analysis indicates which mitigation measures would be required of the alternative and which significant and unavoidable impacts would be avoided. If necessary, the analysis indicates what additional mitigation measures, would be required for the alternative being discussed, and what significant and unavoidable impacts would be more (or less) severe. Unless otherwise indicated, the level of significance and required mitigation would be the same for the alternative as for the proposed project and no further statement of the level of significance is made. Table 6-1 provides a summary comparison of the severity of impacts for each alternative by topic after mitigation.

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## **6.2 NO PROJECT/NO DEVELOPMENT ALTERNATIVE**

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Under the No Project/No Development Alternative, there would be no Sonoma Mountain Village project as proposed at this time. There could be an adaptive reuse of the five Agilent Technologies buildings on the project site as currently proposed, and the current office use at the 350 employee level as a minimum would be expected to continue, depending on building use plans of the project sponsor. There would be no introduction of new land uses to the project site consisting of residences, retail and

**Table 6-1  
Alternatives Impact Comparison**

<b>Issue Area</b>	<b>Proposed Project</b>	<b>No Project/ No Development</b>	<b>No Project General Plan Buildout</b>	<b>All Residential</b>	<b>Reduced Density</b>	<b>High Density Residential/Open Space</b>
Aesthetics and Urban Design	LS	NI	Equal	Equal	Equal	Equal
Air Quality	S	NI	Greater	Reduced	Reduced	Reduced
Biological Resources	LS	NI	Equal	Equal	Equal	Reduced
Cultural Resources	LS	NI	Equal	Equal	Equal	Equal
Geology and Soils	LS	NI	Equal	Equal	Equal	Equal
Hazards and Hazardous Materials	LS	NI	Equal	Equal	Equal	Equal
Hydrology and Water Quality	LS	NI	Equal	Equal	Equal	Equal
Land Use and Planning	LS	NI	Equal	Equal	Equal	Equal
Noise	S	NI	Greater	Reduced	Reduced	Reduced
Planning Policy and Relationship to Plans	LS	NI	Equal	Greater	Equal	Greater
Population, Employment, and Housing	LS	NI	Greater	Reduced	Equal	Greater
Public Services	LS	NI	Equal	Reduced	Equal	Equal
Transportation and Circulation	S	NI	Greater	Reduced	Reduced	Reduced
Utilities	LS	NI	Equal	Equal	Equal	Equal
Global Climate Change	LS	NI	Greater	Greater	Equal	Equal

Source: PBS&J, July 2009.

Notes:

S= Significant

LS= Less than Significant

NI = No impact would occur.

Equal = Level of significance is equal to the proposed project.

Greater = Level of significance is greater compared to the proposed project.

Reduced = Level of significance is reduced compared to the proposed project, but not necessarily to a less-than-significant level.



commercial space, new offices, hotel, health club, space dedicated to civic building use, new park and recreation space and landscape development to enhance community appearances. However, the No Project Alternative would continue the current zoning, which would enable 700,000 square feet (sf) of re-development for industrial uses. Additional site grading, building construction, provision of additional utility services to the project site, changes in site drainage, or changes in visual conditions could be allowed consistent with the current zoning.

In the absence of an industrial land use application, the project site would continue to remain as is in the foreseeable future. The existing structures on the north 98.3 acre parcel would be expected to remain in appearance as they exist today. Changes in traffic conditions within and around the site would be primarily determined by adjoining growth within Rohnert Park, along with the continued minimal use of the existing office space. Large parking lots would continue to be mostly unused on a daily basis, giving an air of abandonment and lack of purpose to the site as a whole. Occasional hikers, strollers, and bikers from the surrounding neighborhoods would continue to use the site on a random basis each day.

The southern 76.9 acre parcel would continue to remain vacant. The grassland cover would continue to be mowed on an annual basis for fire prevention, and birds of prey would continue to utilize the grassland habitat for cover and food. Foraging habitat for birds of various species would remain as-is. As would be true for the north parcel, views from surrounding areas to the project site including the south parcel would remain as they are today for an indeterminate period of time because there would be no change in physical conditions of the site as a whole.

Under the No Project alternative, the project site would generally continue to be under-utilized given its location within the City limits and Urban Growth Boundary (UGB), available access, the potential availability of utilities and up to 700,000 sf of existing building space available for productive adaptive reuse. Given the project site's availability for development, including adaptive reuse of the five existing structures on the north parcel, and the absence of other definitive proposals for development, the specific environmental impacts that could result from any possible future development scenario would be expected to vary in concert with the level of development density and land use mix to be implemented. The environmental impacts of a development proposal of different configuration and makeup than currently proposed would also depend on the location of development on the site, the extent and nature of adaptive building reuse, and other factors that would affect the variables of population generation, project appearance, traffic increases, air quality, noise, changes in stormwater runoff, demand for public services and utilities, alterations in habitat values, and other environmental subject areas as addressed in this EIR.

Measurable differences in environmental impact between the No Project alternative and the project as proposed can also be noted in terms of planning principles contained in concepts of New Urbanism as implemented through the SmartCode proposed for the project. The Association of Bay Area Governments (ABAG) projects the population in Rohnert Park will grow from 43,600 in 2005 (Sphere of Influence) to 49,400 in 2035, an increase in population of 5,800 or 11.7 percent.<sup>1</sup> In addition, the

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<sup>1</sup> ABAG, *Projections 2007, Forecasts for the San Francisco Bay Area to the Year 2035*, p. 222.

Rohnert Park General Plan calls for controlled (managed) growth within its Sphere of Influence. General Plan Land Use and Growth Management Element Goal LU-A states: “Maintain a compact urban form, with a defined urban growth boundary and urban development intensities in land designated for urban uses.”

Under the No Project alternative, the site could be redeveloped up to 700,000 sf under continuation of the Limited Industrial zoning designation of the site. Population growth elsewhere in the City and its periphery, including properties in the County outside the Urban Growth Boundary, would be expected to face additional pressure for growth to the extent the project would not otherwise absorb that pressure for growth and the demand for new housing. Under this scenario, there would be limited potential for redevelopment of the project site to implement General Plan Growth Management Element Goal LU-A. In addition, the No Project alternative would not be able to promote and assist in maintaining a compact urban form for the City because there would be no assurance of implementing the project planning concepts New Urbanism implies.

