

City of Rohnert Park

CENTRAL ROHNERT PARK PRIORITY DEVELOPMENT AREA PLAN Draft Environmental Impact Report

SCH # 2015102081

Prepared for:

City of Rohnert Park
Development Services Department
Planning Division

Prepared by:

AECOM

December 2015





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Acronyms

μin/sec	micro-inch per second
μmho/cm	micromho per centimeter
2009 CTP	2009 Comprehensive Transportation Plan for Sonoma County
AB	Assembly Bill
ABAG	Association of Bay Area Governments
ACMs	asbestos-containing materials
ADWF	average dry weather flow
AFY	acre-feet per year
AIRFA	American Indian Religious Freedom Act
Alquist-Priolo Act	Alquist-Priolo Earthquake Fault Zoning Act
AQP	air quality plan
ARB	California Air Resources Board
ATCM	Airborne Toxics Control Measure
BA 2010 CAP	Bay Area 2010 Clean Air Plan
BAAQMD	Bay Area Air Quality Management District
bgs	below ground surface
BMP	best management practice
BMPs	Best Management Practices
Board	State Mining and Geology Board
CAA	Clean Air Act
CAAQS	California ambient air quality standards
CAL FIRE	California Department of Forestry and Fire Protection
CalEEMod	California Emissions Estimator Model
Cal-EPA	California Environmental Protection Agency
CALGreen Code	California Green Building Standards Code
Cal-OSHA	California Occupational Safety and Health Administration
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CBC	California Building Standards Code
CCAA	California Clean Air Act

CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CGS	California Geological Survey
CIWMA	California Integrated Waste Management Act
CIWMB	California Integrated Waste Management Board
CMA	Congestion Management Agency
CMP	Carl Moyer Program
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNW	California Northwestern Railway Company
CO	carbon monoxide
C-O	Office-Commercial zone
CO ₂	carbon dioxide
CO ₂ e	carbon dioxide equivalent
CPRR	California Pacific Railroad
C-R	Regional-Commercial zone
CRPR	California Rare Plant Rank
CRPUSD	Cotati–Rohnert Park Unified School District
CTS	California tiger salamander
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
dB	decibel scale
dBA	A-Weighted Decibel
DDAZ	Downtown District Amenity zone
Dispatch Center	Rohnert Park Department of Public Safety Communications Center
DO	dissolved oxygen
DTSC	Department of Toxic Substances Control
DTM-U	Downtown Mixed-Use zone
DTR-H	Downtown High Density Residential zone
DWR	California Department of Water Resources
EB	eastbound
ECP	Erosion Control Plan
EIR	Environmental Impact Report
EMS	emergency medical services
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
FAR	floor area ratio
FD	Rohnert Park’s Fire Division
FEMA	Federal Emergency Management Agency

FHWA	Federal Highway Administration
FIRM	flood insurance rate map
FTA	Federal Transit Administration
GGT	Golden Gate Transit
GHG	greenhouse gas
gpm	gallons per minute
GWP	high–global warming potential
HAWK	High-Intensity Activated crossWalk (signal)
HCD	California Department of Housing and Community Development
HCM	Highway Capacity Manual
HCP	habitat conservation plans
HI	Hazard Index
HWCL	Hazardous Waste Control Law
ID	Identification
I-L	Industrial zone
IL/CR	Industrial with Regional Commercial Overlay zone
I-L/O	Industrial with Office Overlay zone
in/sec	inches per second
IPCC	Intergovernmental Panel on Climate Change
IS/MND	Initial Study/Mitigated Negative Declaration
lb/day	pounds per day
LCFS	Low Carbon Fuel Standard
L _{dn}	Day-Night Level
L _{eq}	Equivalent Sound Level
LID	low-impact development
L _{max}	Maximum Sound Level
L _{min}	Minimum Sound Level
LOS	Level of Service
LRA	local responsibility area
Manual	Sonoma County 2011 Storm Water Low Impact Development Technical Design Manual
MCL	Maximum Contaminant Level
mg/m ³	milligrams per cubic meter
million gpd	million gallons per day
MMth	millions of therms
MOE	measure of effectiveness
MOU	Memorandum of Understanding
MRZs	Mineral Resource Zones
MS4	municipal separate storm sewer system
MSL	mean sea level
MT CO ₂ e/SP/yr	metric tons of carbon dioxide equivalent per service population per year
MT	metric ton
MTC	Metropolitan Transportation Commission
MTC	Metropolitan Transportation Commission

MUP	multi-use path
NAAQS	national ambient air quality standards
NAGPRA	Native American Graves Protection and Repatriation Act
NAHC	Native American Heritage Commission
NB	Northbound
NCCP	natural community conservation plans
NFPA	National Fire Protection Agency
NO ₂	nitrogen dioxide
North Coast RWQCB	North Coast Regional Water Quality Control Board
NO _x	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NRCS	U.S. Natural Resources Conservation Service
NWP	Northwestern Pacific Railroad
OSHA	Occupational Safety and Health Administration
pc/mi/ln	passenger cars per mile per lane;
PCA	Priority Conservation Area
PCE	tetrachloroethene
PCP	pentachlorophenol
PD	Planned Development
PDA Plan	Priority Development Area Plan
PDA	Priority Development Area
PG&E	Pacific Gas and Electric Company
P-I	Public/Institutional zone
PM	particulate matter
PM ₁₀	particulate matter with aerodynamic diameter less than 10 micrometers
PM _{2.5}	particulate matter with aerodynamic diameter less than 2.5 micrometers
Porter-Cologne Act	Porter-Cologne Water Quality Control Act
ppd	pounds per day
ppm	parts per million
PPV	Peak Particle Velocity
PRC	Public Resources Code
Proposed Plan	Central Rohnert Park PDA Plan
PSO	public safety operator
RCRA	Resource Conservation and Recovery Act
RHNA	Regional Housing Needs Allocation
RMS	root-mean-square
ROG	reactive organic gases
RPDPS	Rohnert Park Division of Public Safety
RPX	Rohnert Park Expressway
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SB	Southbound

SCS	Sustainable Community Strategy
SCT	Sonoma County Transit
SCTA	Sonoma County Transportation Authority
SCWA	Sonoma County Water Agency
SCWMA	Sonoma County Waste Management Agency
SFBAAB	San Francisco Bay Area Air Basin
SFNP	San Francisco and North Pacific Railroad
SIP	state implementation plan
SLM	Sound Level Meter
SMARA	California Surface Mining and Reclamation Act
SMART	Sonoma Marin Area Rail Transit
SO ₂	sulfur dioxide
SP	service population
SPRR	Southern Pacific Railroad
SR	State Route
SUSMP	Stormwater Mitigation Plan
SVE	soil vapor extraction
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
TCE	trichloroethene
TDM	transportation demand management
TeNS	Technical Noise Supplement
TMDL	total maximum daily loads
TPH-g	Total petroleum hydrocarbons as gasoline
tpy	tons per year
U.S. 101	U.S. Highway 101
USACE	U.S. Army Corps of Engineers
USC	United States Code
USFWS	U.S. Fish and Wildlife Service
UST	Underground Storage Tank
v/c	volume to capacity
VdB	vibration decibels
VMT	vehicle miles traveled
VOCs	volatile organic compounds
WDR	waste discharge requirement
WGCEP	Working Group on California Earthquake Probabilities
WRS	Waste Reduction Strategy
WSAs	water supply assessments
µg/m ³	micrograms per cubic meter

EXECUTIVE SUMMARY

ES.1 INTRODUCTION

This environmental impact report (EIR) has been prepared by the City of Rohnert Park (City) as lead agency to evaluate the potential environmental effects of the proposed Central Rohnert Park Priority Development Area (PDA) Plan (proposed plan). This document has been prepared in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code [PRC], Section 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations, Section 15000 et seq.).¹

This executive summary briefly summarizes the environmental analysis for the proposed plan, as required by Section 15123 of the State CEQA Guidelines. This executive summary includes:

- an overview of the project description;
- alternatives to the plan that could reduce potentially significant effects;
- known areas of controversy; and
- impacts of the plan and mitigation measures designed to reduce potentially significant² impacts (Table ES-1).

Each of these topics is discussed in detail in this Draft EIR.

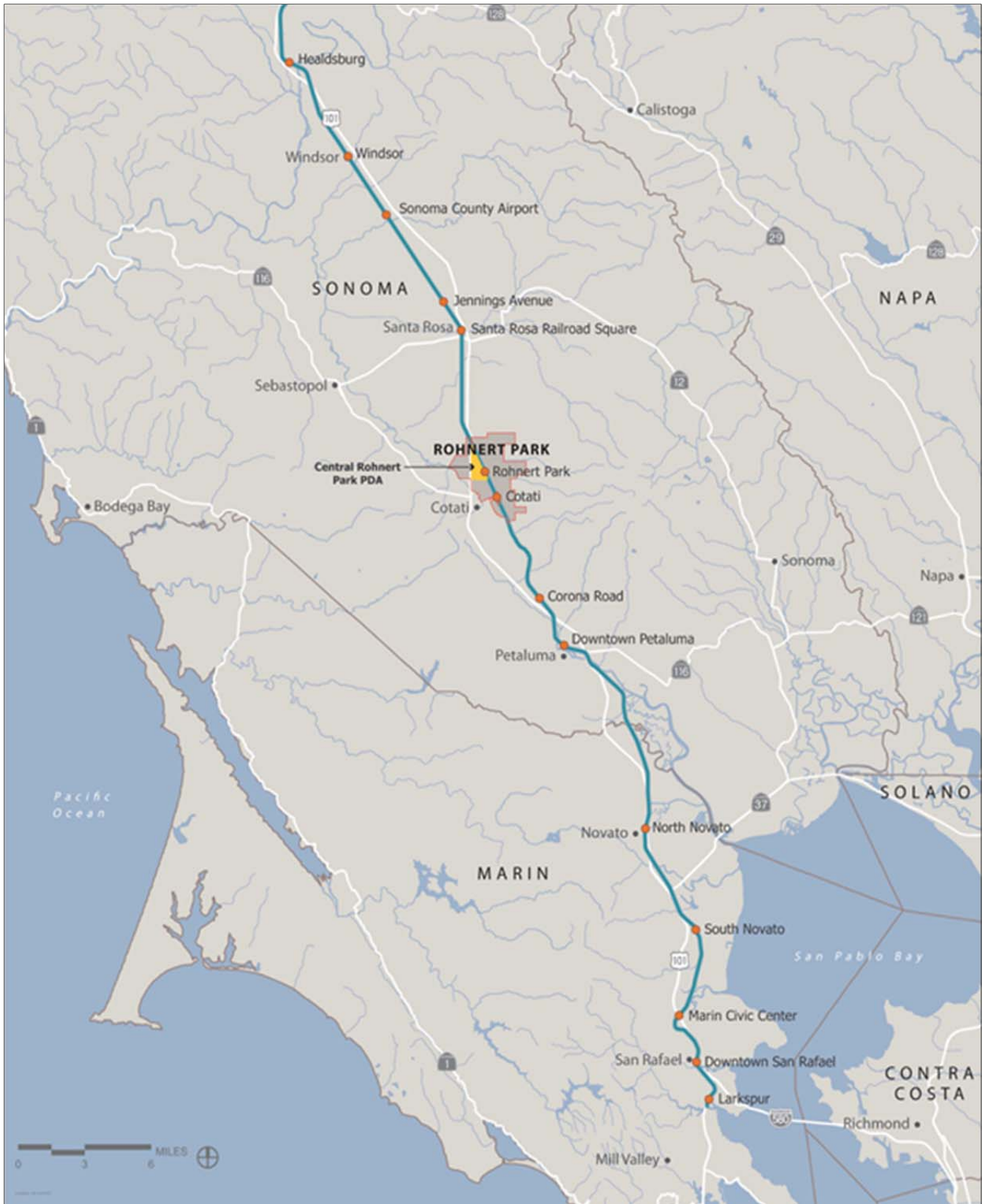
The proposed plan would be located in a developed portion of the City with existing infrastructure capacity. As a developed area, the City, as the lead agency, determined that this Draft EIR would address the following technical issue areas: air quality, biological resources, cultural resources, geology and soils, greenhouse gas (GHG) emissions, hazards and hazardous materials, hydrology and water quality, noise, and transportation and traffic. As demonstrated in this EIR, with the exception of a significant and unavoidable traffic and transportation impact, all project impacts would be less than significant or would be reduced to a less-than-significant level with implementation of feasible mitigation measures. A synopsis of the proposed plan follows; refer to Chapter 2, “Project Description” for the complete summary of the proposed plan and envisioned improvements.

ES.2 PROJECT DESCRIPTION

The proposed plan is a programmatic land use master plan that covers an approximately 330-acre developed area of the city, roughly centered along Rohnert Park Expressway and State Farm Drive. The plan area is slated to include one of ten rail station stops in Sonoma County along the Sonoma-Marin Area Rail Transit (SMART) rail line and multi-use path, which follows the existing Northwestern Pacific Railroad line in the plan area, as shown in Figure 1, “Regional Setting.” The proposed plan is funded by the Association of Bay Area Governments’ PDA planning grant program, which is intended to support transit-oriented development and infill growth in existing communities adjacent to transit. As shown in Figure 2, “Local Setting,” the plan area encompasses a diverse mixed-use area with a mix of multifamily residential, office, light industrial, and retail and service uses and provides opportunities for infill and reuse/redevelopment of vacant and underutilized buildings and properties.

¹ The PRC includes provisions for streamlining CEQA review for certain projects, such as eligible infill projects. Chapter 4.0 of this EIR, “Other CEQA-Required Sections,” provides a detailed discussion of streamlining provisions relevant to this EIR.

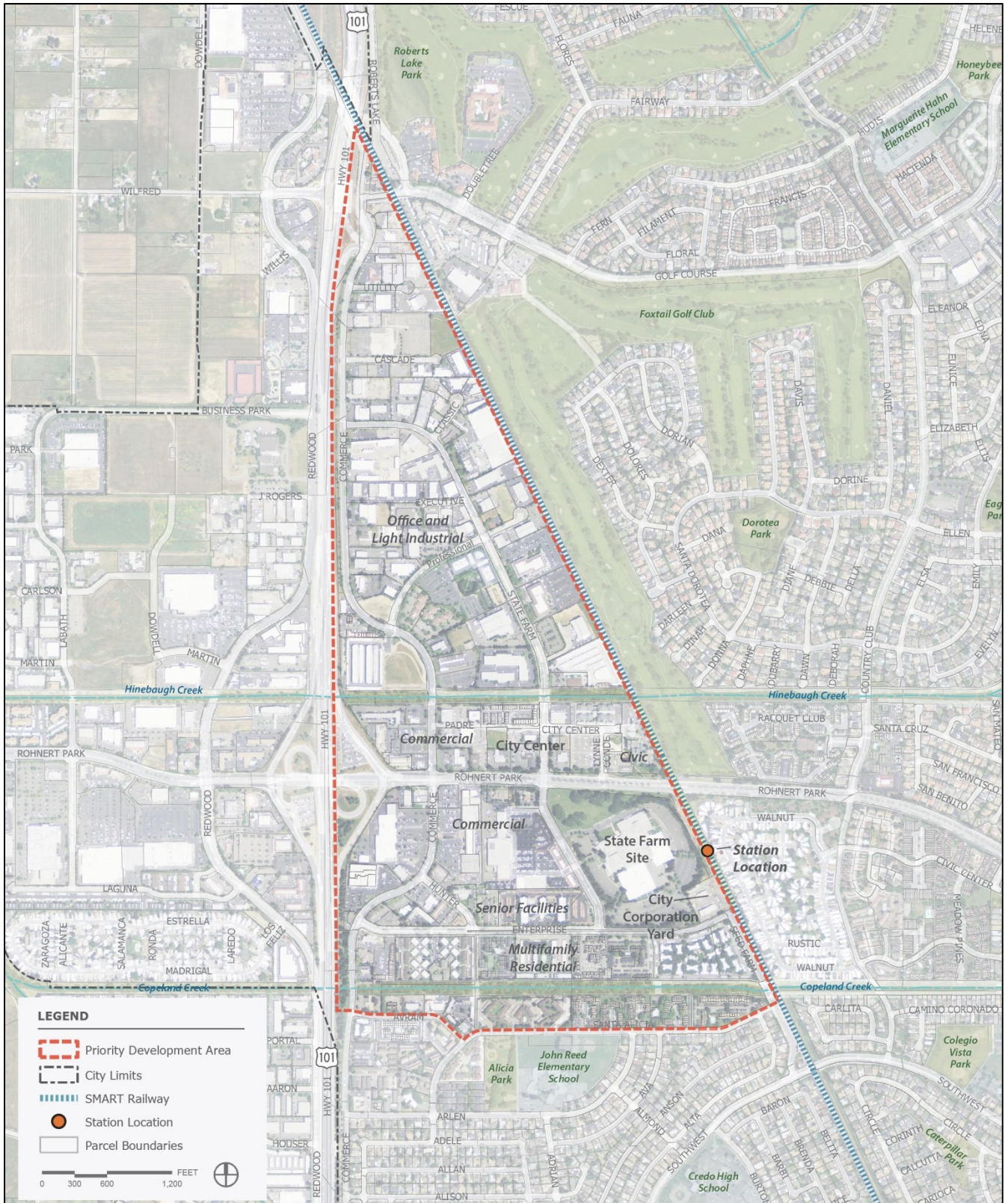
² State CEQA Guidelines Section 15382 defines a significant effect as a substantial, or potentially substantial, adverse change in any physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance.



Sources: Data provided by City of Rohnert Park and compiled by AECOM in 2014

Figure ES-1:

Regional Location



Sources: Data provided by City of Rohnert Park and compiled by AECOM in 2014

Figure ES-2:

Local Setting

As shown in Figure 3, “Proposed Priority Development Area Subareas and Downtown District,” the plan area has been organized into five subareas and a new downtown district that contain the following existing features:

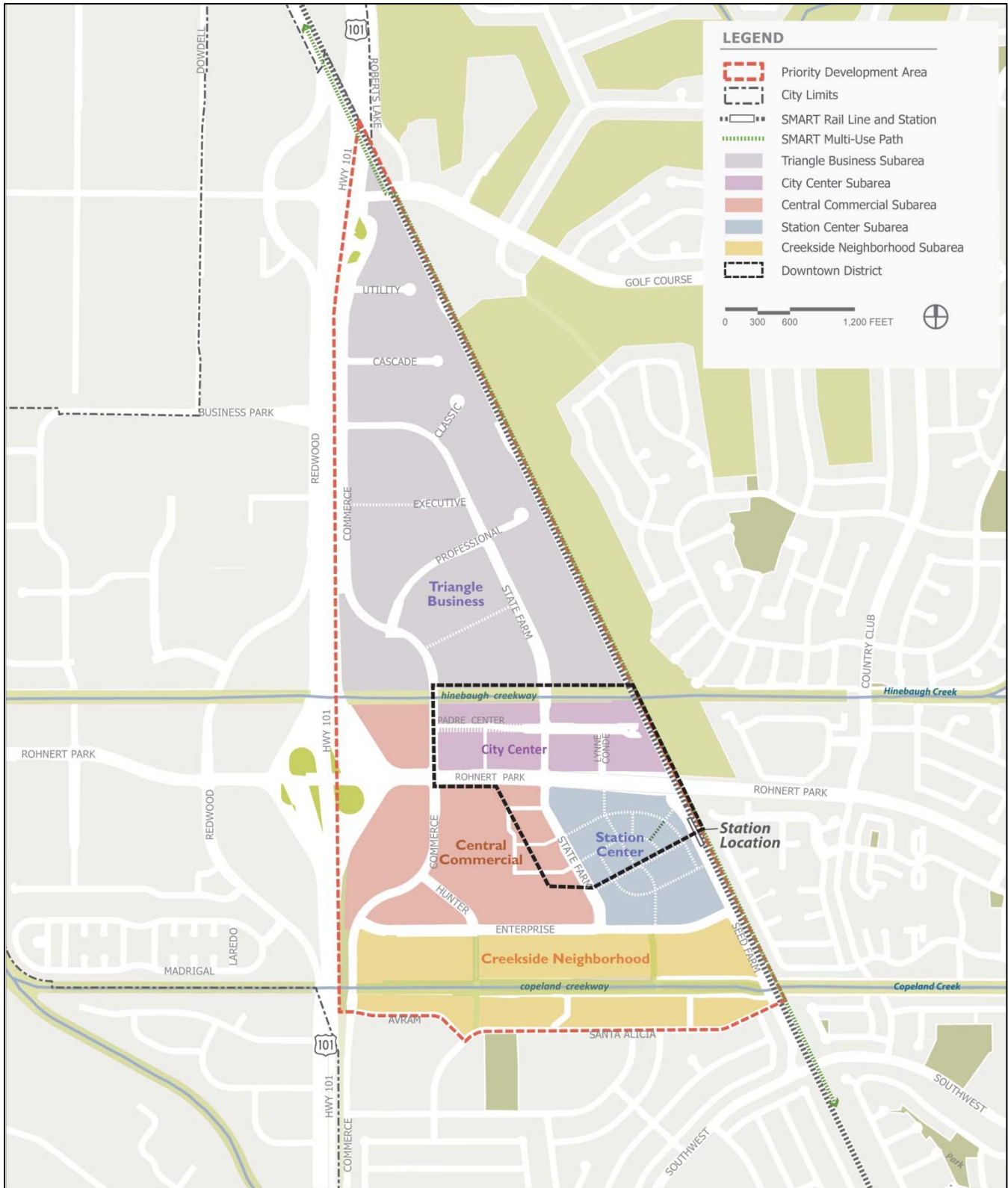
- The Station Center subarea is the site of the vacant former State Farm office campus site, adjacent to the planned Rohnert Park SMART rail station.
- The City Center subarea, north of the SMART rail station at the intersection of City Center Drive and State Farm Drive, is an emerging civic center and urban, mixed-use neighborhood.
- The Central Commercial subarea consists of several shopping centers, accessed along Commerce Boulevard and State Farm Drive.
- The Triangle Business subarea north of Hinebaugh Creek is essentially an employment area, with predominantly office and industrial business uses and some retail uses in its northern portion.
- The Creekside Neighborhood, located between Enterprise Drive and Avram Avenue, consists of multifamily residential housing and some neighborhood-serving retail uses at the corner of Commerce Boulevard and Enterprise Drive.
- A new Downtown District, called the Downtown District Amenity Zone (DDAZ), would implement the community’s vision for a compact, walkable downtown area that is unique to the city.

Together, the plan’s subareas and DDAZ support the community’s needs for diverse retail experiences, jobs, services, housing, and attractive places to live, work, and play. The DDAZ is proposed to help focus improvements and investments in downtown Rohnert Park, including amenities (e.g., benches, plazas, signage, and lighting). The DDAZ would be applied as a new overlay zone that would include unique urban design standards and design guidelines that promote compact, multistory development; support flexible approaches to accommodating parking demand in the DDAZ; and potentially incentivize those features and amenities desired in a downtown setting.

The plan area is envisioned as a central business area for the city, with a downtown and urban neighborhoods, achieved through new mixed-use, infill, building reuse/repurposing, and streetscape and other public and private improvements. The separate SMART rail station project was strategically moved to a location adjacent to the State Farm property (the largest opportunity site in the plan area), with the vision of creating a central downtown for Rohnert Park that would serve as the social and economic heart of the city. This proposed downtown area is envisioned to expand upon recent improvements occurring in the existing City Center, an urban, walkable neighborhood area, north of the SMART rail station, with a civic center and mixed-use neighborhood focus.

The plan proposes various development types: multifamily residential units, retail/service commercial uses, public-institutional uses, office uses, light industrial uses, and park and open space facilities. To estimate the carrying capacity of plan area infrastructure, assumptions were made about the maximum expected development potential in the plan area. The assumptions made include the following added development potential in the plan area:

- 835 multifamily residential units, concentrated within the one-half-mile radius of the SMART rail station, in the City Center and Station Center subareas. Allowed densities would range from 12 to 75 units per acre.



Source: Data compiled by AECOM in 2015

Figure ES-3: Proposed Priority Development Area Subareas and Downtown District

- Up to 440,880 square feet of retail and service, generally consisting of one- to two-story infill development distributed within the plan area. Allowed floor area ratios (FARs) would range from a maximum of 0.4 in the regional commercial zone to 1.5 for a mix of nonresidential uses and 2.0 for a mix of residential and nonresidential uses within the Downtown Mixed-Use zone.
- Up to 189,320 square feet of new office facilities, generally consisting of one- to three-story developments, focused within the Triangle Business, City Center, and Station Center subareas. Allowed FARs would range from a maximum of 0.5 in the Industrial with Office Overlay zone (1.0 if approved by a discretionary action by the Planning Commission, subject to the requirements in the proposed plan and other City-adopted design guidelines) to 1.5 for a mix of nonresidential uses and 2.0 for a mix of residential and nonresidential uses in the Downtown Mixed-Use zone.
- Up to 62,800 square feet of public-institutional uses, generally consisting of one- and two-story infill development within the plan area. The maximum allowed FAR would be 0.5.
- Up to 129,320 square feet of light industrial uses located within the Triangle Business subarea. Maximum allowed density would be 0.5, or 1.0 with approval of discretionary action by the Planning Commission and subject to the requirements in the proposed plan and other City-adopted design guidelines.
- 8.5 acres of public parks/open space within the Station Center and Triangle Business subareas.

The plan proposes new roadways, transit, bicycle, and pedestrian improvements and corresponding circulation connections, to improve nonvehicular access in the plan area; connect to and complete regional trails; and support the development of existing and new mixed-use areas of the community, with a particular focus on providing community access to the SMART rail station and regional multi-use path.

ES.3 ALTERNATIVES

The purpose of the alternatives evaluation in an EIR, as stated in Section 15126.6(c) of the State CEQA Guidelines, is to ensure that “[t]he range of potential alternatives to the proposed project shall 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” associated with implementation of the proposed project—in this case, the proposed plan. Chapter 6.0 of this EIR, “Alternatives,” describes the range of alternatives to the proposed project that are analyzed in this EIR and presents how specific impacts differ in severity from those associated with the proposed plan.

Except for transportation and traffic, as with the proposed plan, significant impacts of the alternatives can be mitigated to a less-than-significant level through adoption of mitigation measures identified in Sections 3.1 through 3.9 of this EIR, which contains the environmental analysis for the proposed plan. The following alternatives would be similar to or slightly lessen project impacts, including the significant and unavoidable impact related to transportation and traffic; with the exception of the No Project/No Development Alternative, the alternatives would not reduce these impacts to a less-than-significant level.

The alternatives to the proposed plan analyzed in this EIR are:

- Alternative 1: No Project/No Development
- Alternative 2: No Regional Commercial Overlay Zone

- Alternative 3: Station Center Office and Residential Focus

The State CEQA Guidelines require that an EIR identify the environmentally superior alternative (Section 15126.6[e][2]). If the environmentally superior alternative is the “No Project” Alternative, the EIR must identify an environmentally superior alternative from among the other alternatives. Alternative 1, the No Project/No Development Alternative, could avoid the significant impacts of the proposed plan related to transportation and traffic and would result in less severe impacts in all other issue areas.

Of the development alternatives, Alternative 3 would be the environmentally superior alternative, because it would result in lesser traffic, noise, and GHG emissions impacts compared to the proposed plan and Alternative 2. Alternative 3 would meet most of the plan’s objectives (presented in detail in Chapter 2.0, “Project Description”), but to a lesser extent than the proposed plan and Alternative 2. Alternative 3 would meet most of the plan objectives but would be less effective in supporting the community’s desire or the plan’s objective for a downtown retail environment, with substantial retail uses adjacent to the SMART rail station.

Furthermore, all of the alternatives would deliver fewer of the downtown retail and entertainment benefits desired by the community from the proposed plan. The plan area has the potential for retail and employment infill opportunities near transit. Reduction of some of the retail and residential development in the alternatives would not support the plan’s objectives or leverage the advantages of the coming SMART rail station to support the creation of a downtown for the city.

ES.4 KNOWN AREAS OF CONTROVERSY

The State CEQA Guidelines (Section 15123) require that the summary of an EIR identify areas of controversy known to the lead agency, including issues raised by agencies and the public. The City has asked for input from federal, state, and local agencies; organizations; and members of the public regarding the issues that should be evaluated in the EIR. On October 28, 2015, the City circulated a Notice of Preparation (NOP) for a Draft EIR after initially preparing a Draft Initial Study/Mitigated Negative Declaration. A public scoping meeting was held on November 18, 2015. The City received two letters, from the County of Sonoma Permit and Resource Management Department and the California Department of Transportation (Caltrans). Both letters concerned traffic and transportation impacts. Please see Appendix I for both letters received on the NOP. The issues in these letters are summarized below.

ES.4.1 CULTURAL RESOURCES

Caltrans mentioned that project environmental documentation should include a current archaeological record search from the Northwest Information Center of the California Historical Resources Information System if any construction activity occurs within a state right-of-way.

ES.4.2 TRANSPORTATION AND TRAFFIC

Caltrans requested that the EIR include a discussion of the impacts of the proposed plan on U.S. Highway 101 and State Route 116. Caltrans also requested that the traffic impact study include Caltrans’s *Guide for the Preparation of Traffic Impact Studies* for traffic impact scenarios and methodologies.

The County of Sonoma also requested that the EIR discuss the cumulative impacts of both the local and regional circulation system and identify appropriate mitigation. The County of Sonoma also requests that the EIR employ the Sonoma County Transit Authority's travel demand model.

ES.5 SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Table ES-1 displays a summary of potential impacts and proposed mitigation measures that would avoid, eliminate, minimize, or reduce potential impacts. The level of significance of the potential impact prior to and following implementation of each mitigation measure is also identified. For detailed descriptions of project impacts and mitigation measures, please see EIR Sections 3.1 through 3.9.

Table ES-1: Central Rohnert Park Priority Development Area Plan Summary of Project Impacts and Mitigation Measures			
Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
3.1 Air Quality			
3.1a Potential for construction-related emissions to conflict or obstruct with the implementation of the applicable air quality plan.	PS	Mitigation Measure 3.1-1: Implement BAAQMD Basic Construction Control Measures BAAQMD recommends that all projects, regardless of significance, implement the Basic Construction Control Measures during construction. Implementing the following measures would effectively minimize and control fugitive dust emissions from the proposed construction-related activities. All building or grading permits issued for projects within the plan area shall include the following Basic Construction Control Measures (BAAQMD, 2011) as a condition of the permit. All contractors selected to construct any component of the project shall implement the following measures: <ul style="list-style-type: none"> • All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. • All haul trucks transporting soil, sand, or other loose material off-site shall be covered. • All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power-vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. • All vehicle speeds on unpaved roads shall be limited to 15 miles per hour. • Idling times shall be minimized either by shutting equipment off when not in use or by reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure, Title 13, Section 2485 of the California Code of Regulations). Clear signage shall be provided for construction workers at all access points. 	LTS
Potential for operational emissions to conflict with or obstruct implementation of the applicable air quality plan.	PS		LTS

Table ES-1: Central Rohnert Park Priority Development Area Plan Summary of Project Impacts and Mitigation Measures			
Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<ul style="list-style-type: none"> All construction equipment shall be maintained and properly tuned in accordance with manufacturer’s specifications. All equipment shall be checked by a certified visible emissions evaluator. A publicly visible sign shall be posted at the soil transfer site within BAAQMD, with the telephone number and person at the City of Rohnert Park to contact regarding dust complaints. This person shall respond and take corrective action within 48 hours. BAAQMD’s phone number also shall be visible, to ensure compliance with applicable regulations. <p>Mitigation Measure 3.1-2: Assess Criteria Pollutant Emissions Associated with Site-Specific Construction and Alter Project Details and/or Construction Equipment as Needed</p> <p>As part of subsequent project-level CEQA analysis, the project applicant shall complete an evaluation of construction air pollutant emissions from individual projects in the plan area. The air pollutant emissions shall be compared to BAAQMD’s thresholds of significance for project-level construction impacts to determine potential impacts. If potentially significant project-level construction-related impacts are found (i.e., construction-related emissions would exceed applicable thresholds of significance), additional mitigation measures (beyond those required for all projects by Mitigation Measure 3.1-1) shall be developed and implemented to reduce potential impacts to a less-than-significant level. Mitigation measures could include, but are not limited to the measures listed in Mitigation Measures 3.1-3, 3.1-4, and 3.1-5.</p>	

Table ES-1: Central Rohnert Park Priority Development Area Plan Summary of Project Impacts and Mitigation Measures			
Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>Mitigation Measure 3.1-3: Implement Applicable Site-Specific BAAQMD Additional Construction Control Measures for Exhaust-Related Emissions</p> <p>BAAQMD has developed Additional Construction Mitigation Measures for those projects that will be located near sensitive receptors. Because the plan’s construction-related pollutant of most concern is NO_x, the following measures from BAAQMD’s Additional Construction Measures with an emphasis on exhaust-related measures shall be implemented during construction if project-level impacts are found to be significant to reduce emissions to a less-than-significant level. Example additional measures that would help reduce exhaust-related NO_x emissions are listed below; however, projects are not limited or confined to the following measures to reduce exhaust-related construction emissions.</p> <ul style="list-style-type: none"> • The idling time of diesel-powered construction equipment shall be minimized to 2 minutes. • Low-volatile organic compound (i.e., ROG) coatings shall be used, beyond local requirements (i.e., Regulation 8, Rule 3: Architectural Coatings). • All contractors shall be required to use equipment that meets ARB’s most recent certification standard for off-road heavy duty diesel engines. • All contractors shall be required to use a selected percentage of higher tier equipment (e.g., Tier 4) or equipment that through retrofits or repowering meet the exhaust emission standards of higher tier emission standards in order to reduce construction impacts to a less-than-significant level. • All contractors shall evaluate the feasibility of using alternatively fueled vehicles and equipment during 	

Table ES-1: Central Rohnert Park Priority Development Area Plan Summary of Project Impacts and Mitigation Measures			
Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>construction activities. Alternatively fueled vehicles and equipment shall be used to the highest extent feasible and to reduce construction emissions to a less-than-significant level.</p> <p>Mitigation Measure 3.1-4: Implement Applicable Site Specific BAAQMD Additional Construction Control Measures for Fugitive Dust Emissions</p> <p>BAAQMD has developed additional construction mitigation measures for those projects that will include extensive earth-moving activities or will be located near sensitive receptors. Because the plan would consist of infill development with potential sensitive receptors nearby, the following example fugitive dust-related measures shall be considered to minimize exposure to nearby receptors, as applicable, if project-level impacts are found to be significant. However, projects are not limited or confined to the following measures to reduce fugitive dust-related emissions.</p> <ul style="list-style-type: none"> • All exposed surfaces shall be watered at a frequency adequate to maintain minimum soil moisture of 12 percent. Moisture content can be verified by lab samples or moisture probe. • All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 miles per hour. • Wind breaks (e.g., trees, fences) shall be installed on the windward side(s) of actively disturbed areas of construction. Wind breaks shall have at maximum 50 percent air porosity. • Vegetative ground cover (e.g., fast-germinating native grass seed) shall be planted in disturbed areas as soon as possible and shall be watered appropriately until 	

Table ES-1: Central Rohnert Park Priority Development Area Plan Summary of Project Impacts and Mitigation Measures

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>vegetation is established.</p> <ul style="list-style-type: none"> • The simultaneous occurrence of excavation, grading, and ground-disturbing construction activities on the same area at any one time shall be limited. Activities shall be phased to reduce the amount of disturbed surfaces at any one time. • All trucks and equipment, including their tires, shall be washed off before leaving the site. • Site accesses to a distance of 100 feet from the paved road shall be treated with a 6- to 12-inch compacted layer of wood chips, mulch, or gravel. • Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than 1 percent. <p>Mitigation Measure 3.1-5: Use BAAQMD Carl Moyer Program (CMP) to Offset Project-Specific Regional Emissions</p> <p>If any project-level air pollutant emissions (i.e., construction or operational) exceed the BAAQMD 2010 thresholds after implementation of applicable mitigation measures, the project applicant shall use BAAQMD’s CMP to offset the remaining project-level air pollutant emissions that exceed the BAAQMD 2010 thresholds. The project applicant shall provide funding for emission reduction projects in an amount up to \$16,640 per ton of criteria air pollutants (NO_x + ROG + [20*PM]) , which is the current cost-effectiveness limit for emission reduction projects set by the Air Resources Board for the CMP. The range of costs could be anywhere from approximately \$5,000 per weighted ton to the upper limit of \$16,640 per weighted ton. An administrative fee of 5 percent shall be paid by the project</p>	

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Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>applicant to BAAQMD to implement the program. The range of costs could be anywhere from approximately \$5,000 per weighted ton to the upper limit of \$16,640 per weighted ton. An administrative fee of 5 percent shall be paid by the project applicant to BAAQMD to implement the program. The funding will be used for a combination of the following types of projects:</p> <ul style="list-style-type: none"> • projects eligible for funding under the CMP guidelines that are real, surplus, quantifiable, and enforceable; and • projects to replace older, high-emitting construction equipment operating in the Bay Area with newer, cleaner, retrofitted, or more efficient equipment. <p>Mitigation Measure 3.1-6: Assess Criteria Pollutant Emissions Associated with Site-Specific Operations and Implement BAAQMD Operational Emissions Mitigation Measures</p> <p>As part of project-level CEQA analysis the operational impact from projects in the plan area shall be assessed by the project applicant in accordance with the State CEQA Guidelines Appendix G Checklist and compared to BAAQMD’s thresholds of significance for project-level impacts. Project-specific mitigation measures for the proposed plan shall be implemented, based on the BAAQMD Mitigation Measures for Operational Emissions found in Appendix A, if necessary to reduce impacts to below a level of significance,.</p>	
3.1b Construction-related NO _x emissions violating an air quality standard through exceedance of the BAAQMD 2010 standard of significance	PS	Mitigation Measure 3.1-1; Mitigation Measure 3.1-2; Mitigation Measure 3.1-3; Mitigation Measure 3.1-4; Mitigation Measure 3.1-5; Mitigation Measure 3.1-6.	LTS
Operational ROG and NO _x emissions contributing	PS		LTS

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Table ES-1: Central Rohnert Park Priority Development Area Plan Summary of Project Impacts and Mitigation Measures			
Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
substantially to an existing or projected air quality violation through exceedance of the BAAQMD 2010 standard of significance			
3.1c Potential for construction-related and operational emissions of ozone precursors, criteria air pollutants, TACs, and odors to result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard	PS	Mitigation Measure 3.1-1; Mitigation Measure 3.1-2; Mitigation Measure 3.1-3; Mitigation Measure 3.1-4; Mitigation Measure 3.1-5; Mitigation Measure 3.1-6.	LTS
3.1d Potential exposure of sensitive receptors to substantial concentrations of construction-related PM and TAC emissions Potential exposure of sensitive receptors to substantial concentrations of operational TAC emissions Potential exposure of sensitive receptors to carbon monoxide hotspot near roadways or intersections	PS PS	Mitigation Measure 3.1-7: Assess Toxic Air Contaminant Emissions and Health Risks Associated with Site-Specific Construction. As part of any project-level CEQA analysis, the health risk impacts of construction PM _{2.5} and TAC concentrations from individual projects within the plan area shall be assessed by the project applicant in accordance with BAAQMD's CEQA Guidelines and Recommended Methods for Screening and Modeling Local Risks and Hazards, as necessary. If health risk impacts are determined to exceed BAAQMD thresholds of significance, BAAQMD's exhaust-related additional construction Mitigation Measure 3.1-3 shall be implemented to reduce impacts to a less-than-significant level. Mitigation Measure 3.1-8: Assess Toxic Air Contaminant Emissions and Health Risks Associated with State-Specific Operations and Implement Applicable BAAQMD Health Risk Mitigation Measures As part of any project-level CEQA analysis, PM _{2.5} and TAC emission impacts of operational activities from individual projects in the plan area shall be assessed by the project applicant in accordance with BAAQMD's CEQA Guidelines	LTS LTS

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Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>and Recommended Methods for Screening and Modeling Local Risks and Hazards as necessary. If health risks are determined to exceed BAAQMD thresholds of significance, project-specific mitigation measures shall be implemented to reduce health risks to a less-than-significant level. Possible mitigation measures could include but are not limited to change in project land use orientation to locate them farther away from existing sensitive receptors, purchase of retrofits of ventilation systems for existing sensitive receptors, and change in land use type to develop a more compatible land use (i.e., non-TAC source). Mitigation measures shall be developed and implemented for significant operational impacts of PM and TAC emissions. Additional BAAQMD mitigation measures can be found in Appendix A.</p> <p>Mitigation Measure 3.1-9: Assess Local and Community Hazard Risks Associated with Project-Specific Operation and Implement Applicable BAAQMD Community Risk and Hazard Mitigation</p> <p>As part of any project-level CEQA analysis, health impacts of siting new receptors from individual projects within the plan area shall be assessed by the project applicant in accordance with BAAQMD’s CEQA Guidelines and Recommended Methods for Screening and Modeling Local Risks and Hazards, as necessary. Once exact distances are known between new receptors and existing sources, the BAAQMD Health Risk Screening Tools and Distance Multipliers can be more accurately used to determine cancer risks and PM_{2.5} concentrations. If health risks are determined to exceed BAAQMD thresholds of significance, project-specific mitigation measures shall be implemented to reduce health risks to a less-than-significant level. Possible mitigation measures could include but are not limited to</p>	

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Impacts		Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
			change in sensitive land use orientation to locate them farther away from TAC sources; increased ventilation system requirements for sensitive-receptor heating, ventilation, and air conditioning systems; and change in land use type to develop a more compatible land use (i.e., nonsensitive receptor). Appendix A provides a list of BAAQMD PM _{2.5} /TAC mitigation measures.	
3.1e	<p>Potential for construction activities to expose a substantial number of people to objectionable odors</p> <p>Potential for operational activities to expose a substantial number of people to objectionable odors</p>	<p>LTS</p> <p>PS</p>	<p>Mitigation Measure 3.1-10: Assess Odors Associated with Project-Specific Operation and Implement Applicable BAAQMD Odor Mitigation Measures</p> <p>As part of any project-level CEQA analysis, odor impacts from individual projects within the plan area shall be assessed by the project applicant in accordance with BAAQMD’s CEQA Guidelines as necessary. Significant odor impacts shall be mitigated using best management practices and odor control technology to less than significant when feasible. The most likely odor sources to be sited within the plan area are restaurants and food services. BAAQMD odor mitigation for food service includes:</p> <ul style="list-style-type: none"> • integral grease filtration system or grease removal system, • baffle filters, • electrostatic precipitator, • water cooling/cleaning unit, • disposable pleated or bag filters, • activated carbon filters, • oxidizing pellet beds, • incineration, • catalytic conversion, • proper packaging and frequency of food waste disposal, 	<p>LTS</p> <p>LTS</p>

Table ES-1: Central Rohnert Park Priority Development Area Plan Summary of Project Impacts and Mitigation Measures			
Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		and <ul style="list-style-type: none"> exhaust stack and vent location with respect to receptors 	
3.2 Biological Resources			
3.2a Potential adverse impacts on special-status plant species	PS	<p>Mitigation Measure 3.2-1: Conduct Site-Specific Botanical Surveys and Implement Protective Actions if Rare Plants are Identified</p> <p>During the appropriate phenological periods, preconstruction rare plant surveys shall be conducted in areas where special-status plants have the potential to occur in construction areas. Developed areas will not be required to be surveyed, because of the lack of suitable habitat for rare plant species. Before the start of construction, the location of special-status plants shall be identified, then shall be marked or flagged for avoidance; or as appropriate, the limits of construction shall be marked between the plants and the construction area. If impacts on rare plants cannot be avoided, a qualified botanist shall oversee the collection of the upper 4 inches of topsoil in the areas where any identified special-status plant species would be affected. Once construction has been completed, the topsoil shall be stockpiled separately and restored to the general area of disturbance.</p>	LTS
Potential loss of habitat and temporary disturbance of migratory birds	PS	<p>Mitigation Measure 3.2-2: Conduct Site-Specific Preconstruction Nesting Bird Surveys and Implement Protective Actions if Active Nests Are Detected</p> <p>A preconstruction survey shall be conducted by a qualified biologist for nesting raptors and other special-status bird species a maximum of 2 weeks before the start of any new construction activities (i.e., ground clearing and grading, staging of equipment, ground disturbance) during the breeding season (February 1–August 31) so that no nesting</p>	LTS

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Table ES-1: Central Rohnert Park Priority Development Area Plan Summary of Project Impacts and Mitigation Measures

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<p>Potential for adverse effects on special-status fish, including mortality, caused by increases in water turbidity from runoff during near-stream construction</p>	PS	<p>migratory birds are within or adjacent to the construction area. If active nests are found during the preconstruction survey, a no-disturbance buffer zone shall be created around active nests during the breeding season or until a qualified biologist has determined that the young have fledged. The no-disturbance buffer zone shall be a minimum of 250 feet from active raptor nests, 100 feet from special-status species, and 50 feet from non-special-status nesting bird species until the chicks have fledged. Reductions in the size of the buffer zones and or allowances of limited types of construction activities within the buffer zone shall be determined by a qualified biologist and shall be based on existing noise and human disturbance levels in the plan area and observed evidence of disturbance to birds.</p> <p>Mitigation Measure 3.2-3: Implement Site-Specific Natural Erosion Control Materials to Reduce the Potential for Entrapment of Special-Status Species</p> <p>Plastic monofilament netting (e.g., erosion control matting or wattles) shall not be used in special-status species habitat, because wildlife can become trapped in the netting and it leaves plastic particles in the soil and water as it degrades. Appropriate fiber netting or similar natural materials (e.g., coconut coir matting) shall be used for erosion control or other purposes in sensitive areas, to reduce the potential for entrapping wildlife.</p> <p>Mitigation Measure 3.7-1; Mitigation Measure 3.7-2.</p>	LTS
<p>Potential disturbance of aquatic dispersal habitat for special-status amphibian species during construction</p>	PS	<p>Mitigation Measure 3.2-4: Conduct Site-Specific Preconstruction Surveys and Implement Protective</p>	LTS

Table ES-1: Central Rohnert Park Priority Development Area Plan Summary of Project Impacts and Mitigation Measures			
Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>Actions if Special-Status Species Are Identified</p> <p>Preconstruction surveys for special-status species shall be conducted at active construction areas by a qualified biologist. However, construction areas that have a developed land cover type—including urban, residential, paved, or gravel areas—shall be surveyed at the discretion of a qualified biologist based on the potential for biological resources to be affected. In the event that a special-status species is encountered, all construction activities will stop within 50 feet of the individual. Construction activities will not resume until the individual has left the project area of its own volition. If a special-status species becomes trapped in a construction area, or does not leave the project area of its own volition, the appropriate resource agencies will be contacted to determine a course of action for species relocation.</p>	
Potential for construction activities to cause injury to the western pond turtle or for project activities to increase water turbidity and pollutants in western pond turtle aquatic habitat	PS	Mitigation Measure 3.2-3; Mitigation Measure 3.7-1; Mitigation Measure 3.7.2	LTS
3.2c Potential for runoff or accidental spills to increase turbidity and pollutants that could degrade riparian areas	PS	Mitigation Measure 3.7-1; Mitigation Measure 3.7.2	LTS
3.2d Potential for development to affect the movement of native resident or migratory fish or wildlife species or corridors or impede the use of native wildlife nursery sites	LTS	None required.	LTS

Table ES-1: Central Rohnert Park Priority Development Area Plan Summary of Project Impacts and Mitigation Measures			
Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
3.2e Potential construction-related loss of trees meeting the definition of “protected tree” under the City’s Zoning Ordinance and Municipal Code	PS	<p>Mitigation Measure 3.2-5: Prepare and Implement Site-Specific Tree Mitigation and Replacement Plans</p> <p>Project applicants seeking to remove protected trees shall prepare a tree mitigation and replacement plan, in accordance with Division D5, “Resource Management,” of the City of Rohnert Park Zoning Ordinance. The plan shall include all of the following elements:</p> <ul style="list-style-type: none"> (1) An inventory of trees planned for removal and any work planned within the dripline of protected trees; (2) Replacement of trees at a ratio agreed on with the City of Rohnert Park and in accordance with the tree protection ordinance; (3) The specific locations of the tree planting, including a map and planting plan; (4) Schedules and methodologies for maintaining and monitoring the success of the plan; and (5) Performance standards. <p>This plan shall be reviewed and approved by the City before issuance of a site development permit, and the plan shall be implemented throughout project construction.</p>	LTS
3.2f Conflict with an adopted habitat conservation plan, natural community conservation plan, or other local, regional, or state habitat conservation plan that would apply to the plan	NI	None required.	NI
3.3 Cultural Resources			
3.3a Substantial adverse change in the significance of a historical resource in the plan area	NI	None required.	NI

Table ES-1: Central Rohnert Park Priority Development Area Plan Summary of Project Impacts and Mitigation Measures			
Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
3.3b,e Potential for a substantial adverse change in the significance of an archaeological resource in the plan area	PS	<p>Mitigation Measure 3.3-1: Implement Site-Specific Procedures for Inadvertent Discovery of Cultural Resources</p> <p>All appropriate federal, state, and local regulations regarding cultural resources shall be closely adhered to; these regulations contain measures that safeguard against significant impacts on cultural resources. Because of surface conditions, archaeological pedestrian surveys would be ineffective in most areas. If cultural resources are encountered during project implementation, the applicant shall notify the City of Rohnert Park, and all activity within 100 feet of the find shall halt until it can be evaluated by a qualified archaeologist. Prehistoric archaeological materials might include obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil (midden) containing heat-affected rocks, artifacts, or shellfish remains; and stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); and battered stone tools, such as hammerstones and pitted stones. Historic-period materials might include stone, concrete, or adobe footings and walls; filled wens or privies; and deposits of metal, glass, and/or ceramic refuse. If the resource is Native American in origin and the archaeologist and a Native American representative determine that the resources may be significant and cannot be avoided, they shall notify the City of Rohnert Park and an appropriate treatment plan for the resources shall be developed by the applicant, in consultation with the City of Rohnert Park and the archaeologist. Measures in the treatment plan could include preservation in place (capping) and/or data recovery. The archaeologist shall consult with Native American representatives in determining appropriate treatment for prehistoric or Native American cultural resources. Ground</p>	LTS

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Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
Potential for the inadvertent discovery of buried human remains	PS	<p>disturbance shall not resume within 100 feet of the find until an agreement has been reached as to the appropriate treatment of the find.</p> <p>Mitigation Measure 3.3-2: Implement Site-Specific Procedures for Inadvertent Discovery of Human Remains</p> <p>If human remains, including disarticulated or cremated remains, are encountered during construction, all ground-disturbing activities within 100 feet of the discovery must immediately cease. PRC Section 5097.98, and Section 7050.5 of California Health and Safety Code require that the County Coroner be immediately notified when human remains are identified. The project proponent and City of Rohnert Park also must be immediately notified. If the County Coroner determines that the remains are Native American, the NAHC must be contacted within 24 hours, pursuant to Subdivision (c) of §7050.5 of the Health and Safety Code. The City of Rohnert Park shall consult with the Most Likely Descendent, if any, identified by the NAHC regarding excavation and removal of the human remains. The project proponent and appropriate agency should be responsible for approval of any recommended investigation and action, taking into account state law as presented in State CEQA Guidelines 15064.5(e) and PRC 5097.98. Before resumption of ground-disturbing activities within 100 feet of the human remains, all mitigation regarding the human remains shall be implemented. If removal of human remains is determined to be the appropriate mitigation, it shall be conducted by a qualified archaeologist with Native American burial experience.</p>	LTS
3.3c Direct or indirect destruction of a unique	LTS	None required.	NI

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Impacts		Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
paleontological resource or site or unique geologic feature during project-related earthmoving activities				
3.3d	Potential to result in an adverse change in the significance of a tribal cultural resource	NI	None required.	NI
3.4 Geology, Soils, and Paleontology				

Table ES-1: Central Rohnert Park Priority Development Area Plan Summary of Project Impacts and Mitigation Measures

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
3.4a.i. Exposure of people and property to surface fault rupture	LTS	None required.	LTS
3.4a.ii. Exposure of people and property to seismic ground shaking	PS	<p>Mitigation Measure 3.4-1: Prepare, Submit, and Implement Site-Specific Geotechnical Reports</p> <p>As part of any project-level CEQA analysis within the plan area, the project applicant(s) of each site-specific project shall retain a licensed geotechnical engineer to prepare a final geotechnical report per California Building Standards Code and City requirements for the proposed facilities that shall be submitted for review and approval to the City of Rohnert Park. The final geotechnical engineering report shall address and make recommendations on the following:</p> <ul style="list-style-type: none"> • seismic design parameters; • seismic ground shaking; • liquefaction; • expansive/unstable soils; • site preparation; • soil bearing capacity; • structural foundations, including retaining-wall design; • grading practices; and • soil corrosion of concrete and steel. <p>In addition to the recommendations for the conditions listed above, the geotechnical investigation shall include subsurface testing of soil and groundwater conditions (as appropriate), and shall determine appropriate foundation designs that are consistent with the version of the CBC that is applicable at the time building and grading permits are</p>	LTS

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Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		applied for. All recommendations contained in the final geotechnical engineering report shall be implemented by the project applicant(s) of each site-specific project. Design and construction of all new project development shall be in accordance with the CBC. The project applicant(s) shall provide for engineering inspection and certification by a qualified geotechnical or civil engineer that earthwork has been performed in conformity with recommendations contained in the geotechnical report.	
3.4a.iii. Exposure of people and property to seismic-related ground failure, including liquefaction	PS	Mitigation Measure 3.4-1. None required.	LTS
3.4a.iv. Exposure of people and property to landslides	NI	None required.	NI
3.4b. Potential soil erosion or loss of topsoil	PS	Mitigation Measure 3.7-1, Mitigation Measure 3.7-2.	LTS
3.4c. Exposure of people and property to subsidence, compression, expansion, and liquefaction of unstable soils	PS	Mitigation Measure 3.4-1.	LTS
3.4d. Exposure of people and property to expansive soils that can result in damage to building foundations, underground utilities, and other subsurface facilities and infrastructure if not designed to resist damage	PS	Mitigation Measure 3.4-1.	LTS
3.4e. Inability of soils to support the use of septic tanks or alternative wastewater disposal during site-specific construction or occupation	NI	None required.	NI

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Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
3.5 Greenhouse Gas Emissions			
3.5a Generation of short-term and temporary exhaust-related GHG emissions during construction	PS	<p>Mitigation Measure 3.5-1: Assess GHG Emissions Associated with Project-Specific Construction and Alter Project Details and/or Construction Equipment as Needed</p> <p>As part of any project-level CEQA analysis, project applicants are responsible for and shall assess and compare GHG emission impacts related to the construction of individual projects in the plan area with BAAQMD’s thresholds of significance for project-level impacts. Potentially significant GHG impacts shall be mitigated to a less-than-significant level via implementation of all exhaust-related BAAQMD Basic or Additional Construction Mitigation Measures and alteration of project details and/or construction equipment.</p> <p>Mitigation Measure 3.5-2: Purchase Carbon Offsets to Reduce Emissions</p> <p>Following implementation of Mitigation Measure 3.5-1 (i.e., project-level analysis and comparison with BAAQMD’s thresholds of significance), if construction or operational emissions are determined to continue to exceed BAAQMD’s GHG threshold, the project applicant shall purchase carbon offsets to reduce the remaining emissions above the threshold. If at the time of the analysis BAAQMD has not yet developed a construction-related GHG threshold of significance, the project applicant shall coordinate with BAAQMD to determine a surrogate threshold. Any offset of project emissions shall be demonstrated to be real, permanent, verifiable, enforceable, and additional.</p>	LTS

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Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>To the maximum extent feasible, as determined through coordination with BAAQMD, offsets shall be implemented locally. Offsets may include, but are not limited to, the following (in order of preference):</p> <ol style="list-style-type: none"> (1) On-site offset of project emissions; for example, development of on-site renewable energy generation or a carbon sequestration project. Any on-site offset projects must be registered with the Climate Action Reserve or otherwise approved by BAAQMD to be used to offset project emissions. The number of offset credits produced would then be included in the annual inventory, and the net emissions calculations (i.e., with inclusion of offsets). (2) Funding of local projects, subject to review and approval by BAAQMD that will result in real, permanent, verifiable, enforceable, and additional reduction in GHG emissions. If BAAQMD or the City of Rohnert Park develops a GHG mitigation fund, the project applicant may instead pay into this fund to offset GHG emissions in excess of the significance threshold. (3) Purchase of carbon credits to offset emissions below the significance threshold. Only carbon offset credits that are verified and registered with the Climate Action Reserve, or available through a City-approved local GHG mitigation bank or fund, may be used to offset project emissions. 	

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SU = Significant and Unavoidable

Table ES-1: Central Rohnert Park Priority Development Area Plan Summary of Project Impacts and Mitigation Measures			
Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
Generation of long-term operational emissions associated with the daily operational activities of plan land uses, including transportation, use of electricity and natural gas for lighting, cooling, and heating, and powering of machinery	PS	<p>Mitigation Measure 3.5-3: Assess GHG Emissions Associated with Project-Specific Operations and Alter Project Details as Needed</p> <p>As part of any project-level CEQA analysis, project applicants are responsible for and shall assess and compare GHG emission impacts related to the operation of individual projects in the plan area to BAAQMD’s thresholds of significance for project-level impacts (i.e., 1,100 MT CO₂e per year). Potentially significant GHG impacts shall be mitigated to a less-than-significant level via alteration of project details.</p> <p>Mitigation Measure 3.5-2.</p>	LTS
3.5b Conflict with a plan, policy, or regulation to reduce GHG emissions	LTS	None required.	LTS
3.6 Hazards and Hazardous Materials			
3.6a,b Potential exposure to the storage, use, and transport of hazardous materials during project construction activities Potential risks from the storage, use, and transport of hazardous materials by future businesses and residents	LTS	None required.	LTS
3.6c Hazardous emissions or handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school	LTS	None required.	LTS
3.6d Off-site project location that is included in the list of hazardous material sites and could include contaminated soil and groundwater that could pose a significant hazard to the public or environment	LTS	None required.	LTS

Table ES-1: Central Rohnert Park Priority Development Area Plan Summary of Project Impacts and Mitigation Measures			
Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<p>On-site project location that is included in the list of hazardous material sites and could expose people (construction workers, future businesses, and employees and the public) to contaminated soil and/or groundwater, including indoor air quality effects from vapor intrusion</p>	PS	<p>Mitigation Measure 3.6-1: Consult with the North Coast RWQCB and Sonoma County Environmental Health and Safety Prior to Development at Known Contamination Sites and Implement Consultation Recommendations</p> <p>During the CEQA analysis for each project, the project applicant for any project to redevelop the known hazardous material contamination sites associated with 5600 State Farm Drive, 5750 Commerce Boulevard, and 600 Enterprise Drive shall consult with the North Coast RWQCB and Sonoma County Environmental Health and Safety to determine whether soil and groundwater remediation have been achieved to levels that would be protective of human health during construction and future operational activities at each site. Any applicable tests that may be required by the North Coast RWQCB prior to development, such as vapor intrusion studies related to indoor air quality or soil or groundwater testing, shall be conducted either by the project applicant or by the party responsible for site cleanup activities, as appropriate.</p>	
<p>Potential exposure to asbestos-containing materials or other hazardous materials or situations from the reuse and redevelopment of properties in the plan area, which have been developed with existing structures and may contain asbestos and lead-based paint</p>	PS	<p>Mitigation Measure 3.6-2: Remove Project-Specific Asbestos-Containing Material and Lead-Based Paint in Accordance with Federal, State, and Local Regulations</p> <p>The project applicant shall retain a Cal-OSHA certified asbestos consultant before reuse, remodeling, or demolition of any existing on-site buildings <i>that were constructed prior</i></p>	LTS

Table ES-1: Central Rohnert Park Priority Development Area Plan Summary of Project Impacts and Mitigation Measures			
Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<i>to 1978</i> to investigate whether any ACMs or lead-based paints are present, and could become friable or mobile during demolition activities. If any materials containing asbestos or lead-based paints are found, they shall be removed by an accredited contractor in accordance with EPA, Cal-OSHA, and BAAQMD standards. In addition, all activities (construction or demolition) in the vicinity of these materials shall comply with Cal-OSHA asbestos and lead worker construction standards. The materials containing asbestos and lead shall be disposed of properly at an appropriate off-site disposal facility.	
3.6e,f Safety hazard for people residing or working within an airport land use plan or within 2 miles of a public airport or private airstrip	NI	None required.	NI

Table ES-1: Central Rohnert Park Priority Development Area Plan Summary of Project Impacts and Mitigation Measures			
Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
3.6g Impaired implementation of or physical interference with an adopted emergency response plan or emergency evacuation plan	PS	<p>Mitigation Measure 3.6-3: Prepare and Implement Project-Specific Construction Traffic Control Plans.</p> <p>The project applicant shall prepare and implement a traffic control plan for construction activities that may affect road rights-of-way, to facilitate travel of emergency vehicles on affected roadways. The traffic control plan must follow applicable City of Rohnert Park standards and must be approved and signed by a professional engineer. Measures typically used in traffic control plans include advertising of planned lane closures, warning signage, a flag person to direct traffic flows when needed, and methods to ensure continued access by emergency vehicles. During project construction, access to the existing land uses shall be maintained at all times, with detours used, as necessary, during road closures. The traffic control plan shall be submitted to the City for review and approval before the approval of all site-specific development plans or permits.</p>	LTS
3.6h Exposure of people or structures to risk of loss, injury, or death from fires, including wildlands adjacent to urban areas	LTS	None required.	LTS

Table ES-1: Central Rohnert Park Priority Development Area Plan Summary of Project Impacts and Mitigation Measures

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
3.7 Hydrology and Water Quality			
3.7a,f Short-term, construction-related effects on water quality caused by erosion and sedimentation	PS	<p>Mitigation Measure 3.7-1: Prepare and Implement Site-Specific SWPPPs</p> <p>During construction for any project within the plan area that disturbs 1 acre or more, the applicant or its consultant shall apply to the North Coast RWQCB for coverage under the Construction General Permit and prepare a site-specific SWPPP before any demolition, grading, or construction activities begin. The SWPPP shall cover pre- and post-construction activities and describe site-specific and construction phase-specific activities detailing the following:</p> <ul style="list-style-type: none"> • activities that may cause pollutant discharge (including sediment); • BMPs, consistent with the requirements of the NPDES permit, to reduce the potential for contaminated runoff, such as limiting ground-disturbing activities during the winter rainfall period, minimizing exposure of disturbed areas and soil stockpiles to rainfall, and minimizing construction activities near or within drainage facilities; • erosion and sedimentation control measures to be implemented, such as soil stabilization, mulching, silt fencing, or temporary desilting basins; good housekeeping practices, such as road sweeping and dust control; and diversion measures, such as the use of berms to prevent clear runoff from contacting disturbed areas; and • hazardous materials spill prevention and response measure requirements, including lists of materials proposed for use, handling and storage practices, identification of spill response equipment, spill containment and cleanup procedures, and identification 	LTS

Table ES-1: Central Rohnert Park Priority Development Area Plan Summary of Project Impacts and Mitigation Measures			
Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
Effects on drainage patterns through conversion of existing undeveloped areas into developed, impervious areas	PS	<p>of regulatory notification protocols and contact phone numbers to be used in the event of a spill.</p> <p>The applicant shall implement the SWPPP, monitoring all BMPs and the parties responsible for them, in conformance with the guidelines set forth in the Construction General Permit.</p> <p>Mitigation Measure 3.7-2: Prepare, Submit, and Implement Site-Specific Erosion Control Plans</p> <p>During any project construction in the plan area that requires a grading permit, the project applicant shall submit a site-specific erosion control plan (ECP) to the City of Rohnert Park City Engineer. All sites that will have grading activities are required to submit an ECP. The ECP shall include the placement of structural and nonstructural stormwater pollution prevention controls that prevent erosion during and after construction. Proper soil stabilization shall be required for all graded areas. A grading permit shall not be issued until all of the required data, including the ECP, have been submitted and approved. City of Rohnert Park Ordinance 798, Section 15.50.090, provides additional detail regarding excavation, grading, and filling regulations.</p>	LTS

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Table ES-1: Central Rohnert Park Priority Development Area Plan Summary of Project Impacts and Mitigation Measures				
Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation	
3.7b	Potential construction-related reduction in groundwater infiltration and recharge and decrease in groundwater levels	LTS	None required.	LTS
	Potential for illicit discharges to the stormwater drainage system during construction dewatering activities if water is not properly stored and disposed of	PS	<p>Mitigation Measure 3.7-3: Prepare and Implement Site-Specific Provisions for Dewatering</p> <p>The applicant for any project associated with the proposed plan, or the project applicant’s consultant, shall prepare and implement provisions for dewatering during construction, in accordance with local and North Coast RWQCB requirements, to minimize adverse water quality impacts on surface water and groundwater. Provisions may include preparation of a dewatering plan that details procedures for removing groundwater, methods of temporary water treatment/retention facility, and water disposal procedures.</p>	LTS
	Net gain in impervious surfaces that would interfere with on-site groundwater recharge from implementation of the proposed plan	LTS	None required.	LTS
3.7c	Potential for future development to alter drainage courses and runoff patterns from existing conditions	PS	Implement PDA Plan Policy L.7-1 and Mitigation Measures 3.7-1 and 3.7-2.	LTS
	Potential for plan area development to result in altered drainage patterns that could increase the potential for erosion, siltation, and associated adverse water quality effects on- or off-site	PS	Implement Mitigation Measures 3.7-1 and 3.7-2.	LTS

Table ES-1: Central Rohnert Park Priority Development Area Plan Summary of Project Impacts and Mitigation Measures			
Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
3.7d,e Potential for grading and soil disturbance for placement of new structures on-site to substantially alter drainage courses and runoff patterns from existing conditions and result in flooding on- or off-site	PS	Implement Mitigation Measure 3.7-1.	LTS
Net increase of impervious surfaces with implementation of the plan	PS	Implement Mitigation Measures 3.7-1 and 3.7-2.	LTS
3.7g Placement of housing within a 100-year flood hazard area	NI	None required.	NI
3.7h Placement of housing within a 100-year flood hazard area structures that would impede or redirect flood flows during construction or operation	NI	None required.	NI
3.7i Exposure of people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam	NI	None required.	NI
3.7j Potential for inundation by seiche, tsunami, or mudflow	NI	None required.	NI

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Table ES-1: Central Rohnert Park Priority Development Area Plan Summary of Project Impacts and Mitigation Measures			
Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
3.8 Noise			
3.8a Noise from project construction activities within or adjacent to the plan area	LTS	None required.	LTS
Operational noise from off-site stationary sources, such as air conditioners, fans, and related equipment	LTS	None required.	LTS
Noise from off-site traffic operations	LTS	None required.	LTS
Noise from existing and future traffic on roads surrounding and within the plan area	PS	<p>Mitigation Measure 3.8-1: Prepare Site-Specific Interior Acoustical Analysis Reports and Implement Report Recommendations</p> <p>As part of any project-level CEQA analysis, the project applicant shall have an acoustical analysis prepared by a qualified acoustical consultant for all new residential developments that are within 60 dBA Ldn or higher, to document that an acceptable interior noise level of 45 dBA Ldn or below will be achieved with the windows and doors closed. The report shall be submitted at plan check to the City for approval.</p> <p>Mitigation Measure 3.8-2: Prepare Site-Specific Exterior Acoustical Analysis Reports and Implement Report Recommendations</p> <p>Before the issuance of grading permits, an acoustical analysis report shall be prepared by a qualified acoustical consultant and submitted to the City Engineer for review.</p>	LTS

Table ES-1: Central Rohnert Park Priority Development Area Plan Summary of Project Impacts and Mitigation Measures			
Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		The report shall indicate that the exterior noise levels at the residential outdoor uses, including outdoor courtyards and outdoor pool decks (except for private balconies), would be 60 dBA CNEL or lower. Methods to reduce the exterior noise may include a sound barrier or earth berms; setback from the roadways (i.e., buffer); or placing the outdoor spaces behind buildings, to reduce the traffic noise from adjacent roadway.	
3.8b Noise from SMART rail and station operation	LTS	None required.	LTS
Vibration from construction activities to off-site residential uses	LTS	None required.	LTS
Vibration from stationary mechanical and electrical equipment in the plan area	LTS	None required.	LTS
3.8c Substantial permanent increase in ambient noise levels in the plan area vicinity above levels existing without the proposed plan	LTS	None required.	LTS

Table ES-1: Central Rohnert Park Priority Development Area Plan Summary of Project Impacts and Mitigation Measures			
Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
3.8d Substantial temporary or periodic increase in ambient noise levels in the plan area vicinity above levels existing without the proposed plan	PS	<p>Mitigation Measure 3.8-3: Restrict Construction Activity Timing and Construction Equipment Specifications and Location</p> <p>Construction activities within 500 feet of residential use shall be limited to the hours of 8:00 a.m. to 6:00 p.m., in accordance with the City’s Municipal Code.</p> <p>Power construction equipment shall be equipped with state-of-the-art noise shielding and muffling devices. All equipment shall be properly maintained to assure that no additional noise attributable to worn or improperly maintained parts would be generated.</p> <p>Stationary-source construction equipment that may have a flexible specific location on-site (e.g., generators and compressors) shall be located to maintain the greatest distance from sensitive land uses, and unnecessary idling of equipment shall be prohibited.</p>	LTS
3.8e Exposure of people working or residing in the plan area to excessive noise levels, for projects located within an airport land use plan or located within 2 miles of a public airport	NI	None required.	NI
3.8f Exposure of people working or residing in the plan area to excessive noise levels, for projects located within the vicinity of a private airstrip	NI	None required.	NI
3.9 Transportation and Traffic			
3.9a Potential for traffic impacts on the plan area street network from construction activities	LTS	None required.	LTS
Potential impacts on intersection operations in the plan area	PS	Implement the intersection improvements in Table 3.9-6 of Section 3.9, “Transportation and Traffic.”	LTS

Table ES-1: Central Rohnert Park Priority Development Area Plan Summary of Project Impacts and Mitigation Measures			
Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
Potential impacts on freeway operations in the plan area	S	No feasible mitigation exists.	SU
3.9b Conflict with an applicable congestion management program established by the county congestion management agency for designated roads or highways	LTS	None required.	LTS
3.9c Change in air traffic patterns that results in substantial safety risks	NI	None required.	NI
3.9d Substantial increase in hazards due to a design feature (e.g., sharp curves or dangerous intersections)	NI	None required.	NI
3.9e Inadequate emergency access	LTS	None required.	LTS
3.9f Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities or decrease in the performance or safety of such facilities	LTS	None required.	LTS

1.0 INTRODUCTION

This environmental impact report (EIR) for the proposed Central Rohnert Park Priority Development Area Plan (plan) has been prepared in accordance with, and complies with, all criteria, standards, and procedures of the California Environmental Quality Act (CEQA) of 1970 as amended (Public Resources Code [PRC] Section 21000 et seq.) and State CEQA Guidelines (California Code of Regulations, Title 14, Section 15000 et seq.). Per Section 21067 of CEQA and Sections 15367 and 15050 through 15053 of the State CEQA Guidelines, the City of Rohnert Park (City) is the lead agency under whose authority this document has been prepared. As an informational document, this EIR is intended for use by the City of Rohnert Park decision makers and members of the general public in evaluating the potential environmental effects of the proposed plan.

1.1 ENVIRONMENTAL REVIEW PROCESS—CEQA COMPLIANCE

An EIR is an informational document used by a lead agency (in this case, the City of Rohnert Park) when considering approval of a project or plan. The purpose of an EIR is to provide public agencies and members of the general public with detailed information concerning the environmental effects associated with the implementation of a project. An EIR should analyze the environmental consequences of a project or plan, identify ways to reduce or avoid potential environmental effects resulting from the project or plan, and identify alternatives to the project or plan that are capable of avoiding or reducing impacts. CEQA requires that all state and local government agencies consider the environmental consequences of projects or plans over which they have discretionary authority. This EIR provides information to be used in the planning and decision-making process. It is not the purpose of an EIR to recommend approval or denial of a project or plan.

Prior to approval of the proposed plan, the City, as lead agency and the decision-making entity, is required to certify that the EIR has been completed in compliance with CEQA, that the information in this EIR has been considered, and that the EIR reflects the independent judgment of the City. CEQA requires decision makers to balance the benefits of a project or plan against its unavoidable environmental consequences. If environmental impacts are identified as significant and unavoidable, the City may still approve the project or plan if it finds that social, economic, or other benefits outweigh the unavoidable impacts. The City would then be required to state in writing the specific reasons for approving a project or plan based on information in the EIR and other information sources in the administrative record. This reasoning is called a “statement of overriding considerations” (PRC Section 21081 and State CEQA Guidelines Section 15093).

In addition, the City as lead agency must adopt a mitigation monitoring and reporting program (MMRP) describing the measures that were made a condition of project approval in order to avoid or mitigate significant effects on the environment (PRC Section 21081.6; State CEQA Guidelines Section 15097). The MMRP is adopted at the time of project or plan approval and is designed to ensure compliance with the project description and mitigation measures of the EIR during and after project or plan implementation. If the City decides to approve the proposed plan, it would be responsible for verifying that implementation of the MMRP for this plan occurs.