To illustrate, as explained in Chapter 2, Project Description, of this EIR, project development is proposed to be based on the development principles and guidelines as described in the SmartCode. The SmartCode is generally in keeping with the principles of New Urbanism wherein the neighborhood is the basic unit of urban form. The concept of New Urbanism in and of itself encompasses a number of subject areas including community development, design and appearances, land use, circulation, development density, and related issues. Development density is arguably one of the most basic principles involved. This is because New Urbanism is a reaction to sprawl, that is, development patterns that require more land and the extension of utility and service systems to outlying areas in order to accommodate growth.

New Urbanism for the project as implemented through the SmartCode is intended to promote the creation and restoration of diverse, walkable, compact, mixed-use communities composed of the same components as conventional development, but assembled in a more integrated fashion in the form of complete communities. Such communities may contain housing, work places, shops, entertainment, schools, parks, and civic facilities normal to the daily lives of the residents, all within easy walking distance of each other. New Urbanism promotes the increased use of trains and light rail, instead of more highways and roads. In its highest form, New Urbanism embodies place-making, and is essentially a re-ordering of the built environment into the form of complete cities, towns, villages, and neighborhoods.<sup>2</sup>

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<sup>2</sup> The principles of New Urbanism can be applied to new development and projects at a range of scales from a single building to an entire community. These principles include **pedestrian convenience** (destinations within a 10-minute walk of home and work, pedestrian friendly street design); **connectivity** (an interconnected circulation network that disperses traffic and eases walking); **mixed use and diversity** (a mix of shops, offices, apartments, and homes on a given site); **mixed housing** (a range of types, sizes, and prices in close proximity to each other); **architecture and urban design** (emphasis on appeal, aesthetics, human comfort, and creating a sense of place); **traditional neighborhood structure** (discernable center and edge, public open space); **convenient transportation** (public transportation, pedestrian-friendly design); and **sustainability** (minimal environmental impact, eco-friendly technologies, respect for value of natural systems), not to the exclusion of other principles.

Given the opening for some other form of urban development on the project site, be it housing, industrial use as currently zoned, commercial use or some form of mixed use, and absent other definitive proposals for development at this time (excluding the project as proposed), the specific environmental impacts that could result from any possible future development scenario would be expected to vary in concert with the level of development density and land use mix to be implemented.

Without implementing the concepts embodied in New Urbanism on the project site, there would be a difference in impacts under the No Project alternative. For example, New Urbanism concepts stress higher development densities than typically found in more rural settings that yield positive environmental effects. Densities of ten or more residential units per acre when compared to four units per acre increase population and development intensity within a given area. Higher densities in general lead to more households per acre which in turn promotes a more efficient use of resources per household.

On a per household basis, less land is used for development purposes and less paving (roads and sidewalks) is required to serve the community because of the more compact form of development. There is also a reduction in water use due to reduced landscaping development, and fewer service and retail employees on a per acre basis are required to serve the community.

Public transit use may increase where public transit is available, the number of vehicles per household tends to be fewer because accessibility is increased and the need for use of the auto is reduced. As a result, vehicle miles traveled and accidents tend to be reduced. Parking space requirements are reduced, and gasoline consumption is reduced with an attendant reduction in traffic noise and fewer emissions of reactive organic gases, nitrogen oxide, carbon monoxide, sulfur dioxide, and particulate matter.<sup>3</sup>

Reduced air quality emissions, reduced noise, and enhanced traffic safety lead to gains for public health. Also, a more diverse mix of land uses (residential, retail/commercial, and office) tends to capture trips in the neighborhood and therefore encourages walking and biking which correlates with the beneficial health effects of increased physical activity. Close proximity between residential and commercial uses increases individuals' perception that walking or bicycling is a viable alternative to driving.

### **Relationship of the No Project/No Build Alternative to the Project Objectives**

The No Project/No Build Alternative would meet all of the project objectives as shown below:

- To Help Fulfill the City of Rohnert Park's Redevelopment and Responsible Growth Goals
- To Increase Revenues to the City
- Build and maintain infrastructure in anticipation of growth.

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<sup>3</sup> For additional information regarding development density and resource utilization, see: <http://www.sierraclub.org/sprawl/density/summary.asp>.

## Conclusion

In summary, the No Project alternative would not meet the project sponsor's objectives (see Chapter 2, Project Description, on page 2-4 for list of the Sponsor's and the City's objectives) to provide housing and job opportunities within the City, and create an example of sustainable development as stated previously. The identified environmental impacts resulting from the project would not occur at this time as currently defined. Also, the No Project alternative would not offer opportunities to enhance implementation of the Rohnert Park General Plan Housing Element goals and policies to promote options for housing and facilitate housing development, to provide for a range of housing types within the community, to address the housing needs of all economic segments and to provide for affordable housing opportunities. The project site would continue to be under-utilized given its location within the City limits, building structures capable of substantial adaptive reuse, vacant land, and available access.

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### 6.3 NO PROJECT/GENERAL PLAN BUILDOUT

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The No Project/General Plan Buildout alternative is defined by continued site development as originally approved by the City of Rohnert Park

When investigating before purchasing the project site, Coddling Enterprises based their due diligence on 1981 approvals by the City for development of the site, subject to specified conditions adopted by the City at that time. Accordingly, one alternative considered by the project sponsor was to leave the existing I-L (Limited Industrial) zoning in place and follow through with completion of an industrial/office campus encompassing the entire site as originally planned and approved. This alternative follows through with the original concept for site development under the Limited Industrial zoning. In July 1982, Hewlett-Packard prepared a Master Plan for the project site and submitted the plan to the City of Rohnert Park for review. As stated in the cover letter to Planning Director Paul Skanchy, "The intent of the Masterplan is to provide for the orderly development of the site and its successful integration into the community over the next fifteen years." The Master Plan examined several alternatives for the arrangement of buildings and access on the site. The Master Plan map indicated an arrangement of four building structures on the north portion of the site, similar to what actually exists today. Three additional structures of similar size were shown on the south portion of the site. Under Resolution No. 82-154, the City Council approved the Overall Master Plan, Precise Development Plans and Architectural Review, and Phase One of project development on September 13, 1982. Project construction of the Hewlett-Packard complex began in 1984. The maximum site plan approval was for 8,000 employees by the year 1997. At its option, Hewlett-Packard could elect to master plan the site for more than 8,000 employees, subject to City approval.<sup>4</sup> This alternative includes development of the south 76.9 acre parcel to include additional industrial/office building space as originally envisioned by Hewlett-Packard.

According to the available data (see Appendix B of this EIR, Brief Historical Profile of Project Site Development), selecting and obtaining a site for Hewlett-Packard expansion plans included the need for

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<sup>4</sup> Rohnert Park City Council Resolution 81-180, passed and adopted on November 23, 1981.

a parcel of 200 acres or more, and an expansion site would be master-planned for approximately two million sf of floor space and up to 12,000 employees. Whether the company would fully utilize the site to the capacity as programmed would depend on many factors such as the economy, Hewlett-Packard's long-range business growth, and the continued attractiveness of the region for business.

At the time Agilent Technologies acquired the site and buildings, all activities were carried out on the north 98.3 acre parcel. The maximum employment on the campus was estimated at about 3,500 persons, although the exact number could not be determined at the time of preparing this EIR. Therefore, this alternative would conservatively add building space on the south parcel capable of accommodating the total 8,000 employees, as originally master planned and approved for the project. This assumes the existing Limited Industrial zoning remains in place and there would be no residential population on the site.

The No Project/General Plan Buildout alternative would complete the development of the 175 acre project site as an industrial/office campus under the site's Limited Industrial zoning. The provisions of the SmartCode would not be implemented in this instance and there would be no housing provided on the project site. There would be no "community" as envisioned in the SmartCode and there would be no implementation of New Urbanist principles under the SmartCode which provides that the residential neighborhood with a mixture of residential unit types is the basic unit of urban form that establishes the design format for streets, blocks, opens spaces and buildings. Accordingly, the project sponsor's objectives to enhance opportunities for housing through the provision of a range of housing types, to create a Village Square as the heart of the community allowing for a wide variety of events and uses, and to increase job opportunities by focusing on local technology jobs in the area of sustainable resources would not be fully realized. Other project objectives would not appear to be fully precluded. These objectives include creating a model of sustainable development through coordination with utility providers and government agencies for water use and building development, reducing greenhouse gas emissions as compared to standard development practices through incorporating energy efficiency and carbon reduction measures into the project, increasing revenues to the City in the form of taxation and permit fees, and increased visitors to the City.

Assuming all business conditions were met as originally projected by Hewlett-Packard, there would be up to 8,000 workers under this alternative compared to about 1,700 workers for the project as proposed. This would be 79 percent more workers than the project as proposed. Accordingly, there would be a significant increase in daily worker in- and out- commuting compared to the project as proposed. Because no housing would be provided on the project site as part of the project, no workers would be able to live on the project site under this alternative. Therefore, based on the worker population total, daily in- and out commuting during the AM and PM peak hours would be proportionately greater than for the project as proposed which would lead to increased traffic and noise on the local street network. Due to the increased peak hour traffic, this alternative would not be expected to reduce the U.S. 101 peak hour impacts to a less-than-significant level and would be expected to exacerbate volume-to-capacity levels under both baseline and cumulative development conditions.

Further, with respect to the generation of ozone precursors and particulate matter, this alternative would not be expected to reduce emissions to less than BAAQMD standards because motor vehicles generate the majority of such emissions (see Table 3.2-3 in Section 3.2, Air Quality). Efforts to implement the objectives of creating a model of sustainable development, and reducing greenhouse gas emissions through incorporating energy efficiency and carbon reduction measures into the project, may still occur. However, these efforts would not be expected to be as successful for the project as proposed due to the high contribution of vehicular traffic to greenhouse gas emissions. Also, with development of the southern parcel as envisioned in this alternative, other impacts requiring mitigation measures as identified in this EIR would be expected. Similar to the project as proposed, these mitigation measures would include the mitigation of potential visual quality impacts, traffic impacts with the exception of the unavoidable impacts regarding U.S. 101, and other impacts relating to air quality, biological resources, cultural resources, water quality, and noise. With no housing provided on the project site, there would be no compliment to the employment profile and therefore no effort toward establishing a reasonable jobs/housing balance to reduce out-commuting.

### **Relationship of the No Project/General Plan Buildout Alternative to the Project Objectives**

The No Project/General Plan Buildout Alternative could meet all of the project objectives as shown below:

- To Help Fulfill the City of Rohnert Park's Redevelopment and Responsible Growth Goals
- To Create Jobs in Diverse Sectors Including Green Jobs
- To Increase Revenues to the City
- To Provide Community Retail and Services
- To Invite and Adopt Community Input
- Build and maintain infrastructure in anticipation of growth.

### **Conclusion**

New off-site households generated as a result of increased job opportunities on the project site would be expected to exacerbate the potential for urban expansion in non-urbanized areas of Sonoma County, although this impact cannot be absolutely quantified. Conversely, with housing provided on the site as proposed, the project would contribute to relieving any potential push for residential growth outside the Urban Growth Boundary by accommodating growth within the Urban Growth Boundary. As noted previously, this would be consistent with Rohnert Park General Plan Land Use and Growth Management Policy LU-34 which provides for maintaining agricultural and open space uses outside the Urban Growth Boundary, consistent with existing land use designations in the Sonoma County General Plan. In view of the above, no significant advantage from an environmental standpoint is identified for the No Project/General Plan Buildout alternative.

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## 6.4 ALL RESIDENTIAL DEVELOPMENT ALTERNATIVE

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The All Residential Development Alternative would require the project sponsor to seek a zoning change and implement a conventional single-family residential development.