The EIR will primarily be used by the City during approval of future discretionary actions and permits.

1.2 PURPOSE AND LEGAL AUTHORITY

Notice of Preparation and Scoping Meeting

Consistent with the requirements of CEQA, a good-faith effort has been made during the preparation of the EIR to contact all responsible and trustee agencies; organizations; persons who may have an interest in the proposed plan; and all government agencies, including the Governor's Office of Planning and Research, State Clearinghouse. This includes the circulation of a Notice of Preparation (NOP) on October 29, 2015, which began a 30-day comment period that ended on November 30, 2015. Two comment letters were received on the NOP from the Sonoma County Permit and Resource Management Department and the California Department of Transportation during this time.

The NOP and the comment letters are included in this document as Appendix I.

A scoping meeting was held on November 18, 2015, starting at 4:00 p.m. at Rohnert Park City Hall, 130 Avram Avenue, Rohnert Park, to inform the public about the proposed plan and receive comments. No individuals provided comments on the content of the Draft EIR at the scoping meeting.

In reviewing the proposed plan, the City determined that it could result in potentially significant environmental impacts. Through this process, the City identified potentially significant environmental impacts associated with the following issues:

- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology/Water Quality
- Noise
- Transportation/Traffic

Public Review

The City filed a Notice of Completion with the State Clearinghouse, indicating that this Draft EIR has been completed and is available for review. A Notice of Availability of the EIR has been published concurrently with distribution of this document. This Draft EIR is being circulated for a 45-day public review and comment period. During this period, comments from the general public, organizations, and agencies regarding environmental issues identified in the EIR and concerning the EIR's accuracy and completeness may be submitted to the lead agency at the following address:

Jeffrey Beiswenger
130 Avram Avenue
Rohnert Park, CA 94928

or

JBeiswenger@rpcity.org

In addition, the Draft EIR and all related technical appendices are available for review during the public review and comment period in the office of the Development Services Department, Planning Division at 130 Avram Avenue, Rohnert Park, CA 94928. Copies of the Draft EIR are also available at the following location:

Rohnert Park–Cotati Regional Library
6250 Lynne Condé Way
Rohnert Park, CA 94928

Comments may be made on the EIR in writing before the end of the comment period. The City will prepare written responses to comments made in writing. Upon completion of the public review and comment period, a Final EIR will be prepared and will include the comments on the Draft EIR received during the formal public review period and responses to those comments.

1.3 PROJECT HISTORY

Rohnert Park was established in 1956 as a master-planned city modeled on the neighborhood unit concept. This concept emphasized the development of the city as a series of neighborhood units, each with single-family residences organized around a centrally located school and park. Commercial areas were planned on the periphery of each neighborhood unit, placing commercial uses farther away from homes and making access to community shopping areas by automobile more convenient. The city was developed without a central downtown; thus, commercial shopping centers within the plan area have served as de facto meeting places for the community.

Before plans for the arrival of Sonoma-Marín Area Rail Transit (SMART) rail service to Rohnert Park, the City was engaged in the planning and development of a city center as a unique community gathering place that would become the heart of Rohnert Park. The City Center concept was identified in the 1995 General Plan for Rohnert Park as a long-term revitalization project, and in 1998, the City hired the firm of Moore Iacofano Goltsman to prepare a concept plan for the City Center. The *Rohnert Park City Center Concept Plan* (Figure 1-1) was adopted in 2002. Since then, the City has worked on the revitalization of the City Center, which now includes a community library, a public safety building, neighborhood commercial uses, a civic plaza, and new affordable live/work housing along City Center Drive and State Farm Drive.

In 2011, the State Farm Insurance campus closed its doors. The sale of the State Farm campus presented the City with a redevelopment opportunity to expand and create a vibrant core for Rohnert Park next to other investments made for its City Center. Thus, in 2012, the City petitioned and was granted the green light to relocate the Rohnert Park SMART rail station from Roberts Lake Road (the site approved and evaluated in the 2005 draft and 2006 final EIR) to an area south of Rohnert Park Expressway, next to the State Farm campus, on the west. In 2012, the Rohnert Park Expressway Station Project CEQA Addendum was prepared to evaluate the potential impacts of this proposed relocation. The next year, the City was awarded a PDA planning grant to prepare the PDA master plan (the PDA Plan) and supporting environmental document for Central Rohnert Park, centered on the SMART rail station, which is expected to begin service in 2016.

The PDA program implements *Plan Bay Area*, the region's land use and transportation plan and sustainable communities strategy, by supporting the development of a more compact and sustainable land use pattern through support of PDAs in Bay Area communities as focused locations for housing and job growth. The program focuses on increasing transit ridership, intensifying land uses in existing communities near transit stops and services, and.

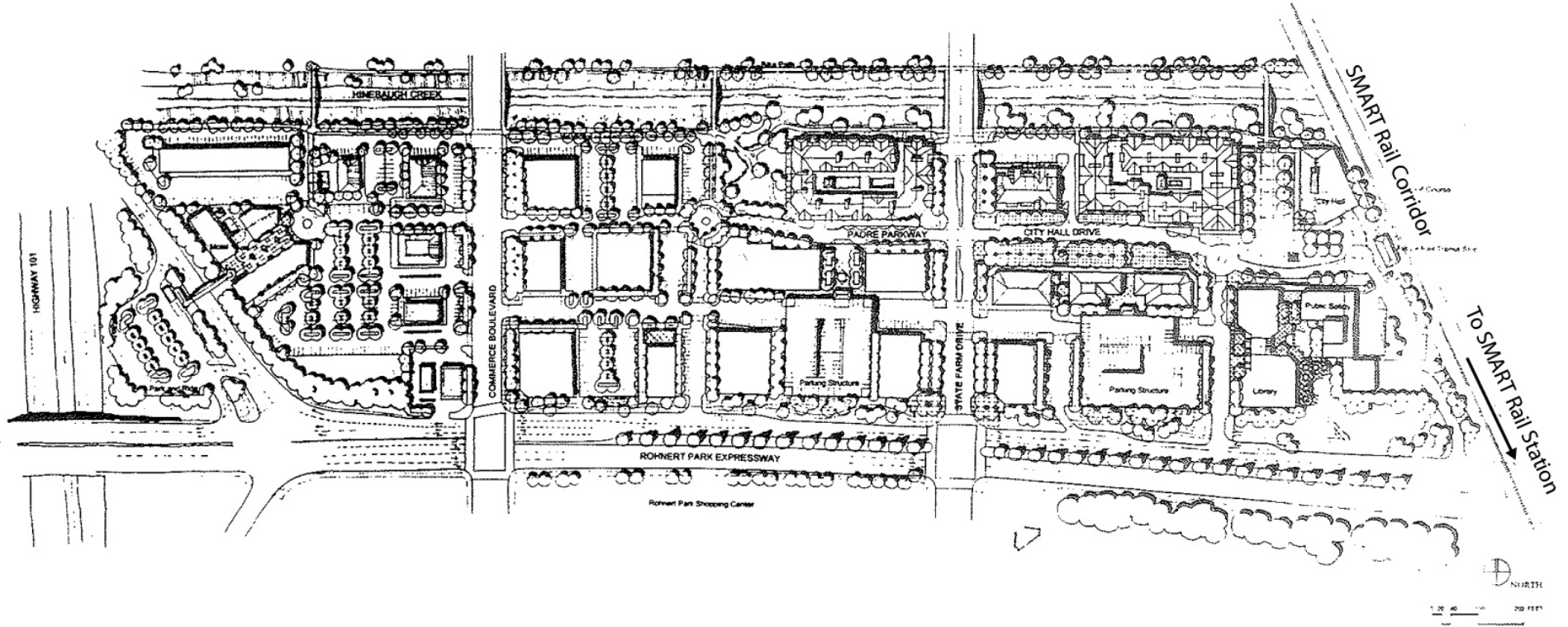


Figure 1-1:

Rohnert Park City Center Concept Plan

planning for complete communities that increase the range of housing, jobs, shops and services, and transportation choices, all while supporting development efforts in local Bay Area communities, including the creation of a downtown in Rohnert Park.

The approximately 330-acre Central Rohnert Park plan area embodies such opportunities. This plan area encompasses an existing area rich with housing and services, the SMART rail station, a developing City Center, and opportunities for infill on vacant and underutilized buildings and properties, including the State Farm Insurance campus site. The planning process for Central Rohnert Park began in 2013, with AECOM selected to lead the development of the Central Rohnert Park PDA Plan and the environmental assessment for the proposed plan

1.4 STRUCTURE OF THE EIR

This EIR is divided into the following chapters and appendices:

- Chapter 1.0, “Introduction,” provides introductory information, including the history of the proposed plan, and the lead agency for the proposed plan.
- Chapter 2.0, “Project Description,” presents a detailed discussion of the location, setting, and characteristics of the plan area, the plan objectives, the principal plan features, environmental review requirements, and cumulative projects to be considered.
- Chapter 3.0, “Environmental Setting and Impacts,” contains individual sections for nine environmental resource areas that describe existing conditions, detail the regulatory framework, and assess the potential environmental impacts of the proposed plan. When the analysis identifies potentially significant effects, mitigation measures are presented. Implementing these measures would reduce potentially significant impacts to less-than-significant levels whenever feasible.
- Chapter 4.0, “Other CEQA-Required Sections,” describes the significant and unavoidable environmental impact of the proposed plan, as well as the significant irreversible environmental changes that would result from plan implementation.
- Chapter 5.0, “Effects Found Not To Be Significant,” discusses the nine environmental issue areas for which the City determined during its environmental review that the proposed plan would not cause any potentially significant impacts under CEQA.
- Chapter 6.0, “Alternatives,” presents the objectives of the proposed plan and summarizes its significant effects, describes the alternatives selected for evaluation, and compares the effects of the alternatives to those of the proposed plan. This chapter also identifies the environmentally superior alternative, as required by CEQA.
- Chapter 7.0, “List of Preparers,” identifies City staff and consultants who helped prepare this document.
- Appendices provide additional information regarding multiple issues discussed throughout this document.

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2.0 PROJECT DESCRIPTION

The City of Rohnert Park (City) is proposing the Central Rohnert Park Priority Development Area (PDA) Plan, covering a 330-acre area in the center of Rohnert Park bounded by Golf Course Drive to the north, Avram Avenue to the south, U.S. Highway 101 (U.S. 101) to the west, and the Sonoma-Marin Area Rail Transit (SMART) rail corridor to the east (Figure 2-1). The planned SMART commuter rail station, a segment of the SMART Multi-Use Path (MUP), and the city's developing City Center area are located within the plan area.

The Central Rohnert Park PDA Plan (referred to in this document as the "PDA Plan" or "proposed plan") is funded by the Association of Bay Area Governments' PDA planning grant program and is intended to support transit-oriented and infill development in existing communities, particularly adjacent to transit. The plan area is primarily commercial and light industrial, with multifamily housing along the southern boundary and urban housing in mixed-use buildings within the City Center. The plan area is envisioned as a central business district, urban neighborhood, and new downtown area for the city with new mixed-use infill areas, redevelopment of vacant buildings and sites, and streetscape and other public-realm improvements.

The proposed plan consists of various development types: multifamily residential units; retail/service commercial, public institutional, office, and light industrial uses; public park facilities; and open space. The plan proposes modifications to existing roadways; new roadways at certain key sites to provide greater connectivity; improvements to transit, bicycle, and pedestrian facilities; and corresponding circulation connections. The aim is to improve nonvehicular access in the plan area, connect to and complete regional trails, and support the development of existing and new mixed-use areas of the community, with a particular focus on providing community access to the SMART rail station and MUP.

This chapter provides a detailed description of the proposed plan: the location, setting, and characteristics of the plan area; the objectives of the proposed plan; principal plan features; environmental review requirements; and cumulative projects to be considered. A full copy of the Public Review Draft is on the City's website at: <http://www.rpcity.org/index.aspx?page=864>.

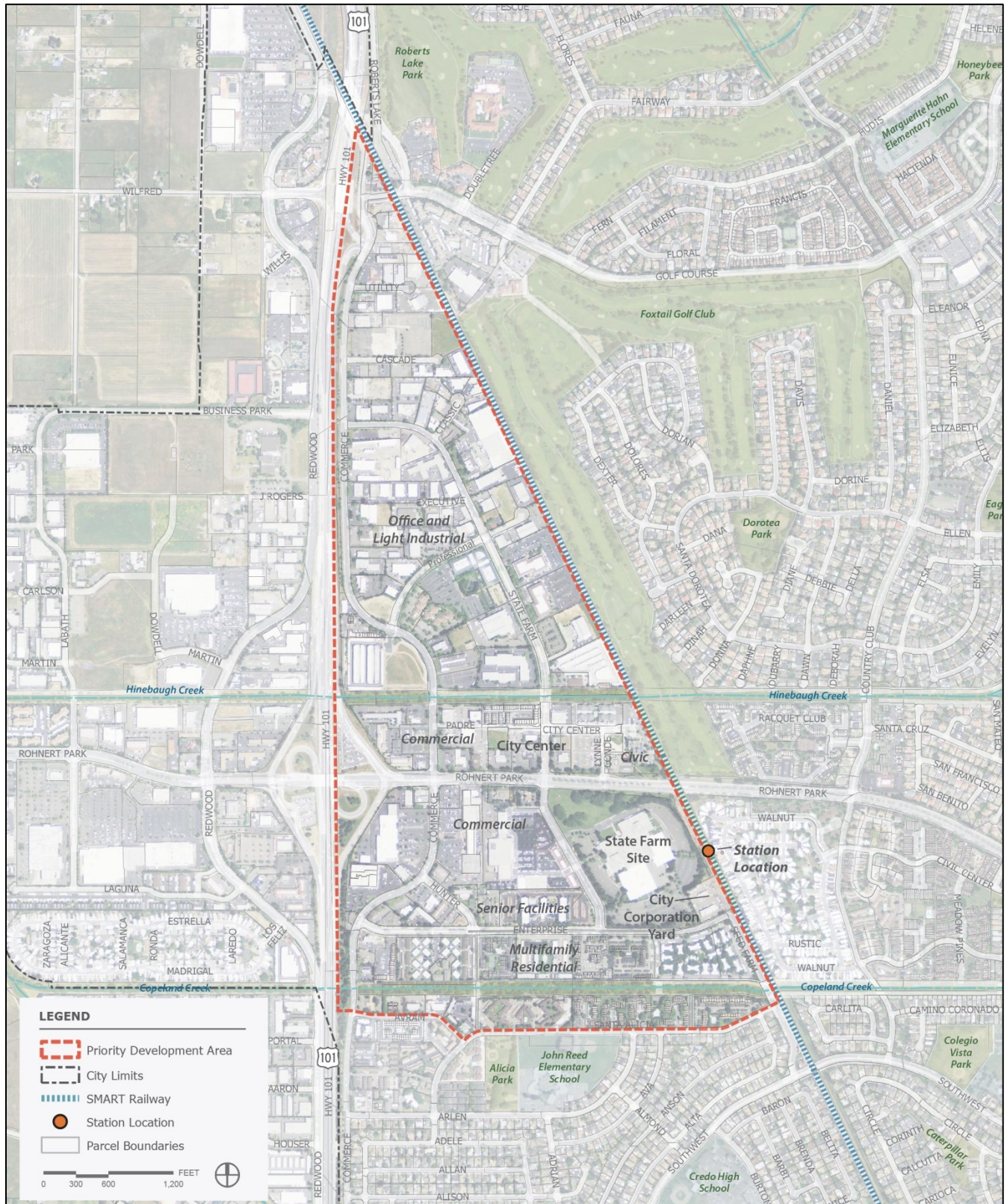
2.1 LOCATION AND SETTING OF THE PLAN AREA

2.1.1 Regional Location

The plan area lies entirely within the Rohnert Park city limits in central Sonoma County, east of U.S. 101. The city is located approximately 50 miles north of San Francisco (Figure 2-2). Regional access to the plan area is provided by U.S. 101, from the Rohnert Park Expressway (RPX) and Golf Course Drive exits. The city is designated as one of 10 Sonoma County stops on the planned SMART rail line and adjacent bicycle/pedestrian MUP, following the historic Northwestern Pacific Railroad line. The SMART rail line and MUP will connect the major cities of Sonoma and Marin Counties, along U.S. 101 from Cloverdale to the Larkspur Ferry Terminal.

2.1.2 Local Setting

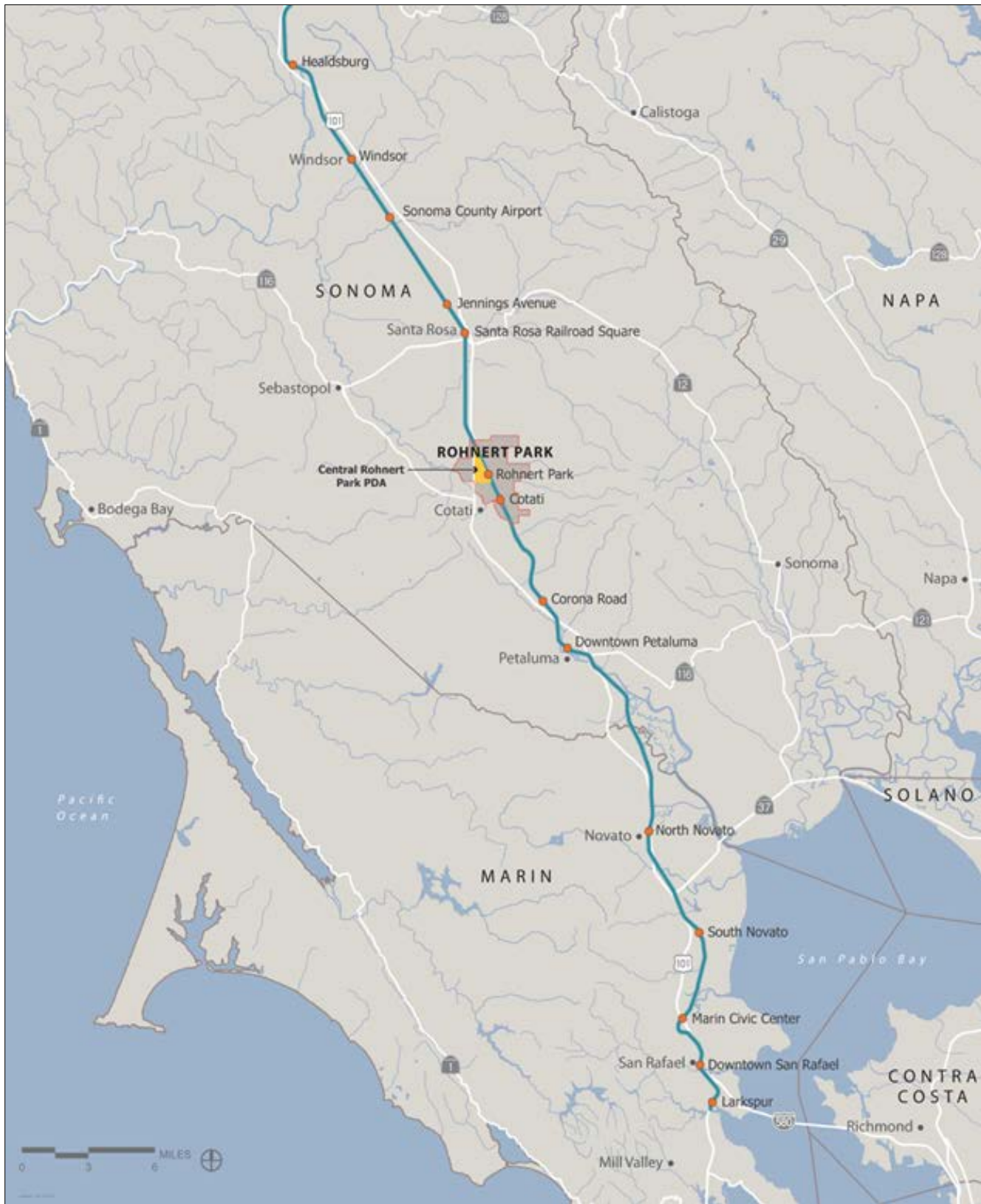
Figure 2-1 shows the plan area and surrounding development. The triangle-shaped plan area is bounded on the west by U.S. 101, on the east by the SMART rail line, and on the south by Avram Avenue/Santa Alicia Drive. Surrounding uses include the Foxtail Golf Course and a mobile home park to the east; an elementary school,



Sources: Data provided by City of Rohnert Park and compiled by AECOM in 2014

Figure 2-1:

Local Setting



Sources: Data provided by City of Rohnert Park and compiled by AECOM in 2014

Figure 2-2:

Regional Location

public park, and combination of single-family and multifamily residential uses to the south; and commercial and light industrial uses to the west.

2.1.3 Plan Area Character

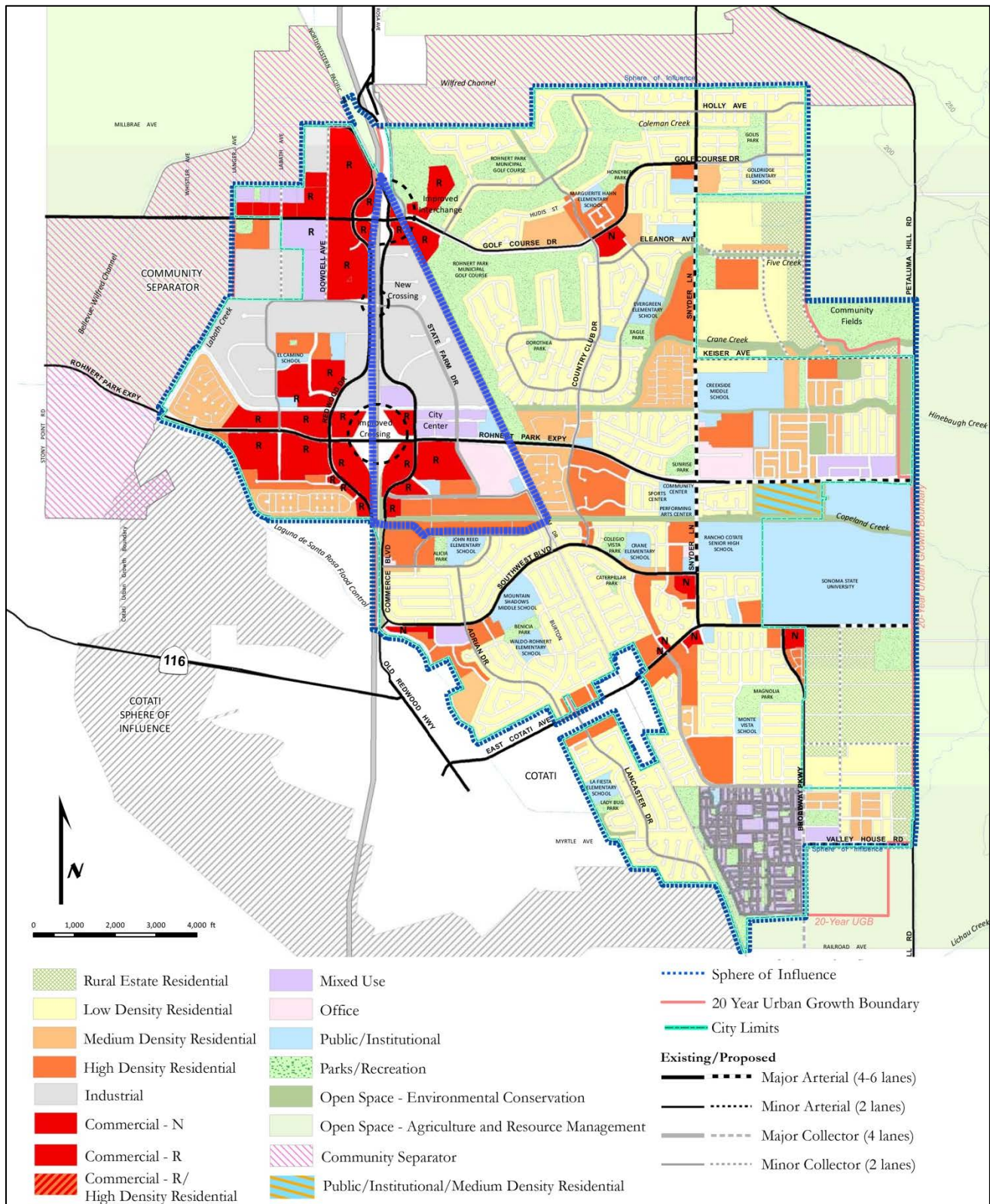
The approximately 330-acre plan area is primarily developed land, containing the existing City Center, multifamily residential uses, office and light industrial uses, and commercial uses, including three large suburban shopping centers with grocery store anchors. In addition, two natural drainages (Hinebaugh Creek and Copeland Creek) run generally east-west through the plan area, near its center and southern portions, respectively. Existing bicycle and pedestrian trails follow these creek corridors. The SMART MUP, when complete, will create a north-south bicycle trail connection through the full length of the plan area. The new SMART rail station is being constructed and when complete, will create a focal point for the plan area. It is anticipated to begin service in late 2016.

The northern portion of the plan area, north of Hinebaugh Creek, contains primarily light industrial and office uses. The central portion, between Copeland and Hinebaugh Creeks, consists mainly of a mix of commercial retail, service, and office uses, with live/work and multifamily residential uses. The southern portion of the plan area, between Enterprise Drive and Avram Avenue/Santa Alicia Drive, is predominantly multifamily residential.

2.1.4 General Plan Land Use Designations

Under the *City of Rohnert Park General Plan* (City of Rohnert Park, 2015 [originally adopted 2000]), the plan area, identified in the blue dashed boundary, includes the following six land use designations (Figure 2-3):

- **High Density Residential**, which permits a wide range of housing types, including single-family attached and multifamily developments at densities ranging from 12.1 to 24 units per gross acre. A 25 percent density bonus is permitted for all residential projects meeting state criteria for affordable housing bonuses.
- **Office**, which includes administrative, financial, business, professional, medical, public, and supporting commercial uses, with a maximum floor area ratio (FAR) of 1.0.
- **Regional Commercial**, which permits shopping centers typically made up of department stores, big-box stores, and other retail operations that attract consumers from outside the city.
- **Mixed-Use**, which accommodates a variety of compatible businesses, stores, institutions, service organizations, and residences in a pedestrian-oriented setting, with a maximum FAR of 1.5 for a mix of nonresidential uses and a maximum FAR of 2.0 for combined residential and nonresidential uses.
- **Public/Institutional**, which provides for schools, government offices, transit sites, religious facilities, and other facilities with a unique public character.
- **Industrial**, which allows for campus-like environments for corporate headquarters, research and development facilities, offices, light manufacturing and assembly, industrial processes, warehousing, storage and distribution, service commercial, and ancillary retail uses, with a maximum FAR of 0.5 but permits up to a 1.0 FAR with discretionary review and approval.



Source: City of Rohnert Park General Plan, 2014

Figure 2-3:

Existing General Plan Designations

- **Open Space for Environmental Conservation** includes sites with environmental and/or safety constraints: riparian corridors, sensitive habitats, and wetlands. Development on sites entirely within this designation is limited to one housing unit per existing legal parcel. For parcels partially within this designation, no development is permitted within the Open Space designated area. For parcels that include creekside buffers, development rights that would result if adjacent land uses were to be extended into a buffer can be transferred for land in the buffer, directly accessible to the public, subject to a maximum 10-foot depth, on an acre-for-acre basis, to the developable parts of the parcel.

2.1.5 Zoning

The plan area is currently zoned as shown in Table 2-1.

Table 2-1: Existing General Plan and Zoning Classifications

Zoning Districts	Corresponding General Plan Districts	Maximum Densities (units/acre)/ Intensities (FAR)	Maximum Building Coverage (percent)	Approximate Zoned Area (gross acres)	Percentage of the Plan Area
Office Commercial (C-O)	Office	1.0 FAR	50%	29.9	9.0%
Regional Commercial (C-R)	Regional Commercial	0.4 FAR ¹	60%	60.2	18.1%
Industrial (I-L)	Industrial	0.5 FAR ²	60%	52.7	15.9%
Industrial with Office Overlay (I-L/O)	Industrial	0.5 FAR ²	60%	73.1	22.0%
Mixed-Use (M-U)	Mixed-Use	24 units/acre	80%	29.0	8.7%
Open Space–Environmental Conservation (OS-EC)	Open Space–Environmental Conservation	³	N/A	16.6	5.0%
Public/Institutional (P-I)	Public/Institutional	0.5 FAR	50%	10.7	3.2%
High Density Residential (R-H)	High Density Residential	24 units/acre ⁴ ; 1.15 FAR	40%	60.3	18.1%
Totals				332.5	100.0%

Notes:

FAR = floor area ratio; N/A = not applicable

¹ An FAR of 1.5 is allowed for hotel and motel uses in the C-R district.

² An FAR of 1.0 is allowed for industrial projects that are approved by the Planning Commission and meet criteria set forth in design guidelines approved by the City of Rohnert Park.

³ A density of 1 unit per acre is allowed in the developable portion of any property in the OS-EC district.

⁴ General Plan standards permit up to 24 units per acre. The Zoning Ordinance shows a density of 30 units per acre and has not been updated to be consistent with the General Plan maximum permitted density.

Source: Data compiled by AECOM in 2015

2.2 PLAN OBJECTIVES

As part of the PDA planning process, the City has conducted an extensive public outreach program, including numerous public workshops that engaged citizens, property and business owners, developers, outside agencies, all City departments, and decision makers (Planning Commission and City Council). From these meetings, a common voice was heard supporting the creation of a downtown as a priority focus for the City. As part of the PDA Plan, the City is finalizing a vision for a future downtown area that will include a vibrant mix of stores, offices, and housing. In addition to the desire for a downtown, comments were supportive of creating a connected, mixed-use environment throughout the plan area. Out of this outreach process emerged a vision with the following City objectives:

- Support the creation of a Downtown for Rohnert Park. Downtown should have the following features:
 - A distinct character that embraces the community’s existing assets (including redwood tree-lined streets, creek trail corridors, neighborhood sections with distinct centers, and rich cultural and recreational amenities).
 - A pedestrian-oriented development pattern, with a walkable street grid, a compact building footprint, and plenty of community open space.
 - A mix of uses, with emphasis on lifestyle and specialty retail, entertainment, urban-style living options, public spaces, and other transit-supportive uses (e.g., jobs, housing, and retail).
 - A variety of public spaces to serve the community.
- Take advantage of the transit-oriented opportunities adjacent to the SMART rail station to establish distinct subareas with unique community roles.
- Focus growth around the one-half mile radius of the SMART rail station, as guided by the transit-oriented development objectives of the PDA, Focusing Our Vision (FOCUS) program and regional guidance provided by the Metropolitan Transportation Commission’s *Station Area Planning Manual* (MTC, 2007). The *Station Area Planning Manual* identifies Rohnert Park as a “Transit Town Center” place type, defined as a local-serving economic and community activity center with a mix of single-family and multifamily housing and neighborhood serving retail, employment, and civic uses.
- Create and reinforce a consistent urban design theme and identity for Central Rohnert Park and the Downtown District.
- Support the transition of the Triangle Business subarea from primarily light industrial uses to a mixed-use business environment, with a mix of light office, light industrial, and more retail and service uses.
- Support transit ridership by promoting new infill growth in the plan area, focused within the one-half-mile radius of the SMART rail station.
- Plan for transportation improvements, including bus or other circulation opportunities and additional transit stops, to connect the community to SMART rail service and the plan area centers.
- Support City General Plan Goals TR-I, TR-K, TR-L, and TR-R and Policies TR-24-TR-34, TR-41, and TR-42 to reduce traffic congestion by encouraging transportation demand management programs for businesses and workplaces and parking standards that help reduce automobile trips, and promoting alternative transportation modes.

- Support safe and convenient transit, bicycle, and pedestrian travel modes and connections within the plan area.
- Improve the safety of crossing the railroad tracks and roadways that serve as neighborhood barriers (i.e., the SMART rail line and RPX).
- Continue to improve creek corridors as major east-west travel routes serving the community and support their future connections to the planned SMART MUP.
- Provide a safe and continuous bike and pedestrian trail network, integrated with transit and providing connections to and within the existing shopping centers, commercial areas, and employment centers.
- Support investment in placemaking strategies, such as public plazas, sidewalk and landscape improvements, bike/pedestrian connections, and gateway and district wayfinding signage.

2.3 PLAN CHARACTERISTICS

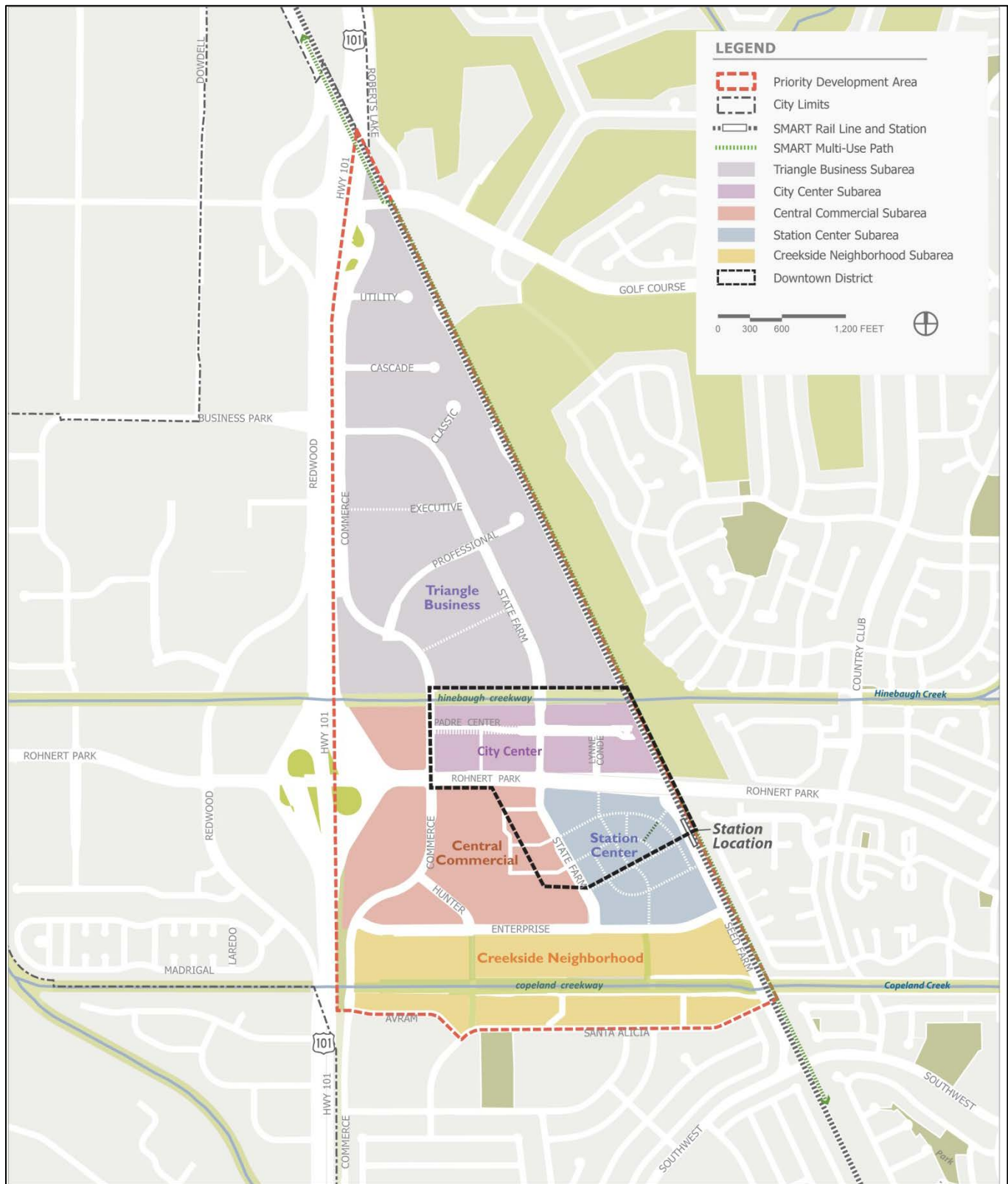
The PDA Plan requires City Council approval as well as General Plan and zoning amendments. Development of the proposed uses would include minimal grading because the plan area is generally flat and mostly developed. Some existing buildings would be demolished to accommodate new infill uses. The existing Copeland Creek and Hinebaugh Creek drainages would not be disturbed as part of plan implementation. The PDA Plan is a programmatic land use master plan; therefore, individual developments that could occur in the future in the plan area would undergo project-level environmental evaluation to determine whether they could result in further impacts specific to the development proposal. Construction-level analyses, if determined necessary, would be conducted at that time.

2.3.1 Proposed General Plan and Zoning Designations

For planning purposes, the plan area is organized into five subareas: Triangle Business, City Center, Station Center, Central Commercial, and Creekside Neighborhood (Figure 2-4). In addition, a downtown district called the Downtown District Amenity Zone (DDAZ), which would encompass several subareas (Figure 2-4), is proposed to implement the community's vision for a compact, walkable downtown area that is unique to the city. The DDAZ would be the focus of investment in the plan area to support the development of a downtown area that is connected internally across RPX and State Farm Drive and encompasses the SMART rail station.

Creating a downtown environment in the city is recognized as a long-term investment that would occur as properties develop and public- and private-sector investment occurs. To reinforce these priorities, a DDAZ that ties together the subareas in terms of walkability is intended to help focus investments into Downtown, including amenities (e.g., benches, plazas, signage, and lighting). The subareas and DDAZ support the community's needs for diverse retail experiences, jobs, services, housing, and attractive places to live, work, and play.

The plan area would be zoned as shown in Table 2-2 and Figure 2-5 and described in the following sections. Zoning district changes are not necessary to support the small infill growth and reuse opportunities that may occur in the plan area's more established community subareas—the Creekside Neighborhood, Central Commercial, and City Center subareas. However, to enhance the potential for future infill growth in the plan area, updates to development standards for the Downtown High Density Residential (DTR-H) and Downtown Mixed-Use (DTM-U) zoning designations specific to the plan area are proposed that allow the following maximum permitted densities:



Source: Data compiled by AECOM in 2015

Figure 2-4: Proposed Priority Development Area Subareas and Downtown District

Table 2-2: Proposed General Plan and Zoning Classifications

Zoning Districts	Corresponding General Plan Districts	Max. Density (units/acre)/ Intensity (FAR)	Assumed Density (units/acre)/ Intensity (FAR)	Max. Building Coverage (percent)	Approx. Zoned Area (acres)	Percentage of the Plan Area
Existing Zoning Districts Within the PDA Plan Area						
Regional Commercial (C-R)	Regional Commercial	0.4 FAR ¹	– / 0.325 FAR	60%	60.2	18.1%
Industrial (I-L)	Industrial	0.5 FAR ²	– / 0.30 FAR	60%	23.4	7.0%
Industrial with Office Overlay (I-L/O)	Industrial	0.5 FAR ²	– / 0.325 FAR	60%	72.3	21.7%
Open Space–Environmental Conservation (OS-EC)	Open Space–Environmental Conservation	³	–	N/A	18.4	5.5%
Public/Institutional (P-I)	Public/Institutional	0.5 FAR	– / 0.35 FAR	50%	11.2	11.2%
Five Proposed New Zoning Districts						
Downtown Mixed-Use (DTM-U)	Mixed-Use	12.1 to 45 units/acre; 1.5 FAR (CMU); 2.0 FAR (RMU)	35 units/acre/ 0.45 FAR (City Center); 0.35 FAR (Triangle)	80%	26.0	7.8%
Downtown High Density Residential (DTR-H)	High Density Residential	12.1 to 30 units/acre; 1.15 FAR	30 units/acre / –	40%	60.3	18.1%
Industrial/Regional Commercial Overlay (I-L/CR)	Industrial/Regional Commercial	0.5 FAR ²	– / 0.325 FAR	40%	28.4	8.5%
Downtown District Amenity Zone Overlay (DDAZ)	N/A (overlaps with other zones)	12–75 units/acre; 1.5 FAR (CMU); 2.0 FAR (RMU)	N/A (refer to applicable subarea)	90%	N/A (overlaps with other zones)	N/A (overlaps with other zones)
Station Center Planned Development (SC-PD)	Mixed-Use				32.4	9.7%
Commercial Mixed-Use		1.5 FAR	– / 0.60 FAR	80%		
Residential Mixed-Use		2.0 FAR	30 units/acre/ 1.0 FAR	80%		
High Density Residential		12–75 units/acre	30 units/acre / –	60%		
Office or Civic		1.0 FAR	– / 0.60 FAR	70%		
Park/Open Space		⁴	–			
Totals					332.5	100.0%

Notes: CMU = Commercial Mixed-Use; FAR = floor area ratio; N/A = not applicable; PDA = Priority Development Area; RMU = Residential Mixed-Use

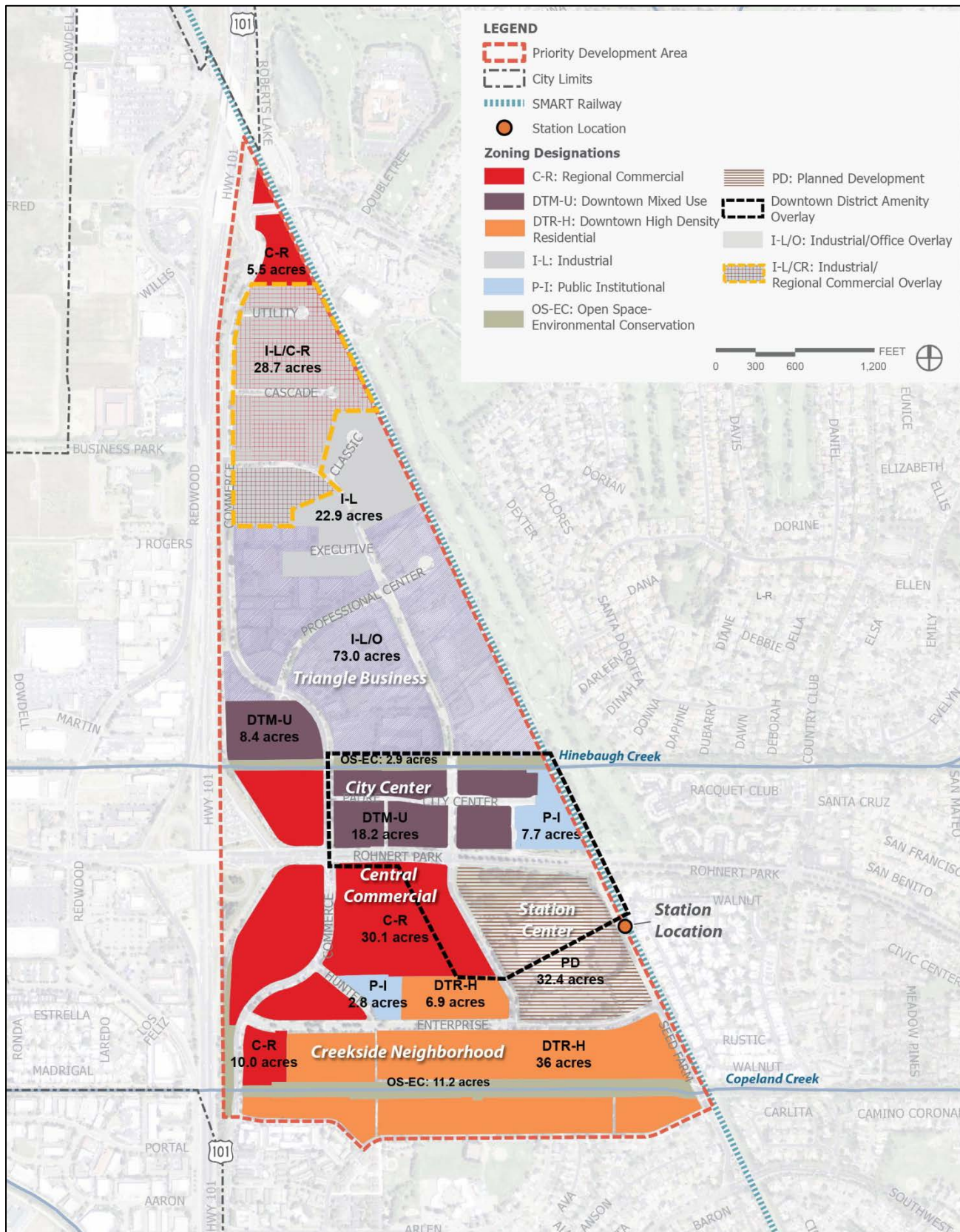
¹ An FAR of 1.5 is allowed for hotel and motel uses in the C-R district.

² An FAR of up to 1.0 is allowed for industrial development that is approved by the Planning Commission and meets criteria set forth in development standards and design guidelines approved by the City of Rohnert Park.

³ A density of 1 unit per acre is allowed in the developable portion of any property in the OS-EC district.

⁴ Some limited development of commercial kiosks and other small retail buildings would be permitted.

Source: Data compiled by AECOM in 2015



Sources: Data provided by City of Rohnert Park and compiled by AECOM in 2015

Figure 2-5: Proposed Priority Development Area Zoning

- 30 units per acre in the DTR-H zone
- 45 units per acre in the DTM-U zone

General Plan amendments for the corresponding land use changes in the PDA Plan would be needed to implement the higher densities proposed in the plan.

The Station Center subarea would be rezoned from the Professional/Administrative Office (C-O) and Public/Institutional (P-I) districts to the “Station Center Planned Development” (SC-PD) designation. To support transit-oriented development on the property, the Station Center subarea should be defined by a unique set of land uses, proposed to consist of Commercial Mixed-Use, Residential Mixed-Use, High-Density Residential, Office or Civic, and Parks/Open Space (Figure 2-6). The Triangle Business subarea is envisioned to transition over time from industrial to a mixed-use business area. To support this transition, a new Regional Commercial Overlay zone that allows and captures retail and other commercial activities is proposed for portions of the existing underlying Industrial zone along U.S. 101 (Figure 2-5), adjacent to an existing commercial retail node on the north side of the plan area.

The plan area is located in an existing developed area of the city, with the potential for small, incremental infill development that can be accommodated by current land use standards. Thus, as shown in Figure 2-5, the proposed plan would retain some of the same existing zoning districts in the plan area and update some districts to fully support the vision for a Downtown in Rohnert Park. The density ranges (FAR and maximum permitted density) for high-density residential and mixed-use development would be amended in the Zoning Code and General Plan to implement the PDA Plan. Those development standards to be updated are specific to the plan area and include the Downtown Mixed-Use (DTM-U) and Downtown High Density Residential (DTR-H) districts.

- **Regional-Commercial (C-R) zone** (in the Triangle Business, Creekside Neighborhood, and Central Commercial subareas), which permits shopping centers and other retail uses that attract customers from outside the city. This district permits a maximum FAR of 0.4, with a maximum FAR of 1.5 allowed for hotel and motel uses.
- **Industrial (I-L) and Industrial with Office Overlay (I-L/O) zones**, which allow for campus environments for corporate headquarters, research and development facilities, offices, light manufacturing, assembly, industrial processes, warehousing, storage and distribution, service commercial, and ancillary retail uses. These districts allow a maximum FAR of 0.5. The FAR can be increased to 1.0 if approved by the Planning Commission, subject to the specified criteria in the City-adopted design guidelines.
- In addition to uses permitted in the I-L zone, the I-L/O zone allows all types of administrative, financial, business, professional, medical, public office, and supporting commercial uses (permitted in the Office-Commercial [C-O] zone). As in the I-L zoning district, the maximum FAR in the I-L/O zone is 0.5 and an increase in the FAR to 1.0 is allowed if approved by the Planning Commission, subject to the specified criteria in the City-adopted design guidelines.
- **Downtown Mixed-Use (DTM-U) zone** (located primarily in the City Center subarea), which accommodates compatible businesses, retail stores, service and institutional organizations, and residences, set in a pedestrian-oriented environment. A maximum 1.5 FAR is permitted for a mix of nonresidential uses, while an FAR of up to 2.0 is allowed for a combination of residential and nonresidential uses. Upper densities in this district would be up to 45 units per gross acre to support future growth in the plan area.



Source: Data compiled by AECOM in 2015

Figure 2-6: Proposed Station Center Land Uses

- **Public/Institutional (P-I)** zone (provided primarily in the City Center subarea), which allows schools, government offices, transit sites, religious facilities, and other facilities with a public character, with a maximum FAR of 0.5.
- **Downtown High Density Residential (DTR-H)** zone (within the Creekside Neighborhood), which permits a wide range of detached single-family and attached multifamily housing, at densities ranging from 12.1 to 24 units per gross acre. This zone would allow up to 30 units per acre within the plan area.

The Industrial with Regional Commercial Overlay (I-L/CR) is a newly proposed zoning district in the Triangle Business subarea and would allow for the types of industrial uses and associated development standards that are normally permitted in the I-L zone, but also would allow uses otherwise permitted only in the C-R zone, as described above.

The proposed zoning overlay DDAZ supports the creation of a walkable downtown environment through urban design standards and guidelines that allow buildings to be built to the edge of the sidewalk; allow for wide sidewalks and pedestrian amenities along commercial streets; promotes compact, multistory development and

shared and on-street parking and transit use; and may incentivize features and amenities desired in a downtown setting (e.g., benches, plazas, signage, and lighting).

The Station Center subarea would be zoned Station Center Planned Development (SC-PD). Such zoning would allow this area to introduce a new set of land use districts supporting its unique site development potential, adjacent to the SMART rail station, and would encourage the vision for greater density/intensity, mixed-use growth that is supportive of transit (Figure 2-5). Proposed zoning would include the following districts:

- **Station Center–Residential Mixed-Use** zone, which would permit residences organized in a pedestrian-oriented environment, in a horizontal or vertical mixed-use configuration, with residential densities of 15–45 dwelling units per acre and a maximum 2.0 FAR. Compatible businesses, retail, and services would be permitted, preferably at the ground level. Public or open space amenities available to the public and residents also would be encouraged.
- **Station Center–Commercial Mixed-Use** zone, which would support a variety of commercial service, retail, and civic uses organized in a pedestrian-oriented environment, in a horizontal or vertical mixed-use configuration. It would encourage the provision of civic and open space uses. This district would permit a maximum FAR of 1.5 and maximum lot coverage of 80 percent.
- **Station Center–Office** zone, which would allow all types of administrative, financial, business, professional, medical, public office, and/or public institutional uses, such as government or nonprofit offices. This zoning district would permit a maximum 1.0 FAR and a maximum building coverage of 70 percent.
- **Station Center–High Density Residential** zone, which would permit a wide range of single-family to multifamily housing at densities ranging from 12 to 75 units per acre, with an assumed average density in the Station Center of 30 units per acre. Higher densities may be permitted, subject to approval by the Planning Commission and limitations on the number of residential units in the plan area.
- **Station Center–Parks/Open Space** zone, which would permit passive recreational facilities (e.g., lawn areas, plazas, gazebos) and small commercial pavilions that fit in with a park-like setting and/or provide services for the SMART rail station.

2.3.2 Site Plan and Development Program

The proposed plan would include mixed-use infill and redevelopment in an existing mixed-use area of the community, organized into five subareas. By testing opportunity sites for the subareas, included in Appendix A of the PDA Plan and considering reasonable market opportunities, maximum average density and intensity assumptions were established for each subarea, as identified in Table 2-2. Table 2-3 shows a breakdown of the development potential for each subarea. Actual development may vary from these assumptions. The plan area's development potential was calculated solely to estimate the carrying capacity of plan area infrastructure. This should be viewed as the maximum expected development in the plan area and not the expected level of development.

Table 2-3: Proposed Development Potential in Subareas of the Plan Area

Land Use by Subarea							
Subarea ¹	Open Space (acres)	Building Area (net square feet)					Total Non-residential
		Residential Units and Area ⁵	Retail or Service Commercial	Office	Public-Institutional	Industrial	
Existing Development²							
Triangle Business	2.9	0	76,882	742,540	251	768,429	1,588,102
City Center	2.6	143 units; 170,000 sf	50,500	0	135,005	0	185,505
Station Center	0	0	0	283,230 ⁴	7,168 ⁴	0	290,398
Central Commercial	0	240 units; 197,340 sf	544,111	44,410	14,528	0	603,049
Creekside Neighborhood	11.2	1,007 units; 1,106,575 sf	29,235	11,600	11,600	0	50,360
Total	16.7	1,390 units; 1,473,915 sf	700,728	1,081,780	166,477	768,429	2,717,414
Added Development Potential³							
Triangle Business ⁶	2.5 ⁹	150	120,881 ⁶	91,415	0	129,315	341,611
City Center ⁷	0	115 units; 103,500 sf	56,581	32,560	50,362	0	139,503
Station Center ⁸	6.0 ⁹	415 units; 415,000 sf	171,626	65,340 ⁴	0 ⁴	0	236,966
Central Commercial	0	0	74,264	0	12,445	0	86,709
Creekside Neighborhood	0	155 units; 170,500 sf	17,534	0	0	0	17,534
Total	8.5	835 units; 689,000 sf	440,886	189,315	62,807	129,315	822,324
Total Development Potential⁴							
Triangle Business	5.4	150 units	197,763	833,955	251	897,744	1,929,713
City Center	2.6	258 units; 273,500 sf	107,081	32,560	185,367	0	325,008
Station Center	6.0	415 units; 415,000 sf	171,626	65,340 ⁴	0 ⁴	0	236,966
Central Commercial	0	240 units; 197,340 sf	618,375	44,410	26,973	0	689,758
Creekside Neighborhood	11.2	1,162 units; 1,277,075 sf	46,769	11,600	9,525	0	67,894
Total	25.2	2,225 units; 2,312,915 sf	1,141,614	987,865	222,116	897,744	3,249,337

Notes:

sf = square feet

- ¹ See Table 2-2 for land use assumptions in each subarea.
- ² Existing development is based on assessor's parcel data, verified through aerial maps, and adjusted where needed.
- ³ Total development potential is the sum of existing development plus the assumed additional development potential.
- ⁴ Existing uses in the Station Center subarea are proposed for removal (i.e., the 283,230-square-foot State Farm office and 7,170-square-foot Corporation Yard) and redeveloped with new uses indicated for the Station Center under the "Added Development Potential" column.
- ⁵ Based on the assumption that average unit size in the Creekside Neighborhood is 1,100 square feet per unit. Average unit size is assumed to be 900 square feet per unit in the City Center and 1,000 square feet per unit in the Station Center subarea.
- ⁶ Assumes that added development in the IL/RC zone consists of 50% new retail/service uses and 50% industrial uses; the IL/O zone consists of 50% new office and 50% industrial uses; and the DTM-U zone consists of 50% new retail and 50% office uses.
- ⁷ Assumes that additional Residential Mixed-Use consists of 80% residential and 20% commercial uses.
- ⁸ Assumes that planned Commercial Mixed-Use consists of 100% retail or service uses and Residential Mixed-Use consists of 80% residential and 20% commercial uses.
- ⁹ Identifies dedicated public park/open space, based on proposed land use concepts studied for the plan area. Additional open space to be provided for new development, as required by the Zoning Code, is not reflected in the subarea totals.

Source: Assessor's parcel data, modified by AECOM in 2015

Residential Uses

Up to 835 units could be constructed in the plan area, focused on the City Center and Station Center subareas, generally located within a half-mile radius of the SMART rail station. The residential unit mix would consist of multifamily homes ranging in size from approximately 600 to 1,200 square feet, with densities of 12–75 units per acre. The units would be built in four of the five subareas (i.e., City Center, Station Center, Triangle Business, and Creekside Neighborhood), as shown in Figure 2-4 and described in Table 2-3. The maximum building height in the DTM-U zone, applicable to the City Center, is 45 feet. This same maximum building height also applies to the DTR-H zone, found in the Creekside Neighborhood. The Station Center subarea is envisioned to support a variety of multifamily residential housing units with densities ranging from 12 to 75 units per acre, including townhomes, mixed-use lofts or flats above neighborhood commercial uses, and podium-style apartments or condominiums. Townhomes and mixed-use lofts in the Station Center subarea are anticipated to be two to three stories high; five- and six-story apartments or condominiums over podium parking are envisioned in the Station Center, as supported by future market conditions. In the Station Center subarea, maximum building heights for high-density residential uses would be 65 feet.

Retail or Service Commercial Uses

The PDA Plan would include a maximum of 440,886 additional square feet of retail and service commercial uses that would be distributed within several subareas of the plan area. The following types of development would occur:

- One- to two-story infill development, with a projected maximum of approximately 74,264 square feet in the commercial centers in the Central Commercial subarea (based on an assumed average maximum FAR of 0.30 in the C-R zone). Maximum building heights permitted in the C-R zone would be 65 feet.
- One- to two-story infill development, with a projected maximum of approximately 17,500 square feet in the existing Creekside Neighborhood, based on an assumed average maximum FAR of 0.325.

- Approximately 56,600 square feet of infill or redevelopment on vacant or aging and underused properties/development in the City Center, based on an assumed average maximum FAR of 0.45 for the mixed-use zone, with a maximum permitted building height in the DTM-U zone of 45 feet.
- Up to 120,880 square feet of new retail or service commercial infill, redevelopment on vacant or underused properties, or reuse of existing buildings in the Triangle Business subarea (based on an assumed average maximum FAR of 0.325 for the C-R and I-L/CR zone and 0.35 for the DTM-U zone). Maximum permitted building heights would be 45 feet in the I-L/CR and DTM-U zones and 65 feet in the C-R zone.
- Up to 171,626 square feet of new retail or service uses in the Station Center subarea (based on an assumed average maximum FAR of 0.60 for the Station Center Commercial Mixed-Use zone and 1.0 for the Residential Mixed-Use zone) to replace the existing State Farm campus mixed-use development with one to two retail and service uses, with supporting parking and landscape improvements. This would form part of a future Downtown area that would also include the City Center area and a portion of the shopping center on the west side of State Farm Drive. Maximum building heights established in the Station Center Commercial Mixed-Use and Residential Mixed-Use zones would be 65 feet. The northern portion of the Station Center subarea would become part of a larger Downtown area that extends across RPX and State Farm Drive.

Public Institutional Uses

Up to 62,807 net new square feet of public institutional facilities are planned in the City Center and Central Commercial subarea; 65,340 square feet of public institutional development would be adjacent to the emerging civic center area, in one- to two-story buildings (based on a maximum FAR of 0.35), with supporting parking and landscape improvements. Another 12,445 square feet of public institutional uses are projected in the Central Commercial subarea, to support expansion of existing public institutional facilities or new infill uses in the subarea. Maximum permitted building heights for public institutional uses in the P-I zone would be 45 feet.

Office Uses

Up to 189,315 net new square feet of office facilities and supporting parking and landscape improvements are projected in various subareas of the plan area, including the following:

- Up to 91,415 square feet of new office development, redevelopment on vacant or underused properties, or reuse of existing buildings in the Triangle Business subarea (based on an assumed average maximum FAR of 0.325 in the I-L/O zone and 0.35 in the DTM-U zone). Maximum permitted building heights in the existing IL/O and DTM-U zones would be 45 feet.
- Infill development on vacant sites or redevelopment of existing properties in the City Center to support up to 32,560 square feet of office uses (based on an average maximum FAR of 0.45 in the DTM-U zone).
- Up to 65,340 square feet of new office uses in two- to three-story standalone or mixed-use buildings (based on an assumed average maximum FAR of 0.60) for the proposed Station Center Office zone. Maximum permitted building heights in the Station Center Office zone would be 65 feet.

Light Industrial Uses

Up to 129,315 net new square feet of new light industrial facilities would be located in the I-L, I-L/CR, and I-L/O zones in the Triangle Business subarea, based on an average maximum FAR of 0.30 in the I-L zone and 0.325 in

the I-L/CR and I-L/O zones. This composition assumes 100 percent industrial uses in the I-L zone and 50 percent industrial uses/50 percent office or commercial uses in the I-L/O and I-L/CR zones. Maximum permitted building heights in these existing industrial zones would be 45 feet.

Open Space

Existing public open space is present along the west side of Commerce Boulevard, adjacent to U.S. 101, and along accessible, marked trails in the existing Copeland Creek and Hinebaugh Creek corridors and interconnecting paseos, maintained by the City. The creek corridor open space/trails and connecting paseos would be improved through infill of gaps in the trail network, and through vegetation maintenance, trail signage, and lighting improvements to support the safety and comfort of bicyclists and pedestrians. In addition, trail connectivity improvements along the planned SMART MUP and surrounding public roadways in the city would be provided along the two existing creeks (Figure 2-7). At-grade connections to the SMART MUP are proposed at the Copeland Creek trail crossing of the SMART rail tracks at RPX, Professional Drive, and Golf Course Drive. At Golf Course Drive, the MUP crosses from the east side of the tracks to the west side and under U.S. 101, just north of the plan area. An undercrossing connection from the plan area to the SMART MUP would be added along Hinebaugh Creek.

A total of 8.5 acres of public parks/open space uses are proposed for the plan area. Approximately 6 acres would be part of redevelopment in the Station Center subarea. The other 2.5 acres of open space are suggested for an approximately 25-foot-wide paseo between Professional Drive and Utility Court and for other open space, to improve bike and pedestrian access in the Triangle Business subarea. See Table 2-3 for a summary of proposed park and open space uses in the plan area, based on recommendations from subarea and opportunity-site studies. The table totals do not reflect additional park and open space uses that would be provided with new development as required by the Zoning Code. Other suggested park and open space uses, plazas, and common space areas would be dispersed within the plan area and are shown conceptually in Figure 2-7.

2.3.3 Landscaping

The PDA Plan proposes landscaping throughout the developed portion of the plan area. New trees, from the City's approved list, that grow in a columnar fashion would be considered along major roadways in addition to the existing redwood trees, to enhance the existing corridor effect along roadways in the plan area. Trees and other vertical landscape elements could be used as background plants at community gateway entrances into the plan area or could be planted along roadway medians. Roadways and entrance areas would be lined with a variety of tree species, including species that are compatible with species already found in the plan area, such as Chinese pistache (*Pistachia chinensis*), crape myrtle (*Lagerstroemia fauriei*), eastern redbud (*Cercis canadensis*), Western red cedar (*Thuja plicata*), magnolia (*Magnolioideae* sp.), and European hackberry (*Celtis australis*). Proposed ornamental tree species and smaller trees (suitable for planters) would include Japanese maple (*Acer palmatum*), flowering crab apple (*Malus sylvestris*), and thundercloud flowering plum (*Prunus cerasifera*). Parks, open space, and creek corridors would be planted with larger trees, such as live oak (*Quercus virginiana*), blue oak (*Q. douglasii*), willow oak (*Q. phellos*), American elm (*Ulmus americana*), magnolia, and alder (*Alnus* sp.).



Source: Data compiled by AECOM in 2015

Figure 2-7:

Proposed Park and Open Space Features

2.3.4 Circulation

Vehicular access to the plan area would be provided by RPX from the west and east; Commerce Boulevard and State Farm Drive from the north; and Seed Farm Drive and Commerce Boulevard from the south. RPX is the primary roadway providing access between U.S. 101 and the plan area. The proposed plan would include improvements to plan area circulation, which would include roadways, bike/pedestrian facilities, and transit facilities.

Roadway Improvements

Figure 2-8 shows the vehicular circulation plan and proposed roadway improvements for the plan area. The following proposed roadway improvements are listed from north to south and numbered as shown in the figure:

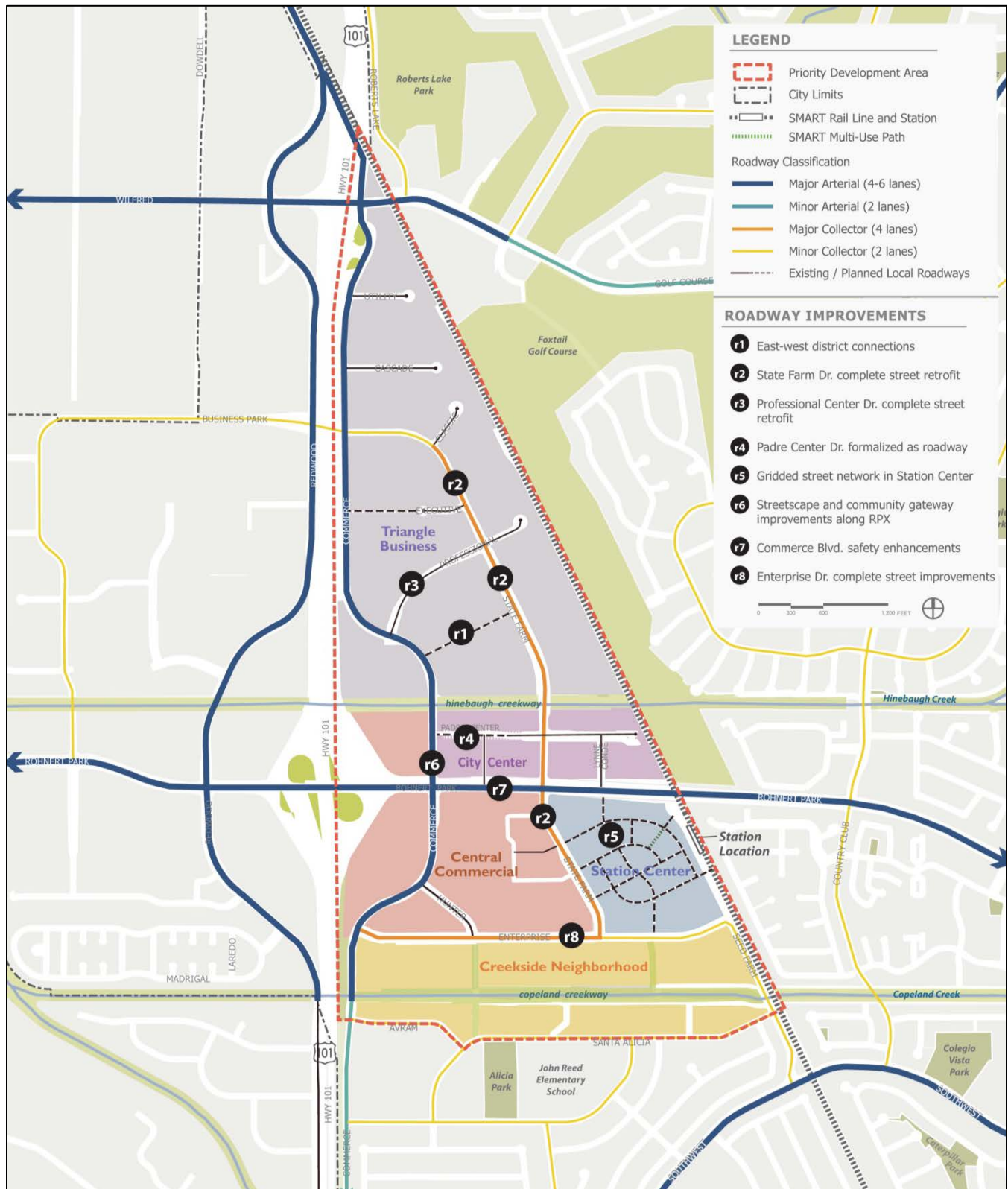
- **r1)** Providing additional east-west roadways or paseos as sites redevelop in the Triangle Business subarea. Additional roadway or bike/pedestrian trail connections would be provided between State Farm Drive and Commerce Boulevard to reduce block sizes and intersection distances, and to support opportunities for new bikeways and landscaping.
- **r2)** Retrofitting State Farm Drive as a complete street, with high-contrast bicycle lanes and the potential to incorporate on-street parking along portions of its length (between Professional Drive and Enterprise Drive).
- **r3)** Retrofitting Professional Center Drive as a complete street with bicycle lanes and the potential to incorporate stormwater curb extensions and parking on one side of the street.
- **r4)** Developing additional local streets, including formalizing Padre Center Drive in the City Center.
- **r5)** Adding a gridded street network in the Station Center subarea, as shown conceptually in Figure 2-8.
- **r6)** Adding roadway improvements to Commerce Boulevard, to support opportunities for improved bicycle facilities; a landscaped median, where feasible, to control and support safe vehicular turning movements; streetscape; and corridor signage enhancements.
- **r7)** Adding streetscape and community gateway improvements along RPX.
- **r8)** Improving Enterprise Drive to be one lane in each direction throughout its length, with the opportunity to support a bike lane on the south side and an MUP and on-street parking along its north side.

Transit Improvements

To support planned new uses in the plan area, an additional transit circulator loop and additional bus stops would connect the Station Center subarea to the existing areas of the community and would support future intermodal connections with the SMART rail station (Figure 2-9). Public transit services and improvements would be expanded in coordination with Sonoma County Transit as new transit demand warrants.

The following transit improvements are proposed for the plan area:

- The addition of a new loop route and three new transit stops and bus pullout areas to serve the Station Center subarea, including a potential bus transfer station stop adjacent to the SMART rail station platform.
- Additional proposed transit stops at the City Center, along RPX, and at the intersection of State Farm Drive and Professional Drive.



Source: Data compiled by AECOM in 2015

Figure 2-8:

Proposed Vehicular Circulation Plan

- Opportunities for a shuttle or commuter service during commute hours from the SMART rail station to major community destinations, including Graton Rancheria Casino and Sonoma State University.

Bike and Pedestrian Improvements

Bicycle access would be provided via existing and planned improvements to bicycle facilities in the plan area (Figure 2-10). Class I MUPs exist along the west side of Commerce Boulevard between Cascade Court and Professional Center Drive; along Hinebaugh Creek east of Commerce Boulevard; along Copeland Creek east of Commerce Boulevard; and along two greenway paseos connecting Enterprise Drive to the Copeland Creek trail. Striped Class II, on-street bicycle lanes for bicyclists on either side of the street exist along Golf Course Drive; Commerce Boulevard south of Utility Court; RPX; State Farm Drive south of RPX; Enterprise Drive east of State Farm Drive; and Seed Farm Drive. The following proposed improvements to bicycle facilities in the plan area are listed from north to south and numbered as shown in Figure 2-10:

- **b1)** Upgrading bicycle facilities along Commerce Boulevard by completing the development of Class I bicycle trails on the west side of the street and Class II bicycle lanes on the east side of the street, between Hinebaugh Creek and Golf Course Drive/Wilfred Avenue.
- **b2)** Introducing additional east-west bike access at Cascade Court and between Professional Drive and Hinebaugh Creek.
- **b3)** Introducing a central north-south bike/pedestrian paseo or greenway in the Triangle Business subarea, midway between Commerce Boulevard and State Farm Drive.
- **b4)** Upgrading bike lanes on State Farm Drive between Professional Drive and Enterprise Drive to protected or enhanced bike lanes on both sides of the street, and supporting opportunities for bikeway access on State Farm Drive between Professional Drive and Commerce Boulevard.
- **b5)** Adding east-west bike facilities on Professional Drive, including enhanced bike lanes and the potential for an at-grade rail crossing or undercrossing from Professional Drive to the SMART MUP.
- **b6)** Completing trail gaps along Hinebaugh Creek, including the potential for an undercrossing of the rail tracks to connect to the SMART MUP. **b7)** Upgrading RPX to incorporate high-contrast bike lanes; widening the existing meandering sidewalks on both sides of the street to support development of a Class I MUP; and supporting intersection and mid-block pedestrian crossings, with pedestrian refuges and high-intensity activated crosswalk signals at Lynne Conde Drive and along the SMART MUP.
- **b8)** Continuing the Class I trail connection south of Enterprise Drive, along U.S. 101 and the RPX interchange, between Enterprise Drive and RPX.
- **b9)** Adding east-west and north-south bicycle connections through the Station Center as shown in Figure 2-8. These connections would include opportunities for a bicycle boulevard designation, with striped or enhanced bicycle lanes along planned new roadways or paseos and potentially a Class I trail along the east side of the property, parallel to the SMART rail line, connecting from Seed Farm Drive to the SMART rail station and RPX.
- **b9)** Adding a bike/pedestrian overcrossing of RPX, connecting the City Center and Station Center subareas.
- **b10)** Adding bike lanes on both sides of Hunter Drive.

- **b11)** Upgrading bike facilities on Enterprise Drive with high-contrast bike lanes on the south side and a broad, minimum 12-foot-wide MUP on the north side of Enterprise Drive.

Pedestrian access and circulation would be provided via existing and planned sidewalks, roadways, trails, and paseos in the plan area. In addition to the roadway and bike/pedestrian facility improvements described above, the following priority pedestrian improvements are proposed:

- Establishing north-south bike and pedestrian connections through walkway improvements from City Center destinations to the Hinebaugh Creek trail and MUPs that are proposed along RPX (Figure 2-9).
- Adding pedestrian walkway improvements and landscaping in the Central Commercial subarea (Figure 2-10).

2.3.5 Parking

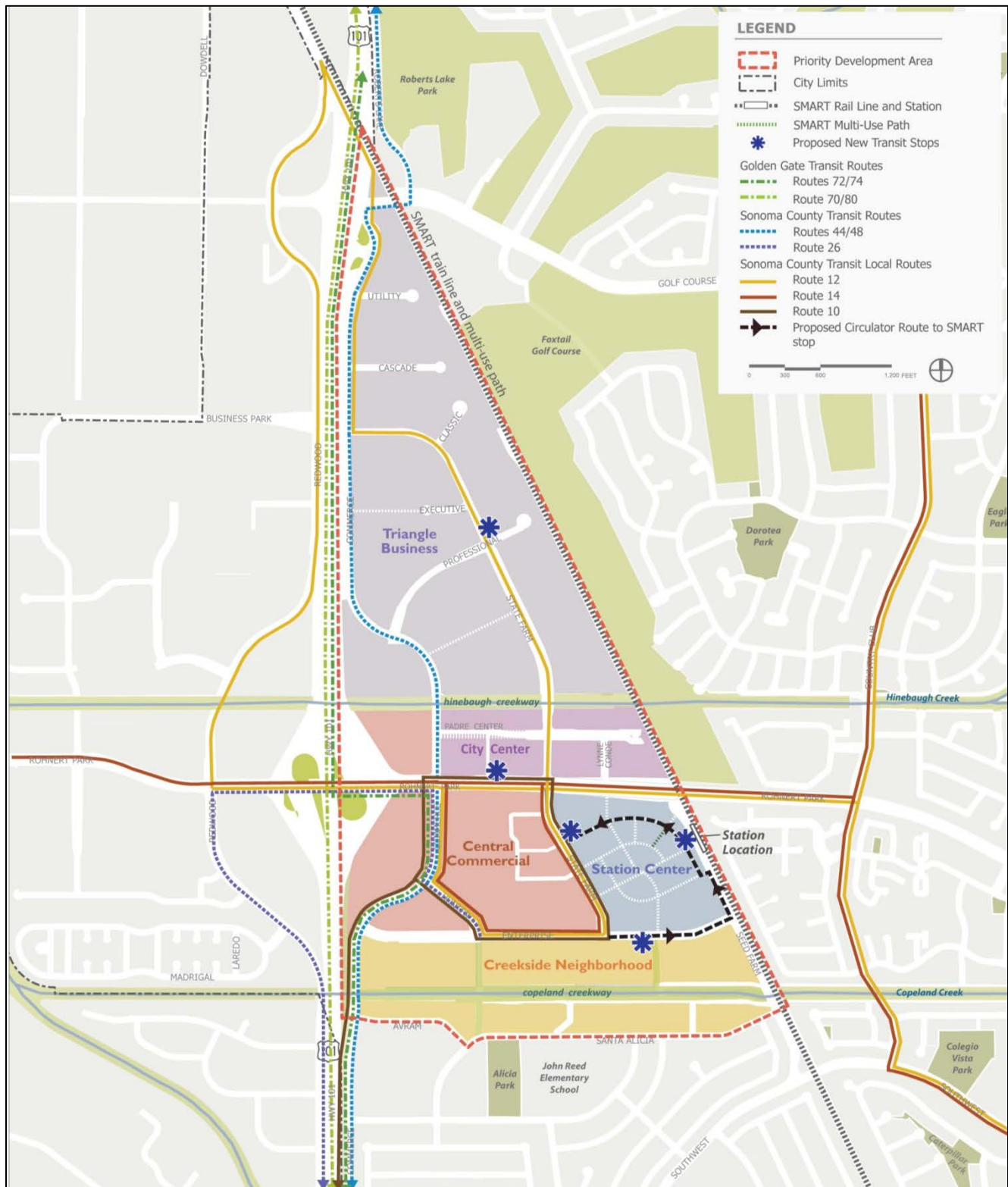
The proposed plan identifies the appropriate number of off-street parking spaces for new residential, mixed-use, light industrial, retail/service, and office uses, as shown by the parking ratios in Table 2-4. For nonresidential uses, on-street parking spaces would be permitted to meet the requirement for off-street parking spaces.

Table 2-4: Development Potential for Proposed Residential Units

Subareas	Units by Land Use
City Center, Station Center	Retail Use: 2.5 spaces per 1,000 gross square feet Office or Civic Use: 3 spaces per 1,000 gross square feet Studio or 1 BR residential: 1 space per unit 2 BR residential: 1.5 spaces per unit 3+ BR residential: 2 spaces per unit 1 guest parking space for every 5 bedrooms
Triangle Business, Central Commercial, and Creekside Neighborhood	Standards for nonresidential uses based on existing Zoning Code standards, except that parking for multifamily residential uses will be provided as follows: Studio or 1 BR residential: 1 space per unit 2 BR residential: 2 spaces per unit 3+ BR residential: 2.5 spaces per unit 1 guest parking space for every 4 bedrooms

Note: BR = bedroom

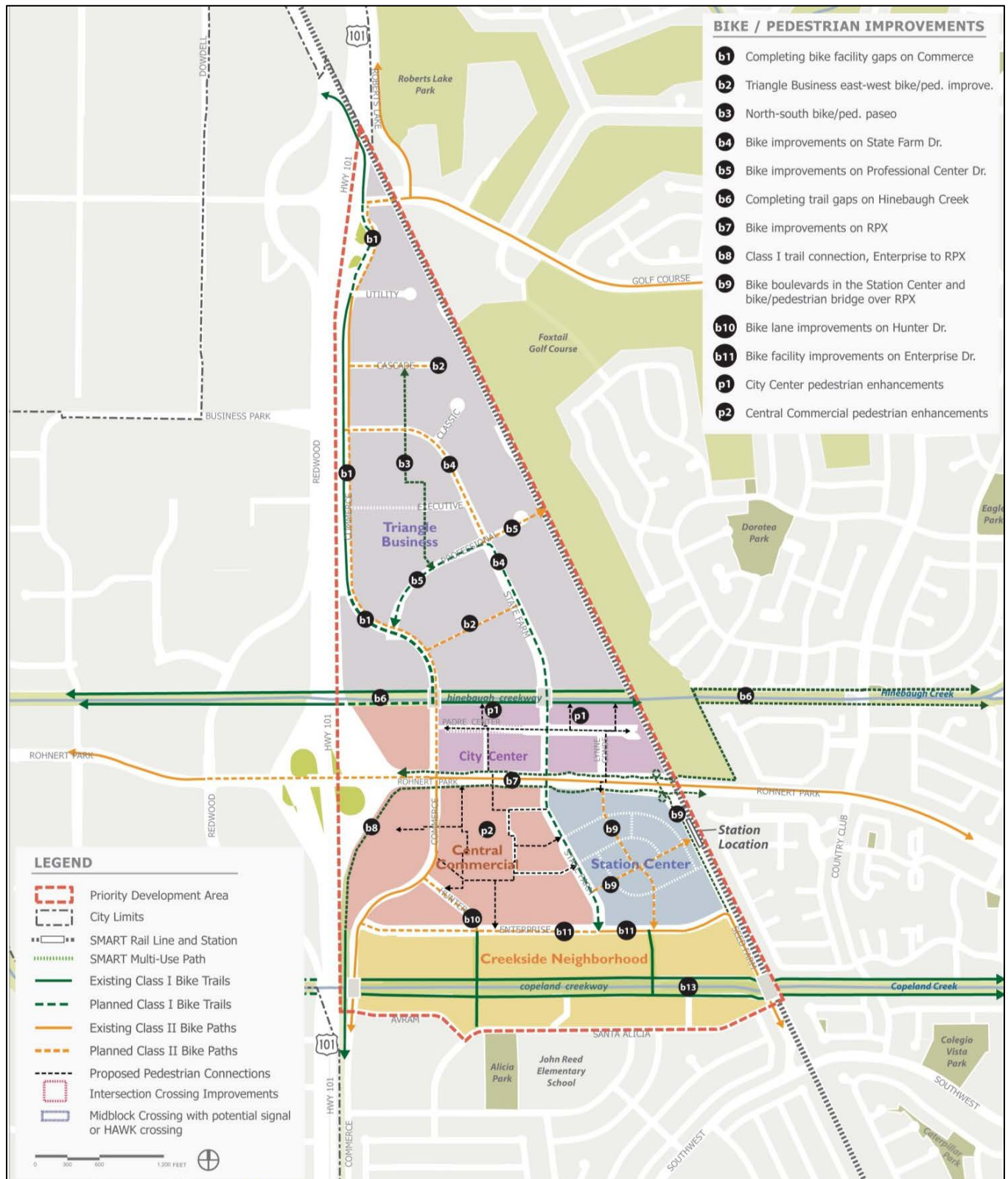
Source: Data compiled by AECOM in 2015



Source: Data compiled by AECOM in 2015

Figure 2-9:

Proposed Transit Circulation Plan



Source: Data compiled by AECOM in 2015

Figure 2-10: Proposed Bike and Pedestrian Circulation Plan

In addition to the parking standards proposed in Table 2-4, Section 17.16.040 of the City's Zoning Code allows the following parking reductions:

- Up to 25 percent for shared parking, when a combination of uses can demonstrate and make the finding that the uses share a common parking area and demand for parking occurs over different time periods, making the full parking requirement unnecessary.
- Up to 10 percent for providing a rideshare, transit incentive, or other transportation system management program, as permitted by the Planning and Community Development Director or designee.

2.3.6 Utilities

The plan area would receive service from the following existing service providers:

- The City provides retail potable-water service using its groundwater resources and water purchased from Sonoma County Water Agency.
- The City provides retail recycled-water service using tertiary treated recycled water provided by the Santa Rosa subregional system.
- The City provides sanitary sewer collection services and delivers wastewater to the Santa Rosa subregional system's Laguna Treatment Plant for treatment, reuse, and disposal.
- The City provides local stormwater collection service. Flood control channels including Copeland Creek and Hinebaugh Creek are maintained by Sonoma County Water Agency.
- The North Bay Corporation provides curbside solid waste, yard, and recyclable collection and processing.
- AT&T and Comcast provide telecommunications, cable television, and Internet services.
- Pacific Gas and Electric Company supplies gas and electricity.

The proposed plan would include the necessary extensions from the existing infrastructure systems to supply these utilities to future development in the plan area (see Figures 2-11 and 2-12 for the locations of existing water and sewer infrastructure systems).

2.4 DISCRETIONARY ACTIONS AND APPROVALS

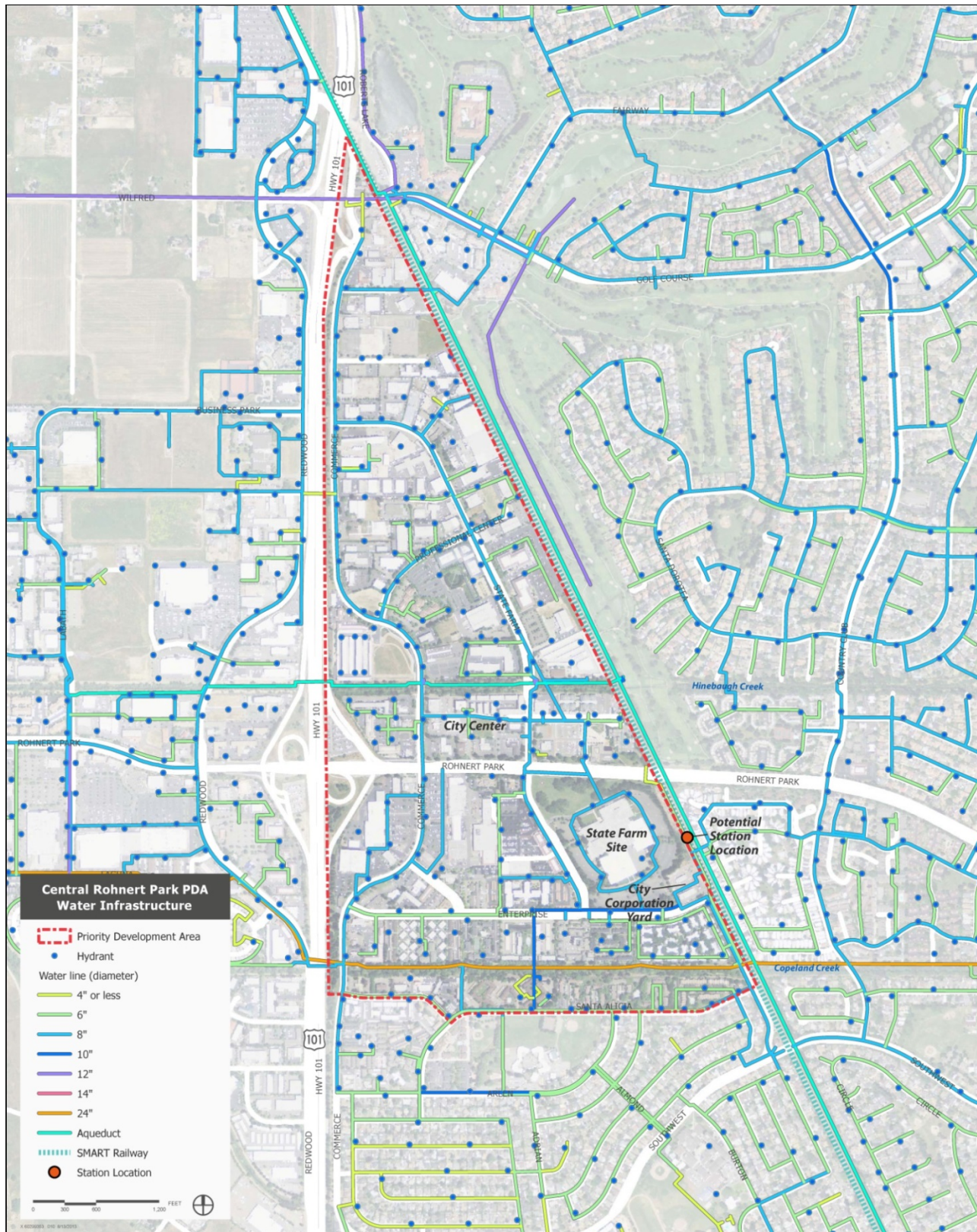
The City must provide the following discretionary actions and approvals to adopt and implement the PDA Plan:

- Certification of this California Environmental Quality Act document
- Approval of the PDA Plan
- Amendments to the General Plan (see detailed description below)
- Amendments to the Zoning Map and Zoning Ordinance (see detailed description below)

2.4.1 General Plan Amendment

The following General Plan amendments would occur along with PDA adoption:

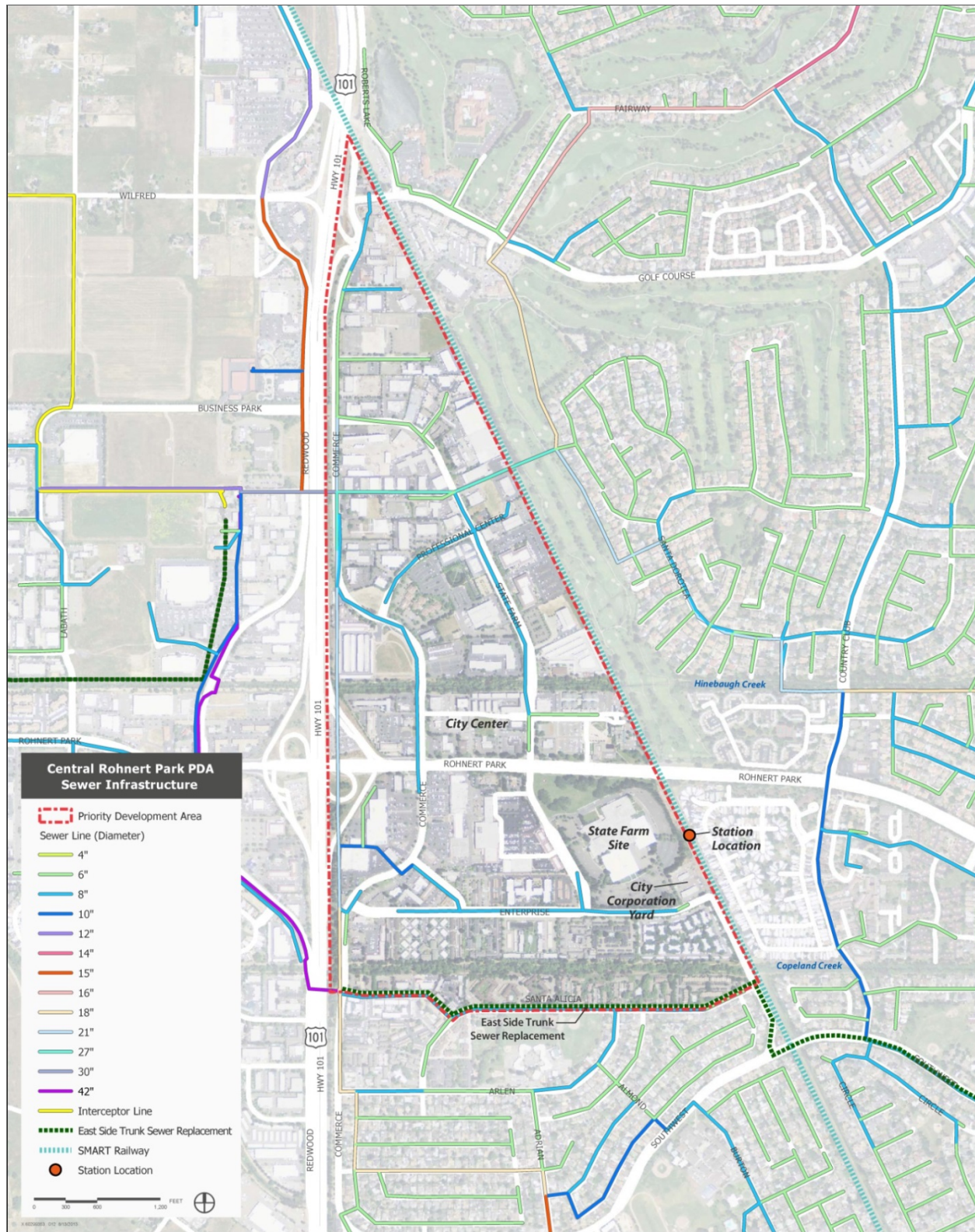
- Update the description of the planning process. Updates to Section 1.6, “Planning Process,” would reference the Central Rohnert PDA with the bullet entitled “Neighborhood and Special Area Plans.” The City Center Concept Plan (City of Rohnert Park, 2002) is currently referenced in this location of the General Plan, so some text updates would be needed to describe the City Center as being part of the PDA Plan.
- Update the General Plan Map. The General Plan Map is incorporated into the General Plan as Figure 2.2-1, “General Plan Diagram”). This map would be updated as follows:
 - Replace the “Office” designation for the former State Farm campus property and the “Public/Institutional” designation for the City’s Corporation Yard with a “Mixed-Use” designation, similar to the designation currently in place for Sonoma Mountain Village.
 - Change the roadway designation of State Farm Drive to a minor arterial. State Farm Drive is currently considered a major collector, but minor arterial is more appropriate given the traffic volumes analyzed as part of the PDA Plan’s traffic impact study.
 - Update the map of specific plans and planned developments. Figure 2.4-1, “Specific Plan and Planned Development Areas,” would be amended to add the Station Center Planned Development to the map at the location of the former State Farm office campus. A description of this new planned development would be added in the General Plan.
- Add a description of the Central Rohnert Park PDA (Chapter 2 of the General Plan). The General Plan includes a section on Sonoma Mountain Village (page 2-40). A new section would be added immediately after this, entitled “Central Rohnert Park Priority Development Area.” Included in this new section would be a brief description of the Central Rohnert Park PDA Plan and a new Figure 4.1 entitled “Central Rohnert Park Plan Concept.” This new section of the document would include the following information:
 - Land use policies. All the land use policies related to the PDA would be added to this section.
 - A description of the Station Center Planned Development. As part of the section on the PDA, a subsection on the Station Center subarea would be added.
 - A relocated discussion of the City Center. The currently provided discussion of the City Center would be moved to become a subsection under the new “Central Rohnert Park Priority Development Area” heading.
 - A description of the regional commercial overlay. This overlay would allow more commercial (retail and services) uses within the industrial classification.
 - A description of the downtown amenity zone. A more complete description of the downtown area would be included in Chapter 3, “Community Design.”
- Add community design goals and policies (Chapter 3 of the General Plan). A section entitled “Central Rohnert Park Priority Development Area Plan” would be added to Chapter 3 of the General Plan. The General Plan currently includes a description of the City Center that would be incorporated as a subset of the PDA discussion. All the goals and policies from the Community Design Guidelines chapter of the PDA would be added to the General Plan, including Figure 4.5 from the PDA as one of the General Plan’s illustrative diagrams. This chapter of the General Plan includes illustrative diagrams from other locations in the city.



Source: Data compiled by AECOM in 2015

Figure 2-11:

Existing Water Infrastructure System



Source: Data compiled by AECOM in 2015

Figure 2-12:

Existing Sewer Infrastructure System

- Add a new section entitled “Downtown District.” The current General Plan includes a section entitled “Commercial Centers” (Section 3.3). This section would be amended to include graphics and descriptions from the PDA Plan for the downtown district.
- Amend the master street plan. Chapter 4, “Transportation,” of the General Plan includes Figure 4.1-1, which categorizes State Farm Drive as a four-lane collector. This is inconsistent with the PDA Plan. The PDA Plan recommends a two-lane roadway that would include enhanced lanes for bicycles and on-street parking. Figure 4.1-1, “Master Street Plan,” would be amended to change State Farm Drive from a major collector to a minor arterial. The minor arterial classification would recognize State Farm Drive as a significant roadway, but the number of lanes could be reduced. This lane reduction is supported by information in the PDA’s traffic impact study, provided in Appendix E.
- Amend parking restrictions. Table 4.1-3, “Roadway Classifications,” in the General Plan, restricts on-street parking. This is inconsistent with the PDA Plan, which calls for adding on-street parking in certain locations—particularly in a future downtown area. Table 4.1-2 would be amended to allow on-street parking in the plan area.
- Add circulation and connectivity goals and policies. Chapter 4, “Transportation,” of the General Plan includes goals and policies related to the city’s roadway network. A new section entitled “Central Rohnert Park” would be added and the relevant goals and policies from the PDA Plan would be incorporated.
- Add goals and policies related to parks and utilities. The General Plan has a chapter entitled “Open Space, Parks, and Public Facilities” (Chapter 5). A section entitled “Central Rohnert Park” would be added to this chapter and would include the relevant goals and policies from the PDA Plan.

2.4.2 Zoning Amendments

The Zoning Ordinance is one of the primary implementation documents of the City’s General Plan. Updates to the ordinance would be needed to fully implement the PDA Plan. Both map and text amendments are proposed.

Map Updates

Property designations in the plan area would be rezoned as described below. These changes would be reflected on the City’s official zoning map. Most of the map changes would require complementary text changes.

- **Station Center Property.** Two key properties in the plan area are the former State Farm office campus, which is currently zoned Office Commercial (C-O), and the adjacent City Corporation Yard, which is zoned Public Institutional (P-I). Both of these zoning designations would be replaced with a Station Center Planned Development (SC-PD) designation. Text updates (as described in the following section) would be needed along with the map updates.
- **Regional Commercial Overlay.** The zoning map would be amended to add a Regional Commercial Overlay Zone (I-L/C) to the industrial properties located at the north end of the plan area. The PDA Plan envisions this area as an emerging commercial area because of the visibility and access afforded to it by U.S. 101 and Commerce Boulevard. The southern boundary of the new I-L/C overlay would be coterminous with the boundaries of the I-L/O overlay zone. The western and eastern boundaries would be U.S. 101 and the railroad tracks, respectively. The northern boundary would be coterminous with the boundary of the Regional

Commercial (C-R) district north of Utility Court. Text updates (as described in the following section) would be needed along with the map updates.

- **Downtown District Overlay (DD).** The zoning map would include this overlay designation, which would modify the development standards.
- **Downtown High Density Residential (DTR-H).** The Downtown High Density Residential (DTR-H) zones in the plan area would be replaced by the DTR-H designation and would include modified development standards, including densities of up to 30 units per acre.
- **Downtown Mixed-Use (DTM-U).** The Downtown Mixed-Use (DTM-U) zones in the plan area would be replaced by the DTM-U designation and would include modified development standards and densities of up to 45 units per acre.

Text Updates

The PDA Plan includes some new zoning concepts that are not included in the existing Zoning Ordinance. This requires some minor reorganization of the existing Zoning Ordinance and the addition of some new chapters and sections. The following is a summary of the proposed changes:

- **Station Center Planned Development (SC-PD).** This new planned development would be created to incorporate both the former State Farm campus and the City's Corporation Yard, and would be added to the Zoning Ordinance as Article XV-B, "Station Center Planned Development District." The map and development standards for this planning district could be adapted from the PDA Plan. Some development standards may also be used or referenced from other parts of the code.
- **Industrial/Commercial Overlay (I-L/C).** This overlay would establish additional retail and service land use types that could be permitted. The overlay would be placed "over" the underlying industrial zoning designation, ensuring that all of the existing development rights of the industrial zone would be left intact, in addition to the range of uses permitted in the industrial district.
- **Downtown District Overlay (DDAZ).** A new overlay would be established for the area identified in the PDA Plan as the Downtown District Amenity Zone (DDAZ). This would include certain development standards (e.g., allowing buildings to be placed at the back of the sidewalk); street cross sections; on-street parking allowances for State Farm Drive; and requirements for internal streets as properties in the downtown district develop or redevelop.
- **Downtown Mixed-Use (DTM-U).** A new zoning district identified in the PDA Plan as Downtown Mixed-Use (DTM-U) would be introduced in the plan area. This zoning district would include updated development standards supporting the creation of a downtown environment.
- **Downtown High Density Residential (DTR-H).** A new zoning district identified in the PDA Plan as Downtown High Density Residential (DTR-H) would be introduced in the plan area. This zoning district would update the maximum density for high-density residential uses in the plan area to 30 dwelling units per acre.

2.5 CUMULATIVE PROJECTS

Build-out of the City's 2000 General Plan has been assumed in the consideration of cumulative projects. The 2000 General Plan anticipates a population of 51,332, labor force of 25,977, and 29,479 jobs at build-out. The 2000 General Plan projects an additional 4,045 residential units at build-out in 2020 (beyond the existing 16,877 residential units estimated in 2012), resulting in a residential build-out of 20,922 residential units.

In the City Center area north of RPX, 132 units have been built, with another 24 units programmed for a vacant site where Commerce Boulevard meets Hinebaugh Creek. No other residential development in the plan area has been approved as of the writing of this document, but more development may come online in the near future.

The City's 2000 General Plan includes approximately 4.6 million square feet of nonresidential land uses. Development of approximately 2 million square feet of nonresidential land uses has been approved, is under way, or is programmed (Table 2-5). Since adoption of the General Plan, many of the shopping centers in the plan area have been remodeled within existing building footprints (no additional square footage added). A few new buildings have included additional retail square footage in the plan area, including a Chipotle, Panera Bread, and Walgreens in the Central Commercial area, and a State Farm Insurance office in the City Center area.

Table 2-5: Build-out Potential of Existing Approved, Underway, or Programmed Plans

Adopted Plans	Year Adopted	Land Area (acres)	Residential (units)	Retail (sf)	Office (sf)	Hotel Rooms	Civic (sf)	Parks/ Recreation (acres)
University District Specific Plan	2014	297	1,645	100,000				20
Stadium Area Master Plan	2008	30	338	140,000				0.5
Sonoma Mountain Village Planned Development	2010	175	1,694	191,801	425,978	100	35,000	27
Southeast Specific Plan	2010	80	475	10,000				
Wilfred Dowdell Village Specific Plan	2012	25		302,114				
Northeast Specific Plan	2008	275	1,114					17
Northwest Specific Plan	2014	100	398	458,700	218,200	100		1
Total		982	5,629	1,352,615	644,178	300	35,000	87

Note:

sf = square feet

Source: Data compiled by AECOM in 2015

2.5.1 Utility Projects and Transportation Projects

All utility, infrastructure, and transportation projects included in the PDA Plan were anticipated in the 2000 General Plan, with the exception of a few minor projects and the SMART rail transit line and station and the SMART MUP.

2.6 REFERENCES

City of Rohnert Park. 2002. *Rohnert Park City Center Concept Plan*. Adopted November 12, 2002, Resolution No. 2002-255. Planning Department, Rohnert Park, CA. Prepared by Moore Iacofano Goltsman, Inc., Berkeley, CA.

———. 2015 (May) (originally adopted 2000). *City of Rohnert Park General Plan: Our Place . . . Rohnert Park 2020, A Plan for the Future*. Adopted in July 2000; seventh edition printed May 2015, with amendments through April 8, 2014. Rohnert Park, CA. Prepared by Dyett & Bhatia Urban and Regional Planners.

Metropolitan Transportation Commission. 2007 (October 18). *Station Area Planning Manual*. Prepared by Reconnecting America, Center for Transit-Oriented Development.

MTC. *See* Metropolitan Transportation Commission.

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3.0 ENVIRONMENTAL SETTING AND IMPACTS

This chapter sets forth the physical and regulatory environmental setting and addresses the environmental impacts of the proposed plan with respect to nine environmental resource areas. The discussions of the environmental setting describe the present physical conditions, or the baseline conditions, in the area of the proposed plan. The baseline used for the analysis of environmental impacts under the California Environmental Quality Act (CEQA) reflects the conditions present at the time the EIR Notice of Preparation (NOP) was published.

The potential impacts of the proposed plan are compared against the existing baseline conditions for each environmental resource.

The proposed plan is analyzed from the viewpoint of the following 17 environmental resource areas.

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Transportation and Traffic
- Utilities and Service Systems
- Growth-Inducing Impacts

Indirect impacts are discussed for those resources only where they have the potential to occur (e.g., air quality, biological resources, cultural resources). In addition to plan-level impacts, cumulative impacts are also analyzed. Plan-level impacts are impacts that could result as a result of implementation of the proposed plan, and cumulative impacts are impacts that could result as a result of implementation of the proposed plan in combination with other cumulative projects. As discussed in Section 2.5, “Cumulative Projects,” build-out of the City’s 2000 General Plan is considered the cumulative scenario for analysis of cumulative impacts.

Impacts are analyzed and the respective conclusions are included in this Draft EIR, applying the following levels of significance:

- Significant and Unavoidable Impact
- Less-than-Significant-with-Mitigation-Incorporated Impact
- Less-than-Significant Impact
- No Impact

Impacts are defined in terms of context and intensity. Context is related to the uniqueness of a resource; intensity refers to the severity of the impact. Best management practices are incorporated into the plan to limit the potential for a significant impact. Where necessary, EIR mitigation measures are identified for significant impacts to limit the degree or magnitude of the impact; rectify the impact by repairing, rehabilitating, or restoring the affected environment; or compensate for the impact by replacing or providing substitute resources or environments. Such impacts are concluded to be Less than Significant with Mitigation Incorporated.

Based on initial environmental review, the City has determined that the proposed plan would not have the potential to cause significant impacts associated with nine of the 17 environmental resource areas identified above. See Chapter 5.0, “Effects Found Not To Be Significant,” for a brief discussion of each of those topics.

3.1 AIR QUALITY

This section describes the existing physical and regulatory setting related to air quality and discusses the potential impacts of the proposed plan on air quality.

3.1.1 Existing Conditions

The plan area is located in the city of Rohnert Park in southern Sonoma County, which is part of the San Francisco Bay Area Air Basin (SFBAAB). California's air basins have been created to group together regions that have similar factors that affect air quality. Ambient concentrations of air pollutants are determined by the amount of emissions released by pollutant sources and the atmosphere's ability to transport and dilute such emissions. Natural factors that affect transport, dilution, and generation of air pollutants include terrain, wind, atmospheric stability, and the presence of sunlight. Existing air quality conditions in the plan area are determined by such natural factors as topography, meteorology, and climate, in addition to the amount of emissions released by existing air pollutant sources.

The analysis in this section does not take into account the reduced trips that would result from operation of the Sonoma-Marín Area Rail Transit (SMART) rail line and increased bicycle and pedestrian connectivity within the plan area. The analysis also does not include other measures to reduce air quality that will be implemented as part of the *Sonoma County Community Climate Action Plan* (which includes the SMART rail line).

Topography, Meteorology, and Climate

The SFBAAB includes Alameda, Marin, Napa, San Francisco, San Mateo, and Santa Clara Counties, as well as the southern portion of Sonoma County (including Rohnert Park) and the southwestern portion of Solano County. The plan area is located in the northwestern portion of the SFBAAB.

Meteorological conditions in the SFBAAB are warm and mainly dry in summers, and mild and moderately wet in winters. Marine air has a moderating effect on the climate throughout much of the year. Winds from the west-southwest are most prevalent during spring and summer afternoons. These are the breezes that travel from the Pacific Ocean through gaps in the Coast Ranges. In addition, nighttime drainage flows typically develop. On clear nights with light winds, inversions develop in the coastal valleys, separating the surface wind flow from winds aloft. The drainage flow usually is light and stable.

Criteria Air Pollutant Emissions

The California Air Resources Board (ARB) and U.S. Environmental Protection Agency (EPA) focus on the following air pollutants as indicators of ambient air quality: ozone, carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), particulate matter (PM) with aerodynamic diameter less than 10 micrometers (PM₁₀), particulate matter with aerodynamic diameter less than 2.5 micrometers (PM_{2.5}), and lead. Because these are the most prevalent air pollutants known to be deleterious to human health, and because extensive health effects criteria documentation is available for these pollutants, they are commonly referred to as "criteria air pollutants." Health-based air quality standards have been established for these pollutants by ARB at the state level, and by EPA at the national level. These standards, which include a margin of safety, were established to protect the

public from adverse health impacts resulting from exposure to air pollution. California also has established standards for sulfates, visibility-reducing particles, hydrogen sulfide, and vinyl chloride. The California ambient air quality standards (CAAQS) and national ambient air quality standards (NAAQS) are shown in Table 3.1-1.

Existing Criteria Air Pollutant Emissions

Current existing air emission sources in the plan area include natural gas combustion from heating and hot water usage for homes and nonresidential buildings. Other sources of air emissions are tailpipe emissions and PM dust from automobiles, transit buses, and delivery trucks traveling on paved and unpaved roads, and from fuel-powered landscaping equipment. Solid waste produced by households and businesses in the plan area creates volatile organic compounds and other harmful trace emissions. Existing indirect air emission sources in the plan area include fossil fuel-based electricity use from the same locations listed above, in addition to electricity required for traffic lights and street lighting. Other indirect sources include the use of fossil fuels required to pump and treat drinking water and sewage from residential and nonresidential use. Indirect upstream air emissions include the embedded fossil fuel use from the production of food and other products consumed in the plan area.

Local Air Quality Conditions

To determine whether a region's air quality is healthful or unhealthful, contaminant levels in ambient air samples are compared to the CAAQS and NAAQS. Both ARB and EPA monitor ambient air concentrations at various regions throughout the SFBAAB to designate an area's attainment status with respect to the CAAQS and NAAQS, respectively, for criteria air pollutants. The purpose of these designations is to identify areas with air quality problems, and thereby initiate planning efforts for improvement. The three basic designation categories are "nonattainment," "attainment," and "unclassified." The "unclassified" designation is used in an area that cannot be classified based on available information as meeting or not meeting the standards. The most recent attainment designations with respect to the SFBAAB are shown in Table 3.1-1. With respect to the CAAQS, the SFBAAB is designated as a nonattainment area for ozone, PM₁₀, and PM_{2.5} and as an attainment or unclassified area for all other pollutants. With respect to the NAAQS, the SFBAAB is designated as a nonattainment area for the 8-hour ozone standard, nonattainment for the 24-hour PM_{2.5} standard, and as an attainment or unclassified area for all other pollutants (BAAQMD, 2015a).

Table 3.1-1: Ambient Air Quality Standards and SFBAAB Designations

Pollutant	Averaging Time	California ¹		National Standards ²	
		Concentration	Attainment Status	Concentration ³	Attainment Status
Ozone	1-Hour	0.09 ppm (180 µg/m ³)	N	–	See footnote #5
	8-Hour	0.07 ppm (137 µg/m ³)	N ⁹	0.075 ppm (147 µg/m ³)	N ⁴
Carbon Monoxide (CO)	1-Hour	20 ppm (23 mg/m ³)	A	35 ppm (40 mg/m ³)	A ⁶
	8-Hour	9 ppm (10 mg/m ³)	A	9 ppm (10 mg/m ³)	A
Nitrogen Dioxide (NO ₂)	Annual Arithmetic Mean	0.030 ppm (57 µg/m ³)	–	0.053 ppm (100 µg/m ³)	A
	1-Hour	0.18 ppm (339 µg/m ³)	A	0.100 ppm (188 µg/m ³) ¹¹	U
Sulfur Dioxide (SO ₂) ¹²	24-Hour	0.04 ppm (105 µg/m ³)	A	0.14 ppm (365 µg/m ³)	A
	1-Hour	0.25 ppm (655 µg/m ³)	A	0.075 ppm (196 µg/m ³)	A
	Annual Arithmetic Mean	–	–	0.030 ppm (80 µg/m ³)	A
Particulate Matter (PM ₁₀)	Annual Arithmetic Mean	20 µg/m ³	N ⁷	–	–
	24-Hour	50 µg/m ³	N	150 µg/m ³	U
Fine Particulate Matter (PM _{2.5})	Annual Arithmetic Mean	12 µg/m ³	N ⁷	12 µg/m ³	U/A
	24-Hour	–	–	35 µg/m ³ See footnote #10	N
Lead ¹³	30-day Average	1.5 µg/m ³	–	–	A
	Calendar Quarter	–	–	1.5 µg/m ³	A
	Rolling 3-Month Average ¹⁴	–	–	0.15 µg/m ³	See footnote #14
Sulfates	24-Hour	25 µg/m ³	A	No National Standards	
Hydrogen Sulfide	1-Hour	0.03 ppm (42 µg/m ³)	U		
Vinyl Chloride	24-Hour	0.01 ppm (26 µg/m ³)	No information available		
Visibility-Reducing Particle Matter	8-Hour (10:00 to 8:00 PST)	See footnote #8	U		

Notes:
µg/m³ = micrograms per cubic meter; A = Attainment; mg/m³ = milligrams per cubic meter; N = Nonattainment; ppb = parts per billion; ppm = parts per million; U = Unclassified

Table 3.1-1: Ambient Air Quality Standards and SFBAAB Designations

Pollutant	Averaging Time	California ¹		National Standards ²	
		Concentration	Attainment Status	Concentration ³	Attainment Status

- ¹ California standards for ozone, CO, sulfur dioxide (1-hour and 24-hour), nitrogen dioxide, suspended particulate matter—PM₁₀, and visibility-reducing particles are values that are not to be exceeded. The standards for sulfates, lead, hydrogen sulfide, and vinyl chloride are not to be equaled or exceeded. If the standard is for a 1-hour, 8-hour, or 24-hour average (i.e., all standards except for lead and the PM₁₀ annual standard), then some measurements may be excluded. In particular, measurements are excluded that the California Air Resources Board (ARB) determines would occur less than once per year on the average.
- ² National standards shown are the “primary standards” designed to protect public health. National standards other than for ozone, particulates, and those based on annual averages are not to be exceeded more than once a year. The 1-hour ozone standard is attained if, during the most recent 3-year period, the average number of days per year with maximum hourly concentrations above the standard is equal to or less than 1. The 8-hour ozone standard is attained when the 3-year average of the 4th highest daily concentrations is 0.075 ppm (75 ppb) or less. The 24-hour PM₁₀ standard is attained when the 3-year average of the 99th percentile of monitored concentrations is less than 150 µg/m³. The 24-hour PM_{2.5} standard is attained when the 3-year average of 98th percentiles is less than 35 µg/m³.
Except for the national particulate standards, annual standards are met if the annual average falls below the standard at every site. The national annual particulate standard for PM₁₀ is met if the 3-year average falls below the standard at every site. The annual PM_{2.5} standard is met if the 3-year average of annual averages spatially-averaged across officially designed clusters of sites falls below the standard.
- ³ National air quality standards are set by the U.S. Environmental Protection Agency (EPA) at levels determined to be protective of public health with an adequate margin of safety.
- ⁴ Final designations effective July 20, 2012.
- ⁵ The national 1-hour ozone standard was revoked by EPA on June 15, 2005.
- ⁶ In April 1998, the Bay Area was redesignated to attainment for the national 8-hour CO standard.
- ⁷ In June 2002, ARB established new annual standards for PM_{2.5} and PM₁₀.
- ⁸ Statewide Visibility Reducing Particulate Standard: Particles in sufficient amount to produce an extinction coefficient of 0.23 per kilometer when the relative humidity is less than 70 percent. This standard is intended to limit the frequency and severity of visibility impairment due to regional haze and is equivalent to a 10-mile nominal visual range.
- ⁹ The 8-hour California ozone standard was approved by ARB on April 28, 2005, and became effective on May 17, 2006.
- ¹⁰ On January 9, 2013, EPA issued a final rule to determine that the Bay Area attains the 24-hour PM_{2.5} national standard. This EPA rule suspends key State Implementation Plan requirements as long as monitoring data continue to show that the Bay Area attains the standard. Despite this EPA action, the Bay Area will continue to be designated as “nonattainment” for the national 24-hour PM_{2.5} standard until the air district submits a “redesignation request” and a “maintenance plan” to EPA, and EPA approves the proposed redesignation.
- ¹¹ To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 0.100 ppm (effective January 22, 2010).
- ¹² On June 2, 2010, EPA established a new 1-hour SO₂ standard, effective August 23, 2010, which is based on the 3-year average of the annual 99th percentile of 1-hour daily maximum concentrations. The existing 0.030 ppm annual and 0.14 ppm 24-hour SO₂ NAAQS however must continue to be used until 1 year following EPA initial designations of the new 1-hour SO₂ NAAQS. EPA expects to designate areas by July 2016.
- ¹³ ARB has identified lead and vinyl chloride as toxic air contaminants with no threshold level of exposure below which there are no adverse health effects determined.
- ¹⁴ National lead standard, rolling 3-month average: final rule signed October 15, 2008. Final designations effective December 31, 2011.

Source: BAAQMD, 2015a

Toxic Air Contaminants

Some air pollutants are identified as toxic air contaminants (TACs) because of their potential to increase the risk of developing cancer or because of their acute or chronic health risks. Individual TACs vary greatly in the health risk they present. For TACs that cause cancer, a unit risk factor can be developed to evaluate cancer risk. For noncancer health risks, a similar factor called a Hazard Index (HI) is used to evaluate risk. An HI of less than 1 indicates that no adverse health effects are expected because of exposure, and an HI greater than 1 indicates that adverse health effects are possible (OEHHA, 2015).

Sensitive receptors may be in close proximity to permitted or nonpermitted sources of TAC emissions associated with implementation of the proposed plan. Potential mobile sources of TAC emissions include U.S. Highway 101 (U.S. 101), which forms the western boundary of the plan area. Table 3.1-4 (presented below under Impact 3.1d in Section 3.1.3, “Impact Discussion”) lists the existing TAC emission sources in and within 1,000 feet of the plan area. Elementary schools and public parks also are less than 1,000 feet from the southern and eastern boundaries of the plan area, and a medical facility and a daycare center are located within the plan area boundary. Thus, sensitive receptors could be exposed to diesel PM emissions generated from construction activities associated with the proposed plan. These sources are evaluated in further detail in the impact analysis, using methods and tools provided by the Bay Area Air Quality Management District (BAAQMD), the agency with jurisdiction over the plan area.

Existing Toxic Air Contaminant Emissions

Several existing sources of TACs are located within the plan area such as permitted sources (i.e., generators), gasoline-dispensing facilities, and auto body shops. Diesel generators have the potential to emit diesel particulate, and auto body shops and gas stations attract idling vehicles emitting the smog-forming pollutants reactive organic gases (ROG) and oxides of nitrogen (NO_x), which are considered hazardous to human health and pose a cancer risk.

3.1.2 Regulatory Framework

Federal Clean Air Act

The federal Clean Air Act (CAA) establishes the framework for modern air pollution control. The CAA directs EPA to establish ambient air standards for six pollutants: ozone, CO, lead, NO₂, PM, and SO₂. The standards are divided into primary and secondary standards; the former are set to protect human health within an adequate margin of safety and the latter to protect environmental values, such as plant and animal life. EPA develops rules and regulations to preserve and improve air quality, and delegates specific responsibilities to State and local agencies.

The CAA requires each state to submit a state implementation plan for areas in nonattainment for federal standards. The plan, which is reviewed and approved by EPA, must demonstrate how the federal standards will be achieved.

California Clean Air Act

The California Clean Air Act of 1988 (CCAA) added substantially to the authority and responsibilities of air districts. The CCAA designates air districts as lead air quality planning agencies, requires air districts to prepare air quality plans, and grants air districts authority to implement transportation control measures. The CCAA focuses on attainment of the CAAQS, which are generally more stringent than the comparable NAAQS.

The CCAA requires designation of attainment and nonattainment areas with respect to CAAQS. The CCAA also requires that any local or regional air district that violates CAAQS for CO, SO₂, NO₂, or ozone expeditiously adopt and prepare an air quality attainment plan. These clean air plans are designed specifically to attain these

standards, and must be designed to achieve an annual 5 percent reduction in districtwide emissions of each nonattainment pollutant or its precursors. Where an air district is unable to achieve a 5 percent annual reduction, the adoption of “all feasible measures” on an expeditious schedule is acceptable as an alternative strategy (Health and Safety Code Section 40914[b][2]). No locally prepared attainment plans are required for areas that violate the state’s PM₁₀ standards.

The CCAA requires that the CAAQS be met as expeditiously as practicable. Unlike the federal CAA, however, the CCAA does not set precise attainment deadlines. Instead, the act establishes increasingly stringent requirements for areas that require more time to achieve the standards.

Bay Area Air Quality Management District CEQA Guidelines

BAAQMD is responsible for maintaining acceptable air quality conditions in the SFBAAB. BAAQMD implements a comprehensive program of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues to control and minimize the generation of criteria pollutants, TACs, odors, and greenhouse gas (GHG) emissions. BAAQMD’s clean-air strategy includes preparation of plans for the attainment of ambient air quality standards, adoption and enforcement of rules and regulations regarding sources of air pollution, and issuance of permits for stationary sources of air pollution. BAAQMD also inspects stationary sources of air pollution and responds to citizen complaints, monitors ambient air quality and meteorological conditions, and implements programs and regulations required by the CAA, CAA Amendments, and the CCAA.

The BAAQMD California Environmental Quality Act (CEQA) Guidelines is an advisory document that assists lead agencies and other participants in navigating the CEQA process and evaluating air quality impacts of projects and plans proposed in the SFBAAB (BAAQMD, 2011). In May 2010, BAAQMD updated its 1999 CEQA Guidelines with the 2010 CEQA Guidelines, which include new and more stringent quantitative thresholds for operational and construction-related emissions of criteria air pollutants and precursors, TACs, odors, and GHGs (BAAQMD, 2011).

In March 2012, the Alameda County Superior Court issued a judgment finding that the changes to the BAAQMD CEQA Guidelines qualify as a project under CEQA, and that BAAQMD had not complied with CEQA as part of the adoption process. On August 13, 2013, California’s First District Court of Appeal held that BAAQMD’s adoption of the thresholds was not a project subject to CEQA review, and overturned the decision by the Alameda Superior Court that invalidated the BAAQMD guidelines for assessing air quality impacts under CEQA. However, the Court of Appeal’s decision was then appealed to the California Supreme Court, which granted limited review, and the matter is currently pending (BAAQMD, 2015b). The City of Rohnert Park, as the lead agency for the proposed plan, has decided to use the 2010 CEQA Guidelines and its thresholds; therefore, those thresholds have been used in the impact analysis and discussion below.

BAAQMD adopted the *Bay Area 2010 Clean Air Plan* (BA 2010 CAP), in cooperation with the Metropolitan Transportation Commission and the Association of Bay Area Governments, to set forth a plan to achieve compliance with the state’s 1-hour air quality standard for ozone as expeditiously as practicable. A clean air plan is a comprehensive strategy to reduce air pollution from both stationary sources, such as factories and refineries, and mobile sources, such as cars, trucks, and construction equipment. The goal of a clean air plan is to reduce air pollution to attain air quality standards and protect public health. The plan outlines strategies to reduce ozone

precursors, as well as PM, TACs, and GHG emissions, to improve public health and protect the environment and climate.

3.1.3 Impact Discussion

The construction-related and operational plan-level impacts on air quality are analyzed separately in the impact discussions below, as appropriate.

3.1a. Conflict with or obstruct implementation of the applicable air quality plan? Less-than-Significant Impact with Mitigation Incorporated.

The most current regional air quality plan (AQP) is the BA 2010 CAP, which was developed as a multipollutant plan for ozone, PM, TACs, and GHG emissions. Projects that would be consistent with the applicable general plan or emit pollutants at levels less than the applicable thresholds of significance would be anticipated to be accounted for in the emissions projections of the BA 2010 CAP, and therefore would not conflict with or obstruct implementation of the regional AQP. Projects that would be consistent with the principles, strategies, and/or measures of the specific regional AQP also would be considered to be consistent with the AQP (BAAQMD, 2010).

The BAAQMD CEQA Guidelines specify that for a plan-level analysis, area plans such as the proposed plan establish consistency with the BA 2010 CAP. In addition to a threshold comparison, the guidelines ask three key questions for any area plan under review:

1. Does the plan support the primary goals of the BA 2010 CAP?
2. Does the plan include applicable control measures from the BA 2010 CAP?
3. Does the plan disrupt or hinder implementation of any BA 2010 CAP control measures?

In accordance with Policy L-8.4 in Chapter 4, “Land Use,” of the proposed plan, projects in the plan area would be evaluated against BAAQMD’s thresholds of significance and would comply with applicable control measures from BA 2010 CAP before obtaining building permits. With implementation of Policy L-8.4, the proposed plan would be consistent with the BA 2010 CAP. Besides consistency with the BA 2010 CAP, the other prescribed method to evaluate operational impacts is to determine whether the plan’s operational emissions are below the thresholds set by BAAQMD, even if project-level thresholds must be used in the absence of plan-level thresholds.

Construction

The air quality assessment for the proposed plan is a plan-level analysis. The BAAQMD CEQA Guidelines (2012) do not provide construction thresholds of significance for plan-level impacts. Although construction-related thresholds of significance do not exist for plan-level impacts, construction emissions were modeled as a worst-case scenario assuming the most aggressive construction scenario. For example, the Station Center subarea was assumed to be developed over a 15-year period, and such development would occur simultaneously with construction of the remaining land uses that would be developed over a 25-year period.

Construction emissions associated with construction of the plan were modeled using the California Emissions Estimator Model (CalEEMod) Version 2013.2.2 (CAPCOA, 2013). Because this is a proposed plan and not a proposed project, the exact nature of the project-related construction in the plan area could not be determined at the time of this analysis. Thus, construction parameters were obtained using default construction parameters contained in CalEEMod. Using default assumptions typically results in conservative emissions estimates to avoid underestimating emissions when site-specific information is unknown. In addition, to avoid underestimating construction emissions pursuant to guidance from BAAQMD, conservative assumptions were made for construction activities such as overlapping subphases and starting construction activities at the earliest possible year. See Appendix A for detailed modeling assumptions and outputs.

As shown in Table 3.1-2, the proposed plan's daily average construction emissions would exceed BAAQMD's project-level threshold of significance for NO_x. Although construction activities and emissions would be short-term and temporary, emissions could still represent a substantial contribution to regional air quality. Project-level thresholds of significance are developed as limits on allowable emissions that each project can generate without interfering with the region's ability to maintain and attain air quality standards. Projects that generate emissions exceeding applicable thresholds would be considered to generate emissions at a level that could conflict with or obstruct implementation of the applicable AQP. Thus, because the proposed plan's construction-related NO_x emissions would exceed the BAAQMD thresholds of significance and because the region is nonattainment with respect to both state and national ozone standards (NO_x is an ozone precursor), the proposed plan's construction-related emissions have the potential to conflict with or obstruct implementation of the applicable AQP.

Table 3.1-2: Construction Criteria Air Pollutant Emissions Associated with the Proposed Plan

Pollutant	ROG	NO_x	Exhaust PM₁₀	Exhaust PM_{2.5}
Station Center (tons)	28.64	85.33	3.46	3.32
Remaining Land Uses (tons)	64.51	219.09	6.21	5.78
Total Construction Emissions (tons)	93.14	304.41	9.67	9.10
Average Daily Emissions (lbs/day) ¹	28.66	93.67	2.98	2.80
BAAQMD Project-Level Thresholds (lb/day)	54	54	82	82
Exceeds Project-Level Threshold?	No	Yes	No	No

Notes: ROG = reactive organic gases; NO_x = oxides of nitrogen; PM₁₀ = particulate matter with aerodynamic diameter less than 10 microns; PM_{2.5} = particulate matter with aerodynamic diameter less than 2.5 microns; BAAQMD = Bay Area Air Quality Management District; lb/day = pounds per day

¹ Total construction emissions are averaged over the total 25-year build-out period.

Source: compiled by AECOM in 2015

As noted previously, detailed information for construction activities at the plan level are currently unavailable, so conservative assumptions were used to avoid underestimating potential emissions. As a conservative conclusion, this construction-related impact would be *potentially significant*.

Mitigation Measures

Mitigation Measure 3.1-1: Implement BAAQMD Basic Construction Control Measures

BAAQMD recommends that all projects, regardless of significance, implement the Basic Construction Control Measures during construction. Implementing the following measures would effectively minimize and control fugitive dust emissions from the proposed construction-related activities. All building or grading permits issued for projects within the plan area shall include the following Basic Construction Control Measures (BAAQMD, 2011) as a condition of the permit. All contractors selected to construct any component of the project shall implement the following measures:

- *All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.*
- *All haul trucks transporting soil, sand, or other loose material off-site shall be covered.*
- *All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power-vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.*
- *All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.*
- *Idling times shall be minimized either by shutting equipment off when not in use or by reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure, Title 13, Section 2485 of the California Code of Regulations). Clear signage shall be provided for construction workers at all access points.*
- *All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.*
- *A publicly visible sign shall be posted at the soil transfer site within BAAQMD, with the telephone number and person at the City of Rohnert Park to contact regarding dust complaints. This person shall respond and take corrective action within 48 hours. BAAQMD's phone number also shall be visible, to ensure compliance with applicable regulations.*

Mitigation Measure 3.1-2: Assess Criteria Pollutant Emissions Associated with Site-Specific Construction and Alter Project Details and/or Construction Equipment as Needed

As part of subsequent project-level CEQA analysis, the project applicant shall complete an evaluation of construction air pollutant emissions from individual projects in the plan area. The air pollutant emissions shall be compared to BAAQMD's thresholds of significance for project-level construction impacts to determine potential impacts. If potentially significant project-level construction-related impacts are found (i.e., construction-related emissions would exceed applicable thresholds of significance), additional mitigation measures (beyond those required for all projects by Mitigation Measure 3.1-1) shall be developed and implemented to reduce potential impacts to a less-than-significant level. Mitigation measures could include, but are not limited to the measures listed in Mitigation Measures 3.1-3, 3.1-4, and 3.1-5.

Mitigation Measure 3.1-3: Implement Applicable Site-Specific BAAQMD Additional Construction Control Measures for Exhaust-Related Emissions

BAAQMD has developed Additional Construction Mitigation Measures for those projects that will be located near sensitive receptors. Because the plan's construction-related pollutant of most concern is NO_x, the following measures from BAAQMD's Additional Construction Measures with an emphasis on exhaust-related measures shall be implemented during construction if project-level impacts are found to be significant to reduce emissions to a less-than-significant level. Example additional measures that would help reduce exhaust-related NO_x emissions are listed below; however, projects are not limited or confined to the following measures to reduce exhaust-related construction emissions.

- *The idling time of diesel-powered construction equipment shall be minimized to 2 minutes.*
- *Low-volatile organic compound (i.e., ROG) coatings shall be used, beyond local requirements (i.e., Regulation 8, Rule 3: Architectural Coatings).*
- *All contractors shall be required to use equipment that meets ARB's most recent certification standard for off-road heavy duty diesel engines.*
- *All contractors shall be required to use a selected percentage of higher tier equipment (e.g., Tier 4) or equipment that through retrofits or repowering meet the exhaust emission standards of higher tier emission standards in order to reduce construction impacts to a less-than-significant level.*
- *All contractors shall evaluate the feasibility of using alternatively fueled vehicles and equipment during construction activities. Alternatively fueled vehicles and equipment shall be used to the highest extent feasible and to reduce construction emissions to a less-than-significant level.*

Mitigation Measure 3.1-4: Implement Applicable Site-Specific BAAQMD Additional Construction Control Measures for Fugitive Dust Emissions

BAAQMD has developed Additional Construction Mitigation Measures for those projects that will include extensive earth-moving activities or will be located near sensitive receptors. Because the plan would consist of infill development with potential sensitive receptors nearby, the following example fugitive dust-related measures shall be considered to minimize exposure to nearby receptors, as applicable, if project-level impacts are found to be significant. However, projects are not limited or confined to the following measures to reduce fugitive dust-related emissions. .

- *All exposed surfaces shall be watered at a frequency adequate to maintain minimum soil moisture of 12 percent. Moisture content can be verified by lab samples or moisture probe.*
- *All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 miles per hour.*
- *Wind breaks (e.g., trees, fences) shall be installed on the windward side(s) of actively disturbed areas of construction. Wind breaks shall have at maximum 50 percent air porosity.*
- *Vegetative ground cover (e.g., fast-germinating native grass seed) shall be planted in disturbed areas as soon as possible and shall be watered appropriately until vegetation is established.*
- *The simultaneous occurrence of excavation, grading, and ground-disturbing construction activities*

on the same area at any one time shall be limited. Activities shall be phased to reduce the amount of disturbed surfaces at any one time.

- *All trucks and equipment, including their tires, shall be washed off before leaving the site.*
- *Site accesses to a distance of 100 feet from the paved road shall be treated with a 6- to 12-inch compacted layer of wood chips, mulch, or gravel.*
- *Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than 1 percent.*

Mitigation Measure 3.1-5: Use BAAQMD Carl Moyer Program (CMP) to Offset Project-Specific Regional Emissions

*If any project-level air pollutant emissions (i.e., construction or operational) exceed the BAAQMD 2010 thresholds after implementation of applicable mitigation measures, the project applicant shall use BAAQMD's CMP to offset the remaining project-level air pollutant emissions that exceed the BAAQMD 2010 thresholds. The project applicant shall provide funding for emission reduction projects in an amount up to \$16,640 per ton of criteria air pollutants ($NO_x + ROG + [20*PM]$), which is the current cost-effectiveness limit for emission reduction projects set by the Air Resources Board for the CMP. The range of costs could be anywhere from approximately \$5,000 per weighted ton to the upper limit of \$16,640 per weighted ton. An administrative fee of 5 percent shall be paid by the project applicant to BAAQMD to implement the program. The funding will be used for a combination of the following types of projects:*

- *projects eligible for funding under the CMP guidelines that are real, surplus, quantifiable, and enforceable; and*
- *projects to replace older, high-emitting construction equipment operating in the Bay Area with newer, cleaner, retrofitted, or more efficient equipment.*

Significance After Mitigation

Before incorporation of mitigation, the proposed plan's construction-related NO_x emissions would exceed BAAQMD maximum annual and daily average project-level thresholds. The exhaust-related mitigation measures from Mitigation Measures 3.1-1 through 3.1-4 have the potential to reduce emissions to less than significant. However, in case implementing Mitigation Measures 3.1-1 through 3.1-4 is insufficient to reduce construction-related emissions to a less-than-significant level, implementing Mitigation Measure 3.1-5 would ensure that all emissions above BAAQMD thresholds of significance are reduced to a less-than-significant level through BAAQMD's CMP offset program. With construction-related emissions mitigated to below the BAAQMD CEQA thresholds of significance, the proposed plan would not conflict with or obstruct implementation of the BA 2010 CAP, and therefore represents a *less-than-significant* impact.

Operation

Although the proposed plan is not specifically cited in the *City of Rohnert Park General Plan 2020* (General Plan), the land use designations in the proposed plan are consistent with the General Plan's land use designations.

The plan will result in some increases in development density and intensity from the existing General Plan designations. The BAAQMD CEQA Guidelines state that to meet the threshold of significance for operational criteria air pollutant and precursor impacts for plans, a proposed plan must satisfy the following criteria:

- The plan is consistent with current AQP control measures (this requirement applies to project-level as well as plan-level analyses).
- A proposed plan's increase in projected vehicle miles traveled or vehicle trips (either measure may be used) is less than or equal to its projected population increase.

As stated under Impact 3.1a and addressed by Policy L-8.4 in the proposed plan, to achieve consistency with the BA 2010 CAP, the proposed plan would include applicable BA 2010 CAP control measures and ensure that individual projects in the plan area would not disrupt or hinder implementation of the BA 2010 CAP. The associated traffic impact study revealed that future development permitted under the proposed land uses contained in the plan area would be expected to result in total of 27,777 added trips per day. The projected population increase is estimated at 1,670 people. The trip increase is an order of magnitude greater than the population increase, which indicates that operational impacts would be *potentially significant*.

In addition to the plan-level analysis criteria described above, the proposed plan's long-term operational emissions were modeled using CalEEMod. Trip generation rates for the proposed land uses were obtained from the traffic study; trip parameters specific to Sonoma County in the SFBAAB were used to model mobile-source emissions. As shown in Table 3.1-3, the proposed plan's long-term daily and annual operational emissions would exceed the BAAQMD thresholds of significance. It should be noted that the BAAQMD operational thresholds of significance were developed to evaluate project-level impacts rather than an entire plan, such as the proposed plan. Therefore, the proposed plan's operational emissions would be anticipated to conflict with or obstruct implementation of the applicable air quality plan. This operational impact would be *potentially significant*.

Table 3.1-3: Operational Criteria Air Pollutant Emissions Associated with the Proposed Plan

Pollutant/Category	ROG	NO _x	PM ₁₀	PM _{2.5}
Area (tpy)	35.44	0.08	0.17	0.17
Energy (tpy)	0.11	0.97	0.08	0.08
Mobile (tpy)	8.78	13.32	0.30	0.28
Plan-Level Emissions Total (tpy)	44.33	14.37	0.55	0.53
BAAQMD Project-Level Maximum Annual Thresholds (tpy)	10	10	15	10
Exceeds Project-Level Maximum Annual Threshold?	Yes	Yes	No	No
Plan-Level Emissions Total (lb/day)	242.92	78.74	3.01	2.88
BAAQMD Project-Level Thresholds (lb/day)	54	54	82	54
Exceeds Project-Level Daily Average Threshold?	Yes	Yes	No	No

Notes: BAAQMD = Bay Area Air Quality Management District; lb/day = pounds per day; NO_x = oxides of nitrogen; PM₁₀ = particulate matter with aerodynamic diameter less than 10 microns; PM_{2.5} = particulate matter with aerodynamic diameter less than 2.5 microns; ROG = reactive organic gases; tpy = tons per year

Source: Compiled by AECOM in 2015 (see Appendix A)

Mitigation Measures

Mitigation Measure 3.1-5, “Use BAAQMD Carl Moyer Program (CMP) to Offset Project-Specific Regional Emissions” (see full Mitigation Measure 3.1-5 text above)

Mitigation Measure 3.1-6: Assess Criteria Pollutant Emissions Associated with Site-Specific Operations and Implement BAAQMD Operational Emissions Mitigation Measures

As part of project-level CEQA analysis the operational impact from projects in the plan area shall be assessed by the project applicant in accordance with the State CEQA Guidelines Appendix G Checklist and compared to BAAQMD’s thresholds of significance for project-level impacts. Project-specific mitigation measures for the proposed plan shall be implemented, based on the BAAQMD Mitigation Measures for Operational Emissions found in Appendix A, if necessary to reduce impacts to below a level of significance.

Significance After Mitigation

Before incorporation of mitigation, the proposed plan’s operational ROG and NO_x emissions would exceed BAAQMD’s maximum annual and daily average project-level thresholds. However, with implementation of Mitigation Measure 3.1-6 and Policy L-8.4 of the proposed plan, individual project-level operational impacts would be assessed and project-specific mitigation measures implemented to reduce operational ROG and NO_x emissions, which would help reduce operational emissions. However, in case project design features and additional mitigation measures do not reduce operational emissions to a less-than-significant level, Mitigation Measure 3.1-5 would be implemented to use the CMP to offset the proposed plan’s regional emissions to ensure that all emissions above BAAQMD thresholds are mitigated to a less-than-significant level. With operational emissions mitigated to below the BAAQMD CEQA thresholds of significance, the proposed plan would not conflict with or obstruct implementation of the BA 2010 CAP, and therefore represents a *less-than-significant* impact.

3.1b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation? Less-than-Significant Impact with Mitigation Incorporated.

Construction

Construction under the proposed plan would result in short-term, temporary emissions of criteria air pollutants from various emission sources. Exhaust- and fugitive dust–related emissions would be generated at varying levels depending on the type of construction activities for a particular day. Fugitive PM dust emissions are among the pollutants of greatest concern with respect to construction activities. These emissions from construction activities can lead to adverse health effects and nuisance concerns, such as reduced visibility and soiling of exposed surfaces. Cut-and-fill operations, along with general site grading operations, are the primary sources of fugitive PM dust emissions from construction activities. Movement of vehicles on unpaved roads also can generate fugitive PM dust emissions by kicking up ground PM dust into the atmosphere. Construction emissions of fugitive PM dust can vary greatly, depending on the level of activity, the specific operations taking place, the number and

types of equipment operated, vehicle speeds, local soil conditions, weather conditions, and the amount of earth disturbance (e.g., site grading, excavation, cut and fill).

Emissions of the ozone precursors ROG and NO_x are generated primarily from mobile sources (i.e., delivery vehicles, construction worker vehicles) and off-road construction equipment. Generation of these emissions varies as a function of vehicle trips per day for delivery of construction materials, importing and exporting of soil, vendor trips, and worker commute trips; and by the types and number of heavy-duty, off-road equipment used, and the intensity and frequency of their operation.

Construction-related details of the proposed plan have not yet been determined at the time of this analysis; therefore, a worst-case construction scenario was modeled to determine the plan's construction impacts. The average daily construction emissions associated with the proposed plan are shown in Table 3.1-2.

As shown in Table 3.1-2, the proposed plan's construction-related NO_x emissions would exceed the BAAQMD 2010 threshold of significance. Projects that generate air pollutant emissions exceeding applicable thresholds of significance are considered to cause a substantial contribution to regional air quality. Therefore, construction emissions would be *potentially significant*.

Mitigation Measures

Mitigation Measure 3.1-1, “Implement BAAQMD Basic Construction Control Measures” (see full Mitigation Measure 3.1-1 text above)

Mitigation Measure 3.1-2, “Assess Criteria Pollutant Emissions Associated with Site-Specific Construction and Alter Project Details and/or Construction Equipment as Needed” (see full Mitigation Measure 3.1-2 text above)

Mitigation Measure 3.1-3, “Implement Applicable Site-Specific BAAQMD Additional Construction Control Measures for Exhaust-Related Emissions” (see full Mitigation Measure 3.1-3 text above)

Mitigation Measure 3.1-4, “Implement Applicable Site-Specific BAAQMD Additional Construction Control Measures for Fugitive Dust Emissions” (see full Mitigation Measure 3.1-4 text above)

Mitigation Measure 3.1-5, “Use BAAQMD Carl Moyer Program (CMP) to Offset Project-Specific Regional Emissions” (see full Mitigation Measure 3.1-5 text above)

Significance After Mitigation

Implementation of Mitigation Measure 3.1-1 would fulfill the minimum requirements of BAAQMD and would be required for all projects regardless of significance.

Because the schedule and phasing of construction activities in the plan area are unknown at this time, implementing Mitigation Measure 3.1-2 would provide a more reasonable determination of construction impacts because individual projects in the plan area subject to CEQA analysis would be assessed (i.e., project-level analysis) with respect to BAAQMD thresholds of significance. This project-level analysis for individual projects

before construction would provide more accurate construction build-out information than an evaluation of the total plan as shown in Table 3.1-2. If potentially significant project-level construction-related impacts are determined, additional mitigation measures (i.e., Mitigation Measures 3.1-3, 3.1-4, and 3.1-5) would be implemented to reduce impacts to a less-than-significant level. Implementation of Mitigation Measure 3.1-3 would reduce construction-related NO_x emissions by restricting idling of construction equipment, using higher-tier equipment, and requiring off-road heavy-duty diesel engines to meet ARB's most recent certification standards, among other potential measures. Similarly, Mitigation Measure 3.1-4 would be implemented to achieve additional on-site emission fugitive dust reductions if the proposed component would include extensive earthmoving activities near sensitive receptors. If all on-site mitigation measures (i.e., Mitigation Measures 3.1-1, 3.1-3, and 3.1-4) cannot reduce emissions to a less-than-significant level, Mitigation Measure 3.1-5 would be implemented to achieve off-site reductions that offset the project's emissions to a less-than-significant level.

Before incorporation of mitigation, the construction-related emissions of NO_x associated with the proposed plan would exceed BAAQMD daily average project-level thresholds. However, with Mitigation Measures 3.1-1 through 3.1-5, assessing individual projects' construction impacts on a project level and implementing mitigation measures (as necessary) would reduce construction-related emissions below BAAQMD's CEQA thresholds of significance. With construction-related emissions mitigated to below BAAQMD CEQA thresholds, the proposed plan would not violate any air quality standard or contribute substantially to an existing or projected air quality violation, and therefore would represent a *less-than-significant* impact.

Operations

After construction under the proposed plan, day-to-day operations would generate long-term emissions. Operational emissions for land use development projects are typically distinguished as mobile-, energy-, and area-source emissions. Mobile-source emissions are those from vehicles arriving at and leaving a project site, which include resident, customer, employee, and delivery vehicles. Area-source emissions are those associated with consumer products, periodic architectural coatings, and landscape maintenance activities. Energy-use emissions are associated with buildings' electricity and natural gas usage (non-hearth).

CalEEMod also can model operational emissions (i.e., from mobile, energy, and area sources) based on user-defined or default parameters. The proposed plan's operational emissions were modeled using trip generation rates from the traffic impact study, and land use types and amounts provided by the City.

As shown in Table 3.1-3, the proposed plan's daily and annual operational emissions would exceed the BAAQMD 2010 project-level thresholds of significance for ROG and NO_x. Both ROG and NO_x are ozone precursors, and the plan area is located in a nonattainment area for both the state and national ozone standards. Therefore, the proposed plan's operational emissions could contribute substantially to an existing or projected air quality violation, and the proposed plan's impact would be *potentially significant*.

Mitigation Measures

Mitigation Measure 3.1-5, "Use BAAQMD Carl Moyer Program (CMP) to Offset Project-Specific Regional Emissions" (see full Mitigation Measure 3.1-5 text above)

Mitigation Measure 3.1-6, “Assess Criteria Pollutant Emissions Associated with Site-Specific Operations and Implement BAAQMD Operational Emissions Mitigation Measures” (see full Mitigation Measure 3.1-6 text above)

Significance After Mitigation

The plan area’s operational emissions would be in exceedance of BAAQMD’s ROG and NO_x maximum annual and daily average project-level thresholds. However, per Mitigation Measure 3.1-6, assessment of individual project operational impacts and implementation of project-specific mitigation measures to reduce operational ROG and NO_x emissions would likely reduce operational emissions below the BAAQMD thresholds of significance. If project-level operational emissions are still above BAAQMD thresholds, implementation of Mitigation Measure 3.1-5 would offset the proposed plan’s regional emissions and reduce impacts to less than significant through the CMP. With operational emissions mitigated to below the BAAQMD CEQA thresholds of significance, the proposed plan would not violate any air quality standard or contribute substantially to an existing or projected air quality violation, and therefore would represent a *less-than-significant* impact.

3.1c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)? Less-than-Significant Impact with Mitigation Incorporated.

See Section 3.1.4, “Cumulative Impacts,” below for a description of the proposed plan’s cumulative impacts.

3.1d. Expose sensitive receptors to substantial pollutant concentrations? Less-than-Significant Impact with Mitigation Incorporated.

In addition to contributing to regional air pollutant emissions, the proposed plan’s construction-related and operational activities would generate emissions of air pollutants and TACs on a local level, which could potentially expose sensitive receptors. Furthermore, the proposed plan would include sensitive receptors (i.e., residential dwelling units) in the plan area, which is approximately 100 feet from U.S. 101 to the east, and major intersections such as Rohnert Park Expressway (RPX) and Commerce Boulevard, which run directly through the plan area. Localized air pollutants and TACs from U.S. 101 and major vehicle intersections could also affect the proposed sensitive receptors. As discussed previously, there are also several existing sources of TACs. This impact analysis evaluates the proposed plan’s potential construction-related and operational impacts on localized sensitive receptors, and the impact of existing sources on the proposed plan’s sensitive receptors.

Construction Emissions of Toxic Air Contaminants

The use of off-road diesel equipment, required for construction under the proposed plan, would result in the generation of diesel PM emissions. ARB has classified diesel PM as a TAC; therefore, even short-term exposure could have health impacts. Using a worst-case scenario, construction emissions would occur during the approximate 20-year build-out period, in which all proposed land uses are assumed to be developed simultaneously. Diesel PM emissions would vary depending on the types of construction activities occurring each day. Therefore, during site preparation and grading, which would require large mechanical forces such as large

diesel equipment, diesel PM emissions are expected to be greater than emissions during building construction and architectural coatings, which would require more manual labor. After completion of the proposed plan, all construction activities and associated diesel PM emissions would cease.