While the alternative of a conventional single-family residential development would meet the project sponsor's objectives to enhance opportunities for housing through the provision of a range of housing types, this alternative would not meet the project sponsor's objectives to increase local technology jobs in the area of sustainable resources. These objectives would not be met because such job opportunities, as represented by the industry, would be replaced with residential land uses. Also, because there would be no adaptive reuse of the existing Agilent structures, opportunities for sustainability through recycling and reuse would be reduced compared to the project as proposed. However, as with the All Technology Campus alternative previously discussed, the All Residential Development alternative would not appear to fully preclude the objectives to create a model of sustainable development. To incorporate a model of sustainable development, the project should coordinate with utility providers and government agencies for water use and building development; reduce greenhouse gas emissions as compared to standard development practices through incorporating energy efficiency and carbon reduction measures into the project; and increase revenues to the City in the form of taxation and permit fees and increased visitors to the City.

The All Residential Development alternative may include a residential density either greater or less than the average approximate 10.8 residential units per acre that would be constructed under the project as proposed. Buildout at about 10.8 units per acre would be at the upper end of the General Plan Medium Density Residential designation (6 to 12 units per acre), and be generally compatible with surrounding residential land uses. For example, at about 10.8 units per acre, this alternative would be somewhat denser than the residential community immediately north of Camino Colegio, which is designated on the General Plan Diagram as Low Density Residential (four to six units per acre). Low Density Residential is also located west of the project site. The Southeast Specific Plan site immediately to the east is designated for mixed use and Low and Medium Density Residential (varies from 4 to 12 units per acre).

Under this alternative, the existing building structures would not undergo adaptive reuse. The Agilent buildings would be torn down prior to site development because this alternative, by definition, involves all single-family detached units developed in accordance with standard subdivision design. Assuming the approximately 20 acre portion of the site occupied by the Agilent buildings were converted to residential use, at an average of about 10.8 units per acre, an additional 216 residential units would be added to the project for a total of roughly 2,100 residential units. This compares to 1,892 units for the Sonoma Mountain Village project as proposed, or an increase of about 11 percent in residential unit count as compared to the project as proposed. The All Residential Development alternative would not contain condominium/townhouse units, a shopping center, a hotel, a movie theater, a health club, or any other commercial uses.

Under this alternative, the daily on-site residential population would be greater than the Sonoma Mountain Village project as proposed. The resident site population at 5,438 would compare to 4,569 for the project as proposed. With no office/commercial space on the site, the loss of 1,700 workers would exceed in number the additional 870 resident population. This means the project site would accommodate a lower daily population. Accordingly, daily in- and out-commuting during the AM and PM peak hours would be proportionately less than for the project as proposed, which would lead to decreased traffic and noise on the local street network.

In addition, with respect to the air quality concerns, this alternative would not be expected to reduce the generation of ozone precursors and particulate matter to less than BAAQMD standards. Project operational activities would generate emissions of ozone precursors and particulate matter that would exceed Bay Area Air Quality Management District quantitative emission thresholds largely because motor vehicles generate the majority of such emissions (see Table 3.2-3 in Section 3.2, Air Quality) and traffic reduction under this alternative would not be significant enough to make a substantial reduction in emissions.

This alternative would avoid the significant unavoidable noise impacts respecting residences on East Railroad Avenue. With an approximate 30 percent decrease in traffic, the 3 dBA threshold increase in noise levels used to determine impact significance would not be exceeded. The City's threshold for exterior noise levels would also not be exceeded. The incremental noise increase of 3.7 dBA  $L_{dn}$  under the project as proposed would be reduced to as well, avoiding the significant unavoidable noise impact identified for the project.

This alternative would not be expected to reduce the U.S. 101 peak hour impacts to a less-than-significant level and would be expected to exacerbate volume-to-capacity levels under both baseline and cumulative development conditions. To avoid Level of Service impacts to U.S. 101 would require a significant reduction in the size and scope of the project (see the Reduced Density alternative below). Under baseline and cumulative development conditions, the addition of project traffic to the street network would cause portions of U.S. 101 to operate at unacceptable conditions during both AM and PM peak hours. Similarly, under cumulative development, although the subject freeway segments would already be operating at LOS E and F, during both AM and PM peak hours, the project would cause an increase in volume-to-capacity ratios of over the threshold to determine a significant impact.

## **Relationship of the All Residential Alternative to the Project Objectives**

The All Residential Alternative could meet the project objectives as shown below:

- To Help Fulfill the City of Rohnert Park's Redevelopment and Responsible Growth Goals
- To Create Jobs in Diverse Sectors Including Green Jobs
- To Increase Revenues to the City
- To Improve Public Safety
- To Create a Local Village Square



- To Enhance Housing Opportunities
- To Provide Parks and Recreational Facilities
- To Restore Creeks
- To Provide a Range of Housing Types and Affordability Levels
- To Provide Pedestrian-Friendly Neighborhoods and Access to Transit
- To Invite and Adopt Community Input
- Increase housing affordability and diversity.
- Build and maintain infrastructure in anticipation of growth.
- Encourage socioeconomic diversity.

## **Conclusion**

Overall, with the All Residential Alternative, efforts to implement the project sponsor's objectives of creating a model of sustainable development, and reducing greenhouse gas emissions through incorporating energy efficiency and carbon reduction measures into the project, would not be precluded. With development of the entire site as envisioned in this alternative, other potential impacts requiring mitigation measures as identified in this EIR would be expected. Similar to the project as proposed, these mitigation measures would include visual quality impacts, traffic impacts, and other impacts relating to air quality, biological resources, cultural resources, water quality, and noise. With significant housing provided on the project site but no office/commercial development, there would be no productive effort to establish a reasonable jobs/housing balance to reduce out-commuting. In view of the above, this alternative eliminates the significant unavoidable noise impacts projected for East Railroad Avenue under the project as proposed. No other substantial benefit from an environmental standpoint is identified for this alternative.

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## **6.5 REDUCED DENSITY ALTERNATIVE**

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A reduced density alternative is considered in the attempt to focus on mitigating the significant Level of Service impacts identified for U.S. 101 as would occur under the project as proposed. This alternative also is directed toward reducing the project-generated traffic noise impacts on East Railroad Avenue east of Old Redwood Highway so as not to exceed noise standards as established in the Rohnert Park General Plan.