The dose to which receptors are exposed is the primary factor used to determine health risk, and is a function of concentration and duration of exposure. According to the State Office of Environmental Health Hazard Assessment, health risk assessments that determine the health risks caused by exposure of residential receptors to TAC emissions should be based on a 30-year exposure period, and health risk assessments that address the health risk associated with exposure of children to TAC emissions should be based on a 9-year exposure period (OEHHA, 2015). Children's exposure to TACs is of special concern because children typically metabolize more air per unit of body weight than adults, and they can be more sensitive to toxics during development. However, health risk assessments should be limited to the period/duration of activities associated with the emissions activity.

A likely construction scenario is the phased construction under the proposed plan over a 20-year build-out period. Although existing residential receptors are located within the plan area, on-site construction emissions would not remain in one location throughout the 20-year period. Rather, construction activities and subsequent diesel PM emissions would move across the plan area. In addition, because of the infill nature of the project, it is not anticipated that most construction activities would require large TAC-generating activities such as cut/fill operations or mass site grading, as is typically required for greenfield development. Therefore, nearby receptors would be exposed to varying levels of TACs throughout the construction schedule. During some phases, construction activities would be located more than 1,000 feet away from the nearest sensitive receptors while some phases may occur within 1,000 feet of existing receptors, but for a limited amount of time. Considering the information above and because exposure would be intermittent, relatively short term, and temporary, it is not anticipated that the proposed plan would expose sensitive receptors to significant levels of diesel PM emissions. For general and area plans to have a less-than-significant impact with respect to TACs for siting new sources and receptors, special overlay zones need to be established around existing and proposed land uses that emit TACs. Because the nature, intensity, size, duration, and locations of the plan area's construction activities with respect to sensitive receptors are currently unknown, performing a health risk analysis would be speculative at this time.

In combination with the dispersive properties of diesel PM (Zhu et al., 2008), and because construction activity would move around the plan area and expose any single sensitive receptor to a fraction of the total construction emissions, short-term construction activities would not result in the exposure of sensitive receptors to levels that would result in a health hazard or exceed applicable standards. In addition, the implementation of idling restrictions, engine tunings, and certifications from Mitigation Measures 3.1-1 and 3.1-3 would further reduce PM and TAC emissions. However, two existing sensitive receptor locations—Pathways Charter School, and Rohnert Park Kinder Care—were identified to be within the plan area, and may require further evaluation if long periods of construction emissions are expected to occur within 1,000 feet of these locations. As a conservative conclusion, this impact would be *potentially significant*.

Mitigation Measures

Mitigation Measure 3.1-7: Assess Toxic Air Contaminant Emissions and Health Risks Associated with Site-Specific Construction

As part of any project-level CEQA analysis, the health risk impacts of construction PM_{2.5} and TAC concentrations from individual projects within the plan area shall be assessed by the project applicant in accordance with BAAQMD's CEQA Guidelines and Recommended Methods for Screening and Modeling Local Risks and Hazards, as necessary. If health risk impacts are determined to exceed BAAQMD thresholds of significance, BAAQMD's exhaust-related additional construction Mitigation Measure 3.1-3 shall be implemented to reduce impacts to a less-than-significant level.

Significance After Mitigation

With implementation of Mitigation Measure 3.1-7, the assessment of health impacts related to project-specific construction PM and TAC emissions and implementation of mitigation measures for individual projects associated with the proposed plan to reduce health impacts to a less-than-significant level would ensure that sensitive receptors are not exposed to substantial pollutant concentrations, and therefore would represent a *less-than-significant* impact.

Operational Emissions of Toxic Air Contaminants

The proposed plan would develop commercial, light industrial, civic, multifamily, and single-family land uses. With the exception of the light industrial land use site within the Triangle Business Subarea, the other land uses are not typically the types that generate substantial TAC emissions. The existing industrial-zone area within the Triangle Business Subarea is greater than 1,000 feet from any known sensitive receptor, or any planned residential area that would include sensitive receptors. Other potential sources of operational TACs would include residents or visitors arriving at and departing from the plan area in diesel-fueled vehicles; however, these emissions would be consistent with the current baseline diesel vehicle population, dispersed throughout regional roadways, and the plan area would not substantially increase or attract diesel-fueled vehicles. In addition, a bulk of these emissions would be generated on regional and local roads, and would not be a constant source of TAC emissions for the plan area, as would a stationary source.

The industrial, downtown mixed-use retail, institutional, and commercial land uses could include occasional trips by diesel-fueled material delivery trucks; however, these trips would be infrequent compared to larger regional commercial or industrial land uses (e.g., distribution center), where product turnover is constant. These minimal TAC emissions from the proposed land uses would be intermittent and dispersed throughout the region on local roadways and highways, and would not be concentrated within the plan area. In addition, material delivery trucks would need to comply with ARB's Airborne Toxics Control Measure (ATCM) to Limit Diesel-Fueled Commercial Motor Vehicle Idling to minimize unnecessary diesel PM emissions.

Considering the types of land uses proposed and their relatively low intensity of operations, it is unlikely that the proposed plan's operational activities would generate substantial TAC emissions that would expose nearby sensitive receptors to TAC concentrations that exceed applicable standards. However, as a conservative

conclusion, the proposed plan's TAC emissions could expose any sensitive receptors to substantial pollutant concentrations. This impact would be *potentially significant*.

Mitigation Measures

Mitigation Measure 3.1-8: Assess Toxic Air Contaminant Emissions and Health Risks Associated with Site-Specific Operation and Implement Applicable BAAQMD Health Risk Mitigation Measures

As part of any project-level CEQA analysis, PM_{2.5} and TAC emission impacts of operational activities from individual projects in the plan area shall be assessed by the project applicant in accordance with BAAQMD's CEQA Guidelines and Recommended Methods for Screening and Modeling Local Risks and Hazards as necessary. If health risks are determined to exceed BAAQMD thresholds of significance, project-specific mitigation measures shall be implemented to reduce health risks to a less-than-significant level. Possible mitigation measures could include but are not limited to change in project land use orientation to locate them farther away from existing sensitive receptors, purchase of retrofits of ventilation systems for existing sensitive receptors, and change in land use type to develop a more compatible land use (i.e., non-TAC source). Mitigation measures shall be developed and implemented for significant operational impacts of PM and TAC emissions. Additional BAAQMD mitigation measures can be found in Appendix A.

Significance After Mitigation

With implementation of Mitigation Measure 3.1-8, the assessment of health impacts related to project-specific operational PM and TAC emissions and implementation of mitigation measures for individual projects associated with the proposed plan would not expose sensitive receptors to substantial pollutant concentrations and thus would represent a *less-than-significant impact*.

Carbon Monoxide Hotspots

The primary mobile-source pollutant of localized concern is CO. Local mobile-source CO emissions and concentrations near roadway intersections are a direct function of traffic volume, speed, and delay. Transport of CO is extremely limited because this pollutant disperses rapidly with distance from the source under normal meteorological conditions. However, under specific meteorological conditions, CO concentrations near roadways and/or intersections may reach unhealthy levels with respect to local sensitive land uses, such as residential units, hospitals, schools, and childcare facilities.

Plan-level CO impacts are not specifically recognized in the BAAQMD CEQA Guidelines; however, this impact is being screened for localized concentrations as a conservative measure. BAAQMD has developed a screening threshold to determine whether a project would cause an intersection to potentially generate a CO hotspot. The screening thresholds have been developed with conservative assumptions to avoid underestimating CO concentrations. Therefore, a project that would not exceed the screening thresholds would be highly unlikely to generate a CO hotspot. According to this methodology, a project would have the potential to generate a CO hotspot if it would contribute a substantial volume of vehicle trips to an intersection that would exceed 44,000

vehicles per hour. For intersections located in areas where vertical and/or horizontal mixing is substantially limited, the screening threshold is 24,000 vehicles per hour.

The traffic impact study evaluated affected intersections under existing and cumulative conditions (2040), with and without the proposed plan. The cumulative plus project intersection volumes were compared with BAAQMD's screening threshold. The 2040 cumulative conditions would account for the maximum traffic volumes from the proposed plan plus regional growth. The plan area would be built out and fully operational in year 2040; therefore, using 2040 to evaluate cumulative traffic impacts would conservatively evaluate a future year with maximally foreseeable traffic volumes. As determined by the traffic study, the highest hourly volume of vehicles at an intersection would occur under p.m. peak-hour cumulative (2040) plus proposed plan conditions at the intersection of RPX and Commerce Boulevard. The maximum hourly volume at this intersection would be 6,278 vehicles per hour, which would be substantially less than the 24,000 and 44,000 vehicles per hour screening thresholds discussed above (BAAQMD, 2011). Therefore, implementing the proposed plan is not expected to have the potential to generate CO hotspots, and this impact would be *less than significant*.

On-Site Community Risk and Hazard

The BAAQMD CEQA Guidelines' thresholds of significance for plans with regard to community risk and hazard impacts require the use of a land use diagram to determine the locations of sources and receptors, along with mitigation measures to reduce health impacts.

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

The approximate locations of future sources and receptors are not yet known for this plan area; therefore, Google Maps was used as a reference to determine general distances between existing sources and future receptors, and distances between potential future sources and future receptors.

The proposed plan would site sensitive receptors in an area that includes existing land uses and potential TAC and PM_{2.5} sources. Common stationary sources of TAC and PM_{2.5} emissions include gasoline stations, dry cleaners, and diesel backup generators, which are subject to BAAQMD permit requirements. The other, often more important, common source type is on-road motor vehicles on freeways and roads, such as trucks and cars. The plan would also be developed around the Rohnert Park station of the SMART rail line, acting as a local transit hub. The technology to be used as part of the SMART rail line will be self-propelled rail cars known as Diesel Multiple Units. According to a white paper written on SMART's clean-diesel trains (SMART, 2008), a 200-seat SMART train would emit:

- particulate matter equal to that emitted by one automobile and only 1/20th the particulate matter of a 40-seat transit bus;
- smog-producing NO_x equal to the emissions of only 8 automobiles, and only 1/5th the NO_x of one 40-seat transit bus; and
- carbon dioxide (CO₂) equal to that from 12 automobiles, despite carrying many more people, and about the same CO₂ as two 40-seat transit buses.

This clean-diesel technology can transport hundreds of passengers with only a fraction of the emissions from the average single-occupant vehicle or a regular diesel bus. It is expected that the SMART corridor will offset highway travel while introducing a lower-emissions technology. This rail impact would be less than significant on new receptors anticipated by the plan.

This analysis also evaluates the health-risk impacts of nearby gasoline-dispensing facilities, permitted stationary sources, and mobile sources (i.e., freeways and high-volume roadways).

The 2010 BAAQMD CEQA Guidelines state that for area plans to have a less-than-significant impact with respect to potential TACs for siting new sources and new receptors, special overlay zones need to be established around existing and proposed land uses that emit TACs. Google Maps was used to establish these overlay zones, and provided a general reference for the health risk impacts related to sources described immediately above.

U.S. 101 is the nearest highway to the plan area, located approximately 100 feet from its western edge, and could potentially expose the proposed sensitive receptors to substantial TAC concentrations from vehicle traffic. With respect to major roadways, the intersection of RPX and Commerce Boulevard passes directly through the plan area. As determined by the California Environmental Health Tracking Program's traffic volume tool, the section of roadway that has the highest volume within the plan area is Commerce Boulevard, which runs north-south; is approximately 800 feet north of the intersection of RPX; and has 18,900 vehicles per day (CDPH, 2013). This is above the threshold of 10,000 vehicles per day in which a project proponent must evaluate the health risks associated with local surface streets, per BAAQMD's Surface Street Screening Tables for Sonoma County. As a conservative and rough estimate, and because the exact locations of the new receptors within the plan area are unknown, a 50-foot distance was selected from the segment with the highest traffic volume within the buffer of the plan area. This was also selected because it is from the closest current development, Cal Skate of Rohnert Park.

Using BAAQMD's screening tools for permitted stationary sources, BAAQMD-permitted stationary sources were identified within 1,000 feet of the plan area, and within the plan area border. BAAQMD's Stationary Source Screening Analysis Tools were used to identify and obtain the cancer risk, health hazard, and PM_{2.5} concentrations associated with these stationary sources. In addition, the BAAQMD multiplier tool for gasoline-dispensing facilities and internal combustion engines within 1,000 feet of the plan area border were used to adjust stationary sources' cancer risk and PM_{2.5} concentrations based on their actual distances from the plan area. However, for determining distances between sources and receptors within the plan area, the proposed plan has not identified exact distances of new receptors. As a conservative measure, the closest distance of 66 feet (20 meters) was used for gasoline-dispensing facilities, and the closest distance of 82 feet (25 meters) was used for diesel internal combustion engines located in the plan area. Accordingly, this conservative assumption results in the maximum cancer risks and chronic hazard indices for these sources.

Table 3.1-4 shows the adjusted cancer risk, health hazard, and PM_{2.5} concentrations associated with the BAAQMD-permitted stationary sources, major roadways and highways within 1,000 feet of the plan area, and sources within the plan area.

As shown in Table 3.1-4, the proposed plan's sensitive receptors would be exposed to health risks that exceed BAAQMD thresholds from nearby stationary sources, gasoline-dispensing facilities, internal combustion engines, highways, and high-volume roadways that exceed the BAAQMD thresholds of significance. Therefore, the proposed plan's sensitive receptors would likely be exposed to substantial health risks from nearby cumulative sources. This impact would be *potentially significant*.

Mitigation Measures

Mitigation Measure 3.1-9: Assess Local and Community Hazard Risks Associated with Project-Specific Operation and Implement Applicable BAAQMD Community Risk and Hazard Mitigation Measures

As part of any project-level CEQA analysis, health impacts of siting new receptors from individual projects within the plan area shall be assessed by the project applicant in accordance with BAAQMD's CEQA Guidelines and Recommended Methods for Screening and Modeling Local Risks and Hazards, as necessary. Once exact distances are known between new receptors and existing sources, the BAAQMD Health Risk Screening Tools and Distance Multipliers can be more accurately used to determine cancer risks and PM_{2.5} concentrations. If health risks are determined to exceed BAAQMD thresholds of significance, project-specific mitigation measures shall be implemented to reduce health risks to a less-than-significant level. Possible mitigation measures could include but are not limited to change in sensitive land use orientation to locate them farther away from TAC sources; increased ventilation system requirements for sensitive-receptor heating, ventilation, and air conditioning systems; and change in land use type to develop a more compatible land use (i.e., nonsensitive receptor). Appendix A provides a list of BAAQMD PM_{2.5}/TAC mitigation measures.

Table 3.1-4: BAAQMD-Permitted Stationary Sources and Major Roadways within 1,000 Feet of and Within the Plan Area¹

Name of Source	Plant No.	Cancer Risk (in a million)	Chronic Hazard Index ²	PM _{2.5} Concentration (µg/m ³) ³
The Home Depot	16829	.0357	0.00636	0.00371
Chevron	G8516	3.294	0.062	N/A
AT&T	10739	14.96	0.005	0.027
Redwood Shell	G11048	1.076	0.032	N/A
Rohnert Park Tesoro	G11548	23.708	0.022	N/A
Interior Finishing	11689	0	0.001	0
Final Touch Finishing	11815	0	0.002	0
Blake's Auto Body	6408	0	0.001	0.018
Press Democrat	2277	0	0	0.0005

Table 3.1-4: BAAQMD-Permitted Stationary Sources and Major Roadways within 1,000 Feet of and Within the Plan Area¹

Name of Source	Plant No.	Cancer Risk (in a million)	Chronic Hazard Index ²	PM _{2.5} Concentration (µg/m ³) ³
Downtown Autobody	17823	0	0	0.005
City of Rohnert Park	16435	14.7	0.005	0.026
City of Rohnert Park	16329	7.53	0.003	0.002
Valero Refining Co.	G10595	30.351	0.028	N/A
Chevron USA	G7062	65.857	0.06	N/A
100 feet east of U.S. Highway 101 at 6 feet elevation ²	N/A	42.373	0.044	0.405
50 feet east of Commerce Boulevard at the highest volume segment	N/A	10.85	N/A	0.278
Cumulative Total Risk	N/A	194.89	0.27	0.76
BAAQMD Individual Source Thresholds	N/A	10	1	0.3
Exceeds Individual Threshold	N/A	Yes	No	Yes
BAAQMD Cumulative Thresholds	N/A	100	10	0.8
Exceeds Cumulative Threshold	N/A	Yes	No	No

Notes: µg/m³ = micrograms per cubic meter of air; BAAQMD = Bay Area Air Quality Management District; N/A = not applicable; PM_{2.5} = particulate matter with aerodynamic diameter less than 2.5 microns.

¹ As a conservative measure, and because the locations of the projects/receptors are unknown at this time, the closest-distance multipliers were used for gasoline-dispensing facilities and diesel generators, which did not reduce the cancer risks and PM_{2.5} concentrations.

² Cancer risks, health hazards, and PM_{2.5} concentrations have been adjusted, based on the BAAQMD’s Distance Adjustment Multiplier for Diesel Internal Combustion Engines and Gasoline-Dispensing Facilities.

³ For purposes of a conservative analysis, the 6-foot exposure value was used rather than the 20-foot value, because it contained higher risk values. The zone used for this portion of the highway allows for single-family homes that would be located on ground level.

Source: BAAQMD, 2015b

Significance After Mitigation

With implementation of Mitigation Measure 3.1-9, the assessment of local and community hazard risks from individual projects in the plan area and implementation of mitigation measures for individual projects associated with the proposed plan would not expose sensitive receptors to substantial pollutant concentrations, and therefore would represent a *less-than-significant impact*.

3.1e. Create objectionable odors affecting a substantial number of people? Less-than-Significant Impact with Mitigation Incorporated.

The occurrence and severity of odor impacts depend on numerous factors, including the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of the receptors. Although offensive odors rarely cause any physical harm, they can be very unpleasant, leading to considerable distress among the public, and causing citizens to submit complaints to local governments and regulatory agencies. Projects with the potential to frequently expose individuals to objectionable odors are deemed to have a significant impact. Typical facilities that generate odors include wastewater treatment facilities, sanitary landfills, composting facilities, petroleum refineries, chemical manufacturing plants, and food processing facilities.

Construction

Construction under the proposed plan is not anticipated to expose nearby off-site receptors (existing or future planned) to objectionable odors. Construction activities would generate diesel PM exhaust from heavy-duty trucks and off-road construction equipment, which could be considered offensive by some individuals. However, use of off-road construction equipment would be intermittent throughout the construction period, and it is not anticipated that a constant plume of diesel PM emissions would be generated from construction equipment. Rather, during working hours, varying levels of odor emissions would be generated depending on the types of construction activities. Furthermore, construction emissions would cease each day for the night. Therefore, even during the most equipment-intense phases, odor emissions (i.e., diesel PM) would not be constantly generated from the plan area.

In addition to the factors described above, the source of potential construction-related odor emissions (i.e., diesel PM) would decrease as construction activities continue, as a result of fleet turnover and improved emissions technology. For these reasons and because of the highly dispersive nature of diesel PM, the proposed plan's construction activities are not expected to expose a substantial number of receptors to objectionable odor emissions. Therefore, this impact would be *less than significant*.

Operations

Operation under the proposed plan would generate a minimal amount of odor emissions in the form of diesel PM exhaust generated by some proposed residents and occasional material delivery trucks. These emissions would be dispersed throughout the regional roadway network, and therefore would not be concentrated on the plan area, or any particular site where a receptor could be exposed continuously. As described above, all material delivery trucks would also be required to comply with ARB's ATCM to Limit Diesel-Fueled Commercial Motor Vehicle Idling. The proposed plan would also include downtown mixed-use commercial land uses, which would site potential odor-producing activities (e.g., food service, light commercial activities) near residents in the same building. Residential and commercial dumpsters could be a potential odor source; however, regular trash collection, which would be provided by the City, would ensure that garbage and refuse that could generate odors would be disposed of regularly and properly. However, because of the proximity of proposed residents to proposed commercial land uses, it is possible that certain commercial land uses could generate odor emissions that expose a substantial number of receptors. Therefore, for purposes of a conservative analysis, the proposed plan's operational activities are assumed to potentially result in significant odor effects on a substantial number of sensitive receptors. This impact would be *potentially significant*.

Mitigation Measures

Mitigation Measure 3.1-10: Assess Odors Associated with Project-Specific Operation and Implement Applicable BAAQMD Odor Mitigation Measures

As part of any project-level CEQA analysis, odor impacts from individual projects within the plan area shall be assessed by the project applicant in accordance with BAAQMD's CEQA Guidelines as necessary. Significant odor impacts shall be mitigated using best management practices and odor control

technology to less than significant when feasible. The most likely odor sources to be sited within the plan area are restaurants and food services. BAAQMD odor mitigation for food service includes:

- *integral grease filtration system or grease removal system,*
- *baffle filters,*
- *electrostatic precipitator,*
- *water cooling/cleaning unit,*
- *disposable pleated or bag filters,*
- *activated carbon filters,*
- *oxidizing pellet beds,*
- *incineration,*
- *catalytic conversion,*
- *proper packaging and frequency of food waste disposal, and*
- *exhaust stack and vent location with respect to receptors.*

Significance After Mitigation

With implementation of Mitigation Measure 3.1-10, the assessment of odor impacts from individual projects and implementation of best management practices and odor control technology would prevent objectionable odors from affecting a substantial number of people. This would result in a *less-than-significant impact*.

3.1.4 Cumulative Impacts

Criteria Pollutants

Construction

As shown in Table 3.1-2, construction emissions of NO_x would exceed BAAQMD's project-level threshold of significance, which is the allowable amount of emissions that a single project can generate without conflicting with or obstructing implementation of an air quality plan. In addition, as shown in Table 3.1-1, the plan region is a nonattainment area for both the state and national ozone standards. Therefore, it is anticipated that construction emissions could generate a cumulatively considerable contribution to this cumulative impact.

With implementation of Mitigation Measures 3.1-1, 3.1-2, 3.1-3, and 3.1-4, construction impacts from each project in the plan area would be evaluated and BAAQMD's construction mitigation measures would be incorporated as necessary to reduce fugitive dust and exhaust NO_x emissions to a less-than-significant level. However, in case some projects would not be able to reduce construction-related NO_x emission below BAAQMD's thresholds, Mitigation Measure 3.1-5 would be implemented to offset the proposed plan's regional emissions and ensure that all emissions above BAAQMD thresholds of significance are reduced to a less-than-significant level through BAAQMD's CMP offset program. Therefore, the project's cumulative contribution to this impact would be *less than significant* with incorporation of these mitigation measures.

Operations

Table 3.1-3 presents the thresholds of significance for operational emissions of criteria air pollutants and precursors. The SFBAAB is currently in nonattainment for ozone, PM₁₀, and PM_{2.5}. Thresholds of significance represent the levels at which a project's individual emissions of criteria air pollutants or precursors would result in a significant contribution to the SFBAAB's existing air quality conditions. Because the daily average operational emissions of criteria air pollutants and precursors from the proposed plan exceed the threshold of significance for ROG and NO_x, the proposed plan could result in a cumulatively considerable contribution to this cumulative impact. However, when more detailed information is available for each individual project in the plan area, Mitigation Measure 3.1-6 would be implemented to more accurately determine the cumulative operational impacts from each project and implement the BAAQMD Mitigation Measures for Operational Emissions. Furthermore, once project-level information is obtained, compliance with Policy L-8.4 from the proposed plan would allow a proper determination of consistency of those individual projects because BAAQMD would be asked qualifying questions related to the BA 2010 CAP.

It is still possible that some projects would not be able to reduce operational ROG and NO_x emissions below BAAQMD's thresholds. Therefore, cumulative operational ROG and NO_x emissions have the potential to represent a considerable contribution to the cumulative impact. In this case, Mitigation Measure 3.1-5 would reduce individual operational impacts below the BAAQMD thresholds by offsetting the proposed plan's regional emissions from through the CMP. This would reduce the proposed plan's cumulative contribution to this impact to *less than significant* with incorporation of this mitigation measure.

Toxic Air Contaminants and Sensitive Receptors

Construction Toxic Air Contaminants

As determined in Impact 3.1d, the proposed plan's construction-related TAC emissions may expose nearby sensitive receptors to TAC concentrations that would cause significant health-risk impacts. However, construction activities and associated emissions would be short term and temporary, and would cease after build-out of the proposed plan. Because the exact locations of projects in the plan area are unknown, it must be inferred that construction-related TAC emissions would be potentially significant on a project level, but would cease after build-out. Because construction-related TAC emissions would be potentially significant, the cumulative impact also would be potentially significant.

The assessment of health impacts related to project-specific construction PM_{2.5} and TAC emissions from Mitigation Measure 3.1-7, along with implementation of necessary BAAQMD exhaust-related basic and additional construction Mitigation Measures 3.1-1, 3.1-3, and 3.1-4, would reduce health risk impacts on sensitive receptors to a less-than-significant level. Therefore, cumulative construction impacts of PM_{2.5} and TAC emissions would be reduced to a *less-than-significant* level.

Operational Toxic Air Contaminants (Proposed Plan)

After build-out of the proposed plan, the commercial, light industrial, civic, multifamily, and single-family land uses would generate operational emissions. These types of land uses are not typically generators of TAC

emissions, with the exception of light industrial land use. However, the light industrial zoned land use is greater than 1,000 feet from the nearest sensitive receptor. Other TAC emissions associated with these land uses would include occasional diesel-fueled vehicles visiting or delivering materials to the proposed land uses. These TAC emissions would be infrequent and dispersed throughout the regional roadway network. Therefore, the proposed plan's operational emissions of TACs would not cause a cumulatively considerable contribution to the cumulative impact, and this cumulative impact would be *less than significant*.

Operational Toxic Air Contaminants (On-Site Community Risk)

The proposed residential receptors would also be exposed to cumulative TAC emissions from nearby land uses. As shown in Table 3.1-4, the cumulative TAC impacts associated with nearby roadways, stationary sources, and gasoline-dispensing facilities would be greater than the BAAQMD health risk thresholds of significance for cancer. Therefore, the cumulative impact of exposing proposed residential receptors to significant TAC emissions would be cumulatively significant.

However, with implementation of Mitigation Measures 3.1-8 and 3.1-9, project-level local and community hazard risks would be assessed and BAAQMD's Community Risk and Hazard Impact Mitigation Measures would be implemented. As a result, sensitive receptors would not be exposed to substantial pollutant concentrations, and cumulative local risk and community impacts would be reduced to a *less-than-significant* level.

Carbon Monoxide Hotspots

Day-to-day operations under the proposed plan would generate vehicle trips that would contribute to congestion at local roadways, which could cause a potential CO hotspot. However, as determined in the traffic analysis, when considering year 2040 cumulative traffic volumes along with the proposed plan, peak hourly volumes at affected intersections would be substantially less than the BAAQMD screening threshold. Therefore, the cumulative impact on localized CO would be *less than significant*.

Odors

Construction

Construction activities would generate odor emissions associated with diesel fuel construction equipment. Construction equipment would operate intermittently throughout the day and would cease operation at night. Therefore, project construction activities would not generate odor emissions continuously throughout the day. In addition, construction-related odor emissions would be dispersed throughout the plan area and would not be concentrated in one specific area. Furthermore, after build-out of the proposed plan, all construction-related odor emissions would cease. Therefore, the cumulative odor impacts would be *less than significant*.

Operations

As discussed above in Impact 3.1e, the proposed plan would include commercial, light industrial, civic, multifamily, and single-family land uses, and the commercial and light industrial uses have the potential to generate substantial odor emissions. Depending on the ultimate land use, odor emissions associated with these types of land uses, especially commercial and residential downtown mixed-use, could collocate restaurants,

bakeries, and other common odor-producing sources directly below or adjacent to residential dwelling units. In addition to these sources, garbage dumpsters and trash cans also have the potential to produce odors. However, as described above, Mitigation Measure 3.1-10 would be implemented to assess odor impacts from individual projects and implement odor control technologies as necessary. With regard to solid waste odors, the City would provide regular and frequent (e.g., once a week) garbage collection to prevent garbage from accumulating for long periods of time and forming odors from decomposition.

This would prevent objectionable odors from affecting a substantial number of people. This would reduce cumulative odor impacts to *less than significant*.

3.1.5 References

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3.2 BIOLOGICAL RESOURCES

This section describes the existing physical and regulatory setting related to biological resources and discusses the potential impacts of the proposed plan on biological resources.

3.2.1 Existing Conditions

The plan area is located on approximately 330 acres bordering the northbound lanes of U.S. Highway 101 (U.S. 101). For the purposes of this analysis, the project footprint refers to the total amount of ground disturbance related to the proposed plan—for both grading and development. The use of the construction footprint for the analysis is particularly important because it fully accounts the potential disturbance to biological resources associated with proposed development of the plan area.

Vegetation Communities

The project footprint is composed mainly of developed areas, with small patches of ruderal and ornamental vegetation interspersed between paved areas and structures. Ruderal vegetation also dominates unpaved areas along pedestrian footpaths and the Sonoma-Marín Area Rail Transit (SMART) tracks that run along the eastern border of the project footprint. Two perennial streams (Copeland Creek and Hinebaugh Creek) and associated riparian habitat traverse the project footprint from east to west. Several unnamed ephemeral drainages also are located within the project footprint, running adjacent to and parallel with U.S. 101, and interspersed along the edges of the SMART rail tracks. These drainages run in a straight line and appear to be human-made. All of these ephemeral drainage features were dry during the field survey on March 16, 2015, and no facultative wetland plant species were observed within the dry drainages or low-lying areas. However, a formal wetland delineation was not conducted, and wetland indicators that normally would be expected to be present may have been absent because of the recent drought.

Sonoma County Water Agency (SCWA) conducts extensive landscape and hardscape improvements throughout Sonoma County each year. Copeland Creek and Hinebaugh Creek are both included within Zone 1A of the SCWA Stream Maintenance Program. SCWA primarily removes sediment and garbage from streams, plants trees and creekside plants, and performs other vegetation management activities. One of the purposes of the program is to promote habitat restoration and to maintain stands of mature trees and riparian canopies. Riparian canopies provide shade to combat noxious weeds, and provide refuge for fish, amphibian, reptile, and bird species. In addition, the SCWA Stream Maintenance Program promotes trail building to offer the community access to enjoy streams for recreational activities. Within the plan area boundaries, in the past 5 years alone the program has conducted sediment removal in Hinebaugh Creek (2010 and 2013) and instream basin clearings in Copeland Creek (2010, 2011, 2013, 2014, and 2015).

Developed

The vast majority of the plan area is covered by paved surfaces and structures, both commercial and residential. For the purposes of this document, areas covered by sod, such as parks, school yards, and residential yards, also are considered developed, because they generally do not provide habitat for species.

Ruderal

Areas not covered by pavement, structures, or sod are dominated primarily by ruderal vegetation, composed of nonnative species such as curly dock (*Rumex crispus*), European ivy (*Hedera helix*), Eurasian oats (*Avena* spp.), black mustard (*Brassica nigra*), jubata grass (*Cortaderia jubata*), fennel (*Foeniculum vulgare*), bamboo (*Poaceae* spp.), burr clover (*Medicago polymorpha*), milk thistle (*Silybum marianum*), wild radish (*Raphanus raphanistrum*), snake grass (*equisetum* spp.), and dandelion (*Taraxacum officinale*). Native species also are interspersed in these areas, including California poppy (*Eschscholzia californica*), lupine (*Lupinus* spp.), and blackberry (*Rubus ursinus*).

Riparian/Perennial Stream

Two perennial streams (Copeland Creek and Hinebaugh Creek) traverse the plan area, flowing westward, and both are tributaries to Laguna de Santa Rosa. Overstory species associated with the riparian corridors include coast live oak (*Quercus agrifolia*), Monterey pine (*Pinus radiata*), willow (*Salix* spp.), Eucalyptus (*Eucalyptus* spp.), and numerous species of ornamental trees. The understory is composed of ruderal vegetation, described previously. The riparian habitat is flanked on both north and south banks by paved pedestrian paths and residential and commercial development.

Special-Status Species

Based on a review of the U.S. Fish and Wildlife Service (USFWS) Sacramento Office species list (within U.S. Geological Survey quads 501C Cotati, 501A Kenwood, 501D Glen Ellen, 501B Santa Rosa, 502A Sebastopol, 502D Two Rock, 485A Point Reyes NE, 484B Petaluma, and 484A Petaluma River) and California Natural Diversity Database (CNDDDB) records within 5 miles of the plan area, five special-status wildlife species but no special-status plant species were determined to potentially occur in the plan area (Calflora, 2015; CDFW, 2015; CNPS, 2015; USFWS, 2015). These species are identified in Table 3.2-1. A complete list of special-status species reviewed as part of this analysis is provided in Appendix B. For the purposes of this analysis, only species with the potential to occur in the plan area was determined to be “possible” or “likely” are discussed. Species that were determined “unlikely” to be present in the plan area were not analyzed because they would not be affected by the proposed plan. The results of the CNDDDB records review are shown in Table 3.2-1. The USFWS species list is also provided in Appendix B.

Critical Habitat

No federally designated critical habitat is present in the project footprint. Critical habitat for California tiger salamander exists immediately west of the project footprint, bordering portions of the southbound lanes of U.S. 101. In addition, California tiger salamander critical habitat occurs less than 1 mile north and 1 mile south of the project footprint. A description of critical habitat designations is provided in Section 3.2.2, “Regulatory Framework.”

Table 3.2-1: Species with Potential to Occur in the Plan Area

Species	Listing Status ¹
Coho salmon <i>Oncorhynchus kisutch</i>	FE
Central California Coast steelhead <i>Oncorhynchus mykiss</i>	FT
California tiger salamander <i>Ambystoma californiense</i>	FT/ST
Foothill yellow-legged frog <i>Rana boylei</i>	SSC
Western pond turtle <i>Emys marmorata</i>	SSC

Notes:

¹ Species Listing Status

Federal Listing Status:

FE—Federally Listed as Endangered

FT—Federally Listed as Threatened

State Listing Status:

ST—State Listed as Threatened

SSC—Species of Special Concern

Source: CDFW, 2015

3.2.2 Regulatory Framework

Federal Endangered Species Act

The federal Endangered Species Act (ESA) protects plants and wildlife species that are listed as endangered or threatened by USFWS and the National Marine Fisheries Service. Under Section 9, the ESA prohibits take of endangered wildlife, where “take” is defined as to “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct” (Title 16, Sections 1532[19] and 1538 of the U.S. Code [16 USC 1532(19), 1538]). For plants, this statute governs removing, possessing, maliciously damaging, or destroying any listed plant on federal land, and removing, cutting, digging up, damaging, or destroying any listed plant on nonfederal land in knowing violation of state law (16 USC 1538[c]). Take also can include the modification of a species’ habitat. Under the ESA, critical habitat also can be identified as those areas critical for the recovery of a listed species. Critical habitat does not impose development restrictions on an area, but it alerts federal agencies to the importance of some areas to listed species.

The ESA would apply to development in the plan area because of the potential for the area to support endangered species.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (16 USC 703–711) recognizes international treaties between the U.S. and other countries that have afforded protection to migratory birds and any of their parts, eggs, and nests, from activities such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations

or by permit. The Migratory Bird Treaty Act applies to development in the plan area because of the potential for impacts on bird species covered by this act and/or their nests.

Clean Water Act

The purpose of the federal Clean Water Act (CWA) (Sections 401 and 404 [33 USC 1251 et seq.]) is to “restore and maintain the chemical, physical, and biological integrity of the nation’s waters.” The definition of “waters of the United States” encompasses rivers, streams, estuaries, territorial seas, ponds, lakes, and wetlands. Wetlands are defined as those areas “that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (Title 33, Section 328.3 7b of the Code of Federal Regulations [33 CFR 328.3 7b]).

The U.S. Army Corps of Engineers (USACE) issues permits for work in wetlands and other waters of the United States, based on guidelines established under Section 404 of the CWA. Section 404 of the CWA prohibits the discharge of dredged or fill material into waters of the United States, including wetlands, without a permit from USACE. The U.S. Environmental Protection Agency also has authority over wetlands and, under Section 404(c), may veto a USACE permit. Depending on the amount of impacts on waters of the United States, a USACE Section 404 permit application can either invoke use of a nationwide permit for any project with minimal adverse effects or require the project proponent to submit an individual permit application if the project does not fall under a nationwide permit. The CWA applies to development in the plan area because of the need to permanently fill features determined to be waters of the United States.

California Endangered Species Act

The California Endangered Species Act (CESA), adopted in 1984, generally parallels the main provisions of the ESA and includes Sections 2050–2098 of the California Fish and Game Code. Section 2080 prohibits the taking, possession, purchase, sale, and import or export of endangered, threatened, or candidate species, unless otherwise authorized by permit or in the regulations. “Take” is defined in Section 86 of the California Fish and Game Code as to “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” CESA allows for take incidental to otherwise lawful projects. State lead agencies and private entities may consult with the California Department of Fish and Wildlife (CDFW) so that any action undertaken is not likely to jeopardize the continued existence of any species that is state listed as endangered or threatened, or to result in the destruction or adverse modification of essential habitat. The CESA would apply to development in the plan area because of the potential for the area to support endangered species.

California Fish and Game Code

Unlawful Takes

Section 3503 of the California Fish and Game Code states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by the code or any subsequent regulation. Section 3513 makes it unlawful to take, possess, or destroy any birds of prey or to take, possess, or destroy the nest or eggs of any such bird.

Native Plant Protection Act of 1977

The Native Plant Protection Act of 1977 (California Fish and Game Code, Sections 1900–1913) was created with the intent to “preserve, protect, and enhance rare and endangered plants in this state.” A species is rare when, although the species is not threatened with immediate extinction, its numbers are so small throughout its range that it may become endangered if its existing environment declines. The Native Plant Protection Act is administered by CDFW. The California Fish and Game Commission has the authority to designate native plants as “endangered” or “rare” and to protect them from take. The California Native Plant Society has established California Rare Plant Rank (CRPR) categories for vascular plants that are independent of their federal or state listing statuses. (The CRPR system was formerly known as the California Native Plant Society List.) CRPR categories are as follows:

- CRPR 1A: Presumed extinct in California
- CRPR 1B: Rare, threatened, or endangered in California and elsewhere
- CRPR 2: Rare, threatened, or endangered in California but more common elsewhere

Plants ranked CRPR 1A, 1B, or 2 meet the definition of endangered, threatened, or rare under Section 1901 of the Native Plant Protection Act and Sections 2062 and 2067 of the CESA. Therefore, they generally are considered to be “special-status plants” under the California Environmental Quality Act (CEQA).

Title 14, Sections 670.2 and 670.5 of the California Code of Regulations

Title 14, Sections 670.2 and 670.5 of the California Code of Regulations list wildlife designated as threatened or endangered in California. “Species of special concern” is a category conferred by CDFW on those species that are indicators of regional habitat changes or considered potential future protected species. Species of special concern do not have any special legal status; however, Section 15380 of the State CEQA Guidelines indicates that species of special concern should be included in an analysis of project impacts, if they can be shown to meet the criteria of sensitivity outlined there. These regulations would apply to development in the plan area because of the potential for the area to support CDFW-designated species of special concern.

City of Rohnert Park General Plan

The Environmental Conservation—Habitat and Biological Resources section of the City’s General Plan (City of Rohnert Park, 2015 [originally adopted 2000]), outlines guiding and implementing policies to protect and preserve special-status species, special habitat areas, wetlands, native species, vegetation, creeks, and wetlands, while balancing the needs for growth and development. The following goals and policies are applicable to the conservation of sensitive biological resources in the plan area:

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.

Goal EC-C: Protect sensitive habitat areas and wetlands in the following order of protection preference:
1) avoidance, 2) on-site mitigation, and 3) off-site mitigation.

Goal EC-D: Maintain existing native vegetation and encourage planting of native plants and trees.

- **Policy EC-4:** 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.
- **Policy EC-5:** Require development in areas with high and moderate wetlands potential and habitat areas delineated in Figure 6.2-1, as well as other areas where wetland or habitat for special-status species is present, to complete assessments of biological resources.
- **Policy EC-7:** Encourage planting of native vegetation in new development sites, parks, public areas, and open space.
- **Policy EC-8:** As part of the City’s Park, Recreation, and Open Space Master Plan (see Chapter 5: Open Space, Parks, and Public Facilities), institute an ongoing program to remove and prevent the re-establishment of invasive plant species from ecologically sensitive areas, including City parks and other City-owned open space.
- **Policy EC-12:** Protect oaks and other native trees that are of significant size through the establishment of a Heritage Tree Preservation Ordinance.
- **Policy EC-13:** Maintain creek protection zones extending a minimum of 50 feet (measured from the tops of the banks and a strip of land extending laterally outward from the top of each bank) for creeks, with extended buffers where significant habitat areas or high potential wetlands exist (Figure 6.2-2). Where high potential wetland or other biological resources exist, require appropriately wide buffers to encompass and protect the resource. Development shall not occur within this zone, except as part of greenway enhancement (for example, trails and bikeways). Require City approval for the following activities within the creek protection zones:
 - Construction, alteration, or removal of any structure;
 - Excavation, filling, or grading;
 - Removal or planting of vegetation (except for removal of invasive plant species); or
 - Alteration of any embankment.
- **Policy EC-14:** As part of specific plans, require evaluation and implementation of appropriate measures for creek bank stabilization, and any necessary steps to reduce erosion and sedimentation, but preserve natural creek channels and riparian vegetation

City of Rohnert Park Heritage Tree Preservation Ordinance

In accordance with Measure EC-12 of the *City of Rohnert Park General Plan*, the Heritage Tree Preservation Ordinance applies to any tree within the Rohnert Park city limits, exclusive of acacia (*Acacia* spp.), tree of heaven (*Ailanthus* spp.), *Eucalyptus* spp., privet (*Ligustrum* spp.), liquidambar (*Liquidambar styraciflua*), Monterey pine (*Pinus radiata*), or Lombardy poplar (*Populus nigra*), that has a single trunk diameter of 4 inches or more, or a combination of multiple trunks with a total diameter of 8 inches or more. In addition to the species listed above, the following trees are exempt from this ordinance:

- Trees that are designated as a “street tree” as defined in the Rohnert Park Municipal Code.

- Tree pruning activities that are in conformance with the International Society of Arboriculture standards.
- Trees determined to be an imminent threat to public health, safety, or general welfare.
- Trees growing in inappropriate locations, as determined by the City Arborist.
- Trees located within fully developed residential lots with a detached, single-family residence.
- Trees planted or held for cash crop or commercial purpose (i.e., orchard trees).

The altering, removal, or relocation of any tree that does not fall under any of the exclusions listed above must abide by the codes and regulations set forth in the Heritage Tree Preservation Ordinance.

3.2.1 Impact Discussion

3.2a. 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? Less-than-Significant Impact with Mitigation Incorporated.

The plan area is situated on approximately 330 acres. Potential development-related impacts would occur primarily in areas where pavement or structures currently exist; however, development also is proposed in areas identified to have ruderal vegetation. No project activities would be conducted within the two perennial stream features that traverse the plan area.

Special-Status Plants

No special-status plant species were observed during reconnaissance surveys, and desktop research indicates that special-status plants are unlikely to occur in the plan area. In addition, the proposed plan includes Policy L.7-2, which calls for avoidance of adverse impacts on ecologically sensitive habitats. However, no botanical surveys have been performed to date. Therefore, although special-status plant species are unlikely to be present in the plan area because of the prevalence of existing development and ruderal vegetation, it is not possible to completely rule out the presence of special-status plant species in the plan area. Thus, the impact would be *potentially significant*. Implementation of Mitigation Measure 3.2-1 would provide guidance for conducting botanical surveys during the appropriate phenological periods for plants, before the start of construction.

Mitigation Measures

Mitigation Measure 3.2-1: Conduct Site-Specific Botanical Surveys and Implement Protective Actions if Rare Plants Are Identified

During the appropriate phenological periods, preconstruction rare plant surveys shall be conducted in areas where special-status plants have the potential to occur in construction areas. Developed areas will not be required to be surveyed, because of the lack of suitable habitat for rare plant species. Before the start of construction, the location of special-status plants shall be identified, then shall be marked or flagged for avoidance; or as appropriate, the limits of construction shall be marked between the plants and the construction area. If impacts on rare plants cannot be avoided, a qualified botanist shall oversee

the collection of the upper 4 inches of topsoil in the areas where any identified special-status plant species would be affected. Once construction has been completed, the topsoil shall be stockpiled separately and restored to the general area of disturbance.

Significance After Mitigation

Implementation of Mitigation Measure 3.2-1 would reduce the impact on special-status plant species to a *less-than-significant* level.

Migratory Birds

Suitable nesting habitat exists on-site for other non-special-status migratory birds and raptors. This habitat exists primarily within the riparian corridors that are located along the two perennial streams traversing the plan area from east to west. In addition, trees throughout the residential and commercial areas may be used by nesting birds. Policy L.7-2 of the proposed plan calls for avoidance of adverse impacts on ecologically sensitive habitats and wildlife in planning, construction, and maintenance of creek corridor paths. However, nesting activities of these birds could be directly affected by habitat/tree removal, which would result in the loss of active nests and indirectly would be affected by adjacent construction noise and vibration, nighttime lighting, or excessive dust creation that would result in nest abandonment or breeding/rearing failure.

Because of this potential loss of habitat and temporary disturbance, this impact on migratory birds would be *potentially significant*. Implementation of Mitigation Measure 3.2-2 would take place before the start of construction.

Mitigation Measures

Mitigation Measure 3.2-2: Conduct Site-Specific Preconstruction Nesting Bird Surveys and Implement Protective Actions if Active Nests Are Detected

A preconstruction survey shall be conducted by a qualified biologist for nesting raptors and other special-status bird species a maximum of 2 weeks before the start of any new construction activities (i.e., ground clearing and grading, staging of equipment, ground disturbance) during the breeding season (February 1–August 31) so that no nesting migratory birds are within or adjacent to the construction area. If active nests are found during the preconstruction survey, a no-disturbance buffer zone shall be created around active nests during the breeding season or until a qualified biologist has determined that the young have fledged. The no-disturbance buffer zone shall be a minimum of 250 feet from active raptor nests, 100 feet from special-status species, and 50 feet from non-special-status nesting bird species until the chicks have fledged. Reductions in the size of the buffer zones and or allowances of limited types of construction activities within the buffer zone shall be determined by a qualified biologist and shall be based on existing noise and human disturbance levels in the plan area and observed evidence of disturbance to birds.

Significance After Mitigation

Implementing Mitigation Measure 3.2-2 would reduce the impact on special-status and migratory bird species to a *less-than-significant* level.

Special-Status Fish Species

Coho Salmon (*Oncorhynchus kisutch*) and Central California Coast Steelhead (*Oncorhynchus mykiss*) have the potential to occur in the plan area, in the two perennial streams that traverse the plan area from east to west (Santos et al., 2014). No construction activities would occur within the streams or associated riparian habits; therefore, habitat loss would not occur and direct mortality of special-status fish species because of the proposed plan would be unlikely to occur. However, near-stream construction activities may result in runoff that could cause temporary increases in water turbidity. High concentrations of suspended sediment could disrupt normal feeding behavior and efficiency (Cordone and Kelly, 1961; Bjornn et al., 1977; Berg and Northcote, 1985), and could reduce growth rates (Crouse et al., 1981). High turbidity concentrations could reduce dissolved oxygen in the water column, resulting in reduced respiratory functions, reduced tolerance to diseases, and also could cause fish mortality (Sigler et al., 1984; Berg and Northcote, 1985; Gregory and Northcote, 1993; Waters, 1995). Even small pulses of turbid water cause salmonids to disperse from established territories (Waters, 1995), which can displace fish into less suitable habitat and/or increase competition and predation, decreasing chances of survival. Increased sediment deposition can fill pools and reduce the amount of cover available to fish, decreasing the survival of juveniles (Alexander and Hansen, 1986, NRDC, 2015).

In addition to increases in water turbidity, equipment refueling, fluid leakage, and equipment maintenance near the stream channels pose some risk of contamination of aquatic habitat and subsequent injury or death to listed salmonids. Because of the developed nature of the plan area, these perennial stream features have existing sources of pollutants and petroleum-based products in the form of runoff from roadways and other sources in the project vicinity. In addition, trash, shopping carts, tires, and other human-made debris are present in both perennial streams.

However, because of this potential disturbance of habitat from turbidity and contamination, this impact on special-status fish species would be *potentially significant*. As discussed in detail in Section 3.7, “Hydrology and Water Quality,” implementing Mitigation Measure 3.7-1, “Prepare and Implement Site-Specific SWPPPs,” and Mitigation Measure 3.7-2, “Prepare, Submit, and Implement Site-Specific Erosion Control Plans” (see Section 3.7 for the full text of these mitigation measures), would reduce impacts from construction-related soil erosion to a less-than-significant level, because these measures entail implementation of a grading and erosion control plan and a SWPPP with site-specific BMPs specifically designed to reduce erosion. Measures that could be implemented to reduce erosion include limiting ground-disturbing activities during the winter rainfall period; minimizing exposure of disturbed areas and soil stockpiles to rainfall; minimizing construction activities near or within drainage facilities; using soil stabilization measures such as mulching, silt fencing, or temporary desilting basins; following good housekeeping practices such as road sweeping and dust control; and using diversion measures such as berms to prevent stormwater runoff from contacting disturbed areas. In addition, implementation of Mitigation Measure 3.2-3 would reduce the potential for the incidental trapping of wildlife.

Mitigation Measures

Mitigation Measure 3.2-3: Implement Site-Specific Natural Erosion Control Materials to Reduce the Potential for Entrapment of Special-Status Species

Plastic monofilament netting (e.g., erosion control matting or wattles) shall not be used in special-status species habitat, because wildlife can become trapped in the netting and it leaves plastic particles in the soil and water as it degrades. Appropriate fiber netting or similar natural materials (e.g., coconut coir matting) shall be used for erosion control or other purposes in sensitive areas, to reduce the potential for entrapping wildlife.

Mitigation Measure 3.7-1, “Prepare and Implement Site-Specific SWPPPs” (see full Mitigation Measure 3.7-1 text in Section 3.7, “Hydrology and Water Quality”)

Mitigation Measure 3.7-2, “Prepare, Submit, and Implement Site-Specific Erosion Control Plans” (see full Mitigation Measure 3.7-2 text in Section 3.7, “Hydrology and Water Quality”)

Significance After Mitigation

Implementation of Mitigation Measures 3.2-3, 3.7-1, and 3.7-2 would reduce the impact on special-status fish species to a *less-than-significant* level.

Special-Status Amphibians

No breeding habitat or upland habitat for California tiger salamander (*Ambystoma californiense*) or foothill yellow-legged frog (*Rana boylei*) is present in the plan area. However, the potential exists for these species to use perennial creeks and ephemeral drainages in the plan area as aquatic dispersal habitat. In addition, these species may disperse upland, away from aquatic features, into ruderal and developed areas. Therefore, although the proposed plan would not affect special-status amphibian species habitat, the potential for dispersing individuals in the plan area to be affected by the proposed plan cannot be ruled out (USFWS, 2004).

Policy L.7-2 in the proposed plan calls for avoidance of adverse impacts on ecologically sensitive wildlife. However, if special-status amphibian species are present in the project footprint during construction, these species may be affected by crushing, injury from construction-related disturbance, and modifications to behavior resulting from disturbances (e.g., noise). The potential also exists for project activities to increase water turbidity and pollutants, as described above for special-status fish species. The potential for these impacts to occur is very low because of the lack of suitable breeding or upland habitat in the plan area.

However, because of this potential disturbance, this impact on special-status amphibian species would be *potentially significant*. Implementation of Mitigation Measure 3.2-4 would address this potential disturbance to these amphibian species.

Mitigation Measures

Mitigation Measure 3.2-4: Conduct Site-Specific Preconstruction Surveys and Implement Protective Actions if Special-Status Species Are Identified

Preconstruction surveys for special-status species shall be conducted at active construction areas by a qualified biologist. However, construction areas that have a developed land cover type—including urban, residential, paved, or gravel areas—shall be surveyed at the discretion of a qualified biologist based on the potential for biological resources to be affected. In the event that a special-status species is encountered, all construction activities will stop within 50 feet of the individual. Construction activities will not resume until the individual has left the project area of its own volition. If a special-status species becomes trapped in a construction area, or does not leave the project area of its own volition, the appropriate resource agencies will be contacted to determine a course of action for species relocation.

Significance After Mitigation

Implementation of Mitigation Measure 3.2-4 would reduce the impact on special-status amphibian species to a *less-than-significant* level.

Special-Status Reptiles

Marginally suitable aquatic and upland habitat for western pond turtle (*Emys marmorata*) is present in the form of perennial creeks that traverse the plan area. In addition, one occurrence of a western pond turtle was recorded less than 0.15 mile west of the plan area, in the northern of the two perennial creeks. No project activities would occur in these perennial creeks; therefore, removal of western pond turtle habitat would not occur. However, western pond turtle may disperse upland into ruderal areas or, less likely, into developed areas, and could be affected by project activities.

Potential impacts on western pond turtle would be similar to those described previously for special-status amphibians and fish. As discussed previously, Policy L.7-2 in the proposed plan calls for avoidance of adverse impacts on ecologically sensitive wildlife. However, if western pond turtle is present in the project footprint during construction, the species may be affected by crushing, injury from construction-related disturbance, and modifications to behavior resulting from disturbances (e.g., noise). The potential also exists for project activities to increase water turbidity and pollutants in western pond turtle habitat aquatic habitat.

Mitigation Measures

Mitigation Measure 3.2-3, “Implement Site-Specific Natural Erosion Control Materials to Reduce the Potential for Entrapment of Special-Status Species” (see full Mitigation Measure 3.2-3 text above)

Mitigation Measure 3.7-1, “Prepare and Implement Site-Specific SWPPPs” (see full Mitigation Measure 3.7-1 text in Section 3.7, “Hydrology and Water Quality”)

**Mitigation Measure 3.7-2, “Prepare, Submit, and Implement Site-Specific Erosion Control Plans”
(see full Mitigation Measure 3.7-2 text in Section 3.7, “Hydrology and Water Quality”)**

Significance After Mitigation

Mitigation Measure 3.2-3 would ensure that materials harmful to reptiles would not be used in erosion control devices. In addition, Mitigation Measures 3.7-1 and 3.7-2 require that the project implement a SWPPP as well as a site-specific erosion control plan, to reduce the potential for construction to result in degradation of reptile habitat. Thus, implementation of Mitigation Measures 3.2-3, 3.7-1, and 3.7-2 would reduce the impact on special-status reptile species to a *less-than-significant* level.

3.2b-c. 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? Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? Less-than-Significant Impact with Mitigation Incorporated

The two riparian/perennial creeks that traverse the plan area from east to west, is located in the plan area. These two perennial creeks also are USACE Section 404 jurisdictional water features. No development activities would occur within these riparian corridors; however, impacts on these areas may occur from runoff or accidental spills entering these waterways. Increased turbidity and increased levels of pollutants could degrade the quality of these riparian areas, and would make them less useful as wildlife corridors and habitat.

Mitigation Measures

Mitigation Measure 3.7-1, “Prepare and Implement Site-Specific SWPPPs” (see full Mitigation Measure 3.7-1 text in Section 3.7, “Hydrology and Water Quality”)

**Mitigation Measure 3.7-2, “Prepare, Submit, and Implement Site-Specific Erosion Control Plans”
(see full Mitigation Measure 3.7-2 text in Section 3.7, “Hydrology and Water Quality”)**

Significance After Mitigation

Mitigation Measures 3.7-1 and 3.7-2 require that the project implement a SWPPP as well as a site-specific erosion control plan, to reduce the potential for erosion and sedimentation of riparian and wetland habitat as a result of project activities. Thus, implementation of Mitigation Measures 3.7-1 and 3.7-2 would reduce the impact on water features and riparian sensitive natural communities and USACE Section 404 jurisdictional water features to a *less-than-significant* level.

3.2d. 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? Less-than-Significant Impact.

The two perennial streams that traverse the plan area are the only wildlife corridors in the area. These two features accommodate the movement of wildlife within the area, from east to west. No development activities would occur within these two features. In addition, with the exception of the two perennial stream features, the remainder of the project footprint does not function as an important corridor between larger open space wildlife areas, because it is composed of dense urban development and is bordered on all sides by dense urban development. Therefore, the impact on wildlife corridors would be *less than significant*.

3.2e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? Less-than-Significant Impact with Mitigation Incorporated.

Implementation of the proposed plan would be likely to require removal of trees meeting the definition of “protected tree” under the City’s Zoning Ordinance and Municipal Code to “address tree preservation and protection.” Protected trees are found throughout the plan area and are concentrated on large vacant development sites. The impact from loss of these trees during construction would be *potentially significant*.

Mitigation Measures

Mitigation Measure 3.2-5: Prepare and Implement Site-Specific Tree Mitigation and Replacement Plans

Project applicants seeking to remove protected trees shall prepare a tree mitigation and replacement plan, in accordance with Division D5, “Resource Management,” of the City of Rohnert Park Zoning Ordinance. The plan shall include all of the following elements:

- (1) An inventory of trees planned for removal and any work planned within the dripline of protected trees;*
- (2) Replacement of trees at a ratio agreed on with the City of Rohnert Park and in accordance with the tree protection ordinance;*
- (3) The specific locations of the tree planting, including a map and planting plan;*
- (4) Schedules and methodologies for maintaining and monitoring the success of the plan; and*
- (5) Performance standards.*

This plan shall be reviewed and approved by the City before issuance of a site development permit, and the plan shall be implemented throughout project construction.

Significance After Mitigation

Implementation of Mitigation Measure 3.2-5 would reduce the impact to a *less-than-significant* level because it would comply with the City's regulations to secure a tree removal permit.

3.2f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? No Impact.

No drafted or adopted conservation plans are in place that would apply to the proposed plan or affect the plan area. Therefore, *no impact* would occur.

3.2.2 Cumulative Impacts

This section analyzes potential cumulative impacts related to biological resources that could occur from a combination of the proposed plan and other past, present, and reasonably foreseeable projects in the vicinity. The geographic scope of this analysis is defined as the city limits of Rohnert Park. As discussed in Chapter 2.0, "Project Description," the analysis of cumulative impacts assumes build-out of the City's General Plan (City of Rohnert Park, 2015 [originally adopted 2000]). Numerous projects have been approved, are under way, or are programmed within and adjacent to the City Center area. For example, the Sonoma-Marín Area Rail Transit station currently is under construction on the east side of the project footprint. In addition, 24 residential units are programmed for a vacant site at the intersection of Commerce Boulevard and Hinebaugh Creek.

Cumulative projects would be subject to state and federal regulations, the City's General Plan policies, and City ordinances intended to protect and conserve sensitive biological resources. In addition, independent environmental review in accordance with CEQA would be performed for discretionary projects, to examine their potential impacts on biological resources. These projects, like the proposed plan, would be required to comply with applicable City policies and state and federal laws, permit conditions set by resource agencies, and project-specific mitigation measures.

Therefore, the cumulative impacts on biological resources would be *less than significant*.

3.2.3 References

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3.3 CULTURAL RESOURCES

This section describes the existing physical and regulatory setting related to cultural resources and discusses the potential impacts of the proposed plan on cultural resources.

3.3.1 Existing Conditions

Archaeological Resources

Prehistoric Setting

Following Frederickson (1984) and Moratto (1984), a cultural chronology has been developed for the San Francisco Bay Area, based largely on discrete cultural traits observed in the stratigraphic sequence. These periods include the Paleo-Indian, Lower Archaic, Middle Archaic, Upper Archaic, and Emergent Periods. In Sonoma County, there is some evidence of the Paleo-Indian Period at Warm Springs, CA-SON-547 (Moratto, 1984). Later cultural periods have been identified in Sonoma County as well.

Paleo-Indian Period (12,000 to 8,000 Years Before Present [B.P.]

The Paleo-Indian Period has been described in terms of big-game hunters occupying a multitude of environments. However, subsequent data have illustrated that California's Paleo-Indians practiced varied resource exploitation (not just large mammals) and also may have been adept at seafaring (Arnold and Walsh, 2010:20–21). Although this period is marked primarily by a generalized tool kit (chopping tools, core bifaces, and scrapers), more specialized tools (drills, fluted projectile points, and graters) have been noted from later sites of the period (Chartkoff and Chartkoff, 1984:43). Paleo-Indian sites in California consist of workshops, occupation sites, burials, butcher sites, and isolated finds (Chartkoff and Chartkoff, 1984).

Archaic Period

Although the early years of the Archaic Period are not easily discernible from the preceding Paleo-Indian Period, certain themes began to emerge. These include the use of new ecological niches, specialized technologies and tool kits, and diffuse economies. Archaic groups were highly mobile and practiced seasonal migration. In addition to multiple new tool types and ground stone technology, ritual objects and personal ornamentation developed during the Archaic Period. The period can be further subdivided into the Lower, Middle, and Upper Archaic Periods (Chartkoff and Chartkoff, 1984).

Lower Archaic Period (8,000 to 5,000 B.P.)

The Lower Archaic Period consisted of a few inland sites containing considerable numbers of milling tools, as well as chert and obsidian bifaces. Larger projectile points and crescents were replaced by wide-stemmed points, and the early part of the Lower Archaic is marked by still high residential mobility, with temporary sites located in higher mountain elevations and adjacent to river banks. Artifacts include ground stone slabs, large bifacial knives, scraping tools, core-cobble tools, and large-stemmed projectile points. Sites dating to this period are particularly susceptible to private collecting and “questionable provenance” (Arnold and Walsh, 2010:94), and they may be underrepresented in the cultural sequence. Scant evidence has been found that points to any human

presence in the San Francisco Bay Area before 4,000 years ago, and it is likely that such occupation sites have been inundated by rising sea levels (GANDA, 2004; Arnold and Walsh, 2010).

Middle Archaic Period (5,000 to 3,000 B.P.)

The Middle Archaic Period was a continuation of the warming trend that began in the Early Archaic. During this time, oaks thrived, and acorn exploitation flourished. Broad regional subsistence patterns gave way to more intensive procurement practices, and economies became more diversified. Although acorns were an abundant resource, they are labor intensive and likely remained a secondary resource. Middle Archaic sites are marked by increasing quantities of stone milling tools. As the Middle Archaic continued, concave-based, lanceolate, and side-notched forms replaced the wide-stemmed points of the Early archaic (GANDA, 2004; Arnold and Walsh, 2010). During the Borax Lake Pattern (5,000 to 3,000 B.P.) of this period, a variety of tool forms were present, including concave-based, lanceolate, and side-notched types, as well as blades and burins. As populations increased, groups were occupying more diverse settings but still clustered primarily around major waterways (Arnold and Walsh, 2010). Trade networks with local partners were likely active as well (Chartkoff and Chartkoff, 1984).

Upper Archaic Period (3,000 to 1,300 B.P.)

During the Upper Archaic, status distinctions and other indicators of sociopolitical complexity developed. Complex exchange systems were formalized, and regular, sustained trade between groups was practiced. The Berkeley Pattern (4,000 to 2,500 B.P., overlapping portions of the Middle and Lower Archaic) is noted by the presence and expansion of large mound sites located on the bay shores (Arnold and Walsh, 2010). This was a time of a still-increasing use of acorns as a food source, with mortars and pestles observed in the archaeological assemblage, but nearly no manos or metates (Arnold and Walsh, 2010). Distinctive stone and shell artifacts differ from earlier cultural manifestations, and burials were primarily placed in flexed positions and often included red ochre (GANDA, 2004).

Emergent Period (1,300 to 200 B.P.)

The Emergent Period was a time of both technological and social changes. Territorial boundaries between groups become more defined, and it was increasingly common for an individual's social status to be linked with acquired, personal wealth. During the latter portion of the period (500 to 200 B.P.), sophisticated exchange relations were regularized with specialists governing the various aspects of production and exchange. The clamshell disk bead as a monetary unit developed during the late Emergent Period. The Augustine Pattern (1,300 to 200 B.P.) of this period reflected intensive food procurement strategies supporting a population increase. Intergroup trade activities gained in importance, and intensive fishing and hunting practices—as well as complex, regular exchange systems—are hallmarks of this period. A wide variety of mortuary practices have also been noted (GANDA, 2004).

Historic Resources

Sonoma County

Early settlement in Sonoma County resulted from both Spanish and Russian exploration. The Spanish presence was in response to Fort Ross, which was established by the Russians in 1812. Russian settlement spread from the coast to inland areas, and Spanish mission and rancho locations became established in the 1830s (GANDA, 2004:8).

The Russians ceded present-day Sonoma County to Mexican and American rivals in 1841. After the 1846–1848 Mexican War ended and the California Gold Rush ensued, events in the 1850s and 1860s brought the disintegration of ranchos. Towns such as Petaluma, Santa Rosa, and Sonoma developed into regional economic rivals. The region became an agricultural center as production of grapes, fruit, eggs, and other items bolstered the county’s economy (GANDA, 2004:8).

The railroad reached north through Marin County and into Sonoma County by the 1870s, increasing the prominence of the logging and dairying industries. Agriculture remained vital to the county’s economy into the 1910s, and it persists today. The railroad was important to developing the Sonoma County tourist trade that grew throughout the 20th century (GANDA, 2004:8).

Rohnert Park

Rohnert Park developed from Rancho Cotate, which changed ownership several times in the 19th century until it was purchased in 1849 by Dr. Thomas Page. The Page family owned the land grant for several years, and in 1892, established the Cotati Land Company. The Company subdivided land into parcels ranging from 5 to 20 acres, and gradually sold the parcels well into the 20th century. In 1929, Waldo Emerson Rohnert bought a large piece of Rancho Cotate to the north and east of the city of Cotati. Rohnert operated a successful seed company in Hollister that he started in 1893. Rohnert constructed a large drainage system to reduce the annual flooding. This drainage system allowed him to grow plants for their seeds, which he then sold to other seed companies. After Rohnert died in 1933, the company and the land transferred to his family. His son would continue to run the company from his office in Hollister with a local person on site for the Sonoma County operation (Danisi, 2012:7–8).

In 1955, Paul Golis and Maurice Fredericks, local attorneys, approached Fred Rohnert, Waldo’s son, to grant them a purchase-option agreement for the 2,700-acre seed farm for \$200 per acre. Golis and Fredericks planned to build a city from the neighborhood concept of planned growth modeled after the success of Levittown, Pennsylvania. Each neighborhood would have a school, swimming pool, and park that would be within a third of a mile of the farthest home. They planned for eight neighborhoods that would surround a city center, for a total population of 30,000 citizens. In 1956, Golis and Fredericks created a special assessment district—the Rohnert Park Community Services District. The district consisted of the Rohnert’s family property and the Brian’s Ranch, which had recently been sold. By 1957, wells, sewage plant, and some streets were completed and more infrastructure would be built as more financial backing was available (Danisi, 2012:7–8).

In 1960, it was decided that the special district should be an incorporated city; however, voters rejected the incorporation. There was debate about whether Rohnert Park, named after the Rohnert family, and Cotati should

incorporate as one city. The citizens of Rohnert Park hired William T. Zion to analyze the incorporation of Rohnert Park, and Zion recommended that incorporation would provide better services than what the county could provide. In 1962, a special election was held, and the City of Rohnert Park was established. It became the fourth largest city in Sonoma County, and the first town to incorporate since 1905 (DeClercq, 1977).

Northwestern Pacific Railroad

Early History

The Northwestern Pacific Railroad (NWP) is an amalgam of 42 separate lines constructed between 1864 and the early 20th century, with the main line that extends through the plan area running between Tiburon and Eureka. The first railroad of significant length in the Bay Area was completed in October 1864 between San Francisco and San Jose, and less than 10 years later the San Rafael & San Quentin Railroad opened. Several other railroads operated in the plan area over the next few years; however, most did not survive for any great length of time (GANDA, 2004:12).

During the late 19th century, Marin and Sonoma County residents demanded a freight and passenger railway, but were divided over the route. Several railroad companies campaigned for the right to building a railroad, and on May 12, 1868, county residents chose the Sonoma County Railroad, which sought to build the railroad through Petaluma. The group had limited success, however, and soon transferred their rights and subsidies to the San Francisco and Humboldt Bay Railroad Company. The San Francisco and Humboldt Bay Railroad Company reorganized under the name San Francisco and North Pacific Railroad (SFNP). Interests in that line were eventually sold to Peter Donahue, the owner of the San Francisco and San Jose Railroad and Union Iron Works. Donahue had started the Union Iron Works, the first Gold Rush–era San Francisco foundry, which evolved into the Bethlehem Shipbuilding Corporation; and also organized the San Francisco Gas Company, which became Pacific Gas and Electric Company (GANDA, 2004:12–13).

By October 1870, regular service was under way between Petaluma and Santa Rosa. In April 1871, Donahue decided to sell his portion of the rail company for a large profit to competitor Milton Latham, owner of the California Pacific Railroad (CPRR). As such, the SFNP became the Petaluma and Humboldt Division of the CPRR. The CPRR soon decided that the Sonoma County line would not figure in its long-range plans. By January 1873, Donahue had purchased the Sonoma County line back for \$1 million, and the line became part of the SFNP again (GANDA, 2004:13).

By the mid-1870s, Donahue constructed a line north from Cloverdale to the Landing at Humboldt Bay, as well as a new rail link between Petaluma and San Rafael. By 1884, he had completed track to Tiburon, which became the permanent southern terminus of the SFNP. Donahue died in 1885, and control of the company passed to his son, who died 5 years later. Control of the railroad passed from the younger Donahue estate to the California Northwestern Railway Company (CNW). Although the railroad continued to expand during the 1890s, it also saw severe financial problems that decade. Due to CNW's financial instability, the Southern Pacific Railroad (SPRR) absorbed the CNW in 1900 (GANDA, 2004:13–14).

20th Century

In the early 20th century, the SPRR took control of Marin and Sonoma Counties' rail lines and incorporated a new railroad to compete against the Santa Fe's expanding timber lines. The competing firms joined forces and formed the NWP on January 8, 1907. At that time, the tourist trade became a central business objective for the NWP, because hauling agricultural products was no longer profitable (GANDA, 2004:14).

The NWP became a favorite of Bay Area dwellers seeking the redwood forest experience, and resorts were built to accommodate the tourists. In 1929, the SPRR bought the Santa Fe's interest, and the NWP became a wholly owned subsidiary. The ensuing 1930s and the Great Depression made freight transportation nearly nonexistent, and the company abandoned the branch lines. Passenger service also declined as automobile traffic blossomed. From the mid-1930s on, the automobile replaced the train as America's choice for tourist-related travel. The NWP abandoned more than 138 miles of track during the 1930s Depression (GANDA, 2004:17).

With America's entry into World War II, all the NWP engines and cars were pressed into service hauling lumber and critical war supplies to San Francisco factories. Because of the high number of mercury mines in Napa and Sonoma Counties, the NWP shipped large amounts of this material during World War II (GANDA, 2004:17).

After the war, most of the population altered its mode of transportation from train to vehicle. It quickly became evident that the growth of the automobile, long-range trucking, even buses would have a permanent, nationwide effect on railroading. For the rail companies, passenger service was no longer a priority, and several passenger-oriented branch lines were dropped (GANDA, 2004:17).

Over the next few decades, several branch lines of the NWP were abandoned. Financial troubles during the 1980s forced the SPRR to place the NWP on the market. SPRR purchased the NWP in 1984. In 1996, the SPRR line from the town of Outlet, north of Willits, south to the town of Ignacio, in Marin County, became publicly owned. Today, the North Coast Railroad Authority maintains and operates the line between Healdsburg and Arcata, and the Sonoma-Marin Area Rapid Transit District owns the line from Healdsburg to Larkspur (GANDA, 2004:17).

Paleontological Resources

Based on a review of geologic mapping provided by Fox et al. (1973) and Sowers et al. (1998), the plan area is located within Holocene-age (i.e., 11,700 years B.P. to Present Day) interfluvial, marsh-like basin deposits consisting mainly of poorly sorted dark clay and silty clay. By definition, to be considered a unique paleontological resource, a fossil must be more than 11,700 years old. Holocene deposits contain only the remains of extant, modern taxa (if any resources are present), which are not considered "unique" paleontological resources. Therefore, this geologic formation is not considered to be paleontologically sensitive.

Records Search

A records search of the plan area was conducted on March 18, 2015, by AECOM at the Northwest Information Center (NWIC) of the California Historical Resources Information System located in Rohnert Park; the records search is listed at the NWIC under IC File Number 14-1225. The records search included the plan area and a half-mile search radius.

There are no reported cultural resources, either archaeological or built environment, in the plan area. There are two previously reported resources within one-half mile of, but outside the plan area: P-21-002834 (Northwestern Pacific Railroad), which runs parallel and outside the eastern boundary of the plan area, and P-21-003763 (a historic-era barn), which is located one-half mile northwest of the plan area.

The records search identified six previous cultural resources studies that included at least a portion of the plan area. However, no more than 20 percent of the plan area has been subject to previous investigation.

AECOM visited and took photo documentation of the plan area on March 16, 2015. No cultural resources were observed within the plan area.

Native American Consultation

AECOM sent a request to the Native American Heritage Commission (NAHC) on July 29, 2015, to search its sacred lands file for any Native American resources in the plan area, and to provide a list of Native American representatives who may have knowledge of Native American cultural resources in the plan area. Because the NAHC did not respond within 2 weeks of the initial request, on August 12, 2015, AECOM sent a second request to the NAHC to search the sacred lands file and to provide a Native American contact list. On August 17, 2015, the NAHC responded stating that the sacred lands file search did not indicate the presence of Native American cultural resources in the immediate plan area. The NAHC also provided a list of three individuals who may have knowledge of cultural resources in the plan area.

On August 25, 2015, AECOM sent informational letters to the individuals listed on the NAHC contact list via certified mail. All letters were received or available for pick-up by August 27, 2015. No responses were received within 90 days. Pursuant to Assembly Bill (AB) 52 (Public Resources Code [PRC] Section 21082.3[d][3]) and Senate Bill (SB) 18 (Government Code Section 65352.3[a][2]), the City of Rohnert Park considers its Native American tribal consultation complete. Copies of Native American correspondence are presented in Appendix C.

3.3.2 Regulatory Framework

National Historic Preservation Act

The National Historic Preservation Act of 1966 established the Advisory Council on Historic Preservation; authorized the Secretary of the Interior to maintain a National Register of Historic Places; directed the Secretary to approve state historic preservation programs that provided for a State Historic Preservation Officer; established a National Historic Preservation Fund program; and codified the National Historic Landmarks program.

American Indian Religious Freedom Act

The American Indian Religious Freedom Act (AIRFA) was enacted by a joint resolution of the Congress in 1978 and is codified at 42 United States Code (USC) Section 1996. AIRFA was enacted to protect and preserve the traditional religious rights and cultural practices of American Indians, Eskimos, Aleuts, and native Hawaiians. AIRFA requires governmental agencies to adjust their policies so as to not interfere with the exercise of Native American religion and to accommodate access to and use of religious sites.

Native American Graves Protection and Repatriation Act

The Native American Graves Protection and Repatriation Act (NAGPRA) were enacted in 1990 and are codified under 25 USC 3001 et seq., 104 Stat. 3048. NAGPRA requires federal agencies and institutions that receive federal funding to return Native American cultural items to lineal descendants and culturally affiliated Indian tribes and Native Hawaiian organizations. NAGPRA also establishes procedures for the inadvertent discovery or planned excavation of Native American cultural items on federal or tribal lands, as well as making it a criminal offense to traffic in Native American remains without right of possession, or in Native American cultural items obtained in violation of the act.

California Environmental Quality Act

The California Environmental Quality Act (CEQA) applies to all discretionary projects undertaken or subject to approval by the state's public agencies. CEQA states that it is the policy of the State of California to "take all action necessary to provide the people of this State with... historic environmental qualities...and preserve for future generations examples of the major periods of California history" (PRC Sections 21001[b] and 21001[c]). Under the provisions of CEQA, "A project with an effect that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment" (State CEQA Guidelines, Section 15064.5[b]).

Assembly Bill 52

AB 52 was passed in 2014 and amends sections of CEQA relating to Native Americans. AB 52 establishes a new category, named tribal cultural resources, and states that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource may have a significant effect on the environment.

Section 21074 was added to the PRC to define tribal cultural resources, as follows:

21074. (a) "Tribal cultural resources" are either of the following:

(1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:

(A) Included or determined to be eligible for inclusion in the California Register of Historical Resources.

(B) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.

(2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

(b) A cultural landscape that meets the criteria of subdivision (a) is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.

(c) A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a “non-unique archaeological resource” as defined in subdivision (h) of Section 21083.2 may also be a tribal cultural resource if it conforms to the criteria of subdivision (a).

AB 52 requires the CEQA lead agency to begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of a proposed project if the tribe requests the lead agency to inform it, in writing, of projects in that area, and the tribe requests consultation, before the determination of whether a negative declaration, mitigated negative declaration, or environmental impact report is required. In addition, AB 52 includes time limits for certain responses regarding consultation, as follows:

- within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice;
- the California Native American tribe has 30 days to request consultation; and
- the lead agency must begin consultation process within 30 days of receiving a California Native American tribe’s request for consultation.

Senate Bill 18

SB 18 (Chapter 905, Statutes of 2004) was signed into law in September 2004 with the main provisions taking effect on March 1, 2005. SB 18 requires local (city and county) governments to consult with California Native American tribes, identified on the NAHC’s SB 18 tribal consultation contact list, before adopting or amending a general plan or when designating open space easements. The intent of SB 18 is to establish meaningful government-to-government consultation early in the planning process to protect Native American cultural places, in order to:

- increase protection of Native American cultural places, particularly on tribal lands not covered by policies of tribal government;
- recognize Tribes’ continuing cultural ties to the land and to their traditional heritages and those places that are essential elements in tribal cultural traditions, heritages, and identities;
- include information on such resources early in the planning process to avoid potential conflicts; and
- enable tribes to manage and act as caretakers of cultural places.

Local governments are encouraged to consider incorporating policies into the general plans regarding SB 18 and consultation with Tribal governments for the purpose of protecting cultural places. SB 18 includes steps and time limits for certain responses regarding consultation, as follows:

- Local government or applicant makes proposal that involves a general plan/specific plan amendment, update, or adoption.
- Local government contacts the NAHC for list of Tribal contacts.

- Local government contacts Tribes regarding the general plan/specific plan amendment or adoption and offers consultation. (Government Code Section 65352.3.)
- Tribe has 90 days to respond and to request consultation. (Government Code Section 65352.3.) Local governments and tribes can agree on shorter time frames.
- If a Tribe requests consultation, local government and Tribe engage in consultation for the purpose of preserving a cultural place.
- Local government sends notice 45 days before taking action on the general plan/specific plan adoption or amendment. (Government Code Section 65352.)
- Local government sends notice 10 days before public hearing on the general plan/specific plan adoption or amendment. (Government Code Section 65092.) Tribes must request this notice.
- Local government makes decision to approve or deny general plan/specific plan adoption, update, or amendment.

City of Rohnert Park General Plan

The *City of Rohnert Park General Plan* (City of Rohnert Park, 2015 [originally adopted 2000]) contains one goal and three policies relating to historic and archaeological resources.

Goal EC-A: Conserve Historic and archaeological resources for the aesthetic, educational, economic, and scientific contribution they make to Rohnert Park's identify and quality of life.

- **Policy EC-1:** Undertake an inventory of historic resources to determine sites or buildings of federal, State, or local historic significance.

The State Office of Historic Preservation has determined that buildings or structures 45 years or older have the potential to be historically significant. PRC Sections 5020–5029 address historic resource assessment and protection. Because Rohnert Park was first developed in the mid-1950s, the City should undertake this inventory over the next decade. Identified historic resources should be recorded on the California Department of Parks and Recreation Historic Resources Inventory Form (DPR 523).

- **Policy EC-2:** Insure 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. Require construction activities and development adjacent to sites of historic or archaeological resources to avoid degradation by:
 - Studying the potential effects of development and construction in the resource;
 - Requiring pre-construction surveys and monitoring during any ground disturbance for all development in areas of historical and archaeological sensitivity; and
 - Implementing appropriate measures to avoid the identified impacts.

Portions of Rohnert Park's east side are considered to have the potential to contain additional archaeological resources. Because these areas are designated for future development, adequate policies and measures for protection of known and unknown archaeological resources that can supplement CEQA requirements may need to be incorporated into future plans (including the University District Specific Plan)

and development activities. The City should collaborate with Sonoma State University to conduct searches, monitor sites, and take appropriate steps.

- **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.

CEQA requires assessment of a project's potential impact on archaeological resources. In the event that historical or unique archaeological resources are accidentally discovered during construction, materials and their surroundings shall not be altered or collected. A qualified archaeologist must make an immediate evaluation, and avoidance measures or appropriate mitigation should be completed, according to State CEQA Guidelines Section 15064.5(f). Section 21083.2 includes additional provisions protecting these resources. City involvement in the identification, mitigation, and monitoring of project impacts on these resources will ensure the protection of Rohnert Park's cultural heritage and compliance with state law.

There are no goals or policies in the *City of Rohnert Park General Plan* related to paleontological resources.

Society of Vertebrate Paleontology Guidelines

The Society of Vertebrate Paleontology (SVP, 1995 and 1996), a national scientific organization of professional vertebrate paleontologists, has established standard guidelines and outlined acceptable professional practices in the conduct of paleontological resource assessments and surveys, monitoring and mitigation, data and fossil recovery, sampling procedures, specimen preparation, analysis, and curation. Most practicing professional paleontologists in the nation adhere to the Society of Vertebrate Paleontology assessment, mitigation, and monitoring requirements, as specifically spelled out in its standard guidelines.

3.3.3 Impact Discussion

Historic Resources

3.3a. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5? No Impact.

There are currently no known historical resources or no built-environment cultural resources in the plan area. Therefore, *no impact* would occur and no mitigation is required.

3.3b and 3.3e. Cause a substantial adverse change in the significance of an archeological resources pursuant to §15064.5? Disturb any human remains, including those interred outside of formal cemeteries? Less-than-Significant Impact with Mitigation Incorporated.

Archaeological Resources

There are no known archaeological resources in the plan area. Most of the plan area is covered in pavement, structures, and landscaped surfaces, making pedestrian surveys of the plan area ineffective in most areas and causing any archaeological resources that might be buried to be difficult to identify. However, the plan area is

located in an area covered in alluvial fans, which in the San Francisco Bay Area have been known to contain buried archaeological resources that tend to be relatively old (Meyer and Rosenthal, 2007:19–22). It is therefore possible that undiscovered, buried archaeological deposits that might be eligible as archaeological resources are present in the plan area. If archaeological resources are encountered during construction activities, this impact would be *significant*.

Mitigation Measures

Mitigation Measure 3.3-1: Implement Site-Specific Procedures for Inadvertent Discovery of Cultural Resources

All appropriate federal, state, and local regulations regarding cultural resources shall be closely adhered to; these regulations contain measures that safeguard against significant impacts on cultural resources. Because of surface conditions, archaeological pedestrian surveys would be ineffective in most areas. If cultural resources are encountered during project implementation, the applicant shall notify the City of Rohnert Park, and all activity within 100 feet of the find shall halt until it can be evaluated by a qualified archaeologist. Prehistoric archaeological materials might include obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil (midden) containing heat-affected rocks, artifacts, or shellfish remains; and stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); and battered stone tools, such as hammerstones and pitted stones. Historic-period materials might include stone, concrete, or adobe footings and walls; filled wens or privies; and deposits of metal, glass, and/or ceramic refuse. If the resource is Native American in origin and the archaeologist and a Native American representative determine that the resources may be significant and cannot be avoided, they shall notify the City of Rohnert Park and an appropriate treatment plan for the resources shall be developed by the applicant, in consultation with the City of Rohnert Park and the archaeologist. Measures in the treatment plan could include preservation in place (capping) and/or data recovery. The archaeologist shall consult with Native American representatives in determining appropriate treatment for prehistoric or Native American cultural resources. Ground disturbance shall not resume within 100 feet of the find until an agreement has been reached as to the appropriate treatment of the find.

Significance After Mitigation

Implementation of Mitigation Measure 3.3-1 would reduce potential impacts to *less than significant*.

Human Remains

No human remains have been previously identified in the plan area. Nevertheless, it is possible that buried human remains are present within the plan area. There are specific state regulations regarding discovery of human remains that must be followed. If human remains are encountered during construction activities, this impact would be *potentially significant*.

Mitigation Measures

Mitigation Measure 3.3-2: Implement Site-Specific Procedures for Inadvertent Discovery of Human Remains

If human remains, including disarticulated or cremated remains, are encountered during construction, all ground-disturbing activities within 100 feet of the discovery must immediately cease. PRC Section 5097.98, and Section 7050.5 of California Health and Safety Code require that the County Coroner be immediately notified when human remains are identified. The project proponent and City of Rohnert Park also must be immediately notified. If the County Coroner determines that the remains are Native American, the NAHC must be contacted within 24 hours, pursuant to Subdivision (c) of §7050.5 of the Health and Safety Code. The City of Rohnert Park shall consult with the Most Likely Descendent, if any, identified by the NAHC regarding excavation and removal of the human remains. The project proponent and appropriate agency should be responsible for approval of any recommended investigation and action, taking into account state law as presented in State CEQA Guidelines 15064.5(e) and PRC 5097.98. Before resumption of ground-disturbing activities within 100 feet of the human remains, all mitigation regarding the human remains shall be implemented. If removal of human remains is determined to be the appropriate mitigation, it shall be conducted by a qualified archaeologist with Native American burial experience.

Significance After Mitigation

Implementation of Mitigation Measure 3.3-2 would reduce any potential impacts to *less than significant*.

3.3c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? Less-than-Significant Impact.

Geologic mapping prepared by Fox et al. (1973) and Sowers et al. (1998) indicates the plan area is composed of Holocene-age (i.e., 11,700 years B.P. to Present Day) alluvial basin deposits. By definition, to be considered a unique paleontological resource, a fossil must be more than 11,700 years old. Holocene deposits contain only the remains of extant, modern taxa (if any resources are present), which are not considered “unique” paleontological resources. Therefore, this geologic formation is not considered to be paleontologically sensitive. Furthermore, most of the plan area has already been developed with urban uses, and deep underground excavations (i.e., multistory underground parking garages) that might encounter paleontologically sensitive rock formations are not anticipated. Therefore, project-related earthmoving activities would have a *less-than-significant impact* on unique paleontological resources.

3.3d. Cause a substantive adverse change in the significance of a tribal cultural resource pursuant to §15064.5? No Impact.

The NAHC has stated that the sacred lands file failed to indicate the presence of Native American cultural resources in the immediate plan area. In addition, none of the three individuals identified by NAHC responded to inquiries regarding tribal cultural resources. Because neither the NAHC nor the tribal representatives identified

tribal cultural resources in the plan area, the area is not considered sensitive for tribal cultural resources. Thus, *no impact* on tribal cultural resources would occur.

3.3.4 Cumulative Impacts

Historic and Archaeological Resources

Although no known cultural resources are located within the plan area, there is the potential for significant impacts to undiscovered, buried archaeological deposits that may be present in the plan area. These potential impacts would be mitigated to below a level of significance with implementation of Mitigation Measure 3.3-1. Therefore, *no cumulative impacts* to historic or archaeological resources would occur.

Tribal Cultural Resources

Because neither the NAHC nor the tribal representatives identified tribal cultural resources in the plan area, the area is not considered sensitive for tribal cultural resources. Therefore, there would be *no cumulative impact* on tribal cultural resources.

Paleontological Resources

Geologic mapping prepared by Fox et al. (1973) and Sowers et al. (1998) indicates that the plan area and the sites associated with the related projects considered in this cumulative analysis are composed of Holocene-age alluvial basin and alluvial fan deposits. By definition, to be considered a unique paleontological resource, a fossil must be more than 11,700 years old. Holocene deposits contain only the remains of extant, modern taxa (if any resources are present), which are not considered “unique” paleontological resources. Therefore, these geologic formations are not considered to be paleontologically sensitive. The Holocene basin and fan deposits are underlain by older Pleistocene-age (i.e., approximately 2.6 million to 11,700 years B.P.) alluvial deposits, which are paleontologically sensitive. The proposed plan would not entail excavations that would be deep enough to encounter these deposits (such as underground parking garages). If any of the related projects include excavation deep enough to reach the Pleistocene deposits, a potentially significant impact from inadvertent damage to or destruction of unique paleontological resources could occur. However, because the proposed plan would not entail excavation in Pleistocene-age sediments, the proposed plan would not result in a cumulatively considerable incremental contribution to a potentially significant cumulative impact related to unique paleontological resources. Therefore, there would be *no cumulative impact* on paleontological resources.

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3.4 GEOLOGY AND SOILS

This section describes the existing physical and regulatory setting related to geology and soils and discusses the potential impacts of the proposed plan on geology and soils.

3.4.1 Existing Conditions

The plan area is located in the Santa Rosa Plain, an alluvial-filled valley in the Coast Ranges geomorphic province. Geologic mapping prepared by Fox et al. (1973) indicates that the plan area is composed of Holocene-age (i.e., 11,700 years Before Present to Present Day) Basin Deposits. These Holocene deposits are underlain by older Pleistocene sedimentary alluvial deposits.

Based on a review of U.S. Natural Resources Conservation Service soil survey data, the plan area consists entirely of Clear Lake Clay, sandy substratum, 0 to 2 percent slopes (NRCS, 2014). This soil type has a moderately low permeability and a high shrink-swell potential. Clear Lake Clay is classified as hydrologic soil group D, which means it has a high stormwater runoff potential. However, the soil has a low water erosion hazard (because of its high clay content) and a moderate wind erosion hazard.

The plan area is located approximately 3.5 miles west of the Rodgers Creek Fault Zone, and approximately 16.5 miles east of the San Andreas Fault Zone, North Coast Section (Jennings, 1994). Both faults are classified as “active” by the California Geological Survey (CGS), and both have shown evidence of activity during historic times (i.e., in the last 200 years) (Bryant and Lundburg, 2002; Hart, 1998). WGCEP (2008) projects there is a 63 percent probability that a magnitude 6.3 or greater earthquake will occur in the Bay Area by 2036.

3.4.2 Regulatory Framework

California Building Standards Code

The State of California provides minimum standards for building design through the California Building Standards Code (CBC) (California Code of Regulations Title 24). The CBC applies to building design and construction in the state and is based on the federal Uniform Building Code used widely throughout the country (generally adopted on a state-by-state or district-by-district basis). The CBC has been modified for California conditions with numerous more detailed or more stringent regulations. Structures constructed as part of the proposed plan must comply with the CBC.

The state earthquake protection law (California Health and Safety Code Section 19100 et seq.) requires that structures be designed to resist stresses produced by lateral forces caused by wind and earthquakes. The CBC requires an evaluation of seismic design that falls into Categories A through F (where F requires the most earthquake-resistant design) for structures designed for a project site. The CBC philosophy focuses on “collapse prevention,” meaning that structures are designed for prevention of collapse for the maximum level of ground shaking that could reasonably be expected to occur at a site. Chapter 16 of the CBC specifies exactly how each seismic design category is to be determined on a site-specific basis through the site-specific soil characteristics and proximity to potential seismic hazards.

Chapter 18 of the CBC regulates the excavation of foundations and retaining walls. This chapter regulates the preparation of a preliminary soil report, engineering geologic report, geotechnical report, and supplemental ground-response report. Chapter 18 also regulates analysis of expansive soils and the determination of the depth to groundwater table. For Seismic Design Category C, Chapter 18 requires analysis of slope instability, liquefaction, and surface rupture attributable to faulting or lateral spreading. For Seismic Design Categories D, E, and F, Chapter 18 requires these same analyses plus an evaluation of lateral pressures on basement and retaining walls; liquefaction and soil strength loss; and lateral movement or reduction in foundation soil-bearing capacity. It also requires that mitigation measures be considered in structural design. Mitigation measures may include ground stabilization, selection of appropriate foundation type and depths, selection of appropriate structural systems to accommodate anticipated displacements, or any combination of these measures. The potential for liquefaction and soil strength loss must be evaluated for site-specific peak ground acceleration magnitudes and source characteristics consistent with the design earthquake ground motions. Peak ground acceleration must be determined from a site-specific study, the contents of which are specified in CBC Chapter 18.

Where no other building codes apply, Chapter 29 of the CBC regulates excavation, foundations, and retaining walls. Appendix J of the CBC regulates grading activities, including drainage and erosion control and construction on unstable soils, such as expansive soils and areas subject to liquefaction.

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act (Alquist-Priolo Act) (Public Resources Code [PRC] Sections 2621–2630) requires the establishment of “earthquake fault zones” along known active faults in California. Regulations on development within these zones are enforced to reduce the potential for damage resulting from fault displacement. The main purpose of the law is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The law addresses only the hazard of surface fault rupture and is not directed toward other earthquake hazards. Before a project can be permitted in a designated Alquist-Priolo Earthquake Fault Zone, cities and counties must require a geologic investigation to demonstrate that proposed buildings would not be constructed across active faults.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act of 1990 (PRC Sections 2690–2699.6) addresses earthquake hazards from nonsurface fault rupture, including liquefaction and seismically induced landslides. The act established a mapping program for areas that have the potential for liquefaction, landslide, strong ground shaking, or other earthquake and geologic hazards. The act also specifies that the lead agency for a project may withhold development permits until geologic or soils investigations are conducted for specific sites and mitigation measures are incorporated into plans to reduce hazards associated with seismicity and unstable soils.

National Pollutant Discharge Elimination System and Storm Water Pollution Prevention Plans

As discussed in detail in Section 3.7, “Hydrology and Water Quality,” the State Water Resources Control Board (SWRCB) and North Coast Regional Water Quality Control Board (North Coast RWQCB) have adopted specific National Pollutant Discharge Elimination System (NPDES) permits for a variety of activities that have the potential to discharge wastes (including sediment) to waters of the state. The SWRCB’s statewide stormwater

general permit for construction activity (Order 2009-0009-DWQ) is applicable to all land-disturbing construction activities that would disturb 1 acre or more. Compliance with the NPDES permit requires that notices of intent to discharge be submitted to the North Coast RWQCB; and that storm water pollution prevention plans (SWPPPs) that include best management practices (BMPs) be implemented to minimize erosion and subsequent water quality degradation during construction activities.

City of Rohnert Park General Plan

The following goals and policies from the *City of Rohnert Park General Plan* (City of Rohnert Park, 2015 [originally adopted 2000]) related to geology and soils apply to the proposed plan:

Goal HS-A: Minimize the risk to life and property from seismic and geologic hazards in Rohnert Park.

- **Policy HS-1:** 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.

Development should undertake necessary studies and structural precautions to prevent structural damage due to soil expansion and contraction. The existing Subdivision regulations require submission of a soils report. For areas in the city that have a moderate or high liquefaction potential, information is available in the California Division of Mines and Geology Special Publication 117, Guidelines for Evaluating and Mitigating Seismic Hazards in California.

- **Policy HS-2:** Continue requiring all new buildings in the city to be built under the seismic requirements of the Uniform Building Code and Uniform Plumbing Code.

The City has adopted the Uniform Building Code and the Uniform Plumbing Code, which mandates earthquake resistant building construction design standards. The City has amended these codes, in part, to address soil conditions. The amendments require added reinforcement of slabs and slab floors, protection of slabs from ground water, use of nonexpansive fill for building pads and beneath footings, and noncorrosive water piping material underground.

Goal HS-C: Control erosion and sedimentation to provide flood protection and protect water quality.

- **Policy HS-4:** Ensure that the City's regulations pertaining to subdivision design, zoning, building, and grading ordinances and policies continue to include measures to minimize erosion and sedimentation.
- **Policy HS-6:** As part of the building permit process, require new development greater than 5 acres in size to prepare and implement a site-specific SWPPP that effectively reduces discharges of stormwater containing sediment and other pollutants resulting from site construction activities. In addition, require all projects, regardless of size, to comply with any other stormwater provisions of the specific plans for their respective areas.

Rohnert Park Municipal Code

Chapter 15.50 of the Rohnert Park Municipal Code regulates excavations, grading, and fills to reduce or eliminate the hazards of earth slides, mud flows, rock falls, undue settlement, erosion, siltation, and flooding. A grading permit must be obtained from the City engineer. The permit application must include grading plans showing topography and cut and fill; and an erosion control plan showing the types and locations of sediment control measures in compliance with Municipal Code Chapter 15.52 (Erosion and Sediment Control).

Grading is designated as “engineered grading” when it is in excess of 5,000 cubic yards; when it is for “large projects” or has cuts/fills greater than 4 feet; or when directed by the City engineer as he/she deems necessary due to site conditions. All projects involving engineered grading require a site-specific geotechnical report, a soils report, and a liquefaction analysis. Inspection by the geotechnical engineer is required during the construction process for each project.

3.4.3 Impact Discussion

3.4a.i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Less-than-Significant Impact.

Construction and Operation

Surface ground rupture along faults is generally limited to a linear zone a few yards wide. The nearest fault zoned under the Alquist-Priolo Act is the Rodgers Creek Fault (CGS, 2012), located approximately 3.5 miles east of the plan area. Because the plan area is not located within an Alquist-Priolo Earthquake Fault Zone (CGS, 2012), nor is it located within or immediately adjacent to the trace of any other known fault, surface fault rupture in the plan area is unlikely. Therefore, this impact is considered *less than significant*.

3.4a.ii. Strong seismic ground shaking? Less-than-Significant Impact with Mitigation Incorporated.

Construction and Operation

The Tolay and Bloomfield Faults are located approximately 1.8 and 4 miles southwest of the plan area, respectively, and there is an unnamed fault 2 miles south of the plan area. However, these faults are not classified as active (Jennings, 1994).

The plan area is located approximately 3.5 miles west of the Rodgers Creek Fault. This fault offsets upper Cenozoic volcanic and sedimentary rock formations along the southwestern flanks of the Sonoma Mountains and unnamed hills to the north. The southern end of the fault connects with the Hayward Fault. Historical slip was demonstrated during studies conducted after the 1969 Santa Rosa earthquakes (magnitudes 5.6 and 5.7), where a continuous zone of seismicity was demonstrated for the northern half of the Rodgers Creek Fault and its stepover to the Maacama Fault (Hart, 1998). The projected maximum moment magnitude for the Rodgers Creek Fault ranges from 6.89 to 7.07 (WGCEP, 2008).

The North Coast Section of the San Andreas Fault is approximately 16.5 miles west of the plan area. WGCEP (2008) estimates there is a 21 percent chance that the Northern San Andreas Fault could generate a magnitude 6.7 earthquake or greater before 2036.

The intensity of ground shaking depends on the distance from the earthquake epicenter to the site, the magnitude of the earthquake, site soil conditions, and the characteristics of the source. Ground motions from seismic activity can be estimated by probabilistic method at specified hazard levels and by site-specific design calculations using a computer model. The CGS Probabilistic Seismic Hazards Assessment ground motion calculator indicates that a minimum horizontal acceleration of 0.488 *g* (where *g* is the percentage of gravity) could be anticipated at the plan area with a 10 percent probability of earthquake occurrence in a 50-year time frame (also known as the “Design Basis Earthquake”) for use in earthquake-resistant design (CGS, 2008). Stated another way, these calculations indicate there is a 1-in-10 probability that an earthquake will occur within 50 years that would result in a peak horizontal ground acceleration exceeding 0.488 *g*. This indicates that a relatively high level of ground shaking could occur. Therefore, this impact is considered *potentially significant*.

Mitigation Measures

Mitigation Measure 3.4-1: Prepare, Submit, and Implement Site-Specific Geotechnical Reports

As part of any project-level CEQA analysis within the plan area, the project applicant(s) of each site-specific project shall retain a licensed geotechnical engineer to prepare a final geotechnical report per California Building Standards Code and City requirements for the proposed facilities that shall be submitted for review and approval to the City of Rohnert Park. The final geotechnical engineering report shall address and make recommendations on the following:

- *seismic design parameters;*
- *seismic ground shaking;*
- *liquefaction;*
- *expansive/unstable soils;*
- *site preparation;*
- *soil bearing capacity;*
- *structural foundations, including retaining-wall design;*
- *grading practices; and*
- *soil corrosion of concrete and steel.*

In addition to the recommendations for the conditions listed above, the geotechnical investigation shall include subsurface testing of soil and groundwater conditions (as appropriate), and shall determine appropriate foundation designs that are consistent with the version of the CBC that is applicable at the time building and grading permits are applied for. All recommendations contained in the final geotechnical engineering report shall be implemented by the project applicant(s) of each site-specific project. Design and construction of all new project development shall be in accordance with the CBC. The project applicant(s) shall provide for engineering inspection and certification by a qualified

geotechnical or civil engineer that earthwork has been performed in conformity with recommendations contained in the geotechnical report.

Significance After Mitigation

Implementation of Mitigation Measure 3.4-1 and adherence to the CBC and applicable City building regulations would reduce impacts from strong seismic ground shaking to a *less-than-significant* level, because the design recommendations of a geotechnical engineer to reduce damage from seismic events would be incorporated into buildings, structures, and infrastructure as required by the CBC, and a geotechnical or civil engineer would provide on-site monitoring to ensure that earthwork is performed as specified in the plans. Measures that could be recommended in the geotechnical reports to reduce hazards from strong seismic ground shaking could include structural reinforcement for additional shear strength such as extra rebar, bolts, and metal straps; soil densification; or construction on pier or pile foundations. The use of specific design techniques would depend on soil type and stratigraphy at each site, which would be determined during final design.

3.4a.iii. Seismic-related ground failure, including liquefaction? Less-than-Significant Impact with Mitigation Incorporated.

Construction and Operation

Soil liquefaction most commonly occurs when ground shaking from an earthquake causes a sediment layer saturated with groundwater to lose strength and take on the characteristics of a fluid, thus becoming similar to quicksand. Liquefaction may also occur in the absence of a seismic event, when unconsolidated soil above a hardpan becomes saturated with water. Factors determining the liquefaction potential are the level and duration of seismic ground motions, the type and consistency of soils, and the depth to groundwater. Loose sands and peat deposits; uncompacted fill and other Holocene materials deposited by sedimentation in rivers and lakes (fluvial or alluvial deposits); and debris or eroded material (colluvial deposits) are the most susceptible to liquefaction. Localities most susceptible to liquefaction-induced damage are underlain by loose, water-saturated, granular sediment within 40 feet of the ground surface. Liquefaction poses a hazard to engineered structures such as buildings, bridges, and underground utility pipelines. The loss of soil strength can result in bearing capacity insufficient to support foundation loads, increased lateral pressure on retaining walls, and slope instability.

The plan area is located in an area of younger, unconsolidated alluvial deposits, and the nearest known active seismic source is only 3.5 miles to the east. Sowers et al. (1998) mapped the plan area in an area of moderate to high liquefaction hazard. Therefore, this impact is considered *potentially significant*.

Mitigation Measures

**Mitigation Measure 3.4-1, “Prepare, Submit, and Implement Site-Specific Geotechnical Reports”
(see full Mitigation Measure 3.4-1 text above)**

Significance After Mitigation

Implementation of Mitigation Measure 3.4-1 would reduce the impact from liquefaction hazards to a *less-than-significant* level, because the site-specific geotechnical recommendations for seismic design parameters—

including a site-specific liquefaction analysis and measures to reduce liquefaction hazards, as required by the CBC—would be incorporated into each proposed plan design. Measures that could be recommended in the geotechnical reports to reduce liquefaction hazards could include replacement of existing soil with engineered, compacted fill or construction on pier or pile foundations installed on deeper, more stable rock strata. The use of specific design techniques would depend on soil type and stratigraphy at each site, which would be determined during final design.

3.4a.iv. Landslides? No Impact.

Construction and Operation

The topography within and adjacent to the plan area is nearly level. Thus, there would be no risk of loss, injury, or death involving landslides, and there would be *no impact*.

3.4b. Result in substantial soil erosion or the loss of topsoil? Less-than-Significant Impact with Mitigation Incorporated.

Construction

A review of U.S. Natural Resources Conservation Service (NRCS) (2014) soil survey data indicates that plan area soils are moderately susceptible to erosion by wind and water. Furthermore, plan area soils are of low permeability and have been classified as hydrologic group D (indicating a high stormwater runoff potential). Implementation of the proposed plan would include grading and construction activities for infrastructure and building foundations. Conducting these activities would result in the temporary disturbance of soil and would expose disturbed areas to winter storm events. Rain of sufficient intensity could dislodge soil particles from the soil surface. If the storm is large enough to generate runoff, localized erosion could occur. In addition, soil disturbance during the summer as a result of construction activities could result in soil loss and loss of topsoil because of wind erosion. Therefore, this impact is considered *potentially significant*.

Mitigation Measures

Mitigation Measure 3.7-1, “Prepare and Implement Site-Specific SWPPPs” (see full Mitigation Measure 3.7-1 text in Section 3.7, “Hydrology and Water Quality”)

Mitigation Measure 3.7-2, “Prepare, Submit, and Implement Site-Specific Erosion Control Plans” (see full Mitigation Measure 3.7-2 text in Section 3.7, “Hydrology and Water Quality”)

Significance After Mitigation

Implementation of Mitigation Measures 3.7-1 and 3.7-2 would reduce impacts from construction-related soil erosion to a *less-than-significant* level, because these measures entail implementation of a grading and erosion control plan and a SWPPP with site-specific BMPs specifically designed to reduce erosion. Measures that could be implemented to reduce erosion include limiting ground-disturbing activities during the winter rainfall period; minimizing exposure of disturbed areas and soil stockpiles to rainfall; minimizing construction activities near or within drainage facilities; soil stabilization measures such as mulching, silt fencing, or temporary desilting basins;

good housekeeping practices such as road sweeping and dust control; and diversion measures such as berms to prevent stormwater runoff from contacting disturbed areas.

Operation

Operational effects related to soil erosion are evaluated in Section 3.7, “Hydrology and Water Quality.”

3.4c. 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? Less-than-Significant Impact with Mitigation Incorporated.

Construction and Operation

The plan area consists partly of recent urban development built on compacted, engineered fill material and partly of undeveloped areas consisting of Holocene-age alluvial basin deposits. The basin deposits are generally loose and unconsolidated; improperly compacted material represents a hazard for building and road foundations. Furthermore, a review of NRCS (2014) soil survey data indicates that the plan area soils are of low bearing strength, and that ponding (i.e., retention of water in shallow depressions during rainstorms) occurs frequently during the winter months. Finally, dynamic compaction or seismic settlement can occur in unsaturated, loose granular material or uncompacted fill soils such as those found within the plan area, particularly given the close proximity of the Rodgers Creek Fault. Therefore, this impact is considered *potentially significant*.

Mitigation Measures

**Mitigation Measure 3.4-1, “Prepare, Submit, and Implement Site-Specific Geotechnical Reports”
(see full Mitigation Measure 3.4-1 text above)**

Significance After Mitigation

Implementation of Mitigation Measure 3.4-1 would reduce the impact from unstable soils to a *less-than-significant* level, because the site-specific geotechnical recommendations required by the CBC and City standards would be incorporated into each proposed plan design. Measures that could be included in the geotechnical reports to reduce settlement hazards and improve soil bearing strength could entail replacement of soil with engineered fill; appropriate compaction and associated soil moisture conditioning; and/or construction on pier or pile foundations installed in deeper, more stable rock strata. The use of specific design techniques would depend on soil type and stratigraphy at each site, which would be determined during final design.

3.4d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property? Less-than-Significant Impact with Mitigation Incorporated.

Construction and Operation

Expansive soils shrink and swell as a result of moisture change. These volume changes can result in damage over time to building foundations, underground utilities, and other subsurface facilities and infrastructure if they are

not designed and constructed appropriately to resist the damage associated with changing soil conditions. A review of NRCS (2014) soil survey data indicates that the plan area is composed of Clear Lake Clay, which has a high shrink-swell potential. Therefore, this impact is considered *potentially significant*.

Mitigation Measures

Mitigation Measure 3.4-1, “Prepare, Submit, and Implement Site-Specific Geotechnical Reports” (see full Mitigation Measure 3.4-1 text above)

Significance After Mitigation

Implementation of Mitigation Measure 3.4-1 would reduce the impact from expansive soils to a *less-than-significant* level, because the site-specific geotechnical recommendations required by the CBC and City standards would be incorporated into each proposed plan design. Measures that may be recommended in the site-specific geotechnical reports to address expansive soil could include (1) removal of expansive soil and replacement with select nonexpansive, engineered fill; (2) lime treatment of expansive soil; or (3) placement of structures on drilled piers or foundation elements founded on deeper, nonexpansive bearing rock strata. The use of specific design techniques would depend on soil type and stratigraphy at each site, which would be determined during final design.

3.4e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water? No Impact.

Construction

Portable toilets would be provided during site-specific construction projects. Therefore, there would be *no impact*.

Operation

The proposed plan would not require the use of septic systems or other alternative wastewater disposal systems. As discussed in Section 3.17, “Utilities and Service Systems,” wastewater treatment in the plan area would be provided via connections with the City’s existing wastewater conveyance and treatment system. Therefore, there would be *no impact*.

3.4.4 Cumulative Impacts

The proposed plan and the related projects considered in this cumulative analysis are all within the nearly flat alluvial plain of the Santa Rosa Valley. All of the projects would be constructed in Holocene-age alluvial basin and/or fan deposits, which are generally loose and unconsolidated. The Rodgers Creek Fault and San Andreas Fault Zones are active, and are approximately 3.5 miles east and 16.5 miles west, respectively, of the city center. Therefore, the project region is subject to the potential for seismic hazards associated with strong seismic ground shaking and liquefaction. The plan area, and most of the land area associated with the related projects, is composed of the Clear Lake Clay soil type, which is of low permeability, has a high stormwater runoff potential, and is expansive.

Surface Fault Rupture

Neither the proposed plan nor the related projects considered in this cumulative analysis are located within an Alquist-Priolo Earthquake Fault Zone or within or adjacent to any other known fault. Therefore, a cumulative impact related to surface fault rupture would not occur.

Strong Seismic Ground Shaking

Structures within the plan area could be subject to strong seismic ground shaking from an earthquake on the Rodgers Creek Fault or other regional faults such as the San Andreas. Implementation of Mitigation Measure 3.4-1 would require compliance with the CBC, including preparation of site-specific geotechnical reports to establish the seismic-design response spectrum and incorporate necessary seismic safety features (as specified by the CBC and the City municipal code and building department requirements) into the design of all new structures. Therefore, structures, roads, and utilities would be designed to withstand seismic forces to the maximum extent feasible per CBC requirements. Implementation of the related projects considered in this cumulative analysis could expose structures and people to the same hazards from strong seismic ground shaking. However, each project considered in this cumulative analysis must individually meet CBC requirements as well as the requirements of City building codes and policies. Therefore, implementation of the proposed plan, when considered with the related projects, would not create additional facilities under increased risk of geologic hazards and would not result in a cumulatively considerable incremental contribution to a significant cumulative impact related to strong seismic ground shaking.

Seismically Induced Liquefaction

Structures within the plan area would be built in an area of younger, unconsolidated alluvial basin deposits mapped as moderate–high liquefaction susceptibility (Sowers et al., 1998). Implementation of Mitigation Measure 3.4-1 would require compliance with the CBC, including preparation of site-specific geotechnical reports (including site-specific liquefaction analyses) to establish the seismic-design response spectrum and incorporate necessary seismic safety features (as specified by the CBC and the City municipal code and building department requirements) into the design of all new structures. Therefore, structures, roads, and utilities would be designed to resist liquefaction to the maximum extent feasible per CBC requirements, and/or soils subject to liquefaction would be excavated and replaced with engineered fill. Implementation of the related projects considered in this cumulative analysis would take place in areas mapped as moderate and moderate–high liquefaction susceptibility (Sowers et al., 1998) and therefore could expose structures and people to the same hazards. However, each project considered in this cumulative analysis must individually meet CBC requirements as well as the requirements of City building codes and policies. Therefore, implementation of the proposed plan, when considered with the related projects, would not create additional facilities under increased risk of geologic hazards and would not result in a cumulatively considerable incremental contribution to a significant cumulative impact related to seismically induced liquefaction.

Landslides

The proposed plan and the related projects considered in this cumulative analysis are all located within the flat alluvial plain of the Santa Rosa Valley, and are not adjacent to any steep, mountainous areas where landslides could occur. Therefore, a cumulative impact related to landslides would not occur.

Soil Erosion

Project implementation would entail grading and excavation over approximately 330 acres, including soil removal, trenching, excavation, pipe and footing installation, grading, and landscaping. Construction activities would result in the temporary disturbance of soil and would expose disturbed areas to winter storm events. Rain of sufficient intensity could dislodge soil particles from the soil surface. Once particles are dislodged and the storm is large enough to generate runoff, localized erosion could occur. In addition, soil disturbance during the spring and summer months could result in loss of topsoil because of wind erosion. Implementation of Mitigation Measure 3.7-1 would require each individual project applicant for any project that would disturb 1 acre of land or more to prepare and implement a SWPPP with site-specific erosion control BMPs, as required by the North Coast RWQCB to meet NPDES permit requirements. Mitigation Measure 3.7-2 would require each individual project applicant to obtain a City grading permit, which would include preparation of an erosion control plan and implementation of BMPs designed to control erosion during construction activities. Implementation of the related projects considered in this cumulative analysis could result in construction-related soil erosion similar to that described above. However, each project considered in this cumulative analysis must individually meet North Coast RWQCB NPDES permit requirements (including preparation of a SWPPP and implementation of BMPs) and the requirements of City codes and policies (i.e., grading and erosion control plans). Therefore, implementation of the proposed plan, when considered with the related projects, would not create additional substantial soil erosion and would not result in a cumulatively considerable incremental contribution to a significant cumulative impact from construction-related soil erosion.

Construction in Unstable Soils

Structures within the plan area would be constructed in loose and unconsolidated basin deposits that are unstable and are of low bearing strength. In addition, dynamic compaction or seismic settlement may also result in hazards within the plan area. Implementation of Mitigation Measure 3.4-1 would require compliance with the CBC, including preparation of site-specific geotechnical reports to incorporate necessary features for construction in unstable soils (as specified by the CBC and the City municipal code and building department requirements) into the design of all new structures. Therefore, structures, roads, and utilities would be designed to resist damage from unstable soils to the maximum extent feasible per CBC requirements, and/or unstable soils would be excavated and replaced with engineered fill. Implementation of the related projects considered in this cumulative analysis would take place in areas subject to the same unstable soil hazards as the proposed plan. However, each project considered in this cumulative analysis must individually meet CBC requirements as well as the requirements of City building codes and policies. Therefore, implementation of the proposed plan, when considered with the related projects, would not create additional facilities under increased risk of geologic hazards and would not result in a cumulatively considerable incremental contribution to a significant cumulative impact related to construction in unstable soils.

Construction in Expansive Soils

Structures within the plan area would be constructed in the Clear Lake Clay soil type, which has a high clay content and a high shrink-well potential. Implementation of Mitigation Measure 3.4-1 would require compliance with the CBC, including preparation of site-specific geotechnical reports to incorporate necessary features for construction in expansive soils (as specified by the CBC and the City municipal code and building department requirements) into the design of all new structures. Therefore, structures, roads, and utilities would be designed to resist damage from expansive soils to the maximum extent feasible per CBC requirements, and/or expansive soils would be excavated and replaced with engineered fill. Implementation of the related projects considered in this cumulative analysis would take place in Clear Lake Clay soils subject to the same shrink-swell potential as the proposed plan. However, each project considered in this cumulative analysis must individually meet CBC requirements as well as the requirements of City building codes and policies. Therefore, implementation of the proposed plan, when considered with the related projects, would not create additional facilities under increased risk of geologic hazards and would not result in a cumulatively considerable incremental contribution to a significant cumulative impact related to construction in expansive soils.

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3.5 GREENHOUSE GAS EMISSIONS

This section describes the existing physical and regulatory setting related to greenhouse gas (GHG) emissions and climate and discusses the potential impacts of the proposed plan on GHG emissions and climate.

3.5.1 Existing Conditions

The term “climate” refers to the accumulation of daily and seasonal weather events over a long period of time, whereas “weather” is defined as the condition of the atmosphere at any particular time and place (Ahrens, 2009). The plan area is in a climatic zone that is characterized as dry-summer subtropical or Mediterranean (abbreviated Cs) in the Köppen climate classification system. The Köppen system’s classifications are based primarily on annual and monthly averages of temperature and precipitation. See Section 3.1, “Air Quality,” for a description of the meteorology of the San Francisco Bay Area Air Basin.

Attributing Climate Change—Physical Scientific Basis

Certain gases in the Earth’s atmosphere, classified as GHGs, play a critical role in determining the Earth’s surface temperature. When high-frequency solar radiation (e.g., visible light) enters the Earth’s atmosphere from space (i.e., the sun), a portion of the radiation is absorbed by the Earth’s surface, and a smaller portion of this radiation is reflected back toward space. However, the energy re-radiated by the Earth is not the same high-frequency solar radiation that was received, but is lower frequency infrared radiation (i.e., thermal energy). The frequencies at which bodies emit radiation are proportional to temperature. Therefore, because it has a much lower temperature than the sun, the Earth will emit lower frequency (longer wavelength) radiation (i.e., infrared radiation). When infrared radiation comes into contact with GHGs in the atmosphere, a portion of that thermal energy can be absorbed by the GHG molecule and/or re-radiated back toward the Earth’s surface. Both outcomes result in a “trapping” of heat within the Earth’s atmosphere. This phenomenon, known as the “greenhouse effect,” is responsible for maintaining a habitable climate on Earth.

Prominent GHGs contributing to the Earth’s greenhouse effect are carbon dioxide (CO₂), methane, nitrous oxide, water vapor, and high-global warming potential (GWP) GHGs. Although high-GWP gases typically are emitted at lower rates than CO₂, methane, and nitrous oxide, they still can make a significant contribution to climate change because they are more effective at absorbing outgoing infrared radiation than CO₂. The concept of carbon dioxide equivalent (CO₂e) is used to account for the different potentials of GHGs to absorb infrared radiation. This potential, known as the GWP of a GHG, is dependent on the lifetime or persistence of the gas molecule in the atmosphere, its ability to absorb/trap infrared radiation, and the spectrum of light energy (i.e., range of wavelengths and frequencies) absorbed by the gas molecule. Every GHG’s GWP is measured relative to CO₂, which has a GWP of 1. High-GWP GHGs include hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Anthropogenic (human-caused) emissions of these GHGs that lead to atmospheric levels of GHGs in excess of natural ambient concentrations are responsible for intensifying the greenhouse effect; they have led to a trend of unnatural warming of the Earth’s atmosphere and oceans, with corresponding effects on global circulation patterns and climate (IPCC, 2013). CO₂ emissions associated with fossil fuel combustion for energy-related activities are the primary contributors to human-induced climate change (EPA, 2014).

Climate change is a global problem because GHGs are global pollutants—unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern. Whereas pollutants with localized air quality effects have relatively short atmospheric lifetimes (about 1 day), GHGs have long atmospheric lifetimes (1 year to several thousand years). GHGs persist in the atmosphere for a long enough time to be dispersed around the globe, continually contributing to the GHG effect. Although the exact lifetime of any particular GHG molecule depends on multiple variables and cannot be pinpointed, more CO₂ currently is emitted into the atmosphere than is sequestered. CO₂ sinks, or reservoirs, include vegetation and the ocean, which absorb CO₂ through photosynthesis and dissolution, respectively. These are two of the most common processes of CO₂ sequestration. Of the total annual human-caused CO₂ emissions, approximately 54 percent is sequestered through ocean uptake, Northern Hemisphere forest regrowth, and other terrestrial sinks within a year, whereas the remaining 46 percent of human-caused CO₂ emissions remains stored in the atmosphere (Seinfeld and Pandis, 1998:1091).

GHG emissions generated in the United States can contribute to climate change impacts in other countries or continents. The quantity of GHGs that it takes to ultimately result in climate change is not known precisely; it is sufficient to say that the quantity is enormous, and that no single project can be expected to measurably contribute to a noticeable incremental change in the global average temperature, or to global, local, or micro-climate.

Attributing Climate Change—Greenhouse Gas Emissions

Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the transportation, industrial/manufacturing, utility, residential, commercial, and agricultural emissions sectors. In California, the transportation sector is the largest emitter of GHGs, followed by electricity generation (ARB, 2015).

Emissions of CO₂ are byproducts of fossil fuel combustion. Emissions of methane, a highly potent GHG, result from off-gassing, the release of chemicals from nonmetallic substances under ambient or greater pressure conditions. Such emissions are largely associated with anaerobic conditions (i.e., lack of oxygen) found in natural resources (e.g., wetlands), agricultural practices, and landfills. Nitrous oxide emissions also are largely attributable to agricultural practices and soil management.

Land use decisions and development projects are not themselves GHG emissions sectors; however, land use decisions can affect the generation rate of GHG emissions from several sectors (e.g., transportation, energy consumption, water, and waste). In addition, activities associated with the long-term operation of development projects can result in direct or indirect GHG emissions. Direct emissions are GHG emissions generated at the site of consumption. For example, the use of natural gas for space or water heating generates direct GHG emissions because the natural gas is combusted at the site where the heat is used. Conversely, the use of electricity generates indirect GHG emissions because although the consumer may use the electricity at home, that electricity and the subsequent GHG emissions (if fossil fuel is used for generation) are likely being generated off-site.

Existing Greenhouse Gas Emissions in the Plan Area

Existing direct GHG emissions in the plan area include natural gas combustion from heating and hot water use for homes and nonresidential buildings; and tailpipe emissions from automobiles, transit buses, and delivery trucks. Degradable organic carbon from solid waste produced by households and businesses is another source of direct

GHG emissions. Existing indirect GHG emissions in the plan area include fossil fuel–based electricity use from the same locations listed above, as well as electricity required for traffic lights and street lighting. Other indirect sources include the use of fossil fuels to pump and treat drinking water and sewage from residential and nonresidential use. Indirect upstream emissions include the embedded fossil fuel from the production of food and other products consumed in the plan area.

3.5.2 Regulatory Framework

Massachusetts v. U.S. Environmental Protection Agency et al.

Twelve U.S. states and cities (including California), in conjunction with several environmental organizations, sued to force the U.S. Environmental Protection Agency (EPA) to regulate GHGs as a pollutant pursuant to the Clean Air Act (CAA) (*Massachusetts v. Environmental Protection Agency et al.* [U.S. Supreme Court No. 05-1120, Argued November 29, 2006—Decided April 2, 2007]). The U.S. Supreme Court ruled that the plaintiffs had standing to sue, that GHGs fit within the CAA’s definition of a pollutant, and that EPA’s reasons for not regulating GHGs were insufficiently grounded in the CAA.

Proposed Endangerment and Cause or Contribute Findings for Greenhouse Gases under the Clean Air Act

On December 7, 2009, EPA adopted its *Proposed Endangerment and Cause or Contribute Findings for Greenhouse Gases under the Clean Air Act* (Endangerment Finding). The Endangerment Finding is based on Section 202(a) of the CAA, which states that the EPA Administrator should regulate and develop standards for “emission[s] of air pollution from any class of classes of new motor vehicles or new motor vehicle engines, which in [its] judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare.” The rule addresses Section 202(a) in two distinct findings. The first addresses whether the concentrations of the six key GHGs (CO₂, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride) in the atmosphere threaten the health and welfare of current and future generations. The second addresses whether the combined emissions of GHGs from new motor vehicles and motor vehicle engines contribute to atmospheric concentrations of GHGs, and thus to the threat of climate change.

The EPA Administrator found that atmospheric concentrations of GHGs endanger public health and welfare within the meaning of Section 202(a) of the CAA. The EPA Administrator also found that GHG emissions from new motor vehicles and motor vehicle engines are contributing to air pollution, which is endangering public health and welfare.

Senate Bill 97 (Chapter 185, Statutes of 2007)

Senate Bill 97 requires that the Governor’s Office of Planning and Research prepare guidelines to submit to the California Resources Agency regarding feasible mitigation of GHG emissions or the effects of GHG emissions as required by the California Environmental Quality Act (CEQA). The Resources Agency was required to certify and adopt these revisions to the State CEQA Guidelines by January 1, 2010. The California Natural Resources Agency adopted those guidelines on December 30, 2009, and the guidelines became effective March 18, 2010.

Assembly Bill 32 (Chapter 488, Statutes of 2006)

The California Global Warming Solutions Act of 2006, widely known as Assembly Bill (AB) 32, requires the California Air Resources Board (ARB) to develop and enforce regulations for the reporting and verification of statewide GHG emissions. ARB is directed to set a GHG emissions limit, based on 1990 levels, to be achieved by 2020. The bill sets a timeline for adopting a scoping plan for achieving GHG reductions in a technologically and economically feasible manner.

The heart of the bill is the requirement to reduce statewide GHG emissions to 1990 levels by the year 2020. To achieve this goal, California needs to reduce GHG emissions by approximately 25 percent below business-as-usual predictions of year 2020 GHG emissions. The bill requires ARB to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective GHG reductions.

Executive Order S-03-05 (2005)

California Executive Order S-03-05, put forth by then-Governor Arnold Schwarzenegger, established the following GHG emissions reduction targets for California's state agencies:

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

The order also required the Secretary of the California Environmental Protection Agency to oversee and coordinate emissions reduction efforts with the Secretary of the Business, Transportation, and Housing Agency; the Secretaries of the California Department of Food and Agriculture, and The Resources Agency; the Chairpersons of ARB and the California Energy Commission; and the President of the California Public Utilities Commission. The Secretary of the California Environmental Protection Agency is required to report to the Governor and State Legislature biannually on the impacts of global warming on California, mitigation and adaptation plans, and progress made toward reducing GHG emissions to meet the targets established in this executive order.

Executive orders are directives to state agencies from the Governor of California. They do not govern local agency actions, nor do they affect the State Legislature. Although S-03-05 is an indicator of state policy as interpreted by the Governor, it may or may not reflect the view of the Legislature. It is, however, one of the factors being considered by state agencies such as ARB, the California Energy Commission, and the Building Standards Commission in formulating their GHG reduction strategies.

Executive Order S-1-07

Executive Order S-1-07, which was signed by Governor Schwarzenegger in 2007, proclaims that the transportation sector is the main source of GHG emissions in California, at more than 40 percent of statewide emissions. It establishes a goal to reduce the carbon intensity of transportation fuels sold in California by a minimum of 10 percent by 2020. This order also directed ARB to determine whether this Low Carbon Fuel

Standard (LCFS) could be adopted as a discrete, early-action measure after meeting the mandates in AB 32. ARB adopted the LCFS on April 23, 2009.

Assembly Bill 1493, Chapter 200, Statutes of 2002

AB 1493 (Pavley I) required ARB to adopt regulations by January 1, 2005, to reduce GHG emissions from noncommercial passenger vehicles and light-duty trucks of model year 2009 and thereafter. The bill required the California Climate Action Registry to develop and adopt protocols for the reporting and certification of GHG emissions reductions from mobile sources for use by ARB in granting emission reduction credits. The bill authorized ARB to grant emissions reduction credits for reductions of GHG emissions before the date of enforcement of regulations, using model year 2000 as the baseline for reduction.

In 2004, ARB applied to EPA for a waiver under the federal CAA to authorize these regulations to be implemented. The waiver request was formally denied by EPA in December 2007 after California had filed suit to prompt federal action. In January 2007, the California Attorney General filed a new lawsuit against EPA for denying California's request for a waiver to regulate and limit GHG emissions from these automobiles.

Bay Area Air Quality Management District CEQA Guidelines

In June 2010, the Bay Area Air Quality Management District (BAAQMD) adopted its updated CEQA Air Quality Guidelines, which established quantitative GHG thresholds of significance. The 2010 CEQA Air Quality Guidelines (2010 Guidelines) include separate thresholds of significance for project- and plan-level analyses.

At the plan level, BAAQMD recommends that projects use a qualitative threshold of significance based on the project's consistency with a "qualified greenhouse gas reduction plan," as well as the plan's GHG efficiency (i.e., metric tons [MT] of CO₂e per service population [SP] per year [MT CO₂e/SP/yr]). The SP of a project is defined by the number of employees and residents. Project-level analyses are evaluated using two quantitative thresholds: one based on the project's annual GHG emissions (i.e., MT CO₂e/yr) and the other based on the project's GHG efficiency (MT CO₂e/SP/yr).

In March 2012, the Alameda County Superior Court issued a judgment finding that the changes to the BAAQMD CEQA Guidelines qualify as a project under CEQA, and that BAAQMD had not complied with CEQA as part of the adoption process. However, on August 13, 2013, California's First District Court of Appeal held that BAAQMD's adoption of the thresholds was not a project subject to CEQA review, and overturned the decision by the Alameda Superior Court that invalidated the BAAQMD guidelines for assessing air quality impacts under CEQA. The Court of Appeal's decision was appealed to the California Supreme Court, which granted limited review, and the matter is currently pending. Lead agencies will need to determine appropriate air quality thresholds of significance based on substantial evidence in the record (BAAQMD, 2011). To that end, the City of Rohnert Park, as the lead agency for the proposed plan, has decided to use the 2010 CEQA Guidelines and its thresholds; therefore, those thresholds have been used in the impact analysis and discussion below.

Sonoma County Community Climate Action Plan

In October 2008, the county and all nine cities in Sonoma County, including Rohnert Park, released the *Sonoma County Community Climate Action Plan* (Sonoma County Community CAP), which sets a goal to reduce its GHG emissions by 25 percent below 1990 levels by 2015. This requires a reduction total of 1.4 MT CO₂e, or 37 percent below business as usual for 2015. The plan is broken into four major categories: Energy and Water Efficiency, Smart Transit and Land Use, Local Renewable Energy Economy, and Conservation of Natural Resources and Farmland. The projected investment required to meet these goals by the target date and retain these reductions into the future has been estimated at \$3.5 to \$4 billion.

Key solutions presented in the Sonoma County Community CAP that are relevant to this environmental document include the build-out of the Sonoma-Marín Area Rail Transit (SMART) rail line; strengthening of all environmental impact reports on proposed projects to promote GHG emission reductions; strengthening of city-centered, transit-oriented development; maintenance of existing or adoption of urban limit lines; facilitation of the increased use of conservation easements through zoning; and dedication of public funds and mitigation fees (Sonoma County, 2008).

Rohnert Park Greenhouse Gas Emissions Reduction Plan

Rohnert Park has also adopted “Plan C” of the GHG Emissions Reduction Plan Analysis, which includes the analysis of GHG-producing activities under direct control of the City. The plan calls for a host of photovoltaic projects, pump upgrades, pool solar water heating, and bio-fueled City fleets. The plan has the potential to reduce citywide operations by 35 percent. Because the proposed plan for Central Rohnert Park includes some zoned government office uses, Plan C can be used to incorporate GHG reduction measures into these land uses. The actual reduction potentials are unknown at this time, but these projects have the potential to reduce operational GHG emissions from the plan area (City of Rohnert Park, 2012).

Rohnert Park City Ordinance No. 782

On July 1, 2007, Rohnert Park instituted Ordinance No. 782, which establishes local green building requirements for building construction. City staff determined that the proposed ordinance itself is exempt from CEQA review, but the impacts of this ordinance may have a significant impact on projects proposed within the city. Compliance thresholds have been established that create tiers applicable to the project’s size, depending on the project type and zoned use. Compliance with the provisions of this ordinance shall be listed as a condition of approval on any design review approval issued by the planning division for a covered project. Although actual reduction potentials are unknown at this time, projects proposed in this area may be subject to the above standards and have the potential to reduce operational GHG emissions from the plan area (City of Rohnert Park, 2007).

3.5.3 Impact Discussion

3.5a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? Less-than-Significant Impact with Mitigation Incorporated.

The following analysis of the proposed plan’s GHG impacts is separated into short-term, construction-related emissions and long-term, operational emissions.

Construction

During construction under the proposed plan, a variety of sources would generate short-term and temporary exhaust-related GHG emissions. Construction-related GHG sources include heavy-duty construction equipment, material delivery trucks, material haul trucks, and construction worker vehicles. The amount of GHG emissions generated would vary from day to day, depending on the types of construction activities. The proposed plan’s construction-related GHG emissions were modeled using the same “worst-case” scenario and methodology used for air quality, which is described further in the discussion of Impact 3.1a. Table 3.5-1 presents the proposed plan’s total and annual average GHG emissions over the entire construction period.

Table 3.5-1: Construction CO₂e Emissions Associated with the Proposed Plan

Emission Source	Emissions
Total Proposed Construction Emissions (MT CO ₂ e)	148,457
Annual Average Construction Emissions ¹ (MT CO ₂ e/year)	5,938
Amortized Construction Emissions ² (MT CO ₂ e/yr)	4,949

Notes:

CO₂e = carbon dioxide equivalent; MT CO₂e /year = metric tons of carbon dioxide equivalent per year

¹ Construction activities would occur over a period of approximately 25 years. Total construction-related greenhouse gas emissions were divided by 25 years to calculate the annual average construction emissions.

² Construction emissions are amortized over 30 years, which is the assumed lifetime of the proposed plan.

Source: Data compiled by AECOM in 2015.

At the time of this writing, BAAQMD has developed a quantitative threshold of significance for construction-related GHG emissions. Construction-related GHG emissions are short-term and temporary; however, GHG emissions have longer atmospheric lifetimes than criteria air pollutants and can continue to contribute to the GHG effect for longer periods of time (e.g., 100 years). Therefore, it is important to evaluate the total quantity of GHG emissions generated during construction.

Although temporary construction emissions are necessary to develop any new or remodeled project, the land use being developed may operate at a higher GHG efficiency level than existing land uses of a similar type. Therefore, in some cases, construction emissions, though also a source of GHG emissions, can contribute to more GHG-efficient long-term operations that ultimately lower future GHG emissions.

Some air districts, including the South Coast Air Quality Management District and San Luis Obispo County Air Pollution Control District, recommend amortizing construction-related GHG emissions over the lifetime of the project (e.g., 30 years), and adding them to the annual operational emissions for evaluation. Because of the lack of a construction-specific GHG threshold, and the need to evaluate all construction emissions and the way in which

construction emissions could contribute to more GHG-efficient land uses, the proposed plan's construction-related GHG emissions were amortized and added to the annual operational emissions for evaluation. See Table 3.5-2 for amortized construction emissions.

BAAQMD encourages lead agencies to incorporate best management practices to reduce GHG emissions during construction, as applicable. Best management practices may include using alternative-fueled (e.g., biodiesel, electric) construction vehicles/equipment in at least 15 percent of the fleet; using at least 10 percent local building materials; and recycling or reusing at least 50 percent of construction waste or demolition materials.

As shown in Table 3.5-1, amortized construction emissions would be approximately 4,949 MT CO₂e/yr. When added to the proposed plan's annual operational emissions (see Table 3.5-2), these emissions would exceed the BAAQMD threshold of significance. Therefore, the impact of the proposed plan's short-term construction GHG emissions would be *potentially significant*.

Table 3.5-2: Operational CO₂e Emissions Associated with the Proposed Plan

Emissions Source	Emissions ¹
Total Operational Mass Emissions ²	39,672
BAAQMD 2010 Mass Emissions Threshold (MT CO ₂ e/yr)	1,100
Exceeds BAAQMD 2010 Mass Emissions Threshold?	Yes
Proposed Plan Service Population ³	3,520
Proposed Plan GHG Efficiency (MT CO ₂ e/SP/yr)	11.27
BAAQMD GHG Plan-Level Efficiency Threshold (MT CO ₂ e/SP/yr)	6.6
Exceeds Thresholds?	Yes

Notes:

BAAQMD = Bay Area Air Quality Management District; CO₂e = carbon dioxide equivalent; GHG = greenhouse gas;
MT CO₂e/SP/yr = metric tons of carbon dioxide equivalent per service population per year; MT CO₂e/year = metric tons of carbon dioxide equivalent per year

- 1 All emissions shown are in units of MT CO₂e/year unless noted otherwise.
- 2 Includes construction emissions amortized over 30 years, which is the assumed lifetime of the proposed plan.
- 3 Service population equals the sum of the projected residents and permanent employees associated with the proposed land uses. .

Source: Data compiled by AECOM in 2015.

Mitigation Measures

Mitigation Measure 3.5-1: Assess GHG Emissions Associated with Project-Specific Construction and Alter Project Details and/or Construction Equipment as Needed

As part of subsequent project-level CEQA analysis, project applicants shall assess and compare GHG emission impacts related to the construction of individual projects in the plan area with BAAQMD's thresholds of significance for project-level impacts. Potentially significant GHG impacts shall be mitigated to a less-than-significant level via implementation of all exhaust-related BAAQMD Basic or Additional Construction Mitigation Measures and alteration of project details and/or construction equipment.

Mitigation Measure 3.5-2: Purchase Carbon Offsets to Reduce Emissions

Following implementation of Mitigation Measure 3.5-1 (i.e., project-level analysis and comparison with BAAQMD's thresholds of significance), if construction or operational emissions are determined to continue to exceed BAAQMD's GHG threshold, the project applicant shall purchase carbon offsets to reduce the remaining emissions to below the threshold. If at the time of the analysis BAAQMD has not yet developed a construction-related GHG threshold of significance, the project applicant shall coordinate with BAAQMD to determine a surrogate threshold. Any offset of project emissions shall be demonstrated to be real, permanent, verifiable, enforceable, and additional. To the maximum extent feasible, as determined through coordination with BAAQMD, offsets shall be implemented locally. Offsets may include, but are not limited to, the following (in order of preference):

- (1) On-site offset of project emissions; for example, development of on-site renewable energy generation or a carbon sequestration project. Any on-site offset projects must be registered with the Climate Action Reserve or otherwise approved by BAAQMD to be used to offset project emissions. The number of offset credits produced would then be included in the annual inventory, and the net emissions calculations (i.e., with inclusion of offsets).*
- (2) Funding of local projects, subject to review and approval by BAAQMD that will result in real, permanent, verifiable, enforceable, and additional reduction in GHG emissions. If BAAQMD or the City of Rohnert Park develops a GHG mitigation fund, the project applicant may instead pay into this fund to offset GHG emissions in excess of the significance threshold.*
- (3) Purchase of carbon credits to offset emissions below the significance threshold. Only carbon offset credits that are verified and registered with the Climate Action Reserve, or available through a City-approved local GHG mitigation bank or fund, may be used to offset project emissions.*

Significance After Mitigation

Implementation of Mitigation Measures 3.5-1 and 3.5-2 would require assessment of construction-related GHG emissions for individual projects within the plan area and implementation of necessary mitigation and offsets that would reduce construction impacts to a *less-than-significant* level.

Operation

After build-out of the proposed plan, long-term operational emissions would be generated by the daily activities associated with the proposed land uses. Operational GHG emissions would be generated by several operational activities: transportation, energy consumption, water consumption, and solid waste generation. Transportation-related GHG emissions would be generated by vehicles arriving at and leaving the proposed land uses (commercial, light industrial, civic, retail, and residential). GHG emissions related to energy consumption would be generated by the use of electricity and natural gas for lighting, cooling, and heating of the proposed buildings, and by the powering of machinery in the light industrial zoned areas. GHG emissions related to water consumption would be generated by the electricity use required for treatment and conveyance of potable water to the plan area. GHG emissions related to solid waste would be those associated with the decomposition of solid waste generated by proposed plan facilities. The

California Emissions Estimator Model (CalEEMod) can calculate GHG emissions associated with all of these sources of operational emissions. Table 3.5-2 presents the proposed plan's total annual operational emissions.

In addition to evaluating a plan's total annual GHG emissions, it is important to evaluate the rate at which a project generates GHG emissions with respect to its land uses. In other words, although a project may be large, it could provide services (e.g., residential or commercial land uses) at a more efficient rate than a smaller project. Therefore, pursuant to BAAQMD's guidance, this analysis also evaluates the proposed plan's GHG efficiency, which is the amount of annual GHG emissions generated per SP. SP is the sum of residents and employees supported by a project. Table 3.5-2 also presents the proposed plan's GHG efficiency at full build-out.

The City would comply with Policy L-8.3 of the proposed plan by including all necessary emission reduction strategies from the Sonoma County Community CAP and the Rohnert Park GHG Emissions Reduction Plan. However, as shown in Table 3.5-2, the proposed plan's annual operational mass emissions and GHG efficiency would exceed BAAQMD's thresholds of significance. Therefore, the impact of the proposed plan's long-term operational GHG emissions would be *potentially significant*.

Mitigation Measures

Mitigation Measure 3.5-3: Assess GHG Emissions Associated with Project-Specific Operations and Alter Project Details as Needed

As part of subsequent project-level CEQA analysis, project applicants shall assess and compare GHG emission impacts related to the operation of individual projects in the plan area to BAAQMD's thresholds of significance for project-level impacts (i.e., 1,100 MT CO₂e per year). Potentially significant GHG impacts shall be mitigated to a less-than-significant level via alteration of project details.

Mitigation Measure 3.5-2, "Purchase Carbon Offsets to Reduce Emissions" (see full Mitigation Measure 3.5-2 text above)

Significance After Mitigation

Implementation of Mitigation Measures 3.5-2 and 3.5-3 would require assessment of individual project impacts within the plan area and implementation of necessary mitigation and offsets that would reduce operational GHG emissions impacts to a *less-than-significant* level.

3.5b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? Less-than-Significant Impact.

In addition to evaluating a project's GHG emissions, it is equally important to consider a project's design and purpose. In some cases, a project could generate a substantial amount of GHG emissions; however, it could provide amenities and services that are necessary and consistent with long-term GHG reduction plans.

The City of Rohnert Park has a GHG reduction plan that focuses on municipal operations, and thus is not applicable to the proposed plan. The City is currently working with other jurisdictions in Sonoma County to adopt the Sonoma County Community CAP that would serve all of Sonoma County. As noted in Policy L-8.3 of the

proposed plan and in Mitigation Measure 3.5-1, all new project development resulting from the proposed plan would be required to comply with the applicable GHG reduction strategies of the Rohnert Park GHG Reduction Plan, Sonoma County Community CAP, and Sonoma County Climate Action 2020, which is still in the development phase. Although the proposed GHG reduction strategies included in the Sonoma County Community CAP would still apply to the proposed plan, the GHG reduction targets (i.e., 25 percent below 1990 levels by 2015) would not align with the build-out of the proposed plan (2040). Therefore, in the absence of a current GHG reduction plan, this analysis evaluates the proposed plan’s design and purpose with the AB 32 Scoping Plan Update (Scoping Plan Update), which is the statewide plan for achieving AB 32 GHG reduction targets.

One of the benefits of the new SMART commuter train station, the improvements to the pedestrian network, and the enhancements to bicycle facilities within the plan area will be reductions in vehicle miles traveled and corresponding reductions in GHG emissions (Sonoma-Marín Area Rail Transit District, 2006). The proposed plan is an infill, mixed-use, transit-oriented development that would site residential and commercial land uses near one another. Residents of the plan area would be able to access commercial amenities and potential jobs within reasonable walking and biking distances, thereby eliminating vehicle trips or reducing vehicle trip distances. The Scoping Plan Update states that location-efficient (i.e., live, work, recreation, and commercial land uses near each other) and affordable transit-oriented development has been shown to achieve vehicle miles traveled reductions of 20–40 percent compared with non-transit-oriented-development households (ARB, 2014). In addition, commercial and residential land uses would be developed at a higher density within walking distance of the planned SMART rail station. The Scoping Plan Update cites the need to “encourage transit-oriented development and infill around station locations” as part of supporting planning and market development through targeted investments (ARB, 2014). These types of design measures (i.e., infill, mixed-use, transit-oriented) are necessary to support and serve population growth in the state while achieving the GHG emission reduction goals of AB 32. Therefore, considering the design of the proposed plan, compliance with applicable GHG reduction plan strategies, and that all emissions would be mitigated to a less-than-significance level, the proposed plan would not conflict with any plan, policy, or regulation adopted for the purpose of reducing GHG emissions. This impact would be *less than significant*.

3.5.4 Cumulative Impacts

The topic of GHG emissions is inherently a cumulative impact, because any single project’s GHG emissions would contribute to cumulative, global GHG emissions and impacts, especially because this plan-level assessment takes a broad approach to GHG emissions across all sectors represented in the plan area. Therefore, the GHG analysis presented in Section 3.5.3, “Impact Discussion,” above, represents the cumulative GHG analysis. A less-than-significant finding for Impact 3.5a and Impact 3.5b essentially means a *less-than-significant* cumulative impact.

3.5.5 References

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3.6 HAZARDS AND HAZARDOUS MATERIALS

This section describes the existing physical and regulatory setting related to hazards and hazardous materials and discusses the potential impacts of the proposed plan on hazards and hazardous materials.

3.6.1 Existing Conditions

Hazardous Materials

Database Searches

AECOM performed a search of several publicly available databases that are maintained under California Public Resources Code (PRC) Section 65962.5 (i.e., the Cortese List) to ascertain whether any known hazardous materials are present either in or within a quarter-mile radius of the plan area.

The GeoTracker database is an information management system related to groundwater that is maintained by the State Water Resources Control Board (SWRCB). Data related to leaking underground storage tanks (USTs) and other types of soil and groundwater contamination, along with associated cleanup activities, are part of the information that the SWRCB is required to maintain under PRC Section 65962.5. Results of the GeoTracker database search (SWRCB, 2015) are presented in Table 3.6-1.

The Hazardous Waste and Substances Site List (i.e., the “EnviroStor” database) is maintained by the California Department of Toxic Substances Control (DTSC) as part of the requirements of PRC Section 65962.5. A search of the EnviroStor database indicated there are no open, active cases of hazardous waste and substances sites either in or within a quarter-mile radius of the plan area (DTSC, 2015).

A search of the U.S. Environmental Protection Agency’s (EPA) Envirofacts database (which includes records maintained under the Comprehensive Environmental Response, Compensation, and Liability Act) indicated there are no known open, active cases of hazardous material contamination in Rohnert Park (EPA, 2013).

Lead-Based Paint

The use of lead as an additive to paint was discontinued in 1978 because human exposure to lead was determined by EPA and the U.S. Department of Labor Occupational Safety and Health Administration (OSHA) to be an adverse human health risk, particularly to young children. Demolition of structures containing lead-based paint requires specific remediation activities regulated by federal, state, and local laws. Adverse human health effects can occur from ingestion of peeling paint chips (primarily by young children) and inhalation of paint dust (when lead-based paint is scraped, sanded, or heated during repair or demolition activities).