Under the Reduced Density alternative, the project would be scaled back to the point where there would be no project-induced significant traffic impact on U.S. 101 service levels. Under this scenario, the project would contain 101 single-family units and 64,500 sf of office space with the project's civic and commercial/retail components remaining as proposed to serve the residents of Rohnert Park. This would be a reduction of 1,791 residential units and 218,993 sf of office space.

To clarify, U.S. 101 impacts are the result of both inbound and outbound trips during the AM and PM peak hours. Residential trips are mostly outbound during the AM peak and inbound during the PM peak. Office trips are the reverse: inbound during the AM peak and outbound during the PM peak. As such, both residential and office land uses would need to be reduced in order to completely avoid contributing to potentially significant impacts on U.S. 101.

Because of its reduced density, and therefore reduced level of intensity of development, this alternative would also avoid the significant unavoidable noise impacts respecting residences on East Railroad Avenue. With the projected decrease in traffic, the 3 dBA threshold increase in noise levels used to determine impact significance would not be exceeded. The City's threshold for exterior noise levels would also not be exceeded. The incremental noise increase of 3.7 dBA  $L_{dn}$  under the project as proposed would be reduced as well, thus avoiding the significant unavoidable noise impact identified for the project.

Air quality emissions would still exceed BAAQMD standards, as identified under the All Residential Development alternative. As a worst case scenario, in the year 2010 a project would trigger the 80 pounds per day threshold for ROG if a project contained 500 single family detached residential units, or 300,000 sf of regional shopping center, or 800,000 sf of office park space. Similarly, a project would trigger the 80 pounds per day threshold for PM10 if a project contained 400 single family detached residential units, or 150,000 sf of regional shopping center, or 500,000 sf of office park space. Clearly, because this alternative retains the civic and commercial/retail components of the proposed Sonoma Mountain Village, the air quality emissions exceeding BAAQMD standards would be expected to occur. A project alternative of sufficiently reduced size to avoid the air quality impact noted is not examined here because such an alternative is considered to more than “impede to some degree” the attainment of the project objectives and thus would not be considered feasible.

With development of the project site as envisioned in this alternative, as with the No Project/General Plan Buildout and All Residential Development alternatives, other impacts requiring mitigation measures to reduce those impacts to less than significant levels, as identified in this EIR, would be expected. These mitigation measures would be similar to the project as proposed, only to a lesser degree because of the reduced size of the project. This alternative would be smaller in size because a large but undetermined portion of the site would still be used for development, including portions of the south 76.9 acre parcel, which is currently undeveloped. Those impacts requiring mitigation would be expected to include potential visual quality impacts, intersection Level of Service traffic impacts, and other impacts relating to air quality, biological resources, cultural resources, water quality, and noise

This alternative would also be expected to hinder efforts of the scale contemplated to implement the project sponsor's objectives of creating a model of sustainable development, reducing greenhouse gas emissions through incorporating energy efficiency, and adding carbon reduction measures into the project. The goal of a sustainable development would not be accomplished because of the reduced size of the project. Also, reducing the residential count and range of housing types to 101 single-family units would limit opportunities for housing compared to the project as proposed. This would not be consistent with the Rohnert Park General Plan Housing Element goals and policies to promote options

for housing and provide for a range of housing types to address the housing needs of all economic segments. It is also questionable as to whether the reduction in residential units to a total of 101 units, coupled with existing residential development in the area, would be able to support the civic and commercial/retail components of the project as originally envisioned (theater, health club, grocery hotel).

### **Relationship of the Reduced Density Alternative to the Project Objectives**

The Reduced Density Alternative could meet the project objectives shown below:

- To Help Fulfill the City of Rohnert Park's Redevelopment and Responsible Growth Goals
- To Create Jobs in Diverse Sectors Including Green Jobs
- To Increase Revenues to the City
- To Improve Public Safety
- To Create a Local Village Square
- To Enhance Housing Opportunities
- To Provide Parks and Recreational Facilities
- To Restore Creeks
- To Provide Pedestrian-Friendly Neighborhoods and Access to Transit
- To Invite and Adopt Community Input
- Build and maintain infrastructure in anticipation of growth.

### **Conclusion**

In summary, the Reduced Density alternative would not mitigate the air quality emissions impact identified for the project, but would eliminate the significant unavoidable project-generated traffic noise impacts on East Railroad Avenue, east of Old Redwood Highway. The noise standards as established in the Rohnert Park General Plan would not be exceeded. This alternative would also eliminate the significant unavoidable traffic impacts of increased volume-to-capacity ratios along specified U.S. 101 segments during the AM and PM peak hours. The established measure of effectiveness (MOE) for U.S. 101 would be maintained.

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## **6.6 HIGH DENSITY RESIDENTIAL/OPEN SPACE ALTERNATIVE**

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The Reduced Density Alternative consists of a revised land use plan that increases the number of proposed homes on-site to 2,600 units, eliminates the office component, and increases the open space component in order to provide recreational access and improve scenic view corridors of the Sonoma Mountains including Valley House Drive. Under this alternative, the remaining on-site land uses (retail, grocery, gym, civic) would remain the same as the proposed project. Buildout of the alternative

would result in an average residential density of more than 14 units per acre. The high density nature of the project would limit its ability to provide a diversity of housing types. This alternative would maintain an open space buffer along the western boundary and provide increased property setbacks from existing and proposed roads in order to promote recreational trails and view corridors. Under the High Density Residential/Open Space Alternative, a different internal circulatory layout would be proposed compared to the project. This alternative would be subject to General Plan, and zoning amendments like the Proposed Project.

The High Density/Open Space Alternative still includes an internal park trails and the open space area to the south. Despite 708 more units than the proposed project, additional park space and open space would be created under this alternative. The increased population generation would thereby increase impacts associated with services, utilities, and population and housing. The lack of onsite employment opportunities means the project site would accommodate a lower overall daily population. Accordingly, daily in- and out-commuting during the AM and PM peak hours would be proportionately less than for the project as proposed, which would lead to decreased traffic and noise on the local street network.