Table 3.6-1: GeoTracker Database Search Results¹

On-Site or Off-Site	Site Name, Address, Description, Number	Contaminants	Media Affected	Status/Cleanup Actions
On-site	Weyerhaeuser- Commercial Door 5600 State Farm Drive Leaking USTs SWRCB Case No.: T0609700067	Gasoline and VOCs (PCP), PCE, and TCE	Aquifer used for drinking-water supply (direction of groundwater flow is toward the south- southwest)	Groundwater extraction (SVE) and in situ injection of oxygen; groundwater plume is stable and does not extend off the property; contaminated soil is present along the western edge of the property; No Further Action determination issued by the North Coast RWQCB
On-site	Safety Kleen Corporation 5750 Commerce Boulevard Leaking USTs SWRCB Case No.: T0609700186	Petroleum, chlorinated hydrocarbons, Stoddard solvent/mineral spirits/ distillates, VOCs (PCE, TCE, vinyl chloride)	Aquifer used for drinking-water supply (direction of groundwater flow is toward the southwest)	Groundwater extraction and treatment; groundwater monitoring; groundwater plume does not extend off the property; VOCs present in one monitoring well in 2014
On-site	Rohnert Park Corporation Yard 600 Enterprise Drive Leaking USTs SWRCB Case No.: T0609700071	TPH-g, benzene, toluene, ethyl benzene, and xylene	Aquifer used for drinking water supply (direction of groundwater flow is toward the southwest)	High-vacuum dual-phase extraction is proposed; groundwater plume does not extend off the property; subsurface soil contamination is present 10 to 22 feet bgs
Off-site, 475 feet west	Former Rohnert Park Shell 5060 Redwood Drive Leaking USTs SWRCB Case No.: T0609700477	Gasoline and VOCs: TPH-g and methyl tertiary butyl ether	Groundwater used for municipal and domestic supply (direction of groundwater flow is variable depending on subsurface depth)	Groundwater extraction and treatment system operation has concluded; VOC plume is decreasing; request for site closure letter submitted to the SWRCB
Off-site, 300 feet west	Groom Properties 5925/5980/6100 Redwood Drive Cleanup Program Site SWRCB Case No.: SL0609763696	TCE	Aquifer used for drinking-water supply (direction of groundwater flow is toward the southwest)	Interim Remedial Action Plan submitted in 2015. Proposed remediation of contaminated soil via SVE system; dual- phase extraction and anaerobic bioremediation proposed for groundwater; proposed installation of a 100-foot-long cutoff wall near Hinebaugh Creek to prevent plume migration into the creek
Off-site, 300 feet west	101 International 6100 Redwood Drive Leaking USTs SWRCB Case No.: T0609700180	Diesel, gasoline, oil, lubricants (in soil); TCE in groundwater	Aquifer used for drinking-water supply (direction of groundwater flow is toward the southwest)	Case is associated with Groom Properties site listed above; monitoring is ongoing

Notes: bgs = below the ground surface; PCE = tetrachloroethene; PCP = pentachlorophenol; RWQCB = Regional Water Quality Control Board; SVE = soil vapor extraction; SWRCB = State Water Resources Control Board; TCE = trichloroethene; TPH-g = total petroleum hydrocarbons as gasoline; UST = underground storage tank; VOC = volatile organic compound

¹ Includes only open, active sites on or within a quarter-mile radius of the plan area.

Sources: SWRCB, 2015; data compiled by AECOM in 2015

Asbestos

Asbestos is designated as a hazardous substance when the fibers have potential to come in contact with air, because the fibers are small enough to lodge in lung tissue and cause health problems. The presence of asbestos-containing materials (ACMs) in existing buildings poses an inhalation threat only if the ACMs are in a friable state. If the ACMs are not friable, then there is no inhalation hazard because asbestos fibers remain bound in the material matrix. Emissions of asbestos fiber to the ambient air, which can occur during activities such as renovation or demolition of structures made with ACMs (e.g., insulation), are regulated in accordance with Section 112 of the federal Clean Air Act (CAA). People exposed to asbestos may be at elevated risk for lung cancer and mesothelioma.

Schools in the Project Vicinity

The Pathways Charter School (grades K–12) is within the plan area, at 150 Professional Center Drive. The Rancho Bodega School (grades 7–12) is at 6640 Redwood Drive, approximately 300 feet west of the plan area (on the west side of U.S. Highway 101). The John Reed Elementary School is immediately adjacent to the southern portion of the plan area (on the southern side of Santa Alicia Drive). The Mountain Middle School, El Camino High School, and the Technology Middle School are all collocated on a single campus approximately 0.25 mile south of the plan area on Burton Avenue.

Although an on-site proposal for a specific school has not been brought forward at this time, a school would be an allowable future use under the proposed Public/Institutional (P-I) zoning. Of the two sites that would be zoned P-I, only the 7.7-acre site southeast of Hinebaugh Creek would be large enough to accommodate a traditional K–12 school with associated outdoor playfields (see Figure 2-5 in Chapter 2, “Project Description”).

Airports in the Project Vicinity

The closest open, operational airport is the Petaluma Municipal Airport, approximately 7.25 miles southeast of the plan area. There are no airports or airstrips within a 2-mile radius of the plan area.

Wildland Fire Hazard

Wildland fires represent a substantial threat in the state, particularly during the hot, dry summer months in more isolated areas where steep topography, limited access, and heavy fuel loading contribute to hazardous conditions. Wildland fires may be started by natural processes, primarily lightning, or they may be started by human activities. The California Department of Forestry and Fire Protection (CAL FIRE) has established a fire hazard severity classification system to assess the wildland fire potential. The zones depicted on CAL FIRE maps take into account the potential fire intensity and speed, production and spread of embers, fuel loading, topography, and climate (e.g., temperature and the potential for strong winds). According to CAL FIRE (2008), the plan area is in a local responsibility area (LRA) that does not contain any very high fire hazard severity zones.

3.6.2 Regulatory Framework

Hazardous Materials Regulation and Enforcement

At the federal level, the principal agency regulating the generation, transport, and disposal of hazardous substances is EPA, under the authority of the Resource Conservation and Recovery Act (RCRA). RCRA established an all-encompassing federal regulatory program for hazardous substances that is administered by EPA. Under RCRA, EPA regulates the generation, transportation, treatment, storage, and disposal of hazardous substances. RCRA was amended in 1984 by the Hazardous and Solid Waste Amendments of 1984, which specifically prohibit the use of certain techniques for the disposal of various hazardous substances. The federal Emergency Planning and Community Right-to-Know Act of 1986 imposes hazardous materials planning requirements to help protect local communities in the event of accidental release.

Several state agencies regulate the use of hazardous materials to minimize potential risks to public health and safety. The California Environmental Protection Agency (CalEPA) and the California Office of Emergency Services establish rules governing the use of hazardous substances in California. Within CalEPA, DTSC has primary responsibility, with delegation of enforcement to local jurisdictions, for regulating the generation, transport, and disposal of hazardous substances under the authority of the Hazardous Waste Control Law (HWCL). Regulations implementing the HWCL list hazardous chemicals and common substances that may be hazardous; establish criteria for identifying, packaging, and labeling hazardous substances; prescribe management of hazardous substances; establish permit requirements for hazardous substances treatment, storage, disposal, and transportation; and identify hazardous substances prohibited from landfills. The SWRCB is responsible for oversight, regulation, and permitting of underground and above ground storage tanks and implements programs to protect public health and safety and the environment from releases of petroleum and other hazardous substances from tanks. Depending on the quantity and type of materials released, the SWRCB may also be involved in regulatory oversight of cleanup activities where tank releases may result in groundwater contamination.

The Sonoma County Department of Resource Management, Environmental Health and Safety is the lead local regulatory agency (i.e., Certified Unified Program Agency [CUPA]) and is responsible for a variety of tasks related to the storage, handling, and management of hazardous materials. The Environmental Health and Safety Department has a hazardous materials incident response team and responds to incidents involving chemical releases, as well as any other hazardous materials situations. Under a contract with the SWRCB, the Environmental Health and Safety Department conducts a local oversight program to oversee the abatement and cleanup of releases of hazardous substances from USTs. The Environmental Health and Safety Department is also responsible for local implementation and enforcement of regulations related to above-ground petroleum storage tanks pursuant to Chapter 29 of the Sonoma County Municipal Code.

Worker Safety Requirements

OSHA is responsible at the federal level for ensuring worker safety. OSHA sets federal standards for implementation of workplace training, exposure limits, and safety procedures for the handling of hazardous substances (as well as other hazards). OSHA also establishes criteria by which each state can implement its own health and safety program.

At the state level, the California Occupational Safety and Health Administration (Cal-OSHA) assumes primary responsibility for developing and enforcing workplace safety regulations. Cal-OSHA regulations pertaining to the use of hazardous materials at workplaces, as detailed in California Code of Regulations (CCR) Title 8, include requirements for safety training, availability of safety equipment, accident and illness prevention programs, hazardous substance exposure warnings, and emergency action and fire prevention plan preparation. Cal-OSHA enforces hazard communication program regulations that contain training and information requirements, including procedures for identifying and labeling hazardous substances, communicating hazard information related to hazardous substances and their handling, and preparing health and safety plans to protect workers and employees at hazardous waste sites. The hazard communication program requires that Material Safety Data Sheets be available to employees, and that employee information and training programs be documented.

Hazardous Materials Transport

State agencies with primary responsibility for enforcing federal and state regulations and responding to hazardous materials transportation emergencies are the California Highway Patrol and the California Department of Transportation. Together, these agencies determine container types used and license hazardous waste haulers for hazardous waste transportation on public roads. The transport of hazardous materials is regulated under the California Vehicle Code (CCR Title 13) and can only be conducted under a registration issued by DTSC. Identification (ID) numbers are issued by DTSC or EPA for tracking hazardous waste transporters and treatment, storage, and disposal facilities for hazardous materials. The ID number is used to identify the hazardous waste handler and to track waste from point of origin to final disposal, and all material transport takes place under manifest.

California Government Code Section 65962.5 (Cortese List)

The provisions of California Government Code Section 65962.5 are commonly referred to as the “Cortese List” (after the legislator who authored the legislation that enacted it). The Cortese List is a planning document used by the State and local agencies to comply with CEQA requirements in providing information about the location of hazardous materials release sites. California Government Code Section 65962.5 requires CalEPA to develop an updated Cortese List annually, at minimum. DTSC and the SWRCB are responsible for a portion of the information contained in the Cortese List. Other California State and local government agencies are required to provide additional hazardous material release information for the Cortese List.

California Hazardous Materials Release Response Plans and Inventory Law of 1985

The California Hazardous Materials Release Response Plans and Inventory Law of 1985 (Business Plan Act) requires preparation of hazardous materials business plans and disclosure of hazardous materials inventories. A business plan includes an inventory of hazardous materials handled, facility floor plans showing where hazardous materials are stored, an emergency response plan, and provisions for employee training in safety and emergency response procedures (California Health and Safety Code Division 20, Chapter 6.95, Article 1). The business plan program is administered at the state level by the California Emergency Management Agency and locally by Sonoma County Environmental Health and Safety. A business plan is required if a hazardous substance would be stored more than 30 days in any of the following quantities:

- 500 gallons or more of any solid
- 55 gallons or more of any liquid
- 200 cubic feet or more of any compressed gas
- Any acutely hazardous substance or radiological material that meets the federal threshold planning quantities listed in 40 Code of Federal Regulations (CFR) Part 355, Subpart A

Asbestos Regulation and Abatement

The CAA was enacted in 1970 and continues to be periodically updated. The CAA required EPA to establish primary and secondary national ambient air quality standards. The CAA also required each state to prepare an air quality control plan referred to as a State Implementation Plan. Section 112 of the CAA defines hazardous air pollutants and sets threshold limits. ACMs are regulated by EPA under the CAA.

The Bay Area Air Quality Management District (BAAQMD) regulates the demolition and renovation of buildings and structures that may contain asbestos. BAAQMD Regulation 11 Rule 2 requires compliance with the National Emission Standards for Hazardous Air Pollutants regulation, 40 CFR, Part 61, Subpart M developed by EPA.

City of Rohnert Park General Plan

The following goals from the *City of Rohnert Park General Plan* (City of Rohnert Park, 2015 [originally adopted 2000]:7-19 and 7-20) related to hazards and hazardous materials apply to the proposed plan:

Goal HS-E: Minimize the risk to life and property from the generation, storage, and transportation of hazardous materials and waste in Rohnert Park, and assure the proper disposal of all hazardous waste that may be generated in Rohnert Park.

Goal HS-F: Comply with all applicable regulations and provisions for the storage, use and handling of hazardous substances as established by federal (EPA), State (DTSC, RWQCB, Cal-OSHA, Cal EPA), and local (County of Sonoma, City of Rohnert Park) regulations.

Goal HS-G: Protect groundwater and soil from contamination by hazardous materials.

3.6.3 Impact Discussion

3.6a and 3.6b. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? 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? Less-than-Significant Impact.

Construction

Project construction would include the storage, use, and transport of minor amounts of hazardous materials (e.g., asphalt, fuel, lubricants, paint, and other substances). Regulations governing hazardous materials transport are included in CCR Title 22, the California Vehicle Code (CCR Title 13), and the State Fire Marshal Regulations

(CCR Title 19). Transport of hazardous materials can only be conducted under a registration issued by DTSC. ID numbers are issued by DTSC or EPA for tracking hazardous waste transporters and treatment, storage, and disposal facilities for hazardous materials. The ID number is used to identify the hazardous waste handler and to track waste from its point of origin to final disposal; all material transport takes place under manifest. The project applicant, builders, and contractors would be required to use, store, and transport hazardous materials in compliance with applicable federal, state, and local regulations during project construction and operation.

Project construction contractors and future on-site businesses are required by law to implement and comply with existing hazardous material regulations. Because each of these regulations is specifically designed to protect the public health through improved procedures for handling hazardous materials, improved technology in the equipment used to transport these materials, and quicker, more coordinated response to emergencies, impacts related to the creation of significant hazards to the public through routine transport, use, disposal, and risk of upset during construction would be *less than significant*.

Operation

During project operations, future businesses that handle hazardous materials would be required by law to comply with federal, state, and local laws, regulations, and policies regarding the handling, storage, reporting, tracking, and cleanup (if any accidental spills occurred) of hazardous materials, including preparation of a hazardous materials business plan and disclosure of hazardous materials inventories. Sonoma County Environmental Health and Safety is the CUPA responsible for oversight of local businesses that handle hazardous materials. Residential use, storage, and disposal of hazardous materials (e.g., small quantities of fuel, motor oil, paints, solvents, pesticides, and herbicides) are also regulated primarily by Sonoma County Environmental Health and Safety, but all residents are required to comply with federal and state laws and regulations related to hazardous materials.

Future businesses and residents in the plan area would be required to use, store, and transport hazardous materials in compliance with applicable federal, state, and local regulations during project operation. Each of these regulations is specifically designed to protect the public health through improved procedures for the handling of hazardous materials, better technology in the equipment used to transport these materials, and a more coordinated, quicker response to emergencies. Therefore, impacts related to the creation of significant hazards to the public through routine transport, use, disposal, and risk of upset during project operations would be *less than significant*.

3.6c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? Less-than-Significant Impact.

Construction and Operation

As discussed previously, there is one existing school in the plan area, and two additional schools are within a quarter-mile radius of the plan area. Furthermore, the proposed plan includes public/institutional land uses that would permit a school to be developed in the plan area in the future. Under PRC Section 21151.4, unless certain conditions are met, EIRs or mitigated negative declarations may not be certified or adopted for projects within a quarter-mile radius of schools that would include constructing or altering facilities that meet any of the following criteria:

- might reasonably be anticipated to emit hazardous air emissions;
- would handle an extremely hazardous substance or a mixture containing extremely hazardous substances in a quantity equal to or greater than the state threshold quantity specified in Section 25532(j) of the Health and Safety Code; or
- may pose a health or safety hazard to persons who would attend or would be employed at the school.

As discussed in detail in Section 3.3, “Air Quality,” construction and operation under the proposed plan would not result in hazardous air emissions. Neither construction nor operation would result in the handling of substances classified as extremely hazardous. The plan area is already developed with commercial, light industrial, civic, and multifamily residential land uses, and these types of land uses would continue under the proposed plan; therefore, implementation of the proposed plan would not subject existing school children or school employees to new hazardous substances, or hazardous substances at locations that are any closer than the current distances. As described in Impacts 3.6a and 3.6b above, small quantities of hazardous materials such as fuels, oils, and lubricants would be used in construction equipment. In addition, materials specific to light industrial land uses are currently used in the plan area, and would continue to be used in the future, subject to permits from appropriate federal, state, and local regulatory authorities. None of these materials are classified as acutely hazardous. Construction contractors and existing and future business operators are required to use, store, and transport hazardous materials in compliance with federal, state, and local regulations. The use of these materials during construction and operation would not represent a safety hazard for persons who would attend or be employed in either the on-site or off-site schools. Therefore, this impact would be *less than significant*.

3.6d. 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? Less-than-Significant Impact with Mitigation Incorporated.

Construction and Operation

Off-Site Soil and Groundwater Contamination

As shown in Table 3.6-1, the results of a search of the GeoTracker database (SWRCB, 2015) indicate there are three known hazardous materials release sites that are within a quarter-mile radius of the plan area.

- **101 International and Groom Properties**—The 101 International and Groom Properties sites are related to one another and are approximately 300 feet west of the plan area. A leaking UST at these sites resulted in contaminated soil, as well as a contaminated groundwater plume that is migrating west toward Hinebaugh Creek. An Interim Remedial Action Plan has been proposed for site cleanup.
- **Former Rohnert Park Shell**—This site, which is approximately 475 feet west of the plan area, contained a leaking UST that resulted in soil and groundwater contamination. However, remedial activities have been conducted and the responsible party has submitted a request for site closure.

Because the contaminated soil and groundwater at these sites are not located within the plan area, and the direction of groundwater flow is to the west (away from the plan area), neither of these sites would pose a hazard

related to future construction or operation under the proposed plan. Therefore, the impacts from these sites would be *less than significant*.

On-Site Soil and Groundwater Contamination

As shown in Table 3.6-1, there are three known sites within the plan area where hazardous materials contamination has occurred. Each site is discussed separately below.

- **Weyerhaeuser-Commercial Door (5600 State Farm Drive)**—Cleanup activities associated with the releases at this property have included removal of all USTs and excavation of 3,200 cubic yards of contaminated soil. Soil and groundwater were treated by various methods, including groundwater extraction, dual-phase vapor and groundwater extraction, SVE, and in situ injection of oxygen. Environmental investigations at this site have concluded that the remaining dissolved concentrations of petroleum hydrocarbons in the groundwater are limited in extent and do not extend off the property. A limited amount of contaminated soil is present underground along the western edge of the property. This property is in an industrial area (SWRCB, 2015).
- **Safety Kleen Corporation (5750 Commerce Boulevard)**—This site contains both a solvent plume and a petroleum plume. The petroleum contamination is related to former leaking USTs that were removed in 2007. Remediation of VOCs and TPH is under way via a multi-phase extraction system that is currently extracting groundwater and soil vapor from two recovery wells. This property is in an industrial area. The groundwater plume does not extend off the property (SWRCB, 2015).
- **Rohnert Park Corporation Yard (600 Enterprise Drive)**—The soil and the groundwater at this site were contaminated with petroleum hydrocarbons from two leaking USTs that were removed in 1990, along with approximately 1,500 cubic yards of contaminated soil. Residual soil contamination is still present at the site approximately 10 to 22 feet bgs. A high-vacuum, dual-phase extraction system has been proposed for site remediation (SWRCB, 2015).

If future redevelopment of these three sites were to occur, construction workers and future site-specific business employees and the general public could be exposed to adverse health effects from contaminated soil and/or groundwater, including indoor air quality effects from vapor intrusion, which would be a *potentially significant* impact.

Asbestos and Lead-Based Paint

The proposed plan includes reuse and redevelopment of some of the properties in the plan area. Most of these properties have been developed with existing structures, some of which may contain asbestos and lead-based paint. Therefore, construction workers and future site-specific business employees and the general public could be exposed to adverse health effects from asbestos and lead-based paint, and this impact is considered *potentially significant*.

Mitigation Measures

Mitigation Measure 3.6-1: Consult with the North Coast RWQCB and Sonoma County Environmental Health and Safety Prior to Development at Known Contamination Sites and Implement Consultation Recommendations

During the CEQA analysis for each project, the project applicant for any project to redevelop the known hazardous material contamination sites associated with 5600 State Farm Drive, 5750 Commerce Boulevard, and 600 Enterprise Drive shall consult with the North Coast RWQCB and Sonoma County Environmental Health and Safety to determine whether soil and groundwater remediation have been achieved to levels that would be protective of human health during construction and future operational activities at each site. Any applicable tests that may be required by the North Coast RWQCB prior to development, such as vapor intrusion studies related to indoor air quality or soil or groundwater testing, shall be conducted either by the project applicant or by the party responsible for site cleanup activities, as appropriate.

Mitigation Measure 3.6-2: Remove Project-Specific Asbestos-Containing Material and Lead-Based Paint in Accordance with Federal, State, and Local Regulations

The project applicant shall retain a Cal-OSHA certified asbestos consultant before reuse, remodeling, or demolition of any existing on-site buildings that were constructed prior to 1978 to investigate whether any ACMs or lead-based paints are present, and could become friable or mobile during demolition activities. If any materials containing asbestos or lead-based paints are found, they shall be removed by an accredited contractor in accordance with EPA Cal-OSHA, and BAAQMD standards. In addition, all activities (construction or demolition) in the vicinity of these materials shall comply with Cal-OSHA asbestos and lead worker construction standards. The materials containing asbestos and lead shall be disposed of properly at an appropriate off-site disposal facility.

Significance After Mitigation

Implementing Mitigation Measures 3.6-1 and 3.6-2 would reduce the impact from construction and operation associated with known hazardous material sites to a *less-than-significant* level. Mitigation Measure 3.6-1 would prohibit construction and operation on these three contamination sites until a determination has been made by the North Coast RWQCB and Sonoma County Environmental Health and Safety that soil and groundwater remediation have been achieved to levels that would be protective of human health during construction and future operational activities at each site. Furthermore, compliance with Policy U-1.9 would not permit new groundwater wells intended for either potable or nonpotable water supply within any areas of contaminated groundwater plumes. Finally, Mitigation Measure 3.6-2 would require investigation for the presence of asbestos and lead-based paint of any buildings slated for remodeling or demolition that were constructed prior to 1978, and any such materials would be removed in accordance with EPA, Cal-OSHA, and BAAQMD standards.

3.6e and 3.6f. For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? No Impact.

Construction and Operation

The closest open, operational airport is the Petaluma Municipal Airport, approximately 7.25 miles southeast of the plan area. There are no airports or airstrips within 2 miles of the plan area. Therefore, there would be *no impact*.

3.6g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? Less-than-Significant Impact with Mitigation Incorporated.

Construction

The plan area contains sufficient land for construction materials, equipment, and personnel to be staged on-site. However, nearby roadways in and near the plan area could be affected intermittently during construction activities. Ongoing construction activities could result in temporary lane closures, increased construction truck traffic, and other roadway effects that could slow or interfere with emergency vehicles, temporarily increasing response times and impeding existing services. Therefore, this impact is considered *potentially significant*.

Mitigation Measures

Mitigation Measure 3.6-3: Prepare and Implement Project-Specific Construction Traffic Control Plans.

The project applicant shall prepare and implement a traffic control plan for construction activities that may affect road rights-of-way, to facilitate travel of emergency vehicles on affected roadways. The traffic control plan must follow applicable City of Rohnert Park standards and must be approved and signed by a professional engineer. Measures typically used in traffic control plans include advertising of planned lane closures, warning signage, a flag person to direct traffic flows when needed, and methods to ensure continued access by emergency vehicles. During project construction, access to the existing land uses shall be maintained at all times, with detours used, as necessary, during road closures. The traffic control plan shall be submitted to the City for review and approval before the approval of all site-specific development plans or permits.

Significance After Mitigation

Implementation of Mitigation Measure 3.6-3 would reduce the impact associated with decreased emergency response times during construction to a *less-than-significant* level, by requiring preparation and implementation of a construction traffic control plan that would provide for adequate emergency access during construction activities.

Operation

At the completion of each future site-specific infill, redevelopment, or improvement project, construction traffic would no longer be using city streets for site access, and the potential for lane and roadway closures and detours related to construction traffic would no longer be present. Therefore, no potential for project-related operational activities would exist to result in delays in emergency vehicle response times, or to impede access for emergency vehicles, and there would be *no impact*.

3.6h. 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? Less-than-Significant Impact.

Construction and Operation

Most of the plan area is already developed with urban land uses. A large shopping center is on the northwestern side of the plan area. A golf course is on the northeastern side of the plan area, with residences east of the golf course. Intensive urban development is present on the western, southern, and eastern sides of the plan area.

In LRAs, CAL FIRE is required to delineate areas of very high fire hazard. The plan area and the surrounding area are within a LRA that is not designated as a fire hazard severity zone (CAL FIRE, 2008). Within an LRA, the financial responsibility of preventing and suppressing fires falls primarily on local fire districts maintained by cities and counties. Fire suppression services to the plan area are currently and would continue to be provided by the City of Rohnert Park.

Because the plan area is not in or near an area of high fire hazard severity, and because adequate fire protection services would be provided by a local fire protection district, this impact would be *less than significant*.

3.6.4 Cumulative Impacts

Hazards and hazardous materials impacts associated with past or current uses of any site usually occur on a site-specific basis; they are generally limited to the specific site, and are not additive in nature in that they generally do not combine to form cumulative impacts that are greater or different than the project-level effect. The cumulative context for impairment of emergency access and for wildland fire hazard is defined as those projects that would entail construction activities in proximity to or concurrently with the activities associated with the proposed plan.

Routine Transport, Use, Disposal, or Accidental Release of Hazardous Materials

The proposed plan would include the storage, use, and transport of hazardous materials (e.g., fuels, oils, lubricants) during construction and operation of future plan area land uses. Transport of hazardous materials on area roadways is regulated by CCR Titles 13, 19, and 22. The future developers or business operators would be required to use, store, and transport hazardous materials in compliance with federal and state regulations during project construction and operation. Specific land uses that would use hazardous materials on-site would be required to obtain permits and comply with appropriate regulatory agency standards designed to avoid accidental releases of hazardous materials. The related projects could also include the storage, use, transport, and accidental

release of hazardous materials similar to those described above. However, the proposed plan and the related projects would be legally required to implement and comply with existing hazardous materials regulations (e.g., regulations administered by EPA and DTSC), and these effects are site-specific. Even if multiple hazardous releases were to occur at the same time (which is extremely unlikely, given the highly regulated nature of hazardous materials), the releases would occur in different locations, would likely be small in size given the types of planned land uses, and therefore would not combine to form cumulative impacts that would be worse than any project-specific effect. Therefore, there would be *no cumulative impact* associated with hazardous materials storage, use, transport, or accidental spills.

Exposure to Known and Unknown Hazardous Materials

There are three locations within the plan area that contain contaminated groundwater plumes and contaminated soil. Mitigation Measures 3.6-1 and 3.6-2 would reduce project-specific impacts from construction and operational exposure to known hazardous materials at these three sites to a less-than-significant level because new groundwater wells at these sites would not be permitted, and remediation of existing contamination would occur before future redevelopment at these sites. None of the off-site contaminated groundwater plumes in the immediate project vicinity are migrating toward the plan area, and therefore do not pose a hazard to future on-site residents or businesses. Because there is no possibility of human exposure to the contaminated groundwater plumes or soils following implementation of Mitigation Measure 3.6-1, there would be no project-specific residual effect. Furthermore, there are no other sources of contaminated soil or groundwater in the project vicinity that could combine with the project-specific contamination to result in a cumulatively increased hazard. Therefore, *no cumulatively significant impact* related to contact with existing contaminated groundwater plumes or contaminated soils would occur.

Implementation of the proposed plan could result in possible human health hazards from exposure to asbestos and lead-based paint during future demolition and remodeling activities. Implementation of Mitigation Measure 3.6-2 would reduce the project-specific effects to a less-than-significant level because local, state, and federal regulations for the protection of worker safety and proper disposal of materials would be followed. The potential for asbestos and lead-based paint to occur is specific to each project site and is dependent on the types of building materials present and the age of the buildings. Therefore, asbestos and lead-based paint may or may not be present at the related project sites considered in this cumulative analysis. All projects requiring demolition and remodeling of buildings containing asbestos and lead-based paint are required to follow local, state, and federal regulations for the protection of worker safety and proper disposal. Furthermore, asbestos and lead-based paint effects are specific to the construction work being performed at each site, and do not combine with effects at other sites. Therefore, this effect is not additive in nature and *no cumulative impact* would occur.

Handling of Hazardous Materials within One-Quarter Mile of a School

There is one K-12 school in the plan area and two other existing schools within a one-quarter-mile radius of the plan area. Construction and operation of the proposed plan would not result in hazardous air emissions. Neither construction nor operation of the proposed plan would result in the handling of substances classified as extremely hazardous. The plan area is already developed with commercial, light industrial, civic, and multifamily residential land uses, and these types of land uses would continue under the proposed plan; therefore, project implementation would not subject existing school children or school employees to new hazardous substances or hazardous

substances at locations that are any closer than the current distances. The related projects considered in this cumulative analysis could also entail the handling of hazardous materials within one-quarter mile of an existing or planned school. However, any such exposure would be site-specific in nature, and would affect schools other than those considered in this cumulative analysis. Therefore, this impact would not be additive in nature, and there would be *no cumulative impact* associated with handling of hazardous materials within one-quarter mile of a school.

Impairment of Emergency Vehicle Access or Evacuation Routes

Construction of the proposed plan would temporarily increase traffic congestion and could result in the need for temporary lane closures of roads in and near the plan area. Construction of the related projects considered in this cumulative analysis could occur concurrently with the construction of projects on the plan area, thereby increasing construction traffic and the potential for lane closures on roads in the project vicinity, which could increase the frequency or length of impairment of emergency vehicle access. Therefore, the related projects could result in a significant short-term, temporary, cumulatively considerable impact related to impairment of emergency evacuation routes and emergency vehicle access during construction activities; and the proposed plan could result in a cumulatively significant contribution to this impact. Implementation of Mitigation Measure 3.6-3 would reduce the proposed plan's contribution to this cumulatively significant impact to a *less-than-significant* level because a traffic control plan would be prepared by the individual project applicant(s) and approved by the City of Rohnert Park, and detours would be provided to ensure acceptable traffic flow and reduce the risk of impairment to emergency evacuation routes and emergency vehicle access to the maximum extent feasible.

Wildland Fire Hazards

The plan area is in the developed, urban area of the City of Rohnert Park. According to CAL FIRE (2008), the plan area is in an LRA that is not designated as a very high fire hazard severity zone. The related projects are also in an LRA, and are also not in a very high fire hazard severity zone. Fire suppression personnel and equipment are either already available (in the case of the plan area) or are included as part of each related project to serve the plan area and the related projects. Because the proposed plan and the related projects are not within or adjacent to a high fire hazard severity zone, and because adequate fire suppression services are or would be available, a cumulatively significant impact would not occur, and the proposed plan would result in *no cumulatively significant impact* related to wildland fire hazard.

3.6.5 References

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3.7 HYDROLOGY AND WATER QUALITY

This section describes the existing physical and regulatory setting related to hydrology and water quality and discusses the potential impacts of the proposed plan on hydrology and water quality. Please see Section 5.8, “Utilities and Service Systems,” in Chapter 5.0, “Effects Found Not To Be Significant,” for a discussion of the potential impacts of the proposed plan on wastewater, water supply, water delivery infrastructure, and stormwater. Section 5.8.2, “Water Supply,” provides a summary of the water supply assessment that was prepared by the City for this project (included as Appendix F).

3.7.1 Existing Conditions

Hydrologic Region

The hydrologic region of the North Coast covers approximately 19,500 square miles (approximately 12 percent of California’s land cover) and occupies parts of eight counties, extending from Sonoma County along the Pacific Coast to the Oregon border and inland to Siskiyou and Modoc Counties (DWR, 2009). The North Coast Hydrologic Region is divided into two natural drainage basins: the Klamath River Basin and the North Coastal Basin. The plan area lies within the Russian River Hydrologic Unit of the North Coast Basin. Streams in this hydrologic unit flow into the Russian River at the confluence with the Laguna de Santa Rosa, and ultimately into the Pacific Ocean near Jenner. Major water storage components of the Russian River include Lake Sonoma on Dry Creek and Lake Mendocino on the East Fork of the Russian River (DWR, 2009).

Surface Water

The plan area is in the city of Rohnert Park, in the Upper Laguna de Santa Rosa watershed, a 62-square-mile subwatershed within the southern boundary of the larger 1,485-square-mile Russian River watershed (EPA, 2013; SWRCB, 2015). The Upper Laguna de Santa Rosa watershed extends south from near Railroad Avenue in Cotati, north to Santa Rosa near the intersection of U.S. Highway 101 and State Route 12, east to the Coast Ranges ridgeline near Jack London State Historic Park, and west to the western edge of Sebastopol (EPA, 2013).

Copeland Creek and the locally named Hinebaugh Creek (also referred to as the Hinebaugh Flood Control Channel) are located within the plan area, generally running from east to west (EPA, 2013). Copeland Creek is near the southern boundary of the plan area and Hinebaugh Creek bisects the plan area just north of Rohnert Park Expressway. The creeks are channelized to provide flood protection and are intermittent, flowing only part of the year because they receive water from seasonal sources (City of Rohnert Park, 2015a [originally adopted 2000]). Flows in Hinebaugh and Copeland Creeks peak during storm events and are low during the summer months. . Smaller ephemeral drainages in the plan area generally run north and south into Hinebaugh and Copeland Creeks. Most of the flow in the drainages results from winter rain. The creeks have well-defined channels with distinguishable beds and banks; evidence of scour or deposits of rock, sand, gravel, or soil; and evidence of riparian vegetation or aquatic organisms (City of Rohnert Park, 2015a [originally adopted 2000]). Both creeks flow into the Laguna de Santa Rosa, which ultimately joins the Russian River before flowing into the Pacific Ocean.

Groundwater

The plan area is located within the Santa Rosa Plain Subbasin of the larger Santa Rosa Valley Groundwater Basin (City of Rohnert Park, 2015b). The city is at the southern end of the Santa Rosa Plain Subbasin, which drains to the northwest toward the Russian River and on to the Pacific Ocean. The subbasin is in southern Sonoma County, in a broad gentle plain known as the Cotati Valley, in the California Coast Ranges north of San Francisco Bay (City of Rohnert Park, 2005b). The Santa Rosa Plain Subbasin is approximately 22 miles long and 0.2 mile wide at the northern end; approximately 9 miles wide through the Santa Rosa area; and about 6 miles wide at the south end of the valley near the city of Cotati just south of the plan area (DWR, 2004; City of Rohnert Park, 2011).

The city derives its drinking-water supply from a groundwater wellfield consisting of 42 municipal supply wells, of which 29 are active, and connections to the Sonoma County Water Agency (SCWA) Petaluma Aqueduct, which supplies water from the Russian River (City of Rohnert Park, 2011). Groundwater is one of three sources of water used by the City as part of its “conjunctive use strategy”; groundwater is used to meet peak water demands and is estimated to supply 2,577 acre-feet per year (AFY) in all water years (e.g., normal and dry) (City of Rohnert Park, 2015b). The majority of the wells pump from water-bearing zones present in the alluvial fan deposits, Glen Ellen Formation, and Wilson Grove Formation, from 200 to 1,200 feet below ground surface (bgs) (City of Rohnert Park, 2015a [originally adopted 2000]). Most of the City’s wells are between 280 and 600 feet deep; however, a few wells go down to 800 feet, and three wells extend to depths up to 1,500 feet (City of Rohnert Park, 2005b and 2015a [originally adopted 2000]). The aquifer is recharged from the mountains around the Cotati Valley. No sites within the existing Rohnert Park city limits use private wells for drinking-water supply.

The City manages its groundwater supply in accordance with its 2004 Water Policy Resolution, which limits groundwater pumping to 2,577 AFY. The City’s 2004 City-wide Water Supply Assessment and 2005 and 2010 Urban Water Management Plans provide the technical support for this maximum pumping rate (City of Rohnert Park, 2015b). The City actively participates in the implementation of the Santa Rosa Plain Watershed Groundwater Management Plan (adopted 2014). Modeling and monitoring data collected by the City and others indicate that groundwater levels are generally rising around the City’s well field, an indication of stable supply. Over the past 10 years the City has used between 350 and 1,600 AFY of groundwater, which is significantly less than its policy limitation on groundwater use (City of Rohnert Park, 2015b).

Water Quality

Surface Water

According to the 2012 California Integrated Report, which combines the Clean Water Act (CWA) Section 303(d) List and 305(b) Report, the Laguna de Santa Rosa water body (which is located within the larger Russian River Hydrologic Unit, Middle Russian River Hydrologic Area, Laguna Hydrologic Subarea) has been split up into two water bodies for administrative reasons. The former Laguna de Santa Rosa water body is now formally retired and has been replaced with two new water bodies: (1) the mainstem Laguna de Santa Rosa and (2) the tributaries to the Laguna de Santa Rosa (except Santa Rosa Creek and its tributaries) (EPA, 2015a). The plan area is located in the tributaries to the Laguna de Santa Rosa water body. As summarized in Table 3.7-1, the tributaries to the Laguna de Santa Rosa, which include Copeland Creek, Hinebaugh Creek, and on-site ephemeral drainages, are

listed under CWA Section 303(d) as impaired for indicator bacteria, sedimentation/siltation, and water temperature (EPA, 2015b). Sources of these impairments, as well as the current status of the total maximum daily loads (TMDLs), are summarized in Table 3.7-1.

Table 3.7-1: Section 303(d) List of Impaired Water Bodies

Water Body Name	Pollutant	Pollutant Sources	Status of TMDL
	Indicator bacteria	Nonpoint source, other	Estimated 2016
Tributaries to the Laguna de Santa Rosa	Sedimentation/siltation	Flow alteration/regulation/modification; removal of riparian vegetation	Estimated 2025
	Water temperature	Flow alteration/regulation/modification; removal of riparian vegetation	Estimated 2025

Source: EPA, 2015b.

Existing and potential beneficial uses of Laguna de Santa Rosa in the Laguna Hydrologic Subarea (114.21), established by the North Coast Regional Water Quality Control Board (RWQCB) in its Basin Plan, include¹ municipal and domestic supply (potential); agricultural supply; industrial service supply; industrial process supply (potential); groundwater recharge; freshwater replenishment; navigation; hydropower generation; water contact recreation; noncontact water recreation; commercial and sport fishing; warm freshwater habitat; cold freshwater habitat; wildlife habitat; rare, threatened, or endangered species; migration of aquatic organisms; spawning, reproduction, and/or early development; shellfish harvesting (potential); and aquaculture (potential) (North Coast RWQCB, 2011).

Groundwater

Groundwater produced from the City’s 29 active groundwater wells is tested for a total of 139 constituents and meets primary state drinking water standards (City of Rohnert Park, 2005b and 2011). Groundwater below 150 feet is characterized by sodium and calcium bicarbonate types (DWR, 2004). In 2009, electrical conductivity values representing overall mineral content range from 280 to 610 micromhos per centimeter (µmho/cm) (City of Rohnert Park, 2011), which are below the recommended secondary maximum contaminant level (MCL) of 900 µmho/cm.

Other water quality concerns in the Rohnert Park area include elevated nitrate, arsenic, iron, and manganese concentrations in some wells. Nitrate concentrations in City wells perforated in the intermediate zone or in multiple zones range from nondetect to 35 milligrams per liter (mg/L), which is less than the primary MCL of 45 mg/L (City of Rohnert Park, 2011). Samples collected from five wells in 1997 exceeded secondary MCLs for iron and manganese, which do not pose health hazards but are considered nuisance pollutants. Naturally occurring arsenic levels in City wells range from 2 to 12 micrograms per liter (µg/L) (City of Rohnert Park, 2011). Arsenic concentrations in deeper wells (greater than 600 feet) in the northwestern area of the city were found to have concentrations near or above the federal MCL of 10 µg/L.

¹ Beneficial uses are existing unless otherwise indicated.

Overall, groundwater quality pumped from the City’s municipal wells is good, despite aesthetic problems such as high concentrations of iron, manganese, or high hardness (City of Rohnert Park, 2005a). Existing beneficial uses of the groundwater, established by the North Coast RWQCB in its Basin Plan, include municipal and domestic supply, agricultural supply, industrial service supply, and industrial process supply (potential) (North Coast RWQCB, 2011).

Flooding

Flooding in the plan area is primarily the result of heavy rainfall, a high percentage of impervious surfaces in the plan area, the presence of some buildings in low-lying areas, extremely high sediment loads, and steep mountains surrounding the Cotati Valley. These factors combined with the short lag times of the region’s rivers can cause destructive floods (DWR, 2009). Sonoma County has designated the Russian River, Laguna de Santa Rosa, and Mark West Creek as floodways² (DWR, 2009).

The plan area is in a topographically flat area in a previously developed location. The two creeks in the plan area present open channels with potential to flood; however, the plan area is not within a 100-year or 500-year flood zone (City of Rohnert Park, 2015a [originally adopted 2000]: Figure 7.2-2). According to the Federal Emergency Management Agency’s (FEMA’s) flood insurance rate maps (FIRMs), the majority of the plan area is located within Zone X, defined as “areas determined to be outside the 500-year flood” (FEMA, 2015). SCWA has been working to improve and maintain the flood control channels in the plan area (Copeland and Hinebaugh Creeks) to reduce flooding risk.

Drainage

Stormwater flows in the direction of the natural topography, collecting either underground into one of the storm drainage features or aboveground into one of the ephemeral drainages that flow into one of the two channelized creeks in the plan area, which in turn drain westerly to Laguna de Santa Rosa Creek. There are also three 48-inch and larger stormwater conveyance pipes in the plan area, which direct stormwater south to Copeland Creek (City of Rohnert Park, 2015a [originally adopted 2000]: Figure 7.2-2). Because most of the plan area has been previously developed, existing storm drainage features are already in place to drain water runoff. Localized, relatively minor flooding has occurred in Rohnert Park in recent years, including the streets at the southern end of the plan area (Avram Avenue and Commerce Boulevard) (City of Rohnert Park, 2015a [originally adopted 2000]: Figure 7.2-2).

3.7.2 Regulatory Framework

Clean Water Act

The CWA is the primary federal law promulgated to protect the quality of the nation’s surface waters, including lakes, rivers, and coastal wetlands. The CWA operates on the principle that all discharges into the nation’s waters

² The channel of a river or stream and the parts of the floodplain adjoining the channel that are reasonably required to efficiently carry and discharge the flood water or flood flow of a river or stream (Wang and Wang, 2015).

are unlawful unless specifically authorized by a permit; permit review is the CWA's primary regulatory tool. The specific CWA sections discussed below are relevant to the proposed plan.

Section 401 of the CWA requires that state water quality standards be met and that project construction—including dewatering activities, dredging, and disposal—not cause concentrations of chemicals in the water column to exceed state standards. A Section 401 water quality certification from the RWQCB is required for issuance of a Section 404 permit for filling of waters of the United States, described below.

Under the CWA, discharge of any pollutant from a point source into navigable waters is unlawful unless a National Pollutant Discharge Elimination System (NPDES) permit is obtained. In addition, the CWA requires each state to adopt water quality standards for receiving water bodies, and to have those standards approved by EPA. Water quality standards consist of designated beneficial uses for a particular receiving water body (e.g., wildlife habitat, agricultural supply, or fishing), along with water quality objectives necessary to support those uses.

Section 402(p) of the CWA regulates point-source discharges of pollutants under the NPDES program. This section of the CWA was amended in 1987, to require EPA to establish regulations for permitting of municipal and industrial stormwater discharges (including discharges from active construction sites) under the NPDES program. In California, the State Water Resources Control Board (SWRCB) is authorized by EPA to oversee the NPDES program through the nine geographically separated RWQCBs (also see “National Pollutant Discharge Elimination System,” below). The NPDES program provides general permits (those that cover a number of similar or related activities) and individual permits.

Section 404 of the CWA prohibits the discharge of dredged or fill material into waters of the United States, including wetlands, without a permit from the U.S. Army Corps of Engineers (USACE). EPA also has authority over wetlands, and under Section 404(c) may veto a USACE permit. Depending on the number of impacts on waters of the United States, a USACE Section 404 permit application can lead to either a nationwide permit for projects with minimal adverse effects, or an individual permit for projects that do not fall under a nationwide permit. Section 3.4, “Biological Resources,” provides additional discussion regarding Section 404.

Under Section 303(d) of the CWA, states must develop lists of water bodies that would not attain water quality objectives for specific pollutants after implementation of required levels of treatment by point-source dischargers (municipalities and industries). Section 303(d) requires that the state develop a TMDL for each of the listed pollutants in these water bodies. The TMDL is the amount of loading that the water body can receive and still be in compliance with water quality objectives. The TMDL also can act as a plan to reduce loading of a specific pollutant from various sources, to achieve compliance with water quality objectives. After implementation of the TMDL, the problems that led to placement of a given pollutant on the Section 303(d) list are expected to be remediated. The Laguna de Santa Rosa is listed as a Section 303(d) water body, and is located west of the plan area. Copeland and Hinebaugh Creeks eventually drain into the Laguna de Santa Rosa west of the city limits.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act), also known as the California Water Code, is California's statutory authority for the protection of water quality. Under the Porter-Cologne Act, the state must

adopt water quality policies, plans, and objectives that protect the beneficial uses of the state's waters. State law defines beneficial uses as "domestic; municipal; agricultural, and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves" (Water Code Section 13050[f]). The Porter-Cologne Act sets forth the obligations of the SWRCB and RWQCBs pertaining to the adoption of water quality control plans (basin plans) and establishment of water quality objectives. Unlike the federal CWA, which regulates only surface water, the Porter-Cologne Act regulates both surface water and groundwater. Water quality objectives and beneficial uses are established by RWQCBs. The North Coast RWQCB, which has jurisdiction over the plan area, addresses regionwide water quality in its Basin Plan, last updated in May 2011.

The SWRCB and RWQCBs establish water quality objectives for surface waters and groundwater, and have permitting and enforcement authority to prevent and control waste discharges that could affect waters of the state through the issuance of NPDES permits and waste discharge requirements. The North Coast RWQCB (Region 1) develops TMDLs for the North Coast area.

National Pollutant Discharge Elimination System

The NPDES permit program was established by the CWA to regulate municipal and industrial discharges to surface waters of the United States from municipal separate storm sewer systems (MS4s). NPDES permits generally identify effluent and receiving water limits on allowable concentrations and/or mass emissions of pollutants contained in the discharge; prohibitions on discharges not specifically allowed under the permit; and provisions that describe required actions by the discharger, including industrial pretreatment, pollution prevention, self-monitoring, and other activities.

The SWRCB and North Coast RWQCB have adopted specific NPDES permits and/or waste discharge requirements for a variety of activities that may discharge wastes to waters of the state or to land. Dischargers must eliminate or reduce nonstormwater discharges to storm sewer systems and other waters.

The SWRCB has adopted a statewide NPDES general permit for discharges associated with construction activities that disturb 1 acre or more (Construction General Permit; SWRCB Order 2009-0009-DWQ, as amended by 2010-0014-DWQ and 2012-0006-DWQ). Construction activities in the plan area (e.g., clearing, grading, stockpiling, and excavation) would be subject to the Construction General Permit. The NPDES regulations also require implementation of appropriate hazardous materials management practices to reduce the possibility of chemical spills or release of contaminants, including any nonstormwater discharge to drainage channels.

The NPDES permit requires that a notice of intent for discharging stormwater be filed with the RWQCB, and that a storm water pollution prevention plan (SWPPP) be prepared and implemented to control contaminated runoff from temporary construction activities. NPDES permits require implementing erosion and sediment best management practices (BMPs) to reduce the level of contaminant runoff during construction. The permit also requires dischargers to consider implementing permanent postconstruction BMPs that will remain in service to protect water quality throughout the life of the project. Types of BMPs include source controls, treatment controls, and site planning measures. All NPDES permits also have inspection, monitoring, and reporting requirements.

In 2014, the City of Rohnert Park became an MS4 Permit Phase I co-permittee with the City of Santa Rosa. As of 2014, the City of Rohnert Park *Storm Drain Design Standards* reference the City of Santa Rosa and County of Sonoma 2011 *Storm Water Low Impact Development Technical Design Manual* (LID Manual), as required by the City's MS4 permit.

The LID Manual, last revised August 17, 2012, allows for no new net runoff from qualifying development or redevelopment projects (i.e., those creating or replacing a combined total of 1 acre or more of impervious surface) due to hydromodification rules through the use of permanent stormwater BMPs. Low-impact development (LID) aims to mimic the hydraulic function of the undeveloped site by capturing, treating, and infiltrating stormwater as close to the source as possible, using small-scale landscape-based features located throughout the project site. Design requirements include the requirements to treat all runoff generated by the 85th percentile, 24-hour storm and to ensure that the volume of runoff from the site in the 85th percentile, 24-hour storm does not increase as a result of development or redevelopment.

National Flood Insurance Program

The National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973 were enacted to reduce the need for large, publicly funded flood control structures and disaster relief by restricting development on floodplains. FEMA administers the National Flood Insurance Program to provide subsidized flood insurance to communities that comply with FEMA regulations by limiting development in floodplains. FEMA issues FIRMs to communities participating in the National Flood Insurance Program. These maps delineate flood hazard zones in urbanized areas and in some rural areas. Figure 3.7-1 shows the locations of FEMA-designated floodplains in the plan area.

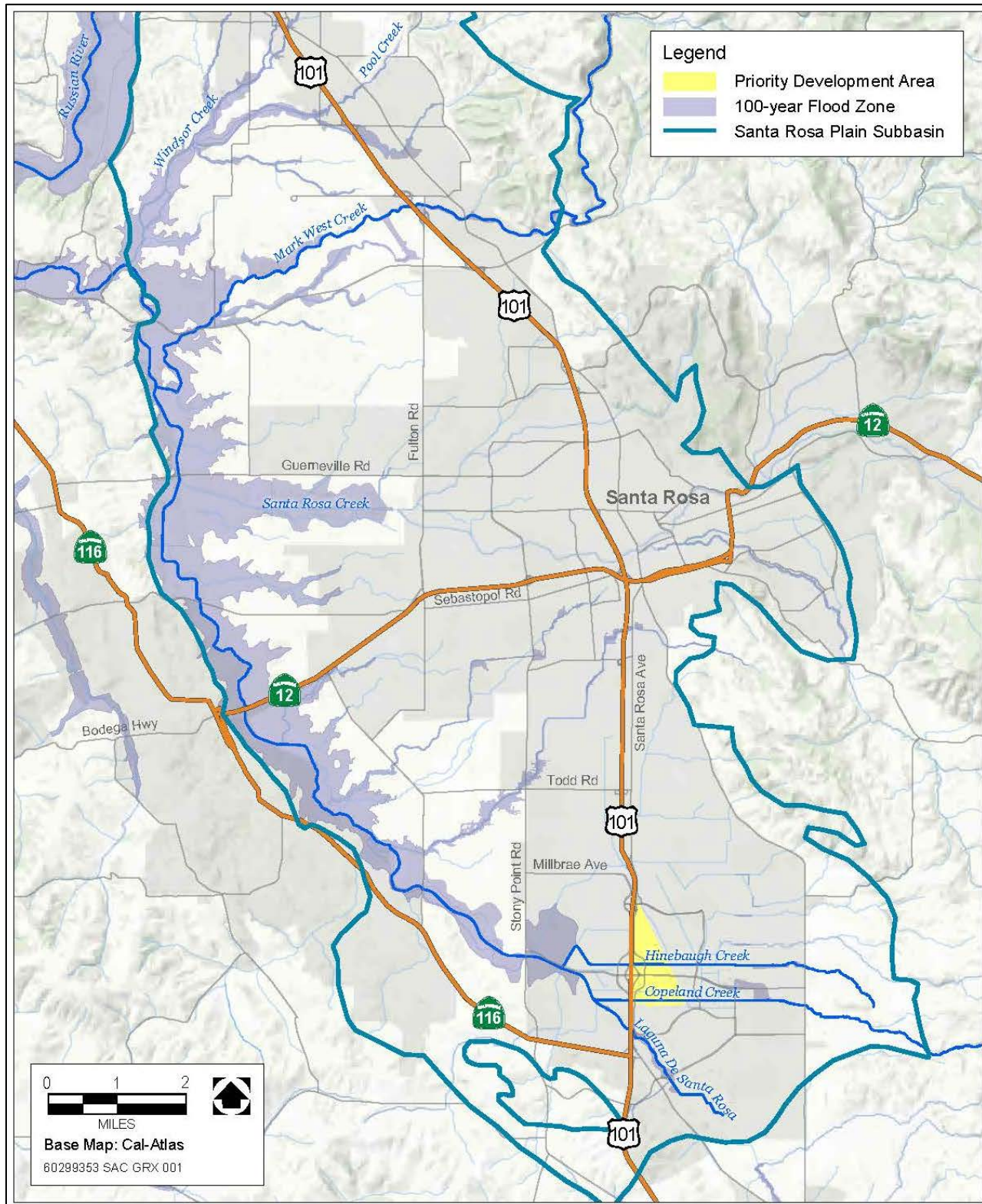
Sonoma County Water Agency

SCWA has a broad range of responsibilities ranging from the management and maintenance of the flood control channels within the plan area to the review of project plans for any proposed on-site or off-site drainage systems required by the City. SCWA reviews projects for conformance with its Flood Control Design Criteria and requires that storm drain improvements be in compliance with these criteria. Culverts and drainage systems must be designed to convey runoff from a 25-year storm. In addition, all structures must be protected from flooding expected to occur during a 100-year storm.

City of Rohnert Park General Plan

The *City of Rohnert Park General Plan* contains the following goals and policies that would be applicable to the proposed plan (City of Rohnert Park, 2015a [originally adopted 2000]):

- **Policy EC-13:** Maintain creek protection zones extending a minimum of 50 feet (measured from the tops of the banks and a strip of land extending laterally outward from the top of each bank) for creeks, with extended buffers where significant habitat areas or high potential wetlands exist (Figure 6.2-2). Where high potential wetland or other biological resources exist, require appropriately wide buffers to encompass and protect the resource. Development shall not occur within this zone, except as part of greenway enhancement (for



Sources: FEMA 2013, CalWater 2004, DWR 2000

Figure 3.7-1: Regional Hydrologic Features and Flood Zone

example, trails and bikeways). Require City approval for the following activities within the creek protection zones: construction, alteration, or removal of any structure; excavation, filling, or grading; removal or planting of vegetation (except for removal of invasive plant species); or alteration of any embankment.

Rohnert Park's creeks are a key part of the city's open space network. They are valuable physical, aesthetic, recreational, and ecological assets. Protection of creeks protects not only surface water quality, but also reduces flood risks, preserves bio-diversity and habitat, minimizes erosion of stream banks, and prevents downstream siltation. The General Plan designates 3.5 miles of creekways in the new growth areas on the city's eastside. Wider buffers—up to about 150 feet from the creek bank—could be required because high potential wetland areas alongside creeks in some areas extend to about a 150-foot width.

- **Policy EC-14:** As part of specific plans, require evaluation and implementation of appropriate measures for creek bank stabilization, and any necessary steps to reduce erosion and sedimentation, but preserve natural creek channels and riparian vegetation.
- **Policy EC-15:** Continue working with the RWQCB to protect water quality.
- **Policy EC-16:** Regularly monitor water quality to maintain high levels of water quality for human consumption and ecosystem health.
- **Policy EC-17:** Work with the relevant agencies to ensure that groundwater supplies are not contaminated in the recharge areas east of the city.
- **Policy EC-18:** Protect waterways by prohibiting the dumping of debris and refuse in and near waterways and storm drains.
- **Policy EC-19:** Require new construction to utilize site preparation, grading, and foundation designs for erosion control to prevent sedimentation and contamination of streams.

Construction activities such as grading, excavating, and filling, may result in the exposure of bare soil. Rain and wind may erode this soil, transporting soil particles to creeks and storm drain systems and resulting in declining water quality. The sedimentation can reduce the water flow capacity of these waterways, contributing to increased risk of flooding.

Goal HS-B: Minimize the risk to life and property from flooding.

Goal HS-C: Control erosion and sedimentation to provide flood protection and protect water quality.

- **Policy HS-3:** Prepare and implement a Storm Water Management Plan to ensure protection of the surface and groundwater resources.

The Storm Water Management Plan should include requirements for periodic monitoring of storm water outfalls, public outreach and education, and the implementation of BMPs for a variety of industrial, construction, and municipal activities. Until such time that a Storm Water Management Plan is prepared, the

City should use existing regulations pertaining to subdivision design, zoning, building, and grading ordinances and policies to reduce discharge of nonpoint source pollutants into local streams.

- **Policy HS-5:** As part of the building permit process, require all development projects to comply with hydrology and drainage policies incorporated in the applicable Specific Plans. Require the project proponent to design and construct a storm drain system in accordance with the SCWA Flood Control Design Criteria (latest revision), specific to the project. Encourage the use of environmentally sensitive drainage improvements including flow reduction and flood bypass systems in order to ensure protection of surface water quality and stream integrity.

Policy LU-10A stipulates that all specific plans shall address hydrology and drainage for their respective areas, as well as practices to be incorporated as part of individual development projects.

The storm drain system may include:

- *Street and underground storm drain improvements; and*
- *New underground storm drainage facilities.*

The City should recommend the use of high infiltration measures to reduce stormwater discharge into the regional storm drain system. Measures to divert surface runoff into open areas that have high infiltration capabilities could include ponds built into landscapes, unlined runoff channels, and dispersion points into landscaped areas. Where possible and technically feasible, rooftops and paved areas should drain into underground dispersal pipes or vegetated percolation beds. Landscaping in parking lots and around building perimeters should be maximized.

The City shall review and approve the proposed drainage system requirements prior to construction on the project site.

- **Policy HS-6:** As part of the building permit process, require new development greater than 5 acres in size to prepare and implement a site-specific storm water SWPPP that effectively reduces discharges of stormwater containing sediment and other pollutants resulting from site construction activities. In addition, require all projects, regardless of size, to comply with any other stormwater provisions of the specific plans for their respective areas.

Policy LU-10A stipulates that all specific plans shall address storm-water pollution for their respective areas, as well as practices to be incorporated as part of individual development projects.

The proponent shall comply with all requirements set forth in the SWRCB General Construction Activity Storm Water Permit. SWRCB requires site owners of development projects with construction activity resulting in soil disturbance of an area greater than five acres to comply with the California General Permit to Discharge Storm Water Associated with Construction Activity (NPDES General Permit CAS000002). The Permit requires development and implementation of a SWPPP emphasizing BMPs. The RWQCB maintains a list of suggested BMPs, which are schedules of activities, prohibitions of practices, maintenance procedures, and other management procedures to prevent or reduce pollution.

3.7.3 Impact Discussion

3.7a and 3.7f. Violate any water quality standards or waste discharge requirements? Otherwise substantially degrade water quality? Less-than-Significant Impact with Mitigation Incorporated.

Construction

Many construction-related wastes have the potential to degrade existing water quality and beneficial uses by altering the DO content, temperature, pH, suspended-sediment and turbidity levels, or nutrient content, or by causing toxic effects in the aquatic environment. Development planned for the plan area would include earth-disturbing activities (i.e., cut and fill), grading, and trenching that could expose disturbed areas and stockpiled soils to winter rainfall and stormwater runoff. Areas of exposed or stockpiled soils could be subject to sheet erosion during short periods of peak stormwater runoff, allowing temporary discharges of sediment to on-site drainages or creeks that empty into Laguna de Santa Rosa. If not managed properly, water used for dust suppression during construction could also enter drainage systems or creeks and ultimately into Laguna de Santa Rosa. Accidental spills of construction-related contaminants (e.g., fuels, oils, paints, solvents, cleaners, and concrete) could also occur during construction, resulting in releases to nearby surface water, and thereby degrading water quality.

The plan area consists primarily of clayey soils, which would be less susceptible to erosion, and the plan area's slopes are less than 2 percent, thus requiring minimal grading. In addition, Policy L-7.1 in the proposed plan requires that new development use site preparation, grading, and construction techniques that prevent contamination and sedimentation of creeks and streams. Nonetheless, the scale of development is large. Development in the plan area would result in changes in land use over an approximately 330-acre area in the central portion of Rohnert Park, for which ground disturbance is assumed to be associated with the build-out of an additional 835 residential units (839,000 square feet) and 822,324 square feet of nonresidential building area. This level of ground disturbance would pose potentially significant impacts related to erosion and sedimentation, which could result in degradation of waterways and conflict with beneficial uses and water quality objectives and standards established in the Basin Plan. In addition, creeks and drainages in the plan area are located within the tributaries to the Laguna de Santa Rosa water body, which are listed as impaired on the CWA Section 303(d) list for indicator bacteria, sedimentation/siltation, and water temperature. These water bodies would have no remaining assimilative capacity or ability to accommodate increases in the specified pollutants. Therefore, any increases in these constituents would contribute to the impairment. This impact would be *potentially significant*.

Mitigation Measures

Mitigation Measure 3.7-1: Prepare and Implement Site-Specific SWPPPs

During construction for any project within the plan area that disturbs 1 acre or more, the applicant or its consultant shall apply to the North Coast RWQCB for coverage under the Construction General Permit and prepare a site-specific SWPPP before any demolition, grading, or construction activities begin. The SWPPP shall cover pre- and postconstruction activities and describe site-specific and construction phase-specific activities detailing the following:

- *activities that may cause pollutant discharge (including sediment);*
- *BMPs, consistent with the requirements of the NPDES permit, to reduce the potential for contaminated runoff, such as limiting ground-disturbing activities during the winter rainfall period, minimizing exposure of disturbed areas and soil stockpiles to rainfall, and minimizing construction activities near or within drainage facilities;*
- *erosion and sedimentation control measures to be implemented, such as soil stabilization, mulching, silt fencing, or temporary desilting basins; good housekeeping practices, such as road sweeping and dust control; and diversion measures, such as the use of berms to prevent clear runoff from contacting disturbed areas; and*
- *hazardous materials spill prevention and response measure requirements, including lists of materials proposed for use, handling and storage practices, identification of spill response equipment, spill containment and cleanup procedures, and identification of regulatory notification protocols and contact phone numbers to be used in the event of a spill.*

The applicant shall implement the SWPPP, monitoring all BMPs and the parties responsible for them, in conformance with the guidelines set forth in the Construction General Permit.

Mitigation Measure 3.7-2: Prepare, Submit, and Implement Site-Specific Erosion Control Plans

During any project construction in the plan area that requires a grading permit, the project applicant shall submit a site-specific erosion control plan (ECP) to the City of Rohnert Park City Engineer. All sites that will have grading activities are required to submit an ECP. The ECP shall include the placement of structural and nonstructural stormwater pollution prevention controls that prevent erosion during and after construction. Proper soil stabilization shall be required for all graded areas. A grading permit shall not be issued until all of the required data, including the ECP, have been submitted and approved. City of Rohnert Park Ordinance 798, Section 15.50.090, provides additional detail regarding excavation, grading, and filling regulations.

Significance After Mitigation

Implementation of Mitigation Measures 3.7-1 and 3.7-2, adherence to applicable local regulations, and compliance with grading plan requirements would adequately avoid violations of water quality standards and would reduce construction-related impacts on water quality to a *less-than-significant* level.

Operation

The proposed plan could affect drainage patterns through conversion of existing undeveloped areas into developed, impervious areas. The conversion and densification of existing developed areas may also result in changes in drainage patterns and water quality associated with the change or intensity of use. However, the proposed plan would not result in a net gain of impervious surfaces. Stormwater that drains these new urban surfaces would also carry different or possibly higher concentrations of pollutants into receiving waters. Urban stormwater runoff can carry a variety of pollutants—including oil, grease, metals, or fuel that collects on local roadways and parking lots—that ultimately can be conveyed to receiving waters. Water used for irrigation of landscaped areas may encounter pesticides, herbicides, and fertilizer. Water that encounters these chemicals but is

not absorbed by plants and soil could enter the storm drain system and be conveyed to receiving waters. Even with an overall reduction in impervious surfaces in the plan area (i.e., the Triangle Business subarea would be transitioned from an industrial area that is predominantly pavement to more mixed-use development incorporating stormwater BMPs), the potential discharges of contaminated urban runoff from paved and landscaped areas with implementation of the proposed plan could contribute to adverse effects on aquatic organisms in receiving waters. This impact would be *potentially significant*.

Water quality and stormwater runoff is regulated under an NPDES MS4 stormwater permit with the North Coast RWQCB. The proposed plan includes Policy U-1.7, which requires new development to upgrade or install storm drainage facilities, including on-site facilities, as needed to serve the project. The improvements must be consistent with the City of Rohnert Park *Storm Drain Design Standards*. As of 2014, the *Storm Drain Design Standards* reference the City of Santa Rosa and Sonoma County 2011 Low Impact Development (LID) Manual, as required by the City's MS4 permit. The standards may improve on existing conditions where existing development is present in the plan area.

In addition, Policy U-1.6 in the proposed plan requires new development and capital improvement projects to reduce pollution and runoff affecting plan area creeks by following the adopted LID Manual. The manual provides technical guidance for project designs that require the implementation of permanent LID features and stormwater BMPs. The design goal stated in the LID Manual requires that 100 percent of the design storm event (85th percentile, 24-hour) runoff generated from the developed site be treated on-site, and that any increase in runoff volume caused by development or redevelopment for the design storm be infiltrated and/or reused on-site (City of Santa Rosa and County of Sonoma, 2011). The report that satisfies the project-specific MS4 permit requirements is a project-specific Standard Urban Stormwater Mitigation Plan (SUSMP). Furthermore, the proposed plan would adhere to the City's NPDES Storm Water Management Plan (SWMP). The SWMP identifies BMPs and an overall strategy to minimize stormwater runoff pollution and sediment (City of Rohnert Park, 2005c).

Design and construction of drainage systems per SCWA's *Flood Control Design Criteria* would ensure that storm drainage systems are adequately sized. Implementation of postconstruction BMPs would reduce pollutants in stormwater runoff. With implementation of Mitigation Measures 3.7-1 and 3.7-2, which include postconstruction BMPs, as well as adherence to the City's SWMP and to state and local regulatory requirements, potential water quality and runoff impacts from changes to the plan area's land use and runoff would be reduced to a *less-than-significant* level. The recently adopted SWCA LID Manual does not permit new development to create any new runoff.

3.7b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? Less-than-Significant Impact with Mitigation Incorporated.

Construction

Construction of the proposed plan could reduce groundwater infiltration and recharge or result in a decrease in groundwater levels if withdrawal of groundwater is required during construction site dewatering. During project construction, dewatering may be needed because of the possible presence of a shallow water table at the site. Temporary construction dewatering could result in a reduction in groundwater recharge to the Santa Rosa Plain Subbasin, for which beneficial uses have been established by the North Coast RWQCB Basin Plan. The City's wells pump predominantly from the intermediate zone, between 200 and 600 feet bgs; since 1982, water levels in the Santa Rosa Plain Subbasin have remained in balance and have significantly increased in the southern portion of the subbasin where the plan area is located (City of Rohnert Park, 2011). Groundwater recharge occurs primarily in the mountains around the Cotati Valley; however, in the plan area, some shallow groundwater recharge occurs through percolation of rainfall and seepage from streams and ditches. The soil underlying the plan area is primarily Clear Lake Clay, which has very low permeability and infiltration rates. Therefore, construction activities would have a less-than-significant impact on groundwater recharge.

Adverse water quality impacts or illicit discharges to the stormwater drainage system could occur during construction dewatering activities if water is not properly stored and disposed of. As described under Impact 3.7a, the potential discharges could cause or contribute to adverse water quality effects on tributaries to the Laguna de Santa Rosa water body, which are listed under CWA Section 303(d) for a variety of constituents. Accordingly, this impact of project-related construction would be *potentially significant*.

Mitigation Measures

Mitigation Measure 3.7-3: Prepare and Implement Site-Specific Provisions for Dewatering

The applicant for any project associated with the proposed plan, or the project applicant's consultant, shall prepare and implement provisions for dewatering during construction, in accordance with local and North Coast RWQCB requirements, to minimize adverse water quality impacts on surface water and groundwater. Provisions may include preparation of a dewatering plan that details procedures for removing groundwater, methods of temporary water treatment/retention facility, and water disposal procedures.

Significance After Mitigation

Implementation of Mitigation Measure 3.7-3, together with adherence to state and local regulatory requirements as part of the NPDES Construction General Permit requirements, would reduce the potential water quality impact from dewatering to a *less-than-significant* level.

Operation

Implementation of the proposed plan would not result in a net gain of impervious surfaces that would interfere with on-site groundwater recharge. New development associated with the plan area would be required to comply with the City's park/open space standards and current stormwater BMPs. Furthermore, all new development would be required to comply with the City's stormwater drainage standards and the City of Santa Rosa and Sonoma County LID Manual. Design requirements include the treatment of all runoff generated by an 85th percentile, 24-hour storm event and specify that new development or redevelopment must not increase the volume of runoff in an 85th percentile, 24-hour storm event. The LID Manual also includes a menu of BMPs that can be used to capture, infiltrate, and/or reuse stormwater on-site; that would be implemented under the proposed plan. Therefore, the impact would be *less than significant*.

3.7c. 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? Less-than-Significant Impact with Mitigation Incorporated.

Construction

Future development in the plan area would require vegetation removal, grading, trenching, and soil movement for the placement of new structures on-site, which could alter drainage courses and runoff patterns from existing conditions. Alterations to existing drainage patterns or flow velocities could result in a short-term increase in erosion or siltation that may have substantial adverse effects on water quality. The proposed plan includes Policy L.7-1, which calls for new development to use site preparation, grading, and construction techniques that prevent contamination and sedimentation of creeks and streams. Development would not alter the course of existing creeks, because areas adjacent to creeks would be preserved as open space. However, the impact would be *potentially significant*.

Mitigation Measures

Mitigation Measure 3.7-1, "Prepare and Implement Site-Specific SWPPPs" (see full Mitigation Measure 3.7-1 text above)

Mitigation Measure 3.7-2, "Prepare, Submit, and Implement Site-Specific Erosion Control Plans" (see full Mitigation Measure 3.7-2 text above)

Significance After Mitigation

Grading activities would avoid impacts on hydrologically sensitive areas, including Copeland Creek, Hinebaugh Creek, and drainage courses, to the maximum extent practicable. In addition, implementation of Mitigation Measures 3.7-1 and 3.7-2 would prescribe specific construction BMPs as part of the SWPPP and ECP, which would reduce the effects of ground disturbance at the site during construction, which in turn would reduce the impact on drainage, erosion, and sedimentation during construction to a *less-than-significant* level.

Operation

Development in the plan area would result in altered drainage patterns that could increase the potential for erosion, siltation, and associated adverse water quality effects on- or off-site. Although the plan area is flat and consists primarily of clayey soils that would be less susceptible to erosion, it could potentially drain to the tributaries to the Laguna de Santa Rosa water body, which are listed as impaired on the CWA Section 303(d) list for sedimentation/siltation and require special consideration for that reason. Specifically, the proposed plan would result in placement of new structures and roadways that could cause permanent changes in the existing drainage patterns. The impact would be *potentially significant*.

Mitigation Measures

Mitigation Measure 3.7-1, “Prepare and Implement Site-Specific SWPPPs” (see full Mitigation Measure 3.7-1 text above)

Mitigation Measure 3.7-2, “Prepare, Submit, and Implement Site-Specific Erosion Control Plans” (see full Mitigation Measure 3.7-2 text above)

Significance After Mitigation

As described in Impact 3.7a, the City requires all new development projects to design and construct storm drainage systems in accordance with the City of Rohnert Park *Storm Drain Design Standards*, which includes the City of Santa Rosa and Sonoma County’s Manual and associated LID requirements. Adherence to the City’s SWMP would provide for compliance with the City’s MS4 NPDES stormwater permit requirements through the implementation of site-specific stormwater capture and treatment BMPs, as well as maintenance and inspection requirements for those BMPs. Implementation of Mitigation Measures 3.7-1 and 3.7-2 would also include postconstruction stormwater pollution prevention BMPs. In addition, SCWA reviews project drainage system plans for compliance with its *Flood Control Design Criteria*. Compliance with these regulations would ensure that storm drainage systems are adequately sized to convey postdevelopment runoff. Implementation of Mitigation Measures 3.7-1 and 3.7-2, adherence to the City’s SWMP, and compliance with SCWA’s design criteria would reduce impacts from erosion and siltation caused by changes in existing drainage patterns to a *less-than-significant* level.

3.7d and 3.7e. 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? Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? Less-than-Significant Impact with Mitigation Incorporated.

Construction

Future development in the plan area would require grading and soil disturbance for placement of new structures on-site, which could substantially alter drainage courses and runoff patterns from existing conditions, and could result in flooding on- or off-site. The impact would be *potentially significant*.

Mitigation Measures

Mitigation Measure 3.7-1, “Prepare and Implement Site-Specific SWPPPs” (see full Mitigation Measure 3.7-1 text above)

Significance After Mitigation

Implementation of Mitigation Measure 3.7-1 would prescribe specific construction BMPs as part of project-specific SWPPPs, which would reduce the impact of ground disturbance and would reduce the impact on drainage and the rate or amount of surface runoff during construction to a *less-than-significant* level.

Operation

As described in Impacts 3.7a, 3.7c, and 3.7f, the proposed plan would not result in a net increase of impervious surfaces. The City requires all new development projects to design and construct storm drainage systems in accordance with the City of Rohnert Park *Storm Drain Design Standards*, which includes the City of Santa Rosa and Sonoma County’s Manual. The design goal stated in the manual requires that any increase in runoff volume from development or redevelopment for the design storm (85th percentile, 24-hour storm event) be infiltrated and/or reused on-site (City of Santa Rosa and County of Sonoma, 2011). Through compliance with the MS4 Permit requirements, which would include adherence to the City’s SWMP, the proposed plan would not result in any increase in runoff volume in comparison to existing conditions, because 100 percent of any increase in stormwater volume would be required to be infiltrated and/or reused on-site.³ The impact would be *potentially significant*.

³ Projects that cannot achieve the required level of volume capture must use the offset program, with review and approval of the RWQCB.

Mitigation Measures

Mitigation Measure 3.7-1, “Prepare and Implement Site-Specific SWPPPs” (see full Mitigation Measure 3.7-1 text above)

Mitigation Measure 3.7-2, “Prepare, Submit, and Implement Site-Specific Erosion Control Plans” (see full Mitigation Measure 3.7-2 text above)

Significance After Mitigation

In addition, SCWA reviews project drainage system plans for compliance with its *Flood Control Design Criteria*. Compliance with these regulations would ensure that storm drainage systems are adequately sized to convey postdevelopment runoff. With implementation of Mitigation Measures 3.7-1 and 3.7-2 and adherence to the City’s SWMP, in addition to compliance with SCWA’s design criteria, the proposed plan would not result in flooding or exceed the capacity of existing or planned stormwater drainage systems. This impact would be reduced to a *less-than-significant* level.

3.7g. 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? No Impact.

Based on an evaluation of FEMA’s FIRMs, the proposed plan would not place housing within a 100-year flood zone, because there are no 100-year flood zones in the plan area (see Figure 3.7-1). Therefore, *no impact* would occur.

3.7h. Place within a 100-year flood hazard area structures that would impede or redirect flood flows? No Impact.

Construction

Based on an evaluation of FEMA’s FIRMs, the proposed plan would not place structures within a 100-year flood zone that would impede or redirect flood flows. Because there are no 100-year flood zones in the plan area (see Figure 3.7-1), *no impact* would occur.

Operation

Project operation would cause no additional alterations to the floodplain that would increase flood hazard risks. Therefore, *no impact* would occur.

3.7i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? No Impact.

Based on an evaluation of FEMA’s FIRMs, the plan area is not located in an area that is protected by levees or within the 100-year floodplain (Figure 3.7-1). In addition, no reservoirs are located in the plan area, and the plan area is located outside of a dam inundation area, as described in the City of Rohnert Park’s draft Local Hazard Mitigation Plan (ABAG, 2011). Therefore, project implementation would not expose people or structures to a

significant risk of loss, injury, or death involving flooding as a result of the failure of a levee or dam. *No impact* would occur.

3.7j. Inundation by seiche, tsunami, or mudflow? Less-than-Significant Impact.

The potential for tsunamis or seiches in the plan area would be negligible because of the distance from water bodies that could generate seismically induced tidal phenomena (i.e., the Pacific Ocean is approximately 16 miles west of the plan area at the closest point, and there are no large water bodies [i.e., lakes, reservoirs] near the plan area). Therefore, *no impact* would occur.

The plan area is on flat terrain with a grade of less than 2 percent. Soils are primarily Clear Lake clays, which typically have low erosion potential. In addition, the plan area is located at a distance from hillier areas that could result in landslides and mudflows that could affect the site (ABAG, 2011). Therefore, potential impacts from mudflows would be *less than significant*. For additional discussion of potential mudflows associated with landslides, see Section 3.6, “Geology and Soils.”

3.7.4 Cumulative Impacts

The proposed plan and the other projects considered in the cumulative analysis are located within the Laguna de Santa Rosa watershed. The related projects, including the University District Specific Plan, Stadium Area Master Plan, Sonoma Mountain Village Planned Development, Southeast Specific Plan, Wilfred Dowdell Village Specific Plan, Northeast Specific Plan, and Northwest Specific Plan, also may entail earth-disturbing activities, alteration of surface hydrology, and creation of new impervious surfaces that would result in potential water quality impacts and/or increases in stormwater runoff or velocities or flooding potentials.

Construction activities associated with the proposed plan and other projects considered in the cumulative analysis would involve grading, other earthmoving activities, and dewatering that could result in temporary and short-term localized soil erosion, which could affect water quality, including that of the Section 303(d)-listed tributaries to the Laguna de Santa Rosa water body. Cumulative projects would be expected to comply with the NPDES regulations, including construction site SWPPPs⁴ and BMPs, which would control erosion and construction-related contaminants at each construction site (Mitigation Measure 3.7-1). Therefore, the cumulative effects on hydrology and water quality from construction erosion would be *less than significant*.

Stormwater from the plan area ultimately drains into Laguna de Santa Rosa, which is listed as an impaired water body. Implementation of the LID design measures required by the MS4 NPDES permit, as well as implementation of Mitigation Measures 3.7-1 through 3.7-2 and adherence to the City’s SWMP, would reduce the proposed plan’s impact on water quality to a less-than-significant level. The implementation of LID design measures and adherence to the City’s SWMP would reduce the proposed plan’s impact on stormwater volume and flow compared to existing conditions, and would not contribute to flooding. Similarly, projects considered in the cumulative analysis may be subject to MS4 NPDES stormwater permit requirements that would require their

⁴ SWPPP requirements for projects in the Laguna de Santa Rosa Watershed may require particularly stringent BMPs and construction scheduling, as determined by the North Coast RWQCB, in response to the existing impairments for DO, indicator bacteria, mercury, nitrogen, phosphorus, sedimentation/siltation, and water temperature in the receiving waters.

developers to minimize the area of impervious surfaces and infiltrate or reuse storm runoff from project sites so that there would not be an increase in flow volume compared to preproject conditions. This would be documented for approval via a project-specific SUSMP. The treatment component of the MS4 NPDES permit requires that all of the runoff generated by the design storm event (85th percentile, 24-hour) from impermeable surfaces be treated on-site. These requirements would reduce the impact on water quality, stormwater volume, and flooding during operations to a *less-than-significant* level.

3.7.5 References

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3.8 NOISE

This section describes the existing physical and regulatory setting related to noise and discusses the potential impacts of the proposed plan on noise.

3.8.1 Existing Conditions

Fundamentals of Acoustics

Noise is generally defined as unwanted or objectionable sound. The effects of noise on people can include general annoyance, interference with speech communication, sleep disturbance, and in the extreme, hearing impairment. Noise effects can be caused by pitch or loudness. Pitch is the height of a tone; higher-pitched sounds are louder to humans than lower-pitched sounds. Loudness is intensity or amplitude of sound. The sound-pressure level is the most common descriptor used to characterize the loudness of a sound level. Because sound pressure can vary enormously within the range of human hearing, the logarithmic decibel scale (dB) is used to quantify sound levels.

The human ear is not equally sensitive to all frequencies within the entire sound spectrum, so noise measurements are weighted more heavily for frequencies to which humans are sensitive; this specific “filtering” of sound is called “A-weighting.” Because humans are less sensitive to low-frequency sound than to high-frequency sound, A-weighted sound levels deemphasize low-frequency sound energy to better represent how humans hear.

Different sound-level measurement descriptors are used to characterize the time-varying nature of sound. Several rating scales have been developed to analyze the adverse effect of community noise on people. Because environmental noise fluctuates over time, these scales consider that the effect of noise is dependent on the total acoustical energy content, as well as the time and duration of occurrence. Table 3.8-1 provides brief definitions of these measurement descriptors and other acoustical terminology used in this section.

In a typical environment, the day-night level (L_{dn}) and community noise equivalent level (CNEL) noise descriptors rarely differ by more than 1 dB. As a matter of practice, L_{dn} and CNEL values are considered to be equivalent and are treated as such in this section. For a stationary point-source of sound, sound typically attenuates at a rate of 6 dB per doubling of distance (i.e., 6 dB at 50 feet, 12 dB at 100 feet, and 18 dB at 200 feet). For a line source of sound such as free-flowing traffic on a freeway, sound attenuates at a rate of approximately 3 dB per doubling of distance (i.e., 3 dB at 50 feet, 6 dB at 100 feet, and 9 dB at 200 feet). Atmospheric conditions including wind, temperature gradients, and humidity can change how sound propagates over distance and can affect the level of sound received at a given location. The degree to which the ground surface absorbs acoustical energy also affects sound propagation. Sound that travels over an acoustically absorptive surface such as grass attenuates at a greater rate than sound that travel over a hard surface such as pavement. The increased attenuation due to ground absorption is typically in the range of 1–2 dB per doubling of distance. Barriers such as building and topography that block the line of sight between a source and receiver also increase the attenuation of sound over distance.

Table 3.8-1: Acoustical Terminology

Term	Definition
Sound	A vibratory disturbance created by a vibrating object that when transmitted by pressure waves through a medium such as air, is capable of being detected by a receiving mechanism, such as the human ear or a microphone.
Noise	Sound that is loud, unpleasant, unexpected, or otherwise undesirable.
Ambient Noise	The composite of noise from all sources near and far in a given environment.
Decibel (dB)	A unitless measure of sound on a logarithmic scale, which represents the squared ratio of sound-pressure amplitude to a reference sound pressure. The reference pressure is 20 micro-Pascals, representing the threshold of human hearing (0 dB).
A-Weighted Decibel (dBA)	An overall frequency-weighted sound level that approximates the frequency response of the human ear.
Equivalent Sound Level (L_{eq})	The average sound energy occurring over a specified time period. In effect, L_{eq} is the steady-state sound level that in a stated period would contain the same acoustical energy as the time-varying sound that actually occurs during the same period.
Maximum and Minimum Sound Levels (L_{max} and L_{min})	The maximum or minimum instantaneous sound level measured during a measurement period.
Day-Night Level (L_{dn})	The energy-average of the A-weighted sound levels occurring during a 24-hour period, with 10 dB added to the A-weighted sound levels occurring during the period from 10:00 p.m. to 7:00 a.m. (nighttime).
Community Noise Equivalent Level (CNEL)	The energy average of the A-weighted sound levels occurring during a 24-hour period with 5 dB added to the A-weighted sound levels occurring during the period from 7:00 p.m. to 10:00 p.m. and 10 dB added to the A-weighted sound levels occurring during the period from 10:00 p.m. to 7:00 a.m.

Source: Data compiled by AECOM in 2015

Fundamentals of Vibration

Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. The peak particle velocity (PPV) and root-mean-square (RMS) velocity are normally described in inches per second (in/sec). PPV is defined as the maximum instantaneous positive or negative peak of a vibration signal. PPV is the metric often used to describe blasting vibration and other vibration sources that may result in structural stresses in buildings (FTA, 2006). Although PPV is appropriate for evaluating the potential for building damage, it is not always suitable for evaluating human response to ground vibrations. It takes some time for the human body to respond to vibration signals; therefore, average vibration amplitude (RMS) is the best appropriate descriptor to gauge human response to the typical ground vibration. The RMS of a signal is the average of the squared amplitude of the signal, typically calculated over a period of 1 second. As with airborne sound, the RMS velocity is often expressed in dB notation as vibration dB (VdB), which serves to compress the range of numbers required to describe vibration (FTA, 2006). This VdB scale is based on a reference value of 1 micro-inch per second ($\mu\text{in}/\text{sec}$). The background vibration-velocity level typical of residential areas is approximately 50 VdB (FTA, 2006).

Groundborne vibration is normally perceptible to humans at approximately 65 VdB. For most people, a vibration-velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels. Table 3.8-2 summarizes the general human response to different levels of groundborne vibration.

Table 3.8-2: Human Response to Different Levels of Groundborne Vibration

Vibration-Velocity Level (VdB)	Human Reaction
65	Approximate threshold of perception.
75	Approximate dividing line between barely perceptible and distinctly perceptible. Many people find that transportation-related vibration at this level is unacceptable.
85	Vibration acceptable only if there is an infrequent number of events per day.

Note:

VdB = vibration decibels referenced to 1 micro-inch per second and based on the root mean square vibration velocity.

Source: FTA, 2006

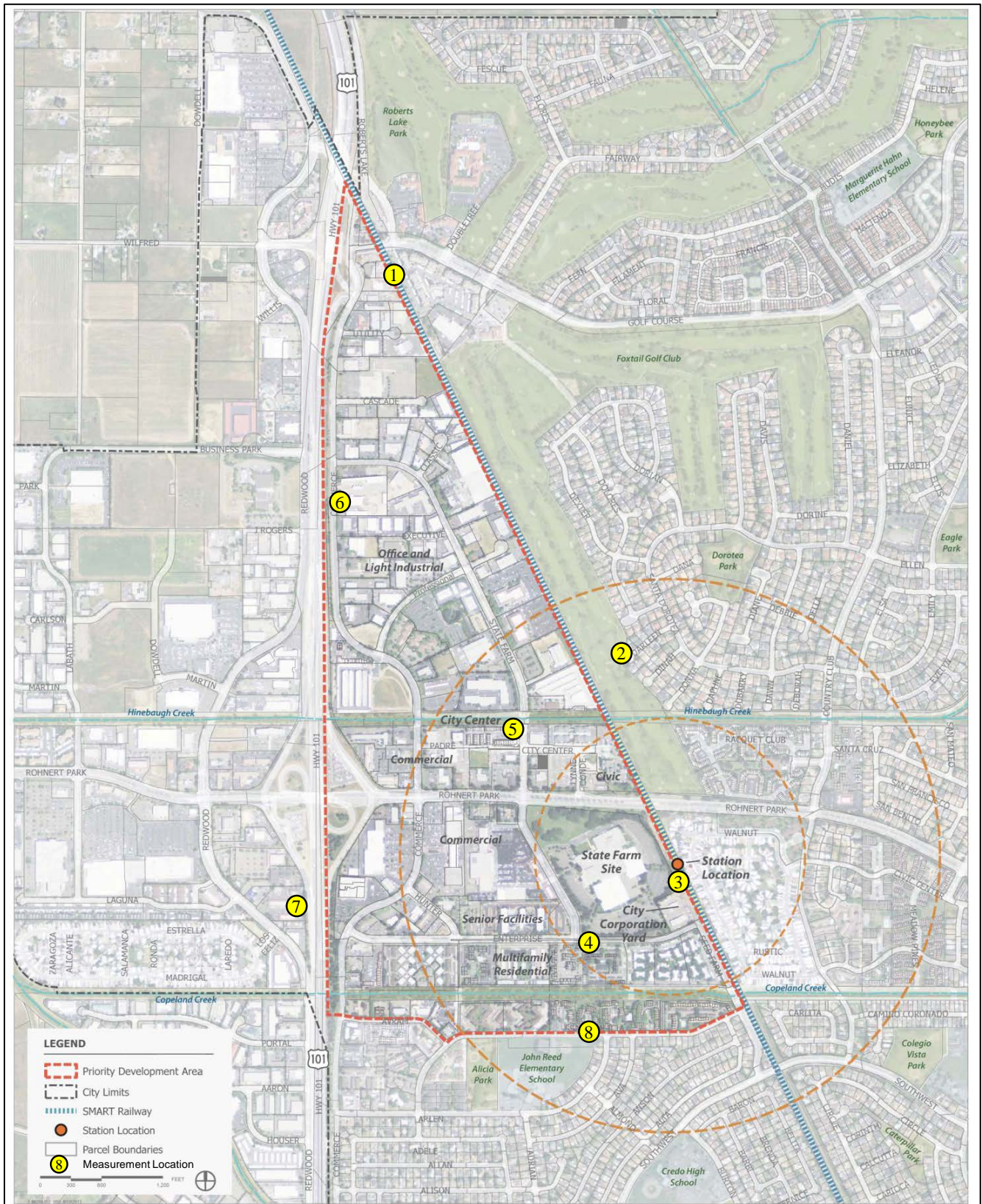
Existing Noise-Sensitive Land Uses

Noise-sensitive land uses generally include those uses where exposure to noise would result in adverse effects, as well as uses where quiet is an essential element of their intended purpose. Residential dwellings are of primary concern, because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels. Other noise-sensitive land uses include hospitals, convalescent facilities, parks, hotels, churches, libraries, and other uses where low noise levels are essential.

Most noise-sensitive uses (i.e., residential) near the plan area are located east of the existing railroad tracks to be used by Sonoma-Marín Area Rail Transit (SMART), and to the south along and south of Enterprise Drive. There are existing mixed-use buildings (i.e., residential and commercial) in the plan area along State Farm Drive and City Center Drive. In addition, a Motel 6 is located on Commerce Boulevard (north of Rohnert Park Expressway [RPX]).

Noise-Level Measurements

Ambient noise measurements were conducted at eight selected locations that represent the existing nearby land uses in the vicinity of the plan area (Table 3.8-3 and Figure 3.8-1). The ambient noise measurements were performed using a Quest Model 2900 Integrated Sound Level Meter, which is a Type 2 standard instrument as defined in American National Standards Institute S1.4. All instruments were calibrated and operated according to the manufacturer’s specifications. The noise sensor device (microphone) was placed 5 feet above the local grade. The noise measurements were made on April 1, 2015, between 10:00 a.m. and 2:00 p.m. The measured ambient noise levels are provided in Table 3.8-3. Based on field observation and measured sound data, the current ambient noise environment in the vicinity of the plan area is controlled primarily by vehicular traffic on local roadways, and other typical urban noise. As indicated in Table 3.8-3, the existing ambient noise levels at Locations 1, 4, 5, 6, and 7 currently exceed the City’s daytime presumed ambient noise standard of 55 A-weighted decibels (dBA).



Sources: Compiled by AECOM in 2015

Figure 3.8-1:

Noise Measurement Locations

Table 3.8-3: Existing Ambient Noise Levels

Location	Description	Measurement Time	Measured Noise Levels A-Weighted Sound Level (dBA)		
			L _{eq}	L _{min}	L _{max}
1	Multifamily residences on the southern side of Golf Course Drive, east of the plan area.	10:18 a.m.–10:32 a.m.	55.5	47.6	70.9
2	Single-family residences at the cul-de-sac of Darleen Court.	10:55 a.m.–11:10 a.m.	44.6	40.7	54.5
3	Project eastern property line, representing the mobile home park east of the plan area.	11:25 a.m.–11:40 a.m.	49.3	42.3	68.0
4	Multifamily residences on Enterprise Drive, just east of State Farm Drive.	11:45 a.m.–12:00 p.m.	63.8	46.9	76.7
5	Multifamily residences on State Farm Drive, just north of City Center Drive.	1:07 p.m.–1:23 p.m.	66.6	44.8	77.6
6	Commercial use on Commerce Boulevard, south of Transport Avenue.	1:30 p.m.–1:45 p.m.	65.6	60.6	75.1
7	Best Western Inn on Redwood Drive, west of U.S. Highway 101.	1:55 p.m.–2:10 p.m.	62.2	54.0	70.3
8	John Reed Elementary School and single-family residences on Santa Alicia Drive, west of Arlen Drive.	12:26 p.m.–12:41 p.m.	52.7	41.6	68.9

Notes:

dBA = A-weighted decibels; L_{eq} = equivalent noise level; L_{max} = maximum noise level; L_{min} = minimum noise level.

Monitoring locations correspond to those depicted in Figure 3.8-1.

Source: Data collected by AECOM on April 1, 2015

Existing Traffic Noise

In addition to the ambient noise measurements in the vicinity of the plan area, the existing traffic noise on local roadways in the surrounding areas near the plan area was calculated to quantify the 24-hour L_{dn} noise levels, based on the existing traffic volumes as provided in the proposed plan’s traffic impact study (WWT, 2015). The noise levels generated by existing traffic on local roadways were calculated using a noise prediction model developed based on calculation methodologies provided in the California Department of Transportation Technical Noise Supplement (TeNS) document. The roadway noise calculation procedures provided in the California Department of Transportation TeNS are consistent with Federal Highway Administration (FHWA) RD-77-108 roadway noise prediction methodologies. This methodology allows for the definition of roadway configurations, barrier information (if any), and receiver locations, in addition to the traffic volumes. To present a simplified analysis consistent with the amount of project-related technical information currently available, the noise model assumes a “hard” site condition and no barriers between the roadway and receivers. (Assuming a hard site condition is a conservative assumption that limits sound attenuation from ground condition to a maximum of 3 dBA per doubling of distance, whereas the “soft” ground condition would provide sound attenuation of 4.5 dBA per doubling of distance.)

Table 3.8-4 provides the calculated traffic noise levels for the analyzed local roadway segments based on existing traffic volumes. As shown, the existing L_{dn} attributable only to surface street traffic volumes ranged from 54.1 dBA L_{dn} along Professional Center Drive (between Commerce Boulevard and State Farm Drive) to 69.0 dBA L_{dn} along RPX (west of U.S. Highway 101).

Table 3.8-4: Predicted Existing Roadway Traffic Noise Levels

Roadway Segment	Calculated Traffic Noise Levels,¹ dBA L_{dn}	Adjacent Land Uses	Existing Noise Exposure Compatibility Category²
Golf Course Drive			
- West of U.S. Highway 101	65.7	Residential, Motel, Commercial	Conditionally Acceptable
- East of U.S. Highway 101	64.6	Residential, Commercial	Conditionally Acceptable
RPX			
- West of U.S. Highway 101	69.0	Commercial	Conditionally Acceptable
- Between Commerce Boulevard and State Farm Drive	66.4	Commercial	Normally Acceptable
- East of State Farm Drive	68.1	Residential, Library, Commercial	Conditionally Acceptable
Enterprise Drive			
- Between Commerce Boulevard and Hunter Drive	57.1	Residential, Commercial	Normally Acceptable
- Between Hunter Drive and State Farm Drive	59.8	Residential, School	Normally Acceptable
- Between State Farm Drive and Seed Farm Drive	61.5	Residential, Commercial	Conditionally Acceptable
Commerce Boulevard			
- Between Golf Course Drive and State Farm Drive	64.0	Commercial	Normally Acceptable
- Between State Farm Drive and Professional Drive	61.6	Commercial	Normally Acceptable
- Between Professional Drive and RPX	62.6	Commercial	Normally Acceptable
- Between RPX and Enterprise Drive	64.6	Commercial	Conditionally Acceptable
- South of Enterprise Drive	65.0	Residential	Conditionally Acceptable
State Farm Drive			
- Between Commerce Boulevard and Professional Drive	59.6	Commercial	Normally Acceptable
- Between Professional Drive and RPX	61.8	Residential, Commercial	Conditionally Acceptable
- Between RPX and Enterprise Drive	61.6	Commercial	Normally Acceptable
Professional Drive			
- Between Commerce Boulevard and State Farm Drive	54.1	Commercial	Normally Acceptable
Padre Parkway			
- Between Commerce Boulevard and State Farm Drive	56.7	Residential, Commercial	Normally Acceptable
City Center Drive			
- East of State Farm Drive	54.5	Residential, Commercial	Normally Acceptable
Seed Farm Drive			
- South of Enterprise Drive	61.4	Residential	Conditionally Acceptable

Notes:

dBA = A-weighted decibels; L_{dn} = day-night level

¹ Traffic noise levels are predicted at a standard distance of 100 feet from the roadway centerline and do not account for shielding from existing noise barriers or intervening structures. Traffic noise levels may vary depending on actual setback distances and localized shielding.

² The indicated noise exposure compatibility is based on the most stringent land use category.

Source: Data modeled by AECOM in 2015

3.8.2 Regulatory Framework

Government agencies have established noise standards and guidelines to protect citizens from potential hearing damage and other adverse physiological and social effects associated with noise. The City of Rohnert Park has adopted regulations and policies that are based in part on federal and state regulations/guidelines, and are intended to control, minimize, or mitigate environmental noise. Standards and guidelines applicable to the proposed plan are discussed below.

City of Rohnert Park General Plan

The *City of Rohnert Park General Plan* (City of Rohnert Park, 2015a [originally adopted 2000]) includes a Noise Element as a planning tool to develop strategies and action programs that address a multitude of noise sources and issues. The overall purpose of the Noise Element is to protect citizens from the harmful and annoying effects of exposure to excessive noise. The following City of Rohnert Park Noise Element policies relate to the proposed plan:

- **Policy PF-1:** During project review and approval, use Figure 8.3-1 [see Table 3.8-5] to determine acceptable uses and analysis and insulation requirements in noise-impacted areas.

Table 3.8-5: City of Rohnert Park Land Use Compatibility for Community Noise Environments

Land Use Category	Exterior Day/Night Noise Levels, ¹ DNL or L _{dn} , dB			
	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Residential—Single Family	Up to 60	55 to 70	70 to 75	Greater than 75
Residential—Multiple Family	Up to 65	60 to 70	70 to 75	Greater than 75
Transient Lodging—Motels, Hotels	Up to 65	60 to 70	70 to 80	Greater than 80
Schools, Libraries, Churches, Hospitals*, Nursing Homes	Up to 70	60 to 70	70 to 80	Greater than 80
Auditoriums, Concert Halls, Amphitheaters	–	Up to 70	Greater than 65	–
Sport Arena, Outdoor Spectator Sports	–	Up to 75	Greater than 70	–
Playground, Parks	Up to 70	–	67.5 to 75	Greater than 72.5
Golf Courses, Riding Stables, Water Recreation, Cemeteries	Up to 75	–	70 to 80	Greater than 80
Office Buildings, Business Commercial and Professional	Up to 70	67.5 to 77.5	Greater than 75	–
Industrial, Manufacturing, Utilities, Agriculture	Up to 75	70 to 80	Greater than 75	–

Notes: dB = decibels; L_{dn} = day-night level

¹ **Normally Acceptable:** Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design.

Normally Unacceptable: New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

Clearly Unacceptable: New construction or development clearly should not be undertaken.

* Because hospitals are often designed and constructed with high noise insulation properties, it is possible for them to be satisfactorily located in noisier areas.

Source: City of Rohnert Park, 2015a (originally adopted 2000):Figure 8.3-1

- **Policy PF-2:** For all residential uses, establish 45 dB L_{dn} as the standard for interior noise levels and 60 dB L_{dn} as the standard for exterior noise levels. Require appropriate siting of residential uses and/or mitigation measures to meet the standards.
- **Policy PF-6:** Required buffers or site planning techniques for all new development within 65 dB L_{dn} noise contours. However, avoid visible sound walls except along U.S. Highway 101 and along the Northwestern Pacific (NP) Railroad right-of-way.
- **Policy PF-7:** Require new development within existing or projected 65 dB L_{dn} noise contours to undergo a technical acoustical analysis, which shall serve as the basis for designing mitigation measures. Require the technical analysis to be conducted by a professional acoustical engineer.

Rohnert Park Municipal Code (Noise Ordinance)

Chapter 9.44 of the City of Rohnert Park Municipal Code (Noise Ordinance) establishes acceptable ambient sound levels to regulate intrusive noises (e.g., stationary mechanical equipment and vehicles other than those traveling on public streets) within specific land use zones. In accordance with the Noise Ordinance, a noise level increase of 5 dBA over the existing ambient noise level at an adjacent property line is considered a noise violation (City-regulated noise sources).

The baseline ambient noise level (as defined by the Noise Ordinance) is the actual measured ambient noise level or the City's established ambient noise level (as shown in Table 3.8-6), whichever is greater. In cases where the actual measured ambient noise level is not known, the City-provided ambient noise level will be used as the baseline.

Table 3.8-6: City of Rohnert Park Ambient Noise Levels

Zone	Time	Sound Level, dBA Community Environment Classification
R1 and R2	10 p.m. to 7 a.m. (Nighttime)	45
R1 and R2	7 p.m. to 10 p.m. (Evening)	40
R1 and R2	7 a.m. to 7 p.m. (Daytime)	55
R3 and R4	10 p.m. to 7 a.m. (Nighttime)	50
R3 and R4	7 a.m. to 10 p.m. (Daytime)	55
Commercial	10 p.m. to 7 a.m. (Nighttime)	55
Commercial	7 a.m. to 10 p.m. (Daytime)	60
Limited Industrial	Anytime	70
General Industrial	Anytime	75

Note: dBA = A-weighted decibels

Source: City of Rohnert Park, 2015b

With respect to construction, the City's Noise Ordinance states that:

It is unlawful for any person within a residential zone, or within a radius of five hundred feet therefrom, to operate equipment or perform any outside construction or repair work on buildings, structures, or

projects or to operate any pile driver, power shovel, pneumatic hammer, derrick, power hoist, or any other construction type device between the hours of six p.m. of one day and eight a.m. of the next day in such a manner that a reasonable person of normal sensitiveness residing in the area is caused discomfort or annoyance unless beforehand a permit therefore has been duly obtained from the superintendent of public works.

Groundborne Vibration

The City of Rohnert Park currently does not have any adopted policies or standards for groundborne vibration. Therefore, the groundborne vibration standards and guidelines from the Federal Transit Administration (FTA) are used. FTA has published a technical manual titled *Transit Noise and Vibration Impact Assessment* that provides groundborne vibration impact criteria with respect to building damage during construction activities (FTA, 2006). With respect to potential building damage, FTA provides guidelines for evaluating potential groundborne vibration damage applicable to various building categories. Table 3.8-7 provides the FTA vibration criteria applicable to construction activities. According to FTA guidelines, a vibration damage criterion of 0.20 inch per second PPV should be considered for nonengineered timber and masonry buildings. Furthermore, structures or buildings constructed of reinforced concrete, steel, or timber have vibration damage criteria of 0.50 inch per second pursuant to the FTA guidelines.

Table 3.8-7: Summary of Federal Transit Administration–Recommended Vibration Damage Criteria

Building Category	PPV (in/sec)	Approximate L _v ¹
Reinforced concrete, steel, or timber (no plaster)	0.5	102
Engineered concrete and masonry (no plaster)	0.3	98
Nonengineered timber and masonry buildings	0.2	94
Buildings extremely susceptible to vibration damage	0.12	90

Notes:

in/sec = inches per second; PPV = peak particle velocity

¹ Root mean square velocity in decibels (VdB) referenced to 1 microinch per second.

Source: FTA, 2006

Significance Threshold

Based on the regulatory framework described above and in accordance with significance criteria established by Appendix G of the California Environmental Quality Act (CEQA) Guidelines, the following thresholds of significance were established to evaluate the proposed plan’s noise and vibration impacts. Noise from project construction and operation would be considered significant if:

- project construction activity would occur within 500 feet of a residential use between the hours of 6:00 p.m. and 8 a.m.;
- project-related on-site stationary noise sources (i.e., outdoor building mechanical equipment) would increase the ambient noise level by 5 dBA at off-site noise-sensitive uses (i.e., residential use);
- project-related off-site mobile-noise sources (i.e., roadway traffic) would increase the noise levels at noise-sensitive uses (i.e., residential) future conditions by 3 dBA (in L_{dn}), and the resulting noise would fall within

the “normally unacceptable” or “clearly acceptable” category or by 5 dBA, and the resulting noise would fall within “normally acceptable” or “conditionally acceptable”;

- project construction activities would cause the groundborne vibration to exceed 0.5 PPV at the nearest off-site reinforced concrete, steel, or timber building;
- project construction activities would cause groundborne vibration levels to exceed 0.2 in/sec (PPV) at the nearest off-site nonengineered timber and masonry building;
- project construction activities would cause the groundborne vibration to exceed 0.12 PPV at buildings that are extremely susceptible to vibration damage (i.e., old historic buildings); or
- project construction activities would cause groundborne vibration levels to exceed 80 VdB at off-site sensitive uses, including residential and hotel uses.

3.8.3 Impact Discussion

3.8a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? Less-than-Significant Impact with Mitigation Incorporated.

Construction Noise

Noise impacts from project construction activities occurring in or adjacent to the plan area would be a function of the noise generated by construction equipment, the location of the equipment, the timing and duration of the noise-generating construction activities, and the distance to noise-sensitive receptors. Construction activities would include site demolition, site grading/excavation, building construction, and finishing. Each stage of construction would include the use of various types of construction equipment, and would therefore have its own distinct noise characteristics. Site demolition generally includes the use of backhoes, front-end loaders, and heavy-duty trucks. Site grading and excavation typically require the use of earth-moving equipment, such as excavators, front-end loaders, and heavy-duty trucks. Building construction typically includes the use of cranes, forklifts, concrete trucks, and delivery trucks. Noise from construction equipment would generate both steady-state and episodic noise that could be heard in and adjacent to the plan area.

Individual pieces of construction equipment that would be used for construction produce maximum noise levels of 75–90 dBA at a reference distance of 50 feet from the noise source (Table 3.8-8). The construction equipment noise levels at 50 feet distance (referenced maximum noise levels) are based on the *FHWA Roadway Construction Noise Model User's Guide* (FHWA, 2006), which is a technical report containing actual measured noise data for construction equipment. The maximum noise levels would occur when the equipment is operating under full-power conditions. However, because equipment used on construction sites often operates at less than full power, an acoustical usage factor is applied. These acoustical usage factors are estimates and would vary based on the actual construction activities and duration.

Table 3.8-8: Noise Levels Generated by Typical Construction Equipment

Construction Equipment	Acoustical Usage Factor ¹ (%)	Maximum Noise Levels at 50 Feet, dBA L _{max}
Air Compressor	40	78
Backhoe	40	78
Compactor	20	83
Concrete Pump	20	79
Concrete Truck	40	81
Concrete Saw	20	90
Crane	16	81
Rubber-Tired Dozer	40	82
Excavator	40	84
Forklift	20	75
Generator	50	81
Grader	40	85
Pneumatic Tools	50	85
Paver/Paving Equipment	50	77
Roller	20	80
Loader	40	79
Dump/Haul/Delivery Truck	40	76
Water Truck	40	76
Welders	40	74

Notes:

dBA = A-weighted decibels; L_{max} = maximum noise level

¹ The acoustical usage factor is a percentage of time that a particular piece of equipment is anticipated to be in full-power operation during a typical construction day.

Source: FHWA, 2006.

To more accurately characterize construction-period noise levels, the average (L_{eq}) noise level associated with each construction stage is provided in Table 3.8-9. These average noise levels are based on the quantity, type, and usage factors for each type of equipment that would be used during each construction stage, and are typically attributable to multiple pieces of equipment operating simultaneously. As shown in Table 3.8-9, the average construction-period noise level is expected to range from 74.1 to 86.3 dBA at a reference distance of 50 feet.

Construction activities would temporarily increase the existing ambient noise near the construction site, including the existing residential uses in and to the east and south of the plan area. However, construction activities would be required to comply with the City's allowable hours (i.e., during daytime hours between 8:00 a.m. and 6:00 p.m.) as described above, and construction activities would be temporary. Therefore, construction-related noise would result in a *less-than-significant* noise impact.

Table 3.8-9: Noise Levels Generated by Typical Construction Equipment

Construction Stage	Typical Construction Equipment	Construction Noise Levels at Indicated Distance from the Construction Areas, ¹ dBA L _{eq}		
		50 Feet	100 Feet	200 Feet
Site Demolition	Dozer, backhoe, front-end loader, haul trucks	84.4	78.4	72.4
Site Grading/Excavation	Drill rig, excavator, loader, compactor, crane, haul trucks	85.5	79.5	73.5
Building Construction	Crane, forklift, tractor/loader/backhoe, generator, welder, concrete truck, concrete pump, pneumatic tools, delivery truck	86.3	80.3	74.3
Finishing/Landscaping	Cement and mortar mixer, backhoe, paver, roller	74.1	68.1	62.1

Notes:

dBA = A-weighted decibels; L_{eq} = equivalent noise level¹ Estimated noise levels are based on distance attenuation only.

Source: AECOM, 2015.

Operational Noise

The existing noise environment in the vicinity of the planning area is dominated by traffic noise from adjacent roadways, and from nearby commercial and residential activities. Operational noise generated under the proposed plan would result primarily from typical residential and commercial uses, including normal operation of buildings' mechanical air conditioning and ventilation equipment, outdoor spaces, and off-site traffic.

Off-Site Stationary Sources

The operation of building mechanical equipment such as air conditioners, fans, and related equipment may generate audible noise. Outdoor mechanical equipment would typically be located on the buildings' rooftops or in the interior of the buildings, shielded from nearby noise-sensitive land uses to attenuate noise and avoid conflicts with adjacent uses. In addition, all building mechanical equipment would be designed with appropriate noise control devices, such as sound screen/parapet walls, to comply with City's Noise Ordinance, to not exceed the ambient levels by 5 dBA. Therefore, the noise impact from operation of building mechanical equipment under the proposed plan would be *less than significant*.

Off-Site Roadway Traffic

Based on the proposed plan's traffic impact study, the proposed plan is expected to generate 27,777 net new daily trips (average daily trips) by the proposed plan's anticipated full-occupancy year of 2040. The increase in the traffic volumes was analyzed to determine whether any traffic-related noise impacts would result from the proposed plan. The project-related traffic noise impact is determined by comparing the increase in noise levels from the "future without project" (2040 baseline) to "future with project" (2040 baseline plus project-related traffic) with the proposed plan's significance threshold. Table 3.8-10 provides a summary of the off-site roadway noise analysis. As shown in Table 3.8-10, the proposed plan would result in a maximum 2.3 dBA increase in traffic noise along Professional Drive, between Commerce Drive and State Farm Drive. At all other analyzed roadway segments, the increase attributable to proposed plan-related traffic would be lower (less than 1.7 dBA), because such traffic would disperse to various nearby roadways away from the plan area. The incremental

Table 3.8-10: Roadway Traffic Noise Impacts—Off-Site

Roadway Segment	Calculated Traffic Noise Levels, ¹ dBA L _{dn}		Increase in Noise Levels from the Proposed Plan, dBA L _{dn}
	Future Without Project	Future With Project	
Golf Course Drive			
- West of U.S. Highway 101	69.8	69.9	0.1
- East of U.S. Highway 101	68.1	68.2	0.1
RPX			
- West of U.S. Highway 101	70.7	71.0	0.3
- Between Commerce Boulevard and State Farm Drive	67.7	68.7	1.0
- East of State Farm Drive	69.4	69.8	0.4
Enterprise Drive			
- Between Commerce Boulevard and Hunter Drive	58.1	58.7	0.6
- Between Hunter Drive and State Farm Drive	60.4	61.3	0.9
- Between State Farm Drive and Seed Farm Drive	60.0	61.1	1.1
Commerce Boulevard			
- Between Golf Course Drive and State Farm Drive	66.1	66.7	0.6
- Between State Farm Drive and Professional Drive	62.6	63.1	0.5
- Between Professional Drive and RPX	63.6	64.8	1.2
- Between RPX and Enterprise Drive	65.2	65.4	0.2
- South of Enterprise Drive	65.6	65.8	0.2
State Farm Drive			
- Between Commerce Boulevard and Professional Drive	61.5	62.1	0.6
- Between Professional Drive and RPX	63.4	64.3	0.9
- Between RPX and Enterprise Drive	62.7	64.2	1.5
Professional Drive			
- Between Commerce Boulevard and State Farm Drive	54.7	57.0	2.3
Padre Parkway			
- Between Commerce Boulevard and State Farm Drive	58.2	59.0	0.8
City Center Drive			
- East of State Farm Drive	56.8	58.5	1.7
Seed Farm Drive			
- South of Enterprise Drive	62.9	63.9	1.0

Notes:

dBA = A-weighted decibels; L_{dn} = day-night level; RPX = Rohnert Park Expressway

¹ Traffic noise levels are predicted at a standard distance of 100 feet from the roadway centerline and do not account for shielding from existing noise barriers or intervening structures.

Source: Data modeled by AECOM in 2015

changes in traffic noise levels attributable to the proposed plan would be considered negligible in the existing exterior noise environment. In addition, the change would be below the 3 dBA L_{dn} significance threshold. Therefore, off-site traffic noise impacts associated with the proposed plan would be *less than significant*.

Land Use Noise Compatibility

Development under the proposed plan would include residential, commercial/office, public institution, industrial, and public parks/open space, which would be exposed to existing and future ambient noise surrounding the plan area.

Roadway Traffic Noise

Existing and future traffic on roads surrounding and within the plan area would affect the plan area. Table 3.8-11 provides the projected traffic noise levels for roadway segments adjacent to the proposed development areas. Figure 3.8-2 presents the future plus project traffic noise contours in the proposed development area. Also included in Table 3.8-11 are the calculated distances from the edge of the roadway at which the traffic noise level would meet the City's normally acceptable exterior noise standard of 60 and 70 dBA L_{dn} for residential and commercial/retail/office/park uses, respectively. The noise model assumes straight-line attenuations/reductions in noise levels of 3 dBA per doubling of distance from a road centerline, with no noise attenuation allowances for intervening structures.

The proposed additional residential development would be located in the City Center and Station Center subareas. As indicated in Table 3.8-11, the traffic noise levels within the City Center and Station Center would be up to 69.8 dBA L_{dn} at 100 feet from the adjacent roadways' centerline (i.e., RPX), which exceed the City's land use compatibility guidelines of 60 dBA L_{dn} for residential uses. Therefore, this impact would be *potentially significant*.

Mitigation Measures

Mitigation Measure 3.8-1: Prepare Site-Specific Interior Acoustical Analysis Reports and Implement Report Recommendations

As part of any project-level CEQA analysis, for all residential projects, the project applicant shall have an acoustical analysis prepared by a qualified acoustical consultant for all new residential developments that are within 60 dBA L_{dn} or higher, to document that an acceptable interior noise level of 45 dBA L_{dn} or below will be achieved with the windows and doors closed. The report shall be submitted at plan check to the City for approval.

Mitigation Measure 3.8-2: Prepare Site-Specific Exterior Acoustical Analysis Reports and Implement Report Recommendations

Before the issuance of grading permits, or any project-level CEQA analysis, an acoustical analysis report shall be prepared by a qualified acoustical consultant and submitted to the City Engineer for review. The report shall indicate that the exterior noise levels at the residential outdoor uses, including outdoor courtyards and outdoor pool decks (except for private balconies), would be 60 dBA CNEL or lower. Methods to reduce the exterior noise may include a sound barrier or earth berms; setback from the roadways (i.e., buffer); or placing the outdoor spaces behind buildings, to reduce the traffic noise from adjacent roadways.

Table 3.8-11: Roadway Traffic Noise Impacts—On-Site Uses

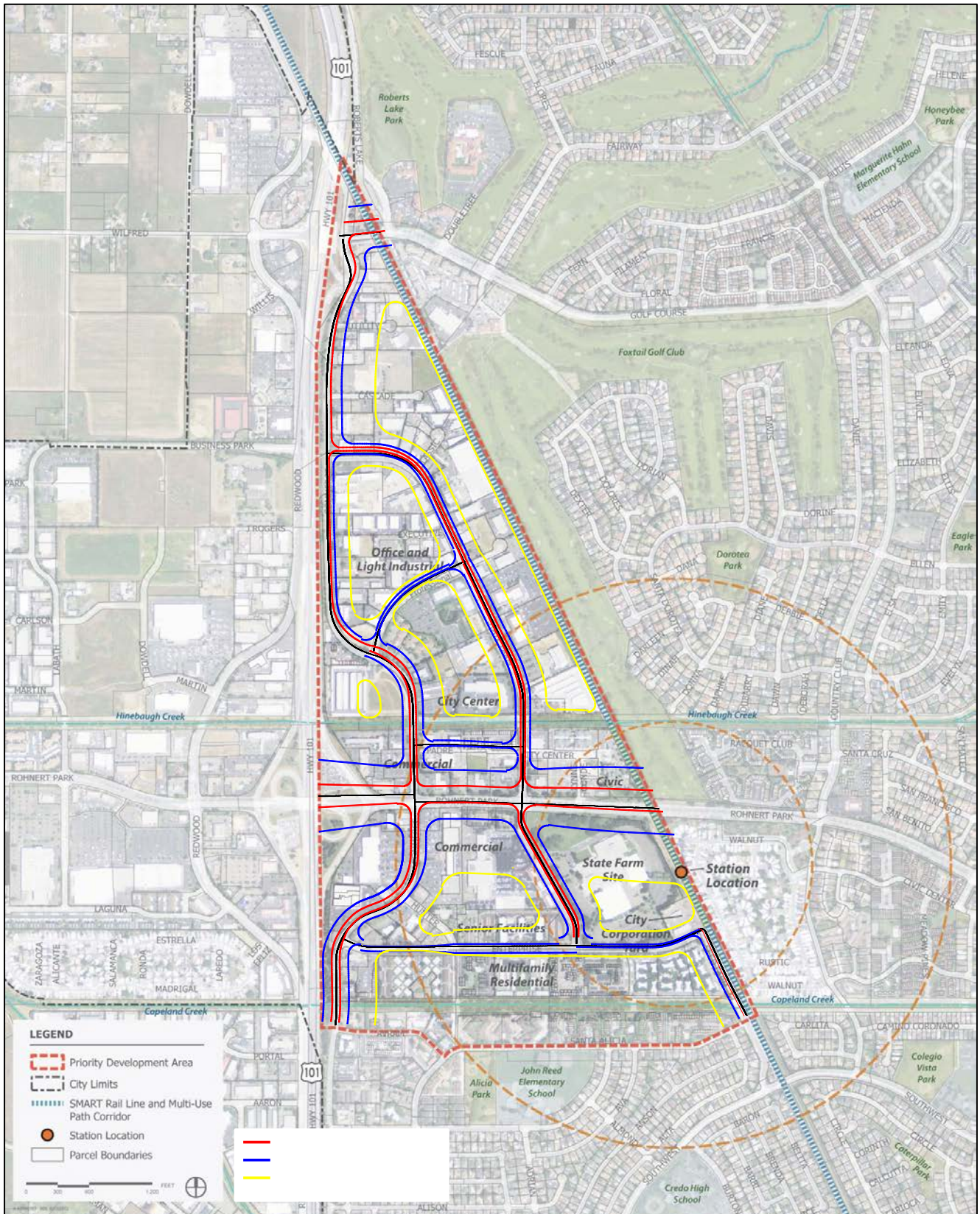
Roadway Segment (Within Plan Area)	Adjacent Proposed Development (Subarea)	Calculated Traffic Noise Levels, ¹ dBA L _{dn}	Calculated Distance from the Center of the Roadway to the L _{dn} Noise Contour, feet	
			70 L _{dn}	60 L _{dn}
RPX				
- Between Commerce Boulevard and State Farm Drive	City Center, Central Commercial	68.7	75	745
- East of State Farm Drive	City Center, Station Center	69.8	95	950
Enterprise Drive				
- Between Commerce Boulevard and Hunter Drive	Central Commercial	58.7	- ²	74
- Between Hunter Drive and State Farm Drive	Central Commercial	61.3	- ²	133
- Between State Farm Drive and Seed Farm Drive	Station Center	61.1	- ²	129
Commerce Boulevard				
- Between Golf Course Drive and State Farm Drive	Triangle Business	66.7	47	468
- Between State Farm Drive and Professional Drive	Triangle Business	63.1	- ²	203
- Between Professional Drive and RPX	Triangle Business, City Center, Central Commercial	64.8	- ²	303
- Between RPX and Enterprise Drive	Central Commercial	65.4	- ²	346
State Farm Drive				
- Between Commerce Boulevard and Professional Drive	Triangle Business	62.1	- ²	162
- Between Professional Drive and RPX	Triangle Business, City Center Subarea	64.3	- ²	269
- Between RPX and Enterprise Drive	Central Commercial, Station Center	64.2	- ²	263
Professional Drive				
- Between Commerce Boulevard and State Farm Drive	Triangle Business	57.0	- ²	50
Padre Parkway				
- Between Commerce Boulevard and State Farm Drive	City Center Subarea	59.0	- ²	79
City Center Drive				
- East of State Farm Drive	City Center Subarea	58.5	- ²	70

Notes: RPX = Rohnert Park Expressway

¹ Traffic noise levels are predicted at a standard distance of 100 feet from the roadway centerline and do not account for shielding from existing noise barriers or intervening structures. Traffic noise levels may vary depending on actual setback distances and localized shielding.

² Noise contour is met at the edge of the roadway.

Source: Data modeled by AECOM in 2015 (see Appendix D)



Sources: Compiled by AECOM in 2015

Figure 3.8-2:

Future Plus Project Noise Contours

Significance After Mitigation

Incorporation of Mitigation Measures 3.8-1 and 3.8-2 would reduce potential impacts to a less-than-significant level for the proposed residential developments. The traffic noise levels along the roadways in the plan area would fall within normally acceptable (i.e., less than 70 dBA L_{dn}) for commercial/retail/office/park uses. Therefore, noise impacts on future on-site developments would be *less than significant* with implementation of the mitigation measures listed above. Implementation of Mitigation Measure 3.8-1 would ensure that the interior noise levels at the future residential use (attributable to exterior noise) would meet the City's interior noise requirement of 45 dBA L_{dn} . Implementation of Mitigation Measure 3.8-2 would ensure that the exterior noise levels at the residential outdoor uses do not exceed 60 dBA L_{dn} . Therefore, noise impacts on the future noise-sensitive uses would be reduced to a *less-than-significant* level.

3.8b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? Less-than-Significant Impact.

SMART Rail Noise

The proposed residential development in the Station Center subarea would be located near the future SMART rail station. Based on review of the RPX Station Project CEQA Addendum to the 2006 Final Environmental Impact Report (SMART, 2012), the noise level from SMART station operation would not exceed the FTA criteria. In addition, the predicted noise from the rail operations at distances of greater than 25 feet from the tracks would be less than 60 dBA L_{dn} , which would meet the City's land use standard for residential use (SMART, 2005). The proposed residential development would be located greater than 25 feet from SMART rail tracks. In addition, noise from the train horns/warning devices would generate high noise levels at the at-grade crossings. Noise from train pass-bys and horns/warning devices would be limited to 12 round trips per day and would occur between 5:00 a.m. and 8:00 p.m. (SMART, 2005). The nearest at-grade crossing would be at RPX (crossing the rail tracks). The train horns, as described in the SMART draft environmental impact report, are not regulated by local ordinance because they are safety-warning devices. Therefore, noise impacts from the SMART operation onto the future residential development would be *less than significant*.

Construction Vibration

Construction activities can generate varying degrees of ground vibration, depending on the construction procedures and the construction equipment used. FTA has published standard vibration velocities for construction equipment operations. The vibration levels generated by typical construction equipment anticipated to be used during project construction are listed in Table 3.8-12. The groundborne vibration levels would be well below the most stringent building damage threshold of 0.12 PPV (Table 3.8-12). With respect to human annoyance, the groundborne vibration levels at 50 feet from heavy equipment (i.e., large bulldozer, caisson drilling, and loaded trucks) would be approximately 78 VdB, which would be below the 80 VdB significance threshold. Existing off-site residential uses to the east and south of the plan area would be a minimum of 100 feet from construction activities associated with the proposed plan. Therefore, groundborne vibration impacts would be *less than significant* at off-site residential uses.

Table 3.8-12: Vibration Levels Generated by Typical Construction Equipment

Construction Equipment	Vibration Levels in PPV at 25 Feet (in/sec)	Vibration Levels in VdB	
		At 25 Feet	At 50 Feet
Large Bulldozer	0.089	87	78
Caisson Drilling	0.089	87	78
Loaded Trucks	0.076	86	77
Jackhammer	0.035	79	70
Small Bulldozer	0.003	58	49

Note: in/sec = inches per second; PPV = peak particle velocity; VdB = vibration decibels
Sources: FHWA, 2006; data compiled by AECOM in 2015.

There are existing on-site residential uses that could be exposed to groundborne vibration up to 87 VdB when the heavy construction equipment is operating within 25 feet of the residential uses. The groundborne vibration levels, however, would dissipate below the 80 VdB threshold when the heavy construction equipment is operating at a distance of 50 feet or more. Furthermore, in accordance with the City's allowable construction hours, construction activities would be limited to the daytime hours (i.e., 8:00 a.m. to 6:00 p.m.), thereby avoiding the typical normal sleeping hours (i.e., nighttime hours). Therefore, construction-related vibration impacts would be *less than significant*.

Operational Vibration

The proposed plan would include typical residential and commercial-grade stationary mechanical and electrical equipment such as air-handling units, condenser units, exhaust fans, and electrical emergency power generators, which would produce vibration. However, groundborne vibration generated by each of the above-mentioned activities would be limited to areas near the equipment, and would not expect to exceed the 80 VdB vibration significance threshold. Therefore, vibration impacts associated with operation under the proposed plan would be *less than significant*.

3.8c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? Less-than-Significant Impact.

The existing noise environment in the plan area is dominated by traffic noise from nearby roadways, as well as nearby commercial, industrial, and residential activities. Long-term operation under the proposed plan would not have a significant effect on the community noise environment near the plan area. Noise sources that would have potential noise impacts include outdoor mounted mechanical (i.e., air conditioning) equipment and off-site automobile traffic. The noise levels associated with on-site operations (e.g., parking and mechanical equipment), as discussed in Impact 3.8a above, would have a less-than-significant impact. In addition, off-site traffic noise on local roadways attributable to the proposed plan are also considered less than significant, as discussed in Impact 3.8a. Therefore, this noise impact would be *less than significant*.

3.8d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? Less-than-Significant Impact with Mitigation Incorporated.

Construction activities associated with the proposed plan would generate noise on a temporary basis and would increase the existing ambient noise in the immediate vicinity of the plan area, including the existing residential uses in the plan area and to the east and south of the plan area. Construction-related noise impacts are presented in the discussion of Impact 3.8a above. As described therein, noise generated by on-site construction activities would temporarily increase the existing ambient noise close to the plan area. Construction activities would be required to comply with the City's allowable construction hours, which limit construction activities to the daytime hours, avoiding the typical sleeping hours for residents. Nevertheless, construction activities associated with the proposed plan would increase the ambient noise in the vicinity of the plan area, on a temporary basis. Therefore, this impact would be *potentially significant*. The following mitigation measure is recommended to minimize the construction-related noise.

Mitigation Measures

Mitigation Measure 3.8-3: Restrict Construction Activity Timing and Construction Equipment Specifications and Location

Construction activities within 500 feet of residential use shall be limited to the hours of 8:00 a.m. to 6:00 p.m., in accordance with the City's Municipal Code.

Power construction equipment shall be equipped with state-of-the-art noise shielding and muffling devices. All equipment shall be properly maintained to assure that no additional noise attributable to worn or improperly maintained parts would be generated.

Stationary-source construction equipment that may have a flexible specific location on-site (e.g., generators and compressors) shall be located to maintain the greatest distance from sensitive land uses, and unnecessary idling of equipment shall be prohibited.

Significance After Mitigation

Implementation of Mitigation Measure 3.8-3 would reduce the construction noise impacts to a *less-than-significant* level.

3.8e. For a project located within an airport land use plan, or where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? No Impact.

3.8f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? No Impact.

The plan area is not located within 2 miles of a public airport or public use airport. The nearest airport to the plan area is Petaluma Municipal Airport, which is located approximately 7.4 miles to the southeast. Furthermore, the plan area is not located in the vicinity of a private airstrip. Therefore, the proposed plan would not expose people to excessive noise levels associated with aircraft operation. Therefore, *no impact* would occur with respect to airport operation.

3.8.4 Cumulative Impacts

The proposed plan, together with the other related projects, could contribute to cumulative noise impacts. The related projects include full build-out of the Graton Rancheria Resort and Casino, Wilfred-Dowdell Specific Plan, Stadium Area Master Plan, Northeast Area Specific Plan, University District Specific Plan, Southeast Area Specific Plan, Sonoma Mountain Village Development, and Northwest Area Specific Plan. The potential for cumulative noise impacts to occur is specific to the distance between each related project and its stationary noise sources, including the cumulative traffic that these projects would add to the surrounding roadway network.

Construction Noise

Noise from on-site construction activities is typically localized and would normally affect the areas immediately adjacent to the plan area, less than 500 feet from the construction sites, because of the sound attenuation provided by the distance and the intervening buildings between the construction sites and the noise-sensitive receptors. The nearest related project to the plan area is the Wilfred-Dowdell Specific Plan, which is approximately 900 feet west of the plan area (west of U.S. Highway 101). Because the timing of the construction activities for these related projects cannot be defined, any quantitative analysis that assumes multiple, concurrent construction projects would be entirely speculative. Construction activities from the cumulative projects would generate noise at each project site, and cumulative construction noise could exceed ambient noise levels at the nearest residences. However, those noise levels would be intermittent and temporary, would cease at the end of the construction phase, and would comply with time restrictions and other relevant provisions in the City's Municipal Code. Because construction activities would be required to comply with the City's allowable hours as described above and would be temporary, cumulative construction-related noise would result in a *less-than-significant* noise impact.

Construction Vibration

Groundborne vibration decreases rapidly with distance. Potential vibration impacts caused by construction activities are generally limited to buildings/structures that are located close to the construction site (i.e., less than 25 feet). As described above, the nearest related project is approximately 900 feet away from the plan area. Therefore, because of the rapid attenuation characteristics of groundborne vibration, there is no potential for a cumulative construction impact with respect to groundborne vibration.

Operational Noise

Once developed, the plan area, along with overall development in the surrounding area, would generate noise that would contribute to cumulative noise from a number of community noise sources, including vehicle travel and mechanical equipment (e.g., heating, ventilating, and air conditioning systems). Noise levels from stationary sources would be less than significant at the property line for each related project because of the City's

requirements that limit noise from on-site stationary sources such as outdoor air conditioning equipment. Because the impacts of the proposed plan’s on-site stationary sources (i.e., building mechanical equipment, parking facility, and outdoor services) would be less than significant, stationary-source noise impacts attributable to cumulative development of the related projects and the proposed plan would also result in *less-than-significant* impacts.

The proposed plan and other related projects would generate traffic volumes that would contribute to off-site roadway noise. Cumulative noise impacts from off-site traffic were analyzed by comparing the projected increase in traffic noise levels from “existing” conditions to “future cumulative” conditions to the applicable significance criteria. Future cumulative conditions include traffic volumes from future ambient growth, related projects, and the proposed plan. The calculated traffic noise levels under “existing” and “future cumulative” conditions are presented in Table 3.8-13. Cumulative traffic volumes would result in a maximum increase of 3.6 to 4.2 dBA L_{dn} along Golf Course Drive east and west of U.S. Highway 101 and City Center Drive east of State Farm Drive (Table 3.8-13). The maximum increase at the Golf Course Drive (east and west of U.S. Highway 101) and City Center Drive roadway segments would be below the 5 dBA significance threshold. Therefore, the future traffic noise levels remain within the “conditionally acceptable” land use category. At all other analyzed roadway segments, the increase in cumulative traffic noise would be less than 3 dBA L_{dn}, which would be below the more stringent 3 dBA significance threshold. Therefore, cumulative traffic noise impacts would be *less than significant*.

Table 3.8-13: Off-Site Roadway Traffic Noise Impacts—Cumulative

Roadway Segment	Calculated Traffic Noise Levels, ¹ dBA L _{dn}		Cumulative Increase in Noise Levels due to Project, dBA L _{dn}	Project Contribution Cumulative Increase, dBA L _{dn}
	Existing	Future Cumulative With Project		
Golf Course Drive				
- West of U.S. Highway 101	65.7	69.9	4.2	0.1
- East of U.S. Highway 101	64.6	68.2	3.6	0.1
Rohnert Park Expressway				
- West of U.S. Highway 101	69.0	71.0	2.0	0.3
- Between Commerce Boulevard and State Farm Drive	66.4	68.7	2.3	1.0
- East of State Farm Drive	68.1	69.8	1.7	0.4
Enterprise Drive				
- Between Commerce Boulevard and Hunter Drive	57.1	58.7	1.6	0.6
- Between Hunter Drive and State Farm Drive	59.8	61.3	1.5	0.9
- Between State Farm Drive and Seed Farm Drive	61.5	61.1	-0.4	1.1
Commerce Boulevard				
- Between Golf Course Drive and State Farm Drive	64.0	66.7	2.7	0.6
- Between State Farm Drive and Professional Drive	61.6	63.1	1.5	0.5
- Between Professional Drive and RPX	62.6	64.8	2.2	1.2
- Between RPX and Enterprise Drive	64.6	65.4	0.8	0.2

Table 3.8-13: Off-Site Roadway Traffic Noise Impacts—Cumulative

Roadway Segment	Calculated Traffic Noise Levels, ¹ dBA L _{dn}		Cumulative Increase in Noise Levels due to Project, dBA L _{dn}	Project Contribution Cumulative Increase, dBA L _{dn}
	Existing	Future Cumulative With Project		
- South of Enterprise Drive	65.0	65.8	0.8	0.2
State Farm Drive				
- Between Commerce Boulevard and Professional Drive	59.6	62.1	2.5	0.6
- Between Professional Drive and RPX	61.8	64.3	2.5	0.9
- Between RPX and Enterprise Drive	61.6	64.2	2.6	1.5
Professional Drive				
- Between Commerce Boulevard and State Farm Drive	54.1	57.0	2.9	2.3
Padre Parkway				
- Between Commerce Boulevard and State Farm Drive	56.7	59.0	2.3	0.8
City Center Drive				
- East of State Farm Drive	54.5	58.5	4.0	1.7
Seed Farm Drive				
- South of Enterprise Drive	61.4	63.9	2.5	1.0

Notes:

¹ Traffic noise levels are predicted at a standard distance of 100 feet from the roadway centerline and do not account for shielding from existing noise barriers or intervening structures.

Source: Data modeled by AECOM in 2015

3.8.5 References

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3.9 TRANSPORTATION AND TRAFFIC

This section describes the existing physical and regulatory setting related to transportation and traffic and discusses the potential impacts of the proposed plan on transportation and traffic.

3.9.1 Existing Conditions

The following description of the transportation network and potential traffic impacts in the plan area vicinity is based on the *Central Rohnert Park Priority Development Area Plan Transportation Impact Study* (W-Trans, 2015), which is included as Appendix E.

Roadway System

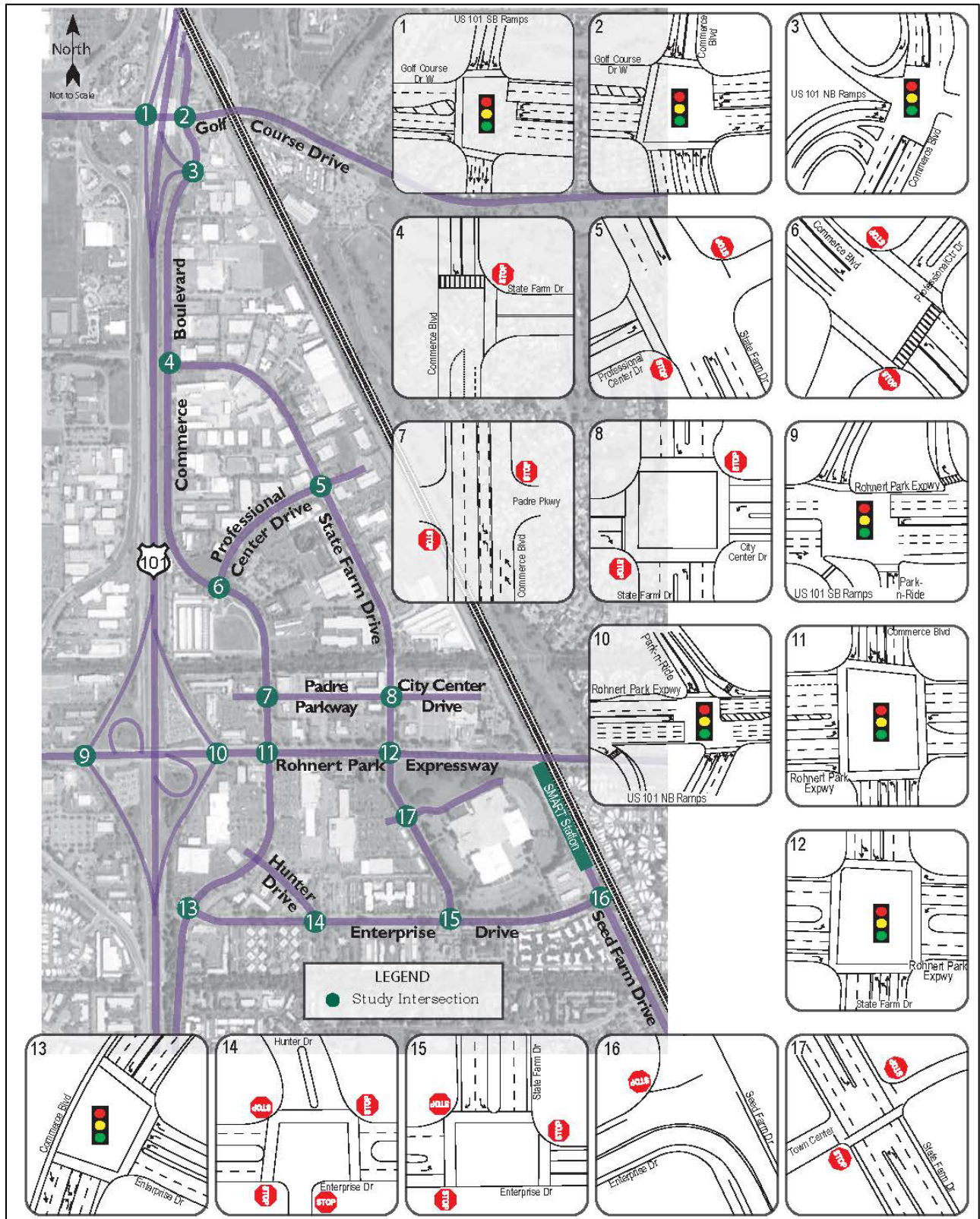
The plan area is composed of commercial development throughout the area and is generally fully developed, with few undeveloped parcels. The local circulation system serving the plan area is shown in Figure 3.9-1.

Regional access to the plan area is provided by U.S. Highway 101 (U.S. 101). Local access to the plan area is provided via Golf Course Drive, Commerce Boulevard, State Farm Drive, Rohnert Park Expressway (RPX), and Enterprise Drive.

Intersections

Seventeen study intersections in and adjacent to the plan area were selected for analysis (see Figure 3.9-1):

1. Golf Course Drive West/U.S. 101 South Ramps
2. Golf Course Drive/Commerce Boulevard
3. Commerce Boulevard/U.S. 101 North Ramps
4. Commerce Boulevard/State Farm Drive
5. State Farm Drive/Professional Center Drive
6. Commerce Boulevard/Professional Center Drive
7. Commerce Boulevard/Padre Parkway
8. State Farm Drive/City Center Drive
9. RPX/U.S. 101 South Ramps
10. RPX/U.S. 101 North Ramps
11. RPX/Commerce Boulevard
12. RPX/State Farm Drive
13. Commerce Boulevard/Enterprise Drive
14. Enterprise Drive/Hunter Drive
15. Enterprise Drive/State Farm Drive
16. Enterprise Drive/Seed Farm Drive
17. State Farm Drive/Town Center



Source: W-Trans, 2015

Figure 3.9-1:

Study Intersections and Lane Configurations

Traffic counts were obtained at the study intersections in September 2013 and March 2014.¹ All counts were obtained while area schools, including Sonoma State University, were in session. Existing traffic volumes are shown in Figure 3.9-2.

Intersection Operations

Methodology

Level of service (LOS) is used to rank traffic operation on various types of facilities based on traffic volumes and roadway capacity, using a series of letter designations ranging from A to F. Generally, LOS A represents free-flow conditions and LOS F represents forced-flow or breakdown conditions. A unit of measure that indicates a level of delay generally accompanies the LOS designation. The study intersections were analyzed using methodologies published in the *Highway Capacity Manual (HCM)* (TRB, 2000) for intersections with signal control, two-way stop control, and all-way stop control intersections.

- *Signal Control.* This methodology is based on factors including traffic volumes, green time for each movement, phasing, coordination or lack of coordination of signals, truck traffic, and pedestrian activity. Average stopped delay per vehicle in seconds is used as the basis for evaluation in this LOS methodology.
- *Two-Way Stop Control.* This methodology determines LOS for each minor turning movement by estimating the level of average delay in seconds per vehicle. Results are presented for individual movements, together with the weighted overall average delay for the intersection.
- *One-Way Stop Control.* This methodology evaluates delay for each approach based on turning movements, opposing and conflicting traffic volumes, and the number of lanes. Average vehicle delay is computed for the intersection as a whole, and is then related to LOS.

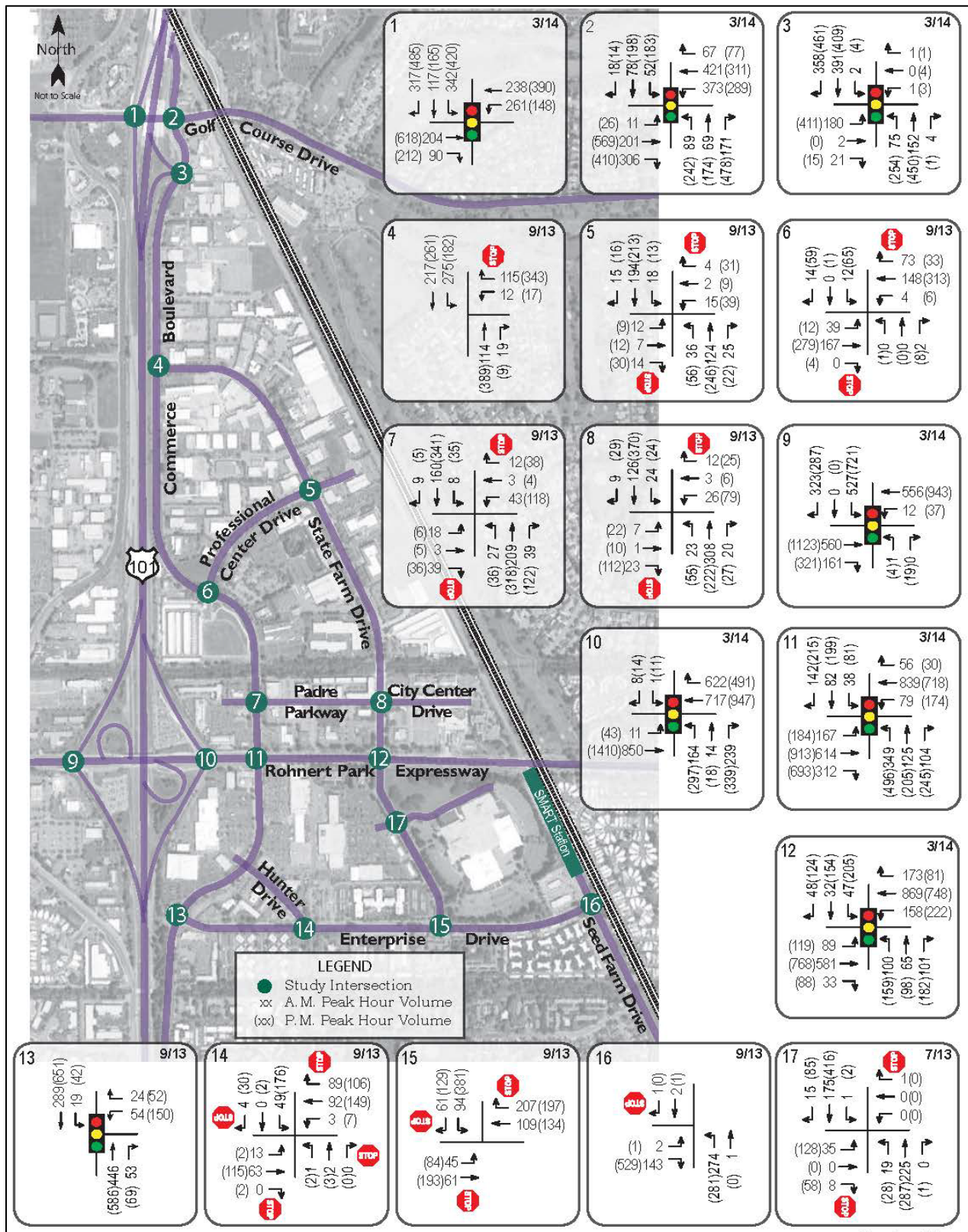
The ranges of delay associated with the various LOS are indicated in Table 3.9-1.

Table 3.9-1: Intersection Level of Service Criteria

LOS	Delay		
	Signalized	Two-Way Stop-Controlled	All-Way Stop-Controlled
A	0 to 10 seconds	0 to 10 seconds	0 to 10 seconds
B	10 to 20 seconds	10 to 15 seconds	10 to 15 seconds
C	20 to 35 seconds	15 to 25 seconds	15 to 25 seconds
D	35 to 55 seconds	25 to 30 seconds	25 to 30 seconds
E	55 to 80 seconds	35 to 50 seconds	35 to 50 seconds
F	More than 80 seconds	More than 50 seconds	More than 50 seconds

Notes:
 LOS = level of service
 Source: TRB, 2000

¹ Traffic counts were obtained at intersections 1–3 and 9–12 in March 2014, and at intersections 4–8 and 13–17 in September 2013.



Source: W-Trans, 2015

Figure 3.9-2:

Existing Traffic Volumes

Results

The existing-conditions LOS results for the 17 study intersections are summarized in Table 3.9-2. The LOS calculation worksheets are provided in Appendix E.