In addition, with respect to the air quality concerns, this alternative would not be expected to reduce the generation of ozone precursors and particulate matter to less than BAAQMD standards. Project operational activities would generate emissions of ozone precursors and particulate matter that would exceed Bay Area Air Quality Management District quantitative emission thresholds largely because motor vehicles generate the majority of such emissions (see Table 3.2-3 in Section 3.2, Air Quality) and traffic reduction under this alternative would not be significant enough to make a substantial reduction in emissions.

This alternative would likely avoid the significant unavoidable noise impacts respecting residences on East Railroad Avenue due to the decrease in traffic. The incremental noise increase of 3.7 dBA  $L_{dn}$  under the project as proposed would be reduced to as well, avoiding the significant unavoidable noise impact identified for the project.

This alternative would not be expected to reduce the U.S. 101 peak hour impacts to a less-than-significant level and would be expected to exacerbate volume-to-capacity levels under both baseline and cumulative development conditions. To avoid Level of Service impacts to U.S. 101 would require a significant reduction in the size and scope of the project (see the Reduced Density alternative below). Under baseline and cumulative development conditions, the addition of project traffic to the street network would cause portions of U.S. 101 to operate at unacceptable conditions during both AM and PM peak hours. Similarly, under cumulative development, although the subject freeway segments would already be operating at LOS E and F, during both AM and PM peak hours, the project would cause an increase in volume-to-capacity ratios of over the threshold to determine a significant impact.

Despite the increased unit count, aesthetics impacts would be less when compared to the proposed project due to the consistency of the project footprint size and the type of anticipated development. Impacts to biological resources and cultural resources would be less than under the proposed project because fewer resources land would be disturbed. Impacts to geology, soils, and minerals would also be the same as under the proposed project because there would be the same amount of ground

disturbance and potential for soil erosion and loss of topsoil. In summary, most of the impacts associated with the High Density Residential Alternative would be less than or equal to the impacts resulting from development of the proposed project.

### **Relationship of the High Density Residential/Open Space Alternative to the Project Objectives**

The High Density Residential/Open Space Alternative could meet all of the project objectives as shown below:

- To Help Fulfill the City of Rohnert Park's Redevelopment and Responsible Growth Goals
- To Reduce Greenhouse Gas Emissions as Compared to Standard Development Practice
- To Reduce Water Use and Impacts as Compared to Standard Development Practice
- To Create a Replicable Model for Sustainable Development
- To Improve Public Safety
- To Provide Community Retail and Services
- To Create a Local Village Square
- To Enhance Housing Opportunities
- To Provide Parks and Recreational Facilities
- To Restore Creeks
- To Provide Pedestrian-Friendly Neighborhoods and Access to Transit
- To Invite and Adopt Community Input
- Build and maintain infrastructure in anticipation of growth.

### **Conclusion**

Overall, with the High Density Residential/Open Space Alternative, would fail to fully execute efforts to implement the project sponsor's objectives of creating a model of sustainable development due to the distance between the residential and employment opportunities onsite. However, the proximity to the proposed SMART station and the incorporation the project's sustainability would assist in reducing greenhouse gas associated with the project. With development of the entire site as envisioned in this alternative, other potential impacts requiring mitigation measures as identified in this EIR would be expected. Similar to the project as proposed, these mitigation measures would include visual quality impacts, traffic impacts, and other impacts relating to air quality, biological resources, cultural resources, water quality, and noise. With significant housing provided on the project site but no office/commercial development, there would be no productive effort to establish a reasonable jobs/housing balance to reduce out-commuting. In view of the above, this alternative eliminates the significant unavoidable noise impacts projected for East Railroad Avenue under the project as

proposed. No other substantial benefit from an environmental standpoint is identified for this alternative.

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## **6.7 ENVIRONMENTALLY SUPERIOR ALTERNATIVE**

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Sections 21002 and 21081 of CEQA require lead agencies to adopt feasible mitigation measures or a feasible environmentally superior alternative in order to substantially lessen or avoid otherwise significant adverse environmental effects, unless specific social or other conditions make such mitigation measures or alternatives infeasible. CEQA regulations prevent consideration of the “no project” alternative as the environmentally superior alternative.

Based on the analysis above, the Reduced Density alternative would be the Environmentally Superior Alternative because it would avoid significant noise impacts projected to occur along East Railroad Avenue. In addition, this alternative would be sufficiently limited in size so as to reduce the level of increased traffic impacts owing to the Level of Service impacts projected for specified segments of U.S. 101. However, the Reduced Density alternative would be expected to impede implementing various objectives of the project as previously enumerated by the project sponsor.

Table 6-1 provides a summary of the principal findings of the alternatives analysis. The focus of Table 6-1 is directed toward whether or not an alternative as examined in this analysis avoids or lessens one or more of the significant unavoidable impacts identified for the project as proposed.

# Chapter 7

## Irreversible Environmental Changes

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### SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL EFFECTS

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Section 15126.2(c) of the CEQA Guidelines requires a discussion of any significant irreversible environmental changes that would be caused by the proposed project. Section 15126.2(c) states:

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. Irrecoverable commitments of resources should be evaluated to assure that such current consumption is justified.

Generally, a project would result in significant irreversible environmental changes if:

- The primary and secondary impacts would generally commit future generations to similar uses;
- The project would involve uses in which irreversible damage could result from any potential environmental accidents associated with the project;
- The project would involve a large commitment of nonrenewable resources; or
- The proposed consumption of resources is not justified (e.g., the project involves the wasteful use of energy).

Development of the proposed project would result in the continued commitment of the project site to more intense urban development, thereby precluding any other uses for the lifespan of the project. Restoration of the site to a less developed condition would not be feasible given the degree of disturbance, the urbanization of the area, and the level of capital investment.

### Irreversible Changes

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Site development as proposed would lead to several significant unavoidable impacts. These impacts include (1) ozone precursors and particulate matter would be generated that exceed Bay Area Air Quality Management District (BAAQMD) quantitative emission thresholds; (2) residential uses fronting East Railroad Avenue east of Old Redwood Highway would be exposed to permanent exterior traffic noise levels that exceed City standards; and (3) under baseline conditions, the addition of project traffic to the street network would cause the U.S. 101 freeway segment north of Rohnert Park Expressway and the segment between Washington Street and Petaluma Boulevard to operate at unacceptable conditions. Because these impacts cannot be reduced to less-than-significant levels, the impacts are considered irreversible environmental changes.

The northern 98.3 acres of the project site is currently developed as an industrial research and office campus while the southern 76.9 acres of it is undeveloped, composed of grasslands mowed annually to curb fire danger. Therefore, a major feature of development on the northern portion of the site would involve adaptive reuse of the five existing building structures that currently exist. All development on the southern portion of the site would be new to the site.

In addition to the unavoidable impacts described above that would occur within this proposed development framework, several other irreversible environmental changes would occur as result of the project's implementation. Among these irreversible changes would be the conversion of open and undeveloped land to urban development and thus an intensification of land use on the project site. There would also be the commitment of non-renewable energy resources and non-recyclable (by present technology) material resources used for the construction and operation of the mix of housing commercial/retail and office uses planned to be constructed on the site. Project construction would involve the irretrievable commitment of existing and expanded infrastructure facilities such as natural gas, electricity, water supply, and sewer services to serve the project site residents and workers, but not necessarily in a wasteful manner if used in accordance with the guidelines of agencies having jurisdiction over the use of such resources.

However, these irreversible environmental conditions are not identified as significant, adverse, and unavoidable environmental impacts. These conditions would be offset to the degree the project would embrace "green" technologies. Sustainability, inclusive of resource conservation, would contribute to reducing irreversible environmental changes and is a proposed key component of the project. As previously explained (in Chapter 2, Project Description), the project emphasizes the preservation and protection of natural resources of the site. A Sustainability Action Plan has been prepared by the project sponsor (refer to Appendix C of this EIR). The Sustainability Action Plan addresses a number of subject areas regarding resource conservation and includes resource conservation procedures, plans, devices and features to be incorporated into the project. This includes the incorporation of green building and sustainable development practices into project construction and operation. The objective is to seek LEED-ND (Leadership in Energy and Environmental Design for Neighborhood Development) certification to document a commitment to sustainable development involving the provision of infrastructure to support a low-carbon transportation system, energy efficiency and conservation by capitalizing on photovoltaic power and potential purchase of Green-E certified off-site renewable power; the use of reclaimed water in new buildings and rainwater catchment and reclaimed water use for landscape irrigation; and other measures as further defined in the Sustainability Action Plan. Success in implementing the Sustainability Action Plan will require on-going monitoring and verification to achieve LEED credits.

Implementation of the Sustainability Action Plan principles will reduce the rate of consumption of non renewable resources to a lower pace when compared to a typical development project of similar size and characteristics. With respect to operational activities, compliance with all applicable agency regulations and Sustainability Action Plan principles, as well as mitigation measures, planning policies, and standard conservation features, would ensure that all natural resources are conserved to the maximum extent possible. Nonetheless, construction activities related to the proposed project would



result in the irretrievable commitment of nonrenewable energy resources, primarily in the form of fossil fuels (including fuel oil), natural gas, and gasoline for automobiles and construction equipment.

### **Other Irreversible Changes**

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There are several other irreversible environmental changes of note. The CEQA Guidelines also require a discussion of the potential for irreversible environmental damage caused by an accident associated with the project. While the project could result in the use, transport, storage, and disposal of hazardous wastes, as described in the Hazards and Hazardous Materials section of this EIR (see Section 3.7), all activities would comply with applicable state and federal laws related to hazardous materials, which significantly reduces the likelihood and severity of accidents that could result in irreversible environmental damage.

Also, visual change within the project site area would be irreversible because of the development of building structures, roads, and landscape enhancements, especially on the south undeveloped parcel which currently affords unobstructed views across the site from East Railroad Avenue. Another irreversible environmental change associated with project development would be increased traffic volumes and associated traffic noise on local existing roadways such as Valley House Drive, Bodway Parkway, and Camino Colegio which would provide primary vehicular access to the project site. In addition, Petaluma Hill Road and existing and new neighborhood streets in the project site would receive project-induced traffic due to the new resident and office worker population. However, mitigation measures and development standards are set forth to reduce most identified significant or potentially significant impacts to levels of insignificance, as described in the various technical sections of this EIR. The mitigation measures/design standards include the establishment of building heights and setbacks that allow existing homes to maintain views of existing scenic vistas and establishing a natural landscaping plan that facilitates the buffering of traffic noise on existing residents. A detailed description of the prescribed mitigation measures can be found in Sections 3.1 through 3.15.



# Chapter 8

## Acronyms

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### LIST OF ACRONYMS

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Acronym	Definition
1B	CNPS Ranking. Defined as plants that are rare, threatened or endangered in California and elsewhere..
2	CNPS Ranking. Defined as plants that are rare, threatened or endangered in California, but are more common elsewhere
AAM	annual arithmetic mean
ABAG	Association of Bay Area Governments
ADA	Americans with Disabilities Act
ADT	average daily traffic
AFA	acre feet annually
ALS	Advanced Life Support
ANSI	American National Standards Institute
AWSC	All-Way Stop Control
BAAQMD	Bay Area Air Quality Management District
BMP	Best Management Practices
Cal/OSHA	California Division of Occupational Safety and Health Administration
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CARE	Community Air Risk Evaluation
CASQA	California Stormwater Quality Association
CAT	California Climate Action Team
CB	SmartCode Transect Zone - Civic Building Reserve
CBC	California Building Code
CCAP	Sonoma County Community Climate Action Plan
CCR	California Code of Regulations
CDFG	California Department of Fish and Game
CDPH	California Department of Public Health
CFP	California Fully Protected Species
CEQA	California Environmental Quality Act
CERCLIS	Comprehensive Environmental Response, Compensation and Liability Information System
CESA	California Endangered Species Act
CFC	chlorofluorocarbons

<b>Acronym</b>	<b>Definition</b>
CGS	California Geological Survey
CH <sub>4</sub>	methane
CHRIS	California Historical Resources Information System
CIWMB	California Integrated Waste Management Board
CIWMP	County Integrated Waste Management Plan
CNW	Canon Manor West
CNDDB	California Department of Fish and Game's Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	carbon monoxide
CO <sub>2</sub>	methane
CoIWMP	Sonoma County Integrated Waste Management Plan
Cortese	Cortese List database
CP	SmartCode Transect Zone - Civic Parking Reserve
CRHR	California Register of Historical Resources
CRPUSD	Cotati-Rohnert Park Unified School District
CS	SmartCode Transect Zone - Civic Space Reserve
CSA	This species is included on the California Department of Fish and Game's Special Animals list
CSC	California Species of Special Concern
CTS	California Tiger Salamander
CVEMSA	Coastal Valleys Emergency Medical Services Agency
CWA	Clean Water Act
dB	Decibels
DOF	California Department of Finance
DPM	diesel particulate
DPS	Department of Public Safety
DTSC	California Department of Toxic Substances Control
EIR	Environmental Impact Report
EMI	Emissions Inventory
EMS	Emergency Medical Services
ESA	Environmental Site Assessment
ESTCP	Erosion and Sediment Transport Control Plan
FAR	Floor Area Ratio
FE	Endangered under the Federal Endangered Species Act
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act

<b>Acronym</b>	<b>Definition</b>
FHWA	The Federal Highway Administration Traffic Noise Model
FP	California Fully Protected Species
FPE	FPE – Proposed for Listing as Endangered under the Federal Endangered Species Act
FT	Listed as Threatened under the Federal Endangered Species Act
FTA	Federal Transit Administration
GHG	greenhouse gas
GMAS	Growth Management Allocation System
Guidelines	General Plan Guidelines 2003
GWP	global warming potentials
HAZNET	Hazardous Waste Information System
HCM	Highway Capacity Manual
HFC	Hydrofluorocarbons
HHWE	Household Hazardous Waste Element
HP	Hewlett Packard
IBC	International Building Code
I-L	Limited Industrial
IPCC	Panel on Climate Change
IRWP	Incremental Recycled Water Program
ITE	Institute of Transportation Engineers
kV	kilovolt
$L_{dn}$	Day-Night Average Noise Level
LEED	Leadership in Energy and Environmental Design
LEED-ND	Leadership in Energy and Environmental Design for Neighborhood Development
$L_{eq}$	Equivalent Energy Noise Level
$L_{max}$	Maximum Instantaneous Noise Level
$L_{min}$	Minimum Instantaneous Noise Level
LOS	Level of Service
LTS	Less than Significant
LUST	Leaking Underground Storage Tank
MEP	Maximum Extent Practicable
MMI	Modified Mercalli Intensity
MOA	Memorandum of Agreement
MOE	measure of effectiveness
MOU	Memorandum of Understanding
MRZ	Mineral Resource Zone
MUTCD	Manual on Uniform Traffic Control Devices

<b>Acronym</b>	<b>Definition</b>
M <sub>w</sub>	Moment Magnitude
N <sub>2</sub> O	nitrous oxide
NAHC	Native American Heritage Commission
NAAQS	National Ambient Air Quality Standards
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NMMWD	North Marin Municipal Water District
NOP	Notice of Preparation
NO <sub>2</sub>	Nitrogen Dioxide
NO <sub>x</sub>	nitrogen oxides
NPDES	National Pollution Discharge Elimination System
NPL	National Priorities List
NRCS	National Resources Conservation Services
NRHP	National Register of Historic Places
NWIC	Northwest Information Center
NWPRR	Northwestern Pacific Railroad
O <sub>3</sub>	Ozone
OPR	Governor's Office of Planning and Research
PCB	Polychlorinated biphenyl
P-D	Planned Development
PFFP	Public Facilities Finance Plan
PG&E	Pacific Gas & Electric
PM <sub>2.5</sub>	particulate matter less than 2.5 microns in diameter (fine particulate matter)
PM <sub>10</sub>	particulate matter less than 10 microns in diameter (respirable particulate matter)
POA	Property Owners Association
ppd	pounds per day
ppm	parts per million
PS	Potentially Significant
RCRA	Resource Conservation and Recovery Act
ROG	reactive organic gas
RoWD	Report of Waste Discharge
RWQCB	Regional Water Quality Control Board
S	significant
SAP	Sustainability Action Plan
SE	Listed as Endangered under the California Endangered Species Act

<b>Acronym</b>	<b>Definition</b>
SCTA	Sonoma County Transportation Authority
SCWA	Sonoma County Water Agency
SCWMA	Sonoma County Waste Management Agency
sf	square feet
SIP	State Implementation Plan
SLIC	Spills, Leaks, Investigations, and Cleanups
SMARA	Surface Mining and Reclamation Act
SMART	Sonoma-Marin Area Rail Transit
SMBRP	Site Mitigation and Brownfields Reuse Program
SMV	Sonoma Mountain Village
SO <sub>2</sub>	sulfur dioxide
SR	State Route
SRRE	Source Reduction and Recycling Element
ST	Listed as Threatened under the California Endangered Species Act
SSU	Sonoma State University
SU	Significant and Unavoidable
SWMP	Stormwater Management Plan
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	Toxic Air Contaminant
TDM	transportation demand management
TMDL	Total Maximum Daily Loads
TNM	Traffic Noise Model
TWSC	Two-Way Stop Control
T-Zones	Transect Zones
T-3	SmartCode Transect Zone - Sub-Urban
T-4	SmartCode Transect Zone – General Urban
T-5	SmartCode Transect Zone - Urban Center
T-6	SmartCode Transect Zone – Urban Core
UBC	Uniform Building Code
UGB	Urban Growth Boundary
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agricultural
US EPA	U.S. Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

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<b>Acronym</b>	<b>Definition</b>
UST	Underground Storage Tanks
UWMP	Urban Water Management Plan
v/c	volume-to-capacity
VdB	Vibration Decibels
WDR	Waste Discharge Requirements
WQMP	Water Quality Management Plan
WSA	Water Supply Assessments



# Chapter 9

## Report Preparation

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