Table 3.9-2: Existing Peak-Hour Intersection Levels of Service

Study Intersection <i>Approach</i>	a.m. Peak		p.m. Peak	
	Delay	LOS	Delay	LOS
1. Golf Course Drive West/U.S. 101 South Ramps	29.8	C	22.1	C
2. Golf Course Drive/Commerce Boulevard	20.1	C	24.7	C
3. Commerce Boulevard/U.S. 101 North Ramps	7.7	A	12.5	B
4. Commerce Boulevard/State Farm Drive <i>Westbound Approach</i>	5.0 <i>11.9</i>	A <i>B</i>	9.9 <i>28.5</i>	A <i>D</i>
5. State Farm Drive/Professional Center Drive <i>Eastbound Approach</i> <i>Westbound Approach</i>	2.2 <i>11.3</i> <i>11.9</i>	A <i>B</i> <i>B</i>	3.6 <i>12.7</i> <i>16.4</i>	A <i>B</i> <i>C</i>
6. Commerce Boulevard/Professional Center Drive <i>Southbound (Professional Center) Approach</i>	1.4 <i>10.2</i>	A <i>B</i>	2.3 <i>12.5</i>	A <i>B</i>
7. Commerce Boulevard/Padre Parkway <i>Eastbound Approach</i> <i>Westbound Approach</i>	2.7 <i>10.1</i> <i>11.7</i>	A <i>B</i> <i>B</i>	3.6 <i>10.9</i> <i>17.3</i>	A <i>B</i> <i>C</i>
8. State Farm Drive/City Center Drive <i>Eastbound Approach</i> <i>Westbound Approach</i>	2.1 <i>9.9</i> <i>13.0</i>	A <i>A</i> <i>B</i>	5.4 <i>12.8</i> <i>25.8</i>	A <i>B</i> <i>D</i>
9. RPX/U.S. 101 South Ramps	20.1	C	27.3	C
10. RPX/U.S. 101 North Ramps	24.0	C	23.2	C
11. RPX/Commerce Boulevard	32.5	C	41.7	D
12. RPX/State Farm Drive	33.4	C	41.0	D
13. Commerce Boulevard/Enterprise Drive	9.5	A	8.8	A
14. Enterprise Drive/Hunter Drive	7.2	A	8.8	A
15. Enterprise Drive/State Farm Drive	8.4	A	17.7	C
16. Enterprise Drive/Seed Farm Drive <i>Southbound Approach</i>	0.1 <i>11.1</i>	A <i>B</i>	0.0 <i>16.4</i>	A <i>C</i>
17. State Farm Drive/Town Center <i>Eastbound Approach</i> <i>Westbound Approach</i>	1.4 <i>11.5</i> <i>9.0</i>	A <i>B</i> <i>A</i>	4.9 <i>25.2</i> <i>0.0</i>	A <i>D</i> <i>A</i>

Notes:

LOS = level of service; U.S. 101 = U.S. Highway 101

Delay is measured in average seconds per vehicle. Results for minor approaches to two-way stop-controlled intersections are indicated in *italics*; ** = delay greater than 120 seconds; **Bold** text = deficient operation

Source: W-Trans, 2015

Under existing conditions, 15 of the 17 study intersections are operating acceptably within the established LOS criteria. The intersections at RPX/Commerce Boulevard and RPX/State Farm Drive are currently operating at LOS D during the p.m. peak hour, which is considered unacceptable because the City's standard for these locations is LOS C.

Freeways

Traffic volumes on mainline U.S. 101 were obtained from raw 2013 data supplied by the California Department of Transportation (Caltrans), updated to reflect conditions after opening of the casino portion of the Graton Rancheria Resort and Casino. Seventeen freeway segments were selected for analysis:

Northbound

1. State Route (SR) 116 off-ramp to on-ramp (basic segment)
2. SR 116 on-ramp to RPX off-ramp (weaving)
3. RPX off-ramp to RPX eastbound (EB) on-ramp (basic segment)
4. RPX EB on-ramp (on-ramp)
5. RPX EB on-ramp to RPX westbound (WB) on-ramp (basic segment)
6. RPX WB on-ramp to Golf Course Drive off-ramp (weaving)
7. Golf Course Drive off-ramp to on-ramp (basic segment)
8. Golf Course Drive on ramp to Santa Rosa Avenue off-ramp (weaving)
9. Santa Rosa Avenue off-ramp to Todd Road off-ramp (basic segment)

Southbound

10. Todd Road on-ramp to Golf Course Drive off-ramp (basic segment)
11. Golf Course Drive off-ramp (off-ramp)
12. Golf Course Drive off-ramp to on-ramp (basic segment)
13. Golf Course Drive on-ramp to RPX off-ramp (weaving)
14. RPX off-ramp to RPX WB on-ramp (basic segment)
15. RPX WB on-ramp (on-ramp)
16. RPX EB on-ramp to SR 116 off-ramp (weaving)
17. SR 116 off-ramp to SR 116 on-ramp (basic segment)

Freeway Operations

Methodology

The freeway analysis methodology contained in Chapter 10 of the HCM, "Freeway Facilities," was used to determine LOSs on U.S. 101. The method analyzes extended lengths of freeway composed of continuously connected basic freeway, weaving, merge, and diverge segments, which are collectively referred to as a freeway facility. For each individual segment, the analysis used methodologies from the relevant chapters of the HCM: Chapter 11, "Basic Freeway Segments"; Chapter 12, "Freeway Weaving Segments"; and Chapter 13, "Freeway

Merge and Diverge Segments.” The method uses variables such as traffic volumes, geometric configuration of the freeway (i.e., number of lanes, presence of auxiliary lanes, distance between merges and diverges, widths of lanes and shoulders), topography, the percentage of heavy vehicles, and free-flow speeds. These data are used to determine the density of the segment, which is the criterion used for determining freeway LOS. Density is indicative of the travel speed service flow rates and travel demand on a freeway facility, and is measured in the number of passenger cars per mile per lane. The ranges of vehicle density associated with the various LOSs are presented in Table 3.9-3.

Table 3.9-3: Freeway Level of Service Criteria

Level of Service (LOS)	Basic Freeway Segment Density (pc/mi/ln)	Weaving, Merge, and Diverge Segment Density (pc/mi/ln)
A	≤ 11	≤ 10
B	> 11–18	> 10–20
C	> 18–26	> 20–28
D	> 26–35	> 28–35
E	> 35–45	> 35
F	> 45 or any component with v/c ratio > 1.00	Demand exceeds capacity

Notes: pc/mi/ln = passenger cars per mile per lane; v/c = volume-to-capacity
 Source: TRB, 2000

Results

Existing freeway facilities including mainline, merge-diverge, and weaving segments operations were evaluated between the SR 116 and Todd Road freeway interchanges. All of the freeway facilities are currently operating acceptably at LOS E or better. Summaries of freeway facility LOSs are shown for the a.m. and p.m. peak hours in Table 3.9-4 and Table 3.9-5, respectively. Detailed calculation worksheets are provided in Appendix E.

Bicycle and Pedestrian Facilities

Bicycle Facilities

The Caltrans *Highway Design Manual* (2012) classifies bikeways into three categories:

- *Class I Multi-Use Path:* A completely separated right-of-way for the exclusive use of bicycles and pedestrians with cross flows of motorized traffic minimized.
- *Class II Bicycle Lane:* A striped and signed lane for one-way bicycle travel on a street or highway.
- *Class III Bicycle Route:* Signing only for shared use with motor vehicles within the same travel lane on a street or highway.

Class II on-street bicycle lanes are provided along Golf Course Drive, Commerce Boulevard south of Utility Court, RPX, State Farm Drive south of RPX, Enterprise Drive east of State Farm Drive, and Seed Farm Drive. In addition, Class I multiuse paths exist along the west side of Commerce Boulevard between Cascade Court and

Table 3.9-4: Existing a.m. Peak Hour Freeway Levels of Service

U.S. 101 Freeway Segment Direction	Segment Type	v/c Ratio	Density	LOS
Northbound				
SR 116 off-ramp to on-ramp	Basic Segment	0.47	16.0	B
SR 116 on-ramp to RPX off-ramp	Weaving	0.49	17.8	B
RPX off-ramp to RPX EB on-ramp	Basic Segment	0.56	19.1	C
RPX EB on-ramp	On Ramp	0.60	23.8	C
RPX EB on-ramp to RPX WB on-ramp	Basic Segment	0.60	21.3	C
RPX WB on-ramp to Golf Course Drive off-ramp	Weaving	0.55	20.1	C
Golf Course Drive off-ramp to on-ramp	Basic Segment	0.70	24.8	C
Golf Course Drive on ramp to Santa Rosa Avenue off-ramp	Weaving	0.55	21.2	C
Santa Rosa Avenue off-ramp to Todd Road off-ramp	Basic Segment	0.74	26.7	D
Southbound				
Todd Road on-ramp to Golf Course Drive off-ramp	Basic Segment	0.79	29.2	D
Golf Course Drive off-ramp	Off Ramp	0.79	30.5	D
Golf Course Drive off-ramp to on-ramp	Basic Segment	0.65	22.6	C
Golf Course Drive on-ramp to RPX off-ramp	Weaving	0.55	21.1	C
RPX off-ramp to RPX WB on-ramp	Basic Segment	0.57	19.5	C
RPX WB on-ramp	On Ramp	0.63	25.7	C
RPX EB on-ramp to SR 116 off-ramp	Weaving	0.52	18.4	B
SR 116 off-ramp to SR 116 on-ramp	Basic Segment	0.57	19.5	C

Notes: Density is measured in pc/mi/ln.

EB = eastbound; LOS = level of service; pc/mi/ln = passenger cars per mile per lane; RPX = Rohnert Park Expressway; SR = State Route; U.S. 101 = U.S. Highway 101; v/c = volume-to-capacity; WB = westbound

Source: W-Trans, 2015.

Professional Center Drive; along Hinebaugh Creek east of Commerce Boulevard; along Copeland Creek east of Commerce Boulevard; and south of Enterprise Drive/Hunter Drive, connecting the intersection to the Copeland Creek Class I multiuse path.

Pedestrian Facilities

Pedestrian facilities include sidewalks, paths, crosswalks, pedestrian signal phases, curb ramps, curb extensions, and various streetscape amenities such as lighting and benches. Continuous sidewalks are provided on the east side of Commerce Boulevard north of Utility Court, and on both sides of the street elsewhere except along the frontage of two undeveloped parcels: one on Commerce Boulevard west of Professional Center Drive, and one on State Farm Drive north of Professional Center Drive. Marked crosswalks crossing the major street are generally provided at unsignalized intersections, with the exception of State Farm Drive/Professional Center Drive, where the State Farm Drive crossings are unmarked. All of the signalized study intersections include marked crosswalks and pedestrian signal heads.

Table 3.9-5: Existing p.m. Peak Hour Freeway Levels of Service

U.S. 101 Freeway Segment Direction	Segment Type	v/c Ratio	Density	LOS
Northbound				
SR 116 off-ramp to on-ramp	Basic Segment	0.79	29.5	D
SR 116 on-ramp to RPX off-ramp	Weaving	0.67	27.0	C
RPX off-ramp to RPX EB on-ramp	Basic Segment	0.75	27.4	D
RPX EB on-ramp	On Ramp	0.83	34.8	D
RPX EB on-ramp to RPX WB on-ramp	Basic Segment	0.83	31.6	D
RPX WB on-ramp to Golf Course Drive off-ramp	Weaving	0.70	27.1	C
Golf Course Drive off-ramp to on-ramp	Basic Segment	0.81	30.5	D
Golf Course Drive on ramp to Santa Rosa Avenue off-ramp	Weaving	0.72	29.2	D
Santa Rosa Avenue off-ramp to Todd Road off-ramp	Basic Segment	0.94	39.3	E
Southbound				
Todd Road on-ramp to Golf Course Drive off-ramp	Basic Segment	0.79	29.3	D
Golf Course Drive off-ramp	Off Ramp	0.79	30.7	D
Golf Course Drive off-ramp to on-ramp	Basic Segment	0.63	21.8	C
Golf Course Drive on-ramp to RPX off-ramp	Weaving	0.68	22.2	C
RPX off-ramp to RPX WB on-ramp	Basic Segment	0.55	18.9	C
RPX WB on-ramp	On Ramp	0.59	23.9	C
RPX EB on-ramp to SR 116 off-ramp	Weaving	0.57	21.1	C
SR 116 off-ramp to SR 116 on-ramp	Basic Segment	0.53	18.2	C

Notes: Density is measured in pc/mi/ln.

EB = eastbound; LOS = level of service; pc/mi/ln = passenger cars per mile per lane; RPX = Rohnert Park Expressway; SR = State Route; U.S. 101 = U.S. Highway 101; v/c = volume-to-capacity; WB = westbound

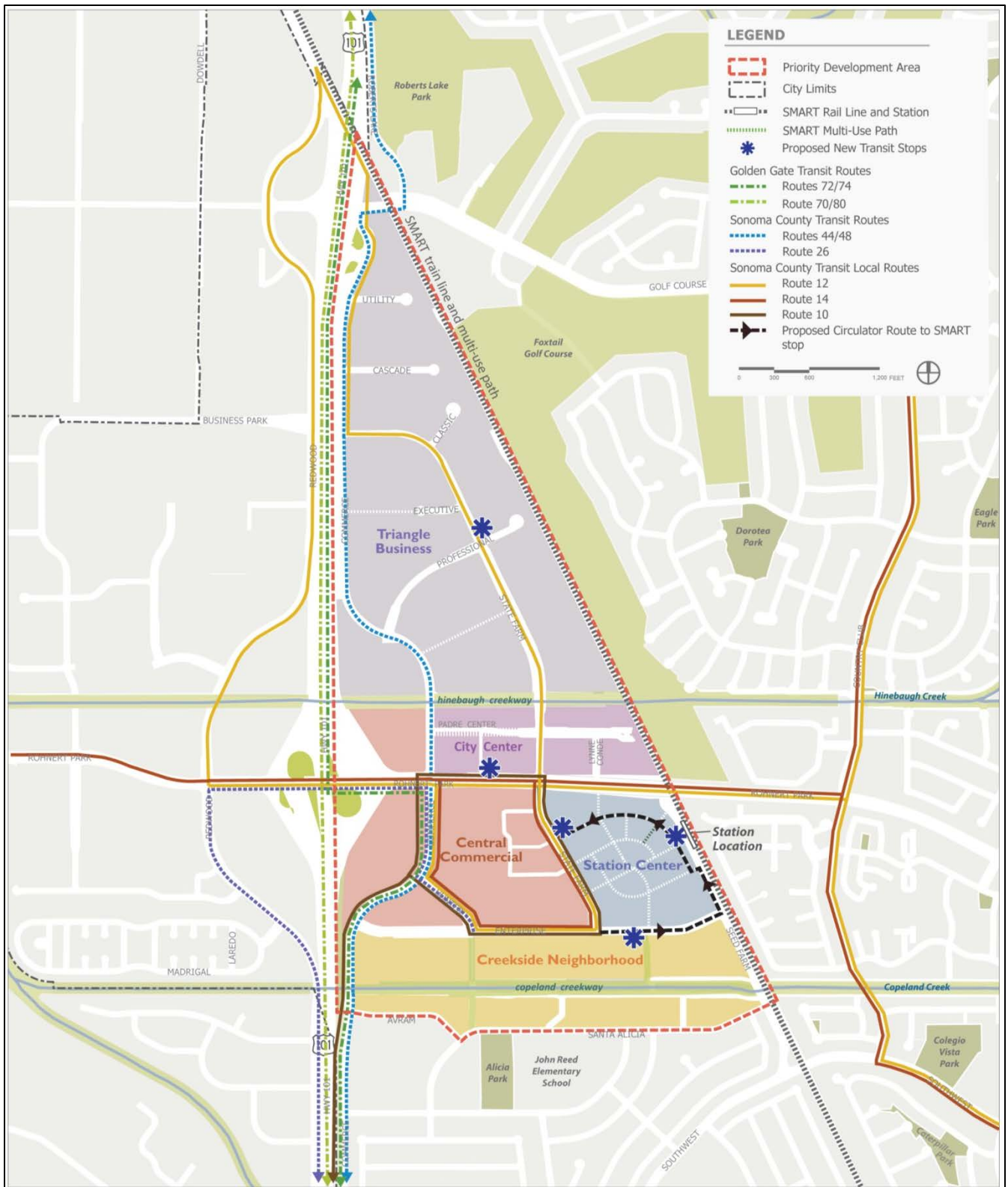
Source: W-Trans, 2015.

Transit Facilities

Existing transit service in the vicinity of the plan area is provided by Sonoma County Transit (SCT), Golden Gate Transit (GGT), and Dial-a-Ride. Existing transit service are described in this section and illustrated within Figure 3.16-3. Refer to Chapter 2.0, “Project Description,” for proposed plan transit improvements.

Sonoma County Transit

SCT is the principal transit service in Rohnert Park, providing daily local and intercity service. SCT local Routes 10, 12, and 14 operate together to provide transit access to destinations on both the east and west sides of U.S. 101. Each local route operates with approximately 90- to 120-minute headways between 6:00 a.m. and 6:00 p.m. on weekdays and between 9:30 a.m. and 3:00 p.m. on Saturdays; no local service is provided on Sundays.



Source: AECOM, 2015

Figure 3.9-3:

Existing and Planned Transit Service

The nearest SCT bus stops serving the plan area are at RPX and Commerce Boulevard; Raleys Towne Centre on State Farm Drive between RPX and Enterprise Drive; the Senior Center on Hunter Drive; and Chase Bank on RPX between Commerce Boulevard and State Farm Drive. On weekdays, the plan area is served by SCT Routes 10, 12/14, 26, and 44/48. On weekends, the plan area is served by SCT Routes 10/12 and 44/48.

All SCT buses are wheelchair lift-equipped and can transport two wheelchair passengers at a time. SCT allows bicycles on all of its buses. Buses are equipped with a front-loading bicycle rack that accommodates either two or three bicycles. When the front-loading rack is full, bus drivers may allow up to two bicycles inside the bus.

Golden Gate Transit

GGT provides daily interregional service along the U.S. 101 corridor between Santa Rosa and San Francisco. Route 72 provides weekday commuter service between Santa Rosa and San Francisco, with a southbound stop at RPX and one northbound at U.S. 101 and RPX. Route 72 operates with 20- to 30-minute headways on weekdays only, with southbound service into San Francisco between 4:00 a.m. and 7:00 a.m. and northbound service out of San Francisco between 3:30 p.m. and 7:30 p.m. GGT Route 101 operates daily along the U.S. 101 corridor between Santa Rosa and San Francisco, with a stop on Commerce Boulevard at RPX. Southbound Route 101 service in Rohnert Park begins around 4:00 a.m., with approximately 1-hour headways until 10 p.m. In the northbound direction, Route 101 operates at approximately 1-hour headways between 7:30 a.m. and 2:00 a.m. All GGT buses are wheelchair-accessible and equipped with a front-loading bicycle rack that accommodates either two or three bicycles. On express buses, storage space for bicycles is provided under the coach.

Dial-a-Ride

Dial-a-Ride, also known as paratransit or door-to-door service, is available for those who are unable to independently use the transit system because of a physical or mental disability. Sonoma County Paratransit is designed to serve the needs of individuals with disabilities in Sonoma County. Service days are Monday through Friday from 5:00 a.m. to 11:00 p.m., and Saturday and Sunday from 7:00 a.m. to 9:00 p.m.

Sonoma-Marin Area Rail Transit

The Sonoma-Marin Area Rail Transit (SMART) commuter rail system is a 70-mile rail line that is planned to run from Cloverdale, at the north end of Sonoma County, to Larkspur, where the Golden Gate Ferry connects Marin County with San Francisco. Along the way, SMART will have stations at the major population and job centers of the North Bay, including the Downtown Rohnert Park station, which is just south of RPX in the core of the plan area. Train service will be provided by an estimated 14 round-trip trains on weekdays and four round-trip trains on weekends. Headways during the morning and evening commute periods will be 30 minutes, with longer headways during midday, evening, and weekend periods. SMART plans to initiate rail service between Airport Boulevard in northern Santa Rosa and downtown San Rafael in 2016.

3.9.2 Regulatory Framework

California Department of Transportation

Caltrans is the primary state agency responsible for approving the planning, design, and construction of improvements for all state-controlled facilities, including U.S. 101 and the associated interchanges for these facilities in the plan area. The following Caltrans procedures and directives are relevant to the transportation analysis conducted for the proposed plan:

- *LOS Target:* Caltrans has established a LOS target of LOS E² on mainline U.S. 101 through Rohnert Park and LOS D for freeway ramp intersections. Where a facility is operating at less than these thresholds without the project, the existing measure of effectiveness (MOE) should be maintained.
- *Caltrans Director's Policy 22:* This policy establishes support for balancing transportation needs with community goals. Caltrans seeks to involve and integrate community goals in the planning, design, construction, and maintenance and operations processes, including accommodating the needs of bicyclists and pedestrians.

Sonoma County Transportation Authority Congestion Management Program

In November 1990, the Sonoma County Transportation Authority (SCTA) was designated as the congestion management agency (CMA) for Sonoma County. In 1997, the SCTA relinquished its position as the CMA under new state legislation that made this function optional. SCTA now serves as the coordinating and advocacy agency for transportation funding for Sonoma County.

The *2009 Comprehensive Transportation Plan for Sonoma County* (2009 CTP) is the latest countywide planning document approved by SCTA. The 2009 CTP includes goals, objectives, and policies for improving mobility on Sonoma County's streets, highways, and transit system and bicycle/pedestrian facilities, and outlines the regional improvements needed to reduce transportation-related impacts over the next 25 years. SCTA also oversees Measure M, the Traffic Relief Act for Sonoma County, which is a sales tax measure that was passed by Sonoma County voters in November 2004. Completion of the Golf Course Drive interchange at U.S. 101 and widening of U.S. 101 with high-occupancy vehicle and auxiliary lanes are recent Measure M projects overseen by SCTA that have improved circulation in Rohnert Park.

Sonoma County General Plan 2020

The *Sonoma County General Plan 2020* is a long-range planning document that carries forward Sonoma County's major goals and policy framework, focused on specific issues of importance to the community. The plan states that there is growing support to move beyond a transportation system based solely on automobile travel. Public opinion has shown that county residents think that:

- highway expansion leads to greater traffic volumes, and, in the long run, more congestion;

² Caltrans LOS thresholds for Rohnert Park obtained from Graton Rancheria Casino and Hotel Project—Draft Environmental Impact Statement scoping comments written by Caltrans, April 2004.

- county and city land use policies favoring city-centered growth suggest that a firm commitment to a convenient transit system will be more effective in reducing congestion over time;
- road capacity improvements that would be needed to provide high mobility will likely cause disruption of some communities, businesses, and neighborhoods;
- lack of convenient public transit and safe bicycle and pedestrian facilities is a major barrier to reducing dependence on automobiles; and
- an automobile-dependent transportation network is unsustainable and has a significant impact on public health.

Following is a list of the county’s general plan goals, objectives, and policies related to transportation and traffic that are applicable to the proposed plan, and future development that would be allowed under the *Sonoma County General Plan*.

Goal CT-1: Provide a well-integrated and sustainable circulation and transit system that supports a city- and community-centered growth philosophy through a collaborative effort of all the cities and counties.

- **Objective CT-1.4:** Reduce the need for future automobile use by a combination of improvements and land development policies that give equal favor to alternate modes as to automobile use.
- **Objective CT-1.5:** Reduce greenhouse gas emissions by minimizing future increase in vehicle miles traveled (VMT), with an emphasis on shifting short trips by automobile to walking and bicycling trips.
- **Objective CT-1.8:** Improve demand for transit by development of a growth management strategy encouraging projects in urbanized areas that decrease distance between jobs and housing, increase the stock of affordable housing, and increase density.
 - **Policy CT-1k:** Encourage development that reduces VMT, decreases distances between jobs and housing, reduces traffic impacts, and improves housing affordability.

Goal CT-2: Increase the opportunities, where appropriate, for transit systems, pedestrians, bicycling, and other alternative modes to reduce the demand for automobile travel.

Goal CT-3: Establish a viable transportation alternative to the automobile for residents of Sonoma County through a safe and convenient bicycle and pedestrian transportation network, well integrated with transit, which will reduce greenhouse gas emissions, increase outdoor recreational opportunities, and improve public health.

- **Objective CT-3.3:** Encourage pedestrian, bicycle, and transit oriented development.
- **Objective CT-3.8:** Increase the safety, convenience, and comfort of all pedestrians and bicyclists, by eliminating the potential obstacles to this mode choice that is associated with the lack of continuous and well-connected pedestrian walkways and bicycle facilities, and the lack of safe crossing facilities, especially focusing on short trips that could result in a decrease in automobile travel.
 - **Policy CT-3g:** Revise County Traffic Guidelines to require that traffic studies identify impacts on existing and planned bicycle and pedestrian facilities. Consider development of bicycle and pedestrian facilities as mitigation measures for congestion and greenhouse gas emission impacts.

- **Policy CT-3h:** Develop a LOS standard for identifying performance of the bicycle and pedestrian transportation network that takes into consideration travel distance, potential bicycle and pedestrian transportation needs, potential for improved mode split with improved facilities, and existing network deficiencies.
- **Policy CT-3i:** Use the LOS standard developed by Policy CT-3h to evaluate impacts on bicycle and pedestrian facilities that may result from discretionary projects, and identify corrections and/or improvements necessary to mitigate those impacts.

Goal CT-4: Provide and maintain a highway system capacity that serves projected highway travel demand at acceptable LOSs in keeping with the character of rural and urban communities.

- **Objective CT-4.1:** Maintain LOS C or better on roadway segments unless a lower LOS has been adopted.
- **Objective CT-4.2:** Maintain LOS D or better at roadway intersections
- **Objective CT-4.3:** Allow the above LOSs to be exceeded if it is determined to be acceptable due to environmental or community values, or if the project(s) has an overriding public benefit that outweighs lower LOSs and increased congestion.

Sonoma County Community Climate Action Plan

The *Sonoma County Community Climate Action Plan*, established in 2005, has a goal of reducing Sonoma County’s greenhouse gas emissions by 25 percent below 1990 levels by 2015. The plan calls for increased use of alternatives methods of transportation, improvements in energy and water efficiency, investments in locally sourced renewable energy projects, and the conservation of forests and farmland while converting waste into energy.

City of Rohnert Park General Plan

The *City of Rohnert Park General Plan* outlines a vision of long-range physical and economic development and resource conservation that reflect the aspirations of the community. The Transportation Element contains goals and policies to encourage the conservation and proper management of the community’s resources. Following is a list of the City’s general plan policies related to transportation and traffic that are applicable to the proposed plan and future development that would be allowed under the *City of Rohnert Park General Plan*.

- **Policy TR-1:** Establish LOS C as the minimum standard for all arterial and collector roadway segments (“segments”) and intersections, except for (1) specified segments and intersections for which allowable LOS standards are otherwise established [these are referenced in Table 4.1-2 of the General Plan and include the intersections at Golf Course Drive/U.S. 101 South Ramps, Commerce Boulevard/Golf Course Drive, and Commerce Boulevard/U.S. 101 Northbound Ramps]; 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.

- **Policy TR-2:** 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.

Goal TR-J: Reduce peak-hour traffic congestion and associated impacts, including air pollution, energy consumption, and noise.

Goal TR-K: Reduce the need for roadway improvements by making more efficient use of existing roads, bikeways, transit service, and other transportation facilities and services.

- **Policy TR-21A:** Work with Sonoma County, the City of Santa Rosa, the City of Cotati, and the City of Petaluma (“Contributing Jurisdictions”) and the 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”). The Regional Mitigation Plan shall include those roadways and other improvements necessary to mitigate the impacts of increased traffic congestion on major roads and intersections in Penngrove (“Regional Mitigation Projects”), and a financing plan that explains how those improvements will be funded and that determines each Contributing Jurisdiction’s proportional share. The City shall contribute its proportional 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. The City’s payment or other contribution of its proportional 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 proportional share to the Regional Mitigation Project. In the event that other jurisdictions do not contribute their proportional share to the Regional Mitigation Project, and funding for their proportional share is provided by some other means to ensure implementation of the Regional Mitigation Project, the City will contribute and be limited to its proportional share.
- **Policy TR-22:** In cooperation with the Chamber of Commerce, adopt a nonmandatory employer based transportation demand management (TDM) program for Rohnert Park businesses.
- **Policy TR-23:** Allow reductions in transportation impact fees on new nonresidential development commensurate with provision of TDM measures, and develop reduction parameters.

Goal TR-L: Promote local and regional public transit serving Rohnert Park and facilitate transfers between transit routes and operators.

- **Policy TR-27:** Work with SCT and GGT to develop an expanded bus route system, in order to serve areas of new development in Rohnert Park.
- **Policy TR-30:** In consultation with GGT and SCT, determine appropriate locations of new bus stops, in conjunction with increased service and expanded routes.

- **Policy TR-31:** Require project proponents to provide bus stops and shelters in conjunction with new development.
- **Policy TR-32:** Work with SCT, GGT, and private developers to ensure that bus stops and shelters adhere to the following standards:
 - Bus pull-outs shall be required at bus stop locations, in order to prevent stopping buses from interfering with traffic flow;
 - Bus stop locations shall allow direct, convenient pedestrian access to adjacent development;
 - Pedestrian access to bus stops shall be safe and comfortable;
 - Bus shelters shall provide adequate protection from sun, wind, and rain;
 - Bus stops and shelters shall display schedules and routes; and
 - Bus shelters shall be adequately designed and sized to accommodate waiting passengers during inclement weather.

3.9.3 Impact Discussion

The applied thresholds of significance for intersection impacts are based on those included in Policy TR-1 of the *City of Rohnert Park General Plan*. The proposed plan would create a significant circulation impact if it would:

- fail to maintain LOS C as the minimum standard for signalized intersections in Rohnert Park, except for the following three intersections where LOS D operation is allowed: Golf Course Drive West/U.S. 101 Southbound Ramps, Golf Course Drive/Commerce Boulevard, and Commerce Boulevard/U.S. 101 Northbound Ramps; or
- add traffic to an unsignalized intersection where individual movements are projected to operate at LOS F and the peak-hour signal warrant criteria in the *California Manual on Uniform Traffic Control Devices*, 2012, would be met.

The applied threshold of significance for the U.S. 101 freeway segments is based on the *Caltrans Guide for the Preparation of Traffic Impact Studies* (Caltrans, 2002). A project would create a significant impact on freeway facilities if it would:

- fail to maintain operation on U.S. 101 at or above the LOS E threshold, or in cases where the freeway is already projected to operate deficiently at LOS F without the project, fail to maintain the existing MOEs. For such instances where the freeway is anticipated to operate at LOS F, the freeway volume-to-capacity (v/c) ratio is calculated and used as the MOE. A project-attributable increase in the v/c ratio of 0.01 or greater is considered to be a cumulatively significant impact.

3.9a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and nonmotorized travel and relevant components of the circulation system, including but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit? Significant and Unavoidable Impact.

Construction

The proposed plan would allow for construction of approximately 835 new residential units and approximately 823,000 square feet of additional nonresidential uses including commercial, office, and light industrial among five subareas. The proposed plan is a programmatic land use master plan. Therefore, individual developments that could occur in the future under this proposed plan would undergo project-level environmental evaluation to determine whether they could result in further impacts specific to the development proposal. At that time, construction-level analyses would be conducted. Accordingly, the following environmental analysis is conducted at a programmatic level.

Construction of the future development permitted under the proposed land use master plan would generate temporary construction-related truck and automobile traffic on the adjacent and internal street network. This traffic includes construction workers traveling to and from the plan area, as well as trucks hauling construction materials to the site and evacuation material away from the site. Because the truck trips would be spread throughout the day and would generally occur during nonpeak hours, the level of construction-related traffic would result in a *less-than-significant* impact on the plan area street network.

Operation

Future development permitted under the proposed land uses in the plan area would be expected to generate a total of 27,777 added vehicle-trips per day, including 1,352 during the a.m. peak hour and 1,973 during the p.m. peak hour. Project-added traffic volumes are illustrated in Figure 3.9-4. A summary of the trip generation estimates by plan area subarea is shown in Table 11 of Appendix E.

The vehicle-trip distribution pattern used to allocate trips to and from uses within the plan area to the surrounding local and regional street network was based on two “select zone” model runs conducted in the Sonoma County Travel Model (SCTM/10), one of which is based on residential uses and the other of which assumes a mix of employment-based nonresidential uses. The resulting trip distribution estimates were then refined further to reflect local street and travel patterns. The trip distribution estimates are shown in Table 12 of Appendix E.

Traffic analyses evaluating potential impacts on the surrounding circulation network were completed during development of the proposed plan. This was done to test alternative roadway and intersection configurations, and ultimately to determine the circulation improvements that should be included in the plan itself to “self-mitigate” potential impacts to the degree possible. A list of the intersection-related improvements included in the proposed plan is shown in Table 3.9-6.

With the addition of plan-generated vehicle traffic to existing traffic volumes and completion of the intersection improvements identified in the proposed plan (see Table 3.9-6), the intersections at RPX/Commerce Boulevard and RPX/State Farm Drive are expected to continue to operate at unacceptable conditions (LOS D or worse). However, because these two intersections already operate at LOS D without the proposed plan, and the proposed plan would not further degrade LOS, this is considered to be acceptable per *City of Rohnert Park General Plan* Policy TR-1. At an additional five intersections (Commerce Boulevard/State Farm Drive, Commerce Boulevard/Padre Parkway, State Farm Drive/City Center Drive, Enterprise Drive/State Farm Drive, and State Farm Drive/Town Center), plan-generated vehicle traffic would cause the intersection to degrade to unacceptable

Table 3.9-6 Intersection Improvements Included in the Proposed Plan

Intersection	Improvements
Commerce Boulevard/State Farm Drive	Signalize with SB left-turn protected phasing and WB right-turn overlap; add WB right-turn pocket.
State Farm Drive/Professional Center Drive	Modify NB and SB from L-T-TR to L-TR.
Commerce Boulevard/Padre Parkway	Signalize with protected phasing NB/SB and permitted phasing EB/WB; modify NB from L-T-TR to L-T-R and SB from L-T-TR to L-TR
State Farm Drive/City Center Drive	Signalize with protected phasing NB/SB and permitted phasing EB/WB; modify NB from L-T-TR to L-T-R and SB from L-T-TR to L-TR.
RPX/Commerce Boulevard	Convert Commerce Boulevard to protected phasing and add NB right-turn overlap; modify SB from L-LT-T-R to L-T-T-R; add bulbout NW corner; extend EB left lanes to 350 feet and WB left lane to 225 feet.
RPX/State Farm Drive	Convert State Farm Drive to protected phasing; add right-turn overlaps all approaches; modify SB from L-LT-R to L-L-T-R and NB from L-LT-T-R to L-L-T-R.
Enterprise Drive/Hunter Drive	Convert EB from LT-TR to L-TR and WB from LT-TR to LT-R.
Enterprise Drive/State Farm Drive	Signalize with two-phase operation; modify WB from T-TR to T-R.
State Farm Drive/Town Center	Signalize with protected phasing NB/SB and permitted phasing EB/WB; modify NB and SB from L-T-TR to L-T-R; modify EB/WB from LTR to LT-R.
RPX/Lynne Conde Way	Add protected pedestrian crossing on RPX (pedestrian signal or HAWK signal); continue to restrict side street movements to right turns on/off of RPX.
RPX/SMART multi-use path	Add protected pedestrian crossing on RPX (pedestrian signal or HAWK signal).

Notes:

EB = eastbound; NB = northbound; RPX = Rohnert Park Expressway; SB = southbound; WB = westbound

L = left-turn lane; R = right-turn lane; T = through lane; lanes shown as grouped (example: L-T-TR is a 3-lane approach with one left-turn lane, one through lane, and a shared through-right-turn lane).

Source: AECOM, 2015.

conditions, but the intersection improvements under the proposed plan would improve operations to acceptable conditions. All of the other 10 study intersections are projected to continue operating at acceptable LOS according to the City’s standards. Therefore, the proposed plan would result in a *less-than-significant* impact related to intersection LOS. A summary of intersection LOS is shown in Table 16 of Appendix E.

The addition of traffic associated with build-out of the proposed plan would lead to further degradation of three freeway segments already projected to operate at LOS F without the proposed plan. On the remaining freeway segments, the proposed plan would increase the v/c ratio, but would not be expected to cause operation to fall below LOS E during either peak hour. A summary of freeway segment LOS is shown in Table 17 and Table 18 of Appendix E.

Specifically, the proposed plan would increase the v/c ratio on northbound U.S. 101 between Golf Course Drive and Santa Rosa Avenue, and between Santa Rosa Avenue and Todd Road by 0.04 during the p.m. peak hour, and on southbound U.S. 101 between Todd Road and Golf Course Drive by 0.04 during the a.m. peak hour and 0.03 during the p.m. peak hour. According to Caltrans’ thresholds of significance for U.S. 101 freeway segments, the

proposed plan's contribution to unacceptable LOS conditions (from LOS E to LOS F) at these three locations is considered a *significant* impact.

While the proposed plan would increase v/c ratios on segments of U.S. 101, the Metropolitan Transportation Commission, Sonoma County, the City of Rohnert Park, and SCTA recognize that U.S. 101 will experience congestion into the foreseeable future, and that there will be no further major capacity enhancements such as expansions or new freeways. All four agencies 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.

The creation of designated plan areas by the Metropolitan Transportation Commission and the Association of Bay Area Governments, including the plan area that is the subject of this analysis, is intended to further these goals and minimize impacts created by regional traffic demands. Policies included in the *Sonoma County General Plan 2020* and *City of Rohnert Park General Plan* to increase transit and travel demand management would also help reduce congestion.

The proposed plan would also be consistent with Caltrans Director's Policy 22, which establishes support for balancing transportation needs with community goals, including accommodating the needs of bicyclists and pedestrians.

The projected unacceptable operation on U.S. 101 could be mitigated by widening the freeway to include additional through lanes in each direction. Further widening of U.S. 101 is not included in SCTA's Comprehensive Transportation Plan, nor do any financing mechanisms currently exist to fund such a widening project. Widening the freeway would require major reconstruction of multiple freeway structures, right-of-way acquisition including many homes and businesses, potential relocation of city streets paralleling the freeway corridor (including Redwood Drive and Commerce Boulevard), and the likely creation of additional secondary environmental impacts. The environmental, social, and financial impacts render such a widening project infeasible. Therefore, no feasible mitigation is available to reduce this impact to a less-than-significant level, and this impact would be *significant and unavoidable*.

3.9b. Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways? Less-than-Significant Impact.

Development within the plan area would be subject to the circulation and connectivity goals and policies detailed in Section 5.2 of the proposed plan—specifically, Policies C-1.2 and C-1.3 related to LOS. Policy C.1-2 would allow for lower LOS standards (than the current LOS C standard) for specified arterial and collector roadway intersections in the plan area where no other feasible improvements exist to improve LOS, as guided by Policy TR-1 of the General Plan. Policy C.1-1 recognizes that future development of the plan area would contribute to unacceptable operation on U.S. 101, where no further capacity enhancements are considered feasible, while also acknowledging that the type of development pattern envisioned by the proposed plan plays an important role in reducing regional traffic impacts through smart growth.

The proposed plan would not conflict with an applicable congestion management program for designated roads or highways. Therefore, this impact would be *less than significant*.

3.9c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? No Impact.

The proposed plan would not result in a change in air traffic patterns, including either an increase in air traffic levels or a change in location that would result in substantial safety risks during construction or operation. The closest airports are the Sonoma County Airport and Petaluma Municipal Airport, both more than 10 miles from the plan area. There would be no safety risks associated with proximity to airports; therefore, *no impact* would occur.

3.9d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e. g. farm equipment)? No Impact.

The proposed plan does not include any hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses, and would not alter design features developed to mitigate such hazards during construction or operations. Therefore, *no impact* would occur.

3.9e. Result in inadequate emergency access? Less-than-Significant Impact.

The proposed plan would not interfere with emergency access or result in inadequate emergency access. The proposed plan would be designed consistent with City and Caltrans standards as required to ensure that adequate emergency access is provided. Therefore, the proposed plan would result in a *less-than-significant* impact.

3.9f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities? Less-than-Significant Impact.

The proposed plan identifies several locations where new transit stops would be beneficial, and identifies a potential new bus circulator route serving the SMART rail station via new streets in the Station Center subarea. The circulator route could be used by diverting existing routes once the SMART rail station and development in the Station Center subarea are complete. The street network depicted for the Station Center subarea allows considerable flexibility for transit operators in determining routing, including the ability to continue serving existing stops in the vicinity. The proposed plan would support and encourage the use of transit by concentrating development around existing bus facilities and the planned SMART rail station, and by accommodating new or diverted bus routes, as guided by Policy C-4.1, that directly interface with the station.

A major goal of the proposed plan is to enhance pedestrian and bicycle circulation, expanding and improving current networks that make walking and bicycling a preferred mode of travel for residents, employees, and visitors to Central Rohnert Park. The proposed plan includes guiding policies with this goal in mind. Implementation of Policy C-2.1 would result in the retrofitting of existing streets in the plan area to support safe and continuous bike and pedestrian facilities. Policy C-3.1 would ensure expanded bike and pedestrian connections. The pedestrian and bicycle enhancements identified in the proposed plan have also been crafted to

create convenient connections to the SMART rail station and SMART corridor regional multiuse path. The new and enhanced on- and off-street pedestrian and bicycle improvements identified in the proposed plan build on and are consistent with facilities identified in existing plans, specifically, the *Rohnert Park Bicycle and Pedestrian Master Plan*. The pedestrian and bicycle facilities identified in the proposed plan would encourage travel by nonauto modes and help to support future growth in Central Rohnert Park. The new pedestrian and bicycle crossings identified in the proposed plan can be designed to enhance pedestrian and bicycle circulation in a manner that does not adversely affect traffic flow or safety at the SMART rail crossing.

The proposed plan, including transit and bicycle and pedestrian improvements, are consistent with the goals and policies identified in Section 3.9.2, “Regulatory Framework.” Implementation of the proposed plan would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. Therefore, the proposed plan would result in a *less-than-significant* impact.

3.9.4 Cumulative Impacts

The traffic analysis of the proposed plan, described above, addresses cumulative impacts to the transportation network in the plan area and its surroundings. Future traffic volume projections were obtained from the Sonoma County Travel Model (SCTM/10), which is maintained by the SCTA. The SCTM/10 model includes traffic projections anticipated to occur upon build-out of all development anticipated to take place by the year 2040 throughout Sonoma County. As such, cumulative impacts would be the same as plan-specific impacts. Impact 3.9a related to unacceptable LOS F operation on U.S. 101 would remain significant and unavoidable, as discussed, and would constitute a *significant and unavoidable* cumulative impact.

3.9.5 References

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4.0 OTHER CEQA-REQUIRED SECTIONS

4.1 SIGNIFICANT ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED IF THE PROJECT IS IMPLEMENTED

Based on the environmental analyses in this EIR, the City has determined that the proposed plan in conjunction with cumulative development within the City of Rohnert Park would result in a significant and unavoidable impact associated with the following issue area, with this specific significant and unavoidable impact discussed briefly below.

- **Transportation and Traffic:** Significant and unavoidable impact related to level of service along U.S. Highway 101

The proposed plan in conjunction with cumulative development within the City of Rohnert Park would result in worsened level of service for a.m. and p.m. peak hour traffic along a segment of U.S. Highway 101 immediately north of the plan area. This impact would be significant. No mitigation is available to reduce this significant impact to a less-than-significant level. Therefore, this impact would be significant and unavoidable.

4.2 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

CEQA and the State CEQA Guidelines (Section 151826[c]) require that an EIR address “significant irreversible environmental changes which would be involved in the Project, should it be implemented.”

If the proposed plan is implemented, redevelopment of the plan area would involve the use of nonrenewable resources during the construction phase. Construction would include the use of building materials, such as petroleum-based products and metals that cannot reasonably be recreated. Construction also would involve significant consumption of energy, usually petroleum-based fuels that deplete supplies of nonrenewable resources. Construction of structures and infrastructure would consume energy and water; however, because of its temporary and one-time nature, construction under the proposed plan would not represent a significant irreversible use of resources.

Once construction is complete, the land uses associated with the proposed plan would use some nonrenewable fuels to heat and light structures and consume water. Plan elements would be built to current codes, including the California Green Building Standards Code, which requires insulation and support designs that minimize wasteful energy consumption. Specific projects under the proposed plan would be as energy efficient as possible and would be located in an area that is served by public transportation, including bus service and, in the near future, the Sonoma-Marín Area Rail Transit commuter rail service. Finally, because the land uses associated with the proposed plan would consume less energy for heat and light and water for irrigation and plumbing than the existing land uses in the plan area, operation under the proposed plan would represent a decreased use in resources, and thus would not represent a significant irreversible use of resources.

4.3 GROWTH-INDUCING IMPACTS

Section 15126.2(d) of the State CEQA Guidelines requires that an EIR discuss the ways in which a proposed project or plan could foster economic or population growth, or the construction of additional housing, either

directly or indirectly, in the surrounding environment. Typical growth inducing factors might be the extension of urban services or transportation infrastructure to a previously unserved or underserved area, or the removal of major barriers to development. This section evaluates the proposed plan's potential to create such growth inducements. Not all aspects of growth inducements are negative; rather, negative impacts associated with growth inducement occur only where the projected growth would cause adverse environmental impacts.

Growth-inducing impacts fall into two general categories: direct or indirect. Direct growth-inducing impacts are generally associated with providing urban services to an undeveloped area. Indirect, or secondary growth-inducing impacts consist of growth induced in the region by additional demands for housing, goods, and services associated with population increase caused by or attracted to, a new project.

The State CEQA Guidelines, as interpreted by the City, state that a significant growth-inducing impact may result if the proposed plan would:

- (1) induce substantial population growth in an area (for example, by proposing new homes and commercial or industrial businesses beyond the land use density/intensity envisioned in the community plan);
- (2) substantially alter the planned location, distribution, density, or growth rate of the population of an area; or
- (3) include extensions of roads or other infrastructure not assumed in the community plan or adopted Capital Improvements Project list, when such infrastructure exceeds the needs of the project and could accommodate future developments.

The plan area is located within an existing developed area of the City. Implementation of the proposed plan would directly induce growth within the City, but not propose it in a manner that is beyond the city-wide land use densities/intensities envisioned in the General Plan. According to City's General Plan (City of Rohnert Park, 2015 [originally adopted 2000]), the year 2020 build-out for the City is estimated at 51,332¹ (as of September 2010). According to the U.S. Census Bureau (2013), as of 2013, the City's population was 41,039 people. According to the Association of Bay Area Governments (ABAG), the City's population is expected to increase by 6,861 from the 2013 population estimates by 2020 (ABAG, 2009), resulting in a total anticipated population of 47,900 by 2020. Implementation of the proposed plan would include the construction of up to 835 residential units, which would increase the population of the plan area and the City by 1,670 residents. The population growth that could be accommodated by the proposed plan would be consistent with growth projections for the City.

Direct growth from the proposed plan would include a maximum of 440,886 square feet of retail and service commercial facilities; up to 62,807 square feet of public institutional facilities; up to 189,315 net square feet of office facilities; up to 129,315 net square feet of new light industrial facilities; and improvements to plan area circulation, which would include roadways, bike/pedestrian facilities, and transit facilities. Some planned infill development is not factored into the City's General Plan, particularly the new residential and retail development proposed in the Station Center subarea at higher densities/intensities than the site's current zoning for commercial office and public-institutional uses and the potential new commercial uses in the Triangle Business subarea.

Indirect growth as a result of nonresidential development included in the proposed plan would create approximately 1,900 jobs and could increase housing demand. For a conservative analysis, it is assumed that all

¹ From Table 2.3-3 of the General Plan (page 2-26). It is noted in the table that the total build-out of the General Plan is neither anticipated by nor specified in the General Plan, nor guided by City policy.

1,900 employees would relocate to the area, introducing 1,900 employee-related residents to the city. In combination with the 1,670 permanent residents added by new residential development, the service area population would be 3,570, which would constitute approximately 52 percent of the growth anticipated in 2020 ABAG projections for Rohnert Park. This level of indirect growth would be consistent with ABAG's projection for Rohnert Park by 2020.

Construction of future development is anticipated to generate temporary construction-related jobs. The addition of construction jobs associated with development allowed under the proposed plan could be supported by the skill sets available in the Rohnert Park area's labor pool. Construction employment often has no regular place of business and requires commuting to job sites that change several times a year. Many construction workers are specialized, which limits the duration of a construction worker to a project, and some construction workers are likely to be drawn from the preexisting Rohnert Park labor pool. Consequently, project-related construction workers would not be likely to relocate their place of residence as a result of working on future developments under the proposed plan. This impact associated with temporary jobs would be less than significant, as discussed further in Section 5.5, "Population and Housing," of Chapter 5.0, "Effects Found Not To Be Significant."

The plan area currently consists of existing development and associated infrastructure (i.e., water, sewage, and electricity; see Chapter 2.0, "Project Description," for a more details on the existing plan area setting). Implementation of the proposed plan would include the utilization of existing backbone infrastructure systems (see Figure 2-11, "Existing Water Infrastructure System," and Figure 2-12 "Existing Sewer Infrastructure System," in Chapter 2.0) to accommodate future development proposed in the plan area. Implementation of the proposed plan would not require the extension of existing infrastructure systems that could induce growth in other areas. Therefore, the proposed plan would not include any significant infrastructure expansion that would facilitate growth in other areas of the city. In addition, the proposed plan would be compatible with the surrounding residential and commercial land uses and would not pressure adjacent properties to redevelop with new or different land uses. As a result, it is not anticipated that nearby residents would relocate.

The proposed plan would also not significantly affect the permanent jobs/housing balance. As discussed above, nonresidential development included in the proposed plan would create approximately 1,900 jobs, which would increase housing demand above what would otherwise occur in the City. The proposed plan would also include for up to 835 new residential units. According to the City's person per household rate,² the number of units associated with the proposed plan would provide for 1,670 new residents. This is nearly a 1:1 ratio of new jobs/housing (1,900 new jobs/1,670 new residents).

According to the General Plan, the City expects a 25 percent increase in employment located within the City at General Plan build-out from the time the General Plan was initially approved (July 2000). The City estimated a total of 21,900 existing jobs within the City in 1999, with a City build-out of 29,479 total jobs (City of Rohnert Park, 2015). The number of jobs created by the proposed plan would represent 25 percent of the total available new jobs projected for the City's build-out.

Although the General Plan did not anticipate some of the land use changes in the proposed plan, the direct population growth created by implementation of the proposed plan would still be consistent with the General

² The City's persons-per-household rate is 2 people per unit, is based on City Municipal Code Section 17.19.040, "Phasing and Pace of Development—Facts and Assumption" (City Ordinance 755 § 4, 2006; Ord. 711 § 2[part], 2004; Ord. 695 §3, 2003).

Plan's future growth projections. Development associated with the proposed plan would occur within the City boundaries in an existing area of the City that is envisioned for future growth, which already provides the existing infrastructure capacity to serve the plan area. Furthermore, the indirect growth associated with 1,900 jobs would not alter the existing jobs/housing balance; nor would it be inconsistent with the City's build-out job projections. Therefore, implementation of the proposed plan would be considered to have a *less than significant* growth-inducing impact.

4.4 REFERENCES

- Association of Bay Area Governments and Metropolitan Transportation Commission (ABAG and MTC). 2009. Rohnert Park Subregional Study Area Table, Sonoma County, *Projections and Priorities 2009: Building Momentum, Projections through 2035*. Available: <https://store.abag.ca.gov/projections.asp#pro13>. Accessed July 30, 2015.
- City of Rohnert Park. 2015 (originally adopted 2000). *City of Rohnert Park General Plan: Our Place . . . Rohnert Park 2020, A Plan for the Future*. Adopted in July 2000; seventh edition printed May 2015. Rohnert Park, CA. Prepared by Dyett & Bhatia Urban and Regional Planners.
- U.S. Census Bureau. Selected Housing Characteristics. 2009–2013 American Community Survey 5-Year Estimates. Available: <http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF>. Accessed July 15, 2015.

5.0 EFFECTS FOUND NOT TO BE SIGNIFICANT

Based on initial environmental review, the City has determined that the proposed plan would not have the potential to cause significant impacts associated with the following issue areas. These topics are addressed briefly below.

- Aesthetics
- Agriculture and Forestry Resources
- Land Use and Planning
- Mineral Resources
- Population and Housing
- Public Services
- Recreation
- Utilities and Service Systems
- Growth-Inducing Impacts

5.1 AESTHETICS

State CEQA Guidelines Appendix G states that a significant impact on aesthetics may result if the proposed plan would:

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

Scenic vistas are visibly prominent landscapes containing scenic resources. Because of the relatively flat topography of the plan area and existing built environment that includes buildings and mature trees, no scenic vistas occur in the plan area. The distant Sonoma Mountains or other ridgeline features may be visible from some locations. However, these views generally are determined by a viewer's position relative to nearby buildings and the height of the nearby tree canopy.

The proposed plan would include infill development within an existing urban built environment, which would not substantially alter the quality of existing scenic views from the plan area. Furthermore, as discussed in Section 2.3.2, "Site Plan and Development Program," maximum building height associated with all new development in the plan area would not exceed 65 feet, and in some subareas, maximum building height would be no greater than 45 feet. The proposed maximum building heights would be consistent with existing conditions and would not substantially alter the visibility of scenic resources surrounding Rohnert Park from within the plan area. Therefore, the impact on scenic vistas would be *less than significant*.

U.S. Highway 101 (U.S. 101) is the western boundary of the plan area. U.S. 101 is a designated Sonoma County Scenic Corridor (Caltrans, 2008). This segment of the scenic highway is partially lined by tall deciduous and conifer trees that provide a visual barrier between the highway and the built-environment features of the city. Gaps in tree coverage allow the built environment in the plan area to be visible. The proposed plan would involve development of multifamily residential units, retail/service commercial uses, public institutional uses, office uses, light industrial uses, public park facilities, and open space. Underused sites would be improved and key areas such as the Station Center would undergo redevelopment. The proposed plan would not substantially alter the quality of scenic views of the plan area from U.S. 101. Therefore, the proposed plan would not substantially damage scenic resources within a state scenic highway, and the impact would be *less than significant*.

As shown in the site photos (Appendix G), the entire plan area consists of a built urban environment. Visibility in the plan area is mostly limited to existing urban features and vegetation (including the tree canopy), but distant ridgelines are also visible from some locations. Viewer perception and related visual sensitivity are influenced by viewer location, the specific activities in which the viewer is engaged, the personal degree of awareness, and individual values and goals. Although scenic resources are present in the city and Sonoma County, impacts on local aesthetic features, such as parks, trails, or architecture, may be more perceptible to local residents and workers. In particular, impacts on these resources may result from conversion of open space to development, building height increases, or new lighting sources.

Development of the proposed subareas would require only minimal grading because the plan area's topography is generally level. Some existing buildings would be demolished to accommodate proposed infill. Impacts on specific development areas are described separately below.

5.1.1 Triangle Business Subarea

The Triangle Business subarea is occupied by commercial and light industrial or office park uses. The proposed plan would support the development of an additional 129,315 square feet for industrial use, 91,415 square feet of office use, 120,880 square feet for retail or service commercial use, and 2.0 acres of open space uses. A maximum building height of 45 feet would be permitted in the Industrial/Regional Commercial Overlay (I-L/CR) and Downtown Mixed-Use (DTM-U) zones, and 65 feet in the Regional Commercial (C-R) zone. Some vacant lots, such as those shown in site photos 8 and 10 in Appendix G, may be used to achieve this development potential.

These proposed developments would not contrast substantially with the existing industrial and commercial landscape, nor would they provide a substantial contrast to adjacent areas in views of this portion of the plan area. Furthermore, the proposed plan would comply with the City's design guidelines, design guidelines included in the proposed plan, and the City's review processes. The additional development would not differ substantially from the area's existing visual character or alter its existing scenic quality. Therefore, this impact would be *less than significant*.

5.1.2 City Center Subarea

The City Center is characterized by existing commercial and mixed-use developments and by City public facilities, such as the Public Safety Department and the Rohnert Park–Cotati Regional Library. The proposed plan would include the development in the City Center of 115 units or 103,500 square feet for residential use, 56,581 square feet for retail or service commercial use, 32,560 square feet for office use, and 50,360 square feet of

public-institutional use. The residential unit mix would consist of multifamily homes with densities of 12–45 units per acre. With implementation of the proposed plan, upper densities for the DTM-U zone in this subarea would increase from 30 units per acre to 45 units per acre, to support future infill growth. Residential uses in the City Center could support townhouses or two- to three-story lofts above neighborhood commercial uses, with tuck-under or garage parking. Currently, the maximum building height in the DTM-U zones, applicable to the City Center, is 45 feet. Public institutional facilities would be located adjacent to the Civic Center. The maximum permitted building height for public institutional uses in the Public/Institutional (P-I) zone would be 45 feet.

As in the Triangle Business subarea, the proposed plan features associated with the City Center subarea would not provide a substantial contrast to adjacent areas in views of this portion of the plan area. Any new developments would comply with the City’s design guidelines, design guidelines included in the proposed plan, and the City’s review processes. The additional development would not differ substantially from the area’s existing visual character or alter its existing scenic quality. Therefore, this impact would be *less than significant*.

5.1.3 Central Commercial Subarea

The Central Commercial subarea consists primarily of retail business and restaurants. A senior living facility is located near the intersection of Enterprise Drive and State Farm Drive. The proposed plan would include the development of 74,264 square feet for retail or service commercial uses and 12,445 square feet for public institutional uses. The commercial uses would be one- to two- story infill development, consistent with the scale of buildings in this subarea and allowing a maximum building height in the C-R zone of 65 feet. Public institutional uses would consist of one- to two-story buildings with supporting parking and landscape improvements, to support expansion of existing public institutional facilities or new infill development in the subarea. Maximum permitted building heights for public-institutional uses in the P-I zone would be 45 feet.

As in the previously discussed subareas, the proposed plan features associated with the Central Commercial subarea would not provide a substantial contrast to adjacent subareas in views of this portion of the plan area. As in the Triangle Business and City Center subareas, proposed developments would comply with the City’s design guidelines, design guidelines contained in the proposed plan, and the City’s review processes. The additional development would not differ substantially from the area’s existing visual character or alter its existing scenic quality. Therefore, this impact would be *less than significant*.

5.1.4 Station Center Subarea

The Station Center subarea currently consists of vacant areas, formerly used as the State Farm campus and the Rohnert Park Corporation Yard. Implementation of the proposed plan would involve redeveloping the site. The proposed Station Center subarea would include the development of an additional 415 units or 415,000 square feet for residential uses, 171,626 square feet for retail or service commercial uses, and 65,340 square feet for office uses. New office uses would consist of two- to three-story standalone or mixed-use buildings where maximum building heights, as established for the Station Center Office zone, would be 65 feet. Commercial development would replace the existing development downtown, including one to two retail and service uses, with supporting parking and landscape improvements. Maximum building heights established in the Station Center Commercial Mixed-Use and Station Center Residential Mixed-Use zones also would be 65 feet.

The Station Center is envisioned to support a variety of multifamily residential housing units with densities ranging from 12 to 75 units per acre, including townhouses, mixed-use lofts or flats above neighborhood commercial uses, and podium-style apartments or condominiums. Townhouses and mixed-use lofts in the Station Center subarea are anticipated to be two to three stories high and five- and six-story apartments or condominiums over podium parking are envisioned in this subarea, as supported by market conditions in the future. Maximum building heights for high-density residential uses would be 65 feet. Changes to existing views of the site would be most perceptible from the surrounding Central Commercial, City Center, and Creekside Neighborhood subareas.

The Station Center, with its conversion of the State Farm campus, would undergo the most visual change in the plan area. The existing buildings are set back approximately 200 feet or more from the property boundaries. The proposed Station Center subarea would reduce setbacks and encourage denser site development. However, open space would still be included along the southern and eastern edges of this subarea and in the northwest corner to preserve the redwood trees on-site. In addition, with heights of up to 65 feet, the proposed developments would not exceed the height of existing features, such as trees, on the State Farm campus. Approximately 6 acres of open space would be included in redevelopment of the Station Center. Proposed landscaping would include native trees, planted in a columnar fashion along major roadways, to enhance the existing corridor. Trees and other vertical landscape elements also could be used as background plants at community gateway entrances or could be planted along roadway medians.

The proposed plan would comply with the City's design guidelines, design guidelines contained in the proposed plan, and the City's review processes. The additional development would not differ substantially from the area's existing visual character or alter its existing scenic quality. Therefore, this impact would be *less than significant*.

5.1.5 Creekside Neighborhood Subarea

This subarea is characterized by multifamily residential development connected by local roads. The maximum building height currently permitted in the Downtown High Density Residential (DTR-H) zone of the Creekside Neighborhood is 45 feet. The development of this subarea would add 155 units or 170,500 square feet of residential use and 17,534 square feet of retail or service commercial use. The existing DTR-H zone in the Creekside Neighborhood subarea permits a wide range of detached single-family and attached multifamily housing, at densities ranging from 12.1 to 30 units per gross acre. A few vacant sites along Avram Avenue may accommodate some of this proposed development. The retail and service commercial uses in the plan area would accommodate one- to two- story infill development, consistent with the scale of buildings existing in shopping centers in this subarea.

Development of underused sites in the Creekside Neighborhood would not differ substantially from the existing aesthetic quality of multifamily residences in this area. Furthermore, the proposed development would comply with the City's design guidelines; design guidelines contained in the proposed plan; and associated city review processes. The additional development would not differ substantially from the area's existing visual character or alter its existing scenic quality. Therefore, this impact would be *less than significant*.

The plan area is located in a built urban environment that consists of developed commercial, industrial, and residential units where light and glare already are evident. Light and glare associated with the proposed plan would be similar to light and glare from typical residential, commercial, and mixed-use developments. All site

and building lighting would be installed in conformance with the City's lighting and glare performance standards, as set forth in Section 17.12.050 of the Municipal Code (Municode, 2015). All lighting, reflective surfaces or any other sources of illumination would be used in a manner to minimize glare on public streets or other parcels. Lighting would be directed downward and away from adjacent residences. Therefore, the proposed plan would not create significant new light or glare in the plan area. This impact would be *less than significant*.

5.2 AGRICULTURE AND FORESTRY RESOURCES

State CEQA Guidelines Appendix G states that a significant impact on agricultural resources may result if the proposed plan would:

- convert a substantial amount of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use;
- conflict with existing zoning for agricultural use, or a Williamson Act contract; or
- involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to nonagricultural use.

State CEQA Guidelines Appendix G states that a significant impact on forestry resources may result if the proposed plan would:

- conflict with existing zoning for, or cause rezoning of, forest land (as defined in California Public Resources Code [PRC] Section 12220[g]), timberland (as defined by PRC Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104[g]);
- result in the loss of forest land or conversion of forest land to nonforest use; or
- involve other changes in the existing environment which, due to their location or nature, could result in conversion of forest land to nonforest use.

The plan area is currently the location of existing residential, commercial, office, and light industrial development with associated paved parking areas. The plan area does not contain land that is designated as prime agricultural soils by the U.S. Soil Conservation Service (now Natural Resources Conservation Service), nor does it contain Prime Farmland, Unique Farmland, or Farmland of Statewide Importance as designated by the California Department of Conservation, or any forest land or timberland (DOC, 2012). The proposed plan is not subject to, nor is the plan area located near, a Williamson Act contract site pursuant to Sections 51200–51207 of the California Government Code (Sonoma County, 2013).

In addition, the plan area is designated as developed land and not designated as farmland under the Farmland Mapping and Monitoring Program of the California Department of Conservation or the *City of Rohnert Park General Plan* (General Plan) (City of Rohnert Park, 2015a [originally adopted 2000]). No portion of the plan area could be considered forest land as defined in PRC Section 12220(g). Timberland (as defined by PRC Section 4526) or timberland-zoned timberland production (as defined by Section 51104[g] of the Government Code) is not present on-site, nor are any active or potential commercial timber operations present in the area. Therefore, *no impact* associated with agriculture and forestry resources would result from implementation of the proposed plan.

5.3 LAND USE AND PLANNING

State CEQA Guidelines Appendix G states that a significant impact on land use and planning may result if the proposed plan would:

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

The plan area is an established and developed urban environment with open space, public institutions (i.e., the city's public safety building and a regional library), industrial, office, retail, and residential uses. Implementation of the proposed plan would build on the existing urban framework to support greater mixed-use areas in the five designated subareas discussed in Chapter 2.0, "Project Description"; this would include identifying areas for infill redevelopment and improving existing development. Existing roadways that provide connections to and from the plan area—such as Golf Course Drive, Rohnert Park Expressway, Commerce Boulevard, and Seed Farm Drive—would continue to connect the plan area with adjacent roadways and developments/residences. The existing street grid would remain, and roadway, bicycle, and pedestrian facilities and corresponding circulation connections would be improved (see Section 2.3.4, "Circulation"). These improvements would provide greater connectivity within the site and to the adjacent areas. Furthermore, the proposed plan would not involve the construction of a physical barrier that would restrict access through the plan area. The proposed plan therefore would not divide an established community and this impact would be *less than significant*.

Implementation of the proposed plan would have a significant impact if it would conflict with an adopted plan, policies, or regulations. The table in Appendix H provides a consistency analysis of the proposed plan relative to the General Plan. General Plan policies not included were determined to have no relationship to the proposed plan and/or plan area. As shown in the table in Appendix H, implementation of the proposed plan would be consistent with the applicable listed policies. The City would enact conditions of approval on a project-specific basis to maintain consistency and enforcement of the future development under the proposed plan.

As shown in Figure H-1 in Appendix H, the proposed plan would retain most of the current zoning designations for the plan area, including Regional Commercial (C-R), Industrial (I-L), Industrial with Office Overlay (I-L/O), and Public/Institutional (P-I) shown in the September 2014 zoning map (City of Rohnert Park, 2014). Current uses and development standards would remain in place for areas with no change in zoning.

The proposed plan incorporates the new Downtown High Density Residential (DTR-H) and Downtown Mixed-Use (DTM-U) zoning designations that update development standards for mixed-use and high density residential uses in the plan area, permitting a maximum density of 30 units per acre in DTR-H zone and 45 units per acre in the DTM-U zone. Addition of the new DTR-H and DTM-U would require an amendment to the Zoning Ordinance, including associated text updates and updates to the City's official zoning map as well as, related updates to the General Plan.

The proposed plan adds an Industrial with Regional Commercial Overlay (I-L/CR) in the northern portion of the Triangle Business subarea. The new I-L/CR zone allows for the types of industrial uses and associated development standards that are normally permitted in the I-L zone, but also would allow uses otherwise permitted only in the C-R zone. The proposed new I-L/CR zoning designation is currently within an Industrial land use designation, zoned Industrial (I-L), and would require an amendment to the Zoning Ordinance, requiring associated text updates and updates to the City's official Zoning Map.

A new Downtown District Amenity (DDAZ) Overlay is proposed to implement the community's vision for a compact, walkable downtown area. This area, to be the primary focus of downtown investment in the plan area, encompasses several subareas of PDA, connected internally across Rohnert Park Expressway and State Farm Drive (as shown in Figure 2-4 in Chapter 2.0, "Project Description"). The proposed DDAZ overlay would incorporate urban design standards and guidelines that allow buildings to be built to the edge of the sidewalk; allows for wide sidewalks and pedestrian amenities along commercial streets; promotes compact, multistory development, shared and on-street parking, and use of transit; and may incentivize amenities desired in a downtown setting (e.g., benches, plazas, signage, and lighting). Implementation of this overlay zone would require Zoning Ordinance amendments, including updates to the official Zoning Map. Updates to the General Plan would also be required.

The proposed plan would also rezone the Station Center subarea to Planned Development (PD). The PD zone would introduce a new set of zoning districts in this subarea to support its site conditions (see the figure in Appendix H). The proposed PD zoning district is currently within an Office and Public/Institutional land use designation, zoned Office Commercial (C-O) and P-I, and would require both General Plan and Zoning Ordinance amendments, including an update to the General Plan Map to designate this area as a "mixed-use" and an update to the Zoning Map to reflect the new PD designation for this subarea.

The proposed plan would be required to comply with the policies of the General Plan, per Section 65454 of the California Government Code. The proposed plan would retain the C-R, I-L, I-L/O, and P-I zoning (see the figure in Appendix H). If the proposed plan is adopted, the City would amend the General Plan and Zoning Ordinance to match the proposed plan, as summarized above and further described in the Section 2.4, "Discretionary Actions and Approvals" in Chapter 2 of the plan. Adoption of the proposed plan would include development standards and provisions to include the design guidelines of the proposed plan in the City's development review process. These specific standards and design guidelines would enhance future development of the plan area. Therefore, once changes have been made to the General Plan and Zoning Ordinance, the proposed plan would be consistent with the General Plan and Zoning Ordinance. As a result, the proposed plan would not conflict with any applicable land use plans, policies, or regulations and impacts would be *less than significant*.

The proposed plan would not conflict with any habitat conservation plans or natural community conservation plans because no approved plans apply to the plan area. *No impact* would occur.

5.4 MINERAL RESOURCES

State CEQA Guidelines Appendix G states that a significant impact on mineral resources may result if the proposed plan would:

- result in the loss of availability of a significant mineral resource (e.g., sand or gravel) as identified in Open File Report 96-04, *Update of Mineral Land Classification: Aggregate Materials in the Western San Diego County Production-Consumption Region*, 1996, by the California Geological Survey.

Based on a review of the mineral land classification maps prepared by Stinson et al. (1987) and the updated classification maps prepared by Miller et al. (2005), the plan area is designated as a Mineral Resource Zone (MRZ) 1 classification area by the California Geological Survey. MRZ-1 areas are defined as areas where adequate information indicates that no significant mineral deposits are present or where it is judged that little likelihood exists for their presence. The plan area is urban, currently the location of existing development; is not designated as a locally important mineral resource recovery site; and does not have an operating mine, sampling area, or available known mineral resource that would be of value to the region and the residents of the state (City of Rohnert Park, 2015a [originally adopted 2000]). Therefore, *no impact* associated with mineral resources would result from implementation of the proposed plan.

5.5 POPULATION AND HOUSING

State CEQA Guidelines Appendix G states that a significant impact related to population and housing may result if the proposed plan would:

- induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure);
- displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere; or
- displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

Implementation of the proposed plan would result in construction of up to an additional 835 residential units on a total of approximately 20 acres in the City Center and Station Center subareas and within a half-mile radius of the Sonoma-Marin Area Rail Transit (SMART) rail station, as shown in Table 2-3 and Figure 2-4. The existing population of the plan area is an estimated 3,187 people (U.S. Census Bureau, 2013a). With construction of up to 835 residential units, the population of the plan area and the city would increase by 1,670 residents. Rohnert Park is expected to grow by approximately 6,861 people between 2013 and 2020. The proposed plan represents approximately 24.3 percent of anticipated population growth in the city between 2013 and 2020, and 6 percent of the projected total 2020 population in the city, which is estimated at 47,900 residences (ABAG and MTC, 2009). Because the Association of Bay Area Governments (ABAG) projects the population of Rohnert Park to increase by 6,861 from the 2013 population estimates by 2020, 1,670 additional residents in the area from implementation of the proposed plan would be consistent with population projections for the city and would not be considered substantial unplanned growth in the area.

Indirect population growth can be attributed to nonresidential development or the extension of roads or other infrastructure. The proposed plan would include a maximum of 440,886 square feet of retail and service commercial facilities; up to 62,807 square feet of public institutional facilities; up to 189,315 net square feet of office facilities; up to 129,315 net square feet of new light industrial facilities; and improvements to plan area circulation, which would include roadways, bike/pedestrian facilities, and transit facilities. Nonresidential

development included in the proposed plan would create approximately 1,900¹ jobs and could increase housing demand. For a conservative analysis, it is assumed that all 1,900 employees would relocate to the area, introducing 1,900 employee-related residents to Rohnert Park. In combination with the 1,670 permanent residents added by new residential development, 3,570 additional residents would constitute approximately 52 percent of the growth anticipated in 2020 ABAG projections for the City. This level of indirect growth would be consistent with ABAG's projection for Rohnert Park by 2020. Therefore, the impact associated with population growth resulting from permanent jobs would be *less than significant*.

Construction of future development is anticipated to generate temporary construction-related jobs. However, construction-related employment opportunities would be unlikely to cause construction workers to relocate their households to the plan area vicinity for various reasons:

- Construction employment has no regular place of business; rather, construction workers commute to job sites that may change several times a year.
- Many construction workers are highly specialized (e.g., crane operators, steelworkers, masons) and move from job site to job site, as dictated by the demand for their skills.
- The work requirements of most construction projects also are highly specialized, and workers are employed on a job site only as long as their skills are needed to complete a particular phase of the construction process.
- Some construction workers are likely to be drawn from the construction employment labor force already present in Rohnert Park and surrounding communities.

Consequently, project-related construction workers would not be likely to relocate their place of residence as a result of working on future developments under the proposed plan. The impact associated with population growth resulting from temporary jobs would be *less than significant*.

Overall, the amount of new development projected under the proposed plan would not exceed ABAG's most recent projections or other planning efforts for population or housing in the city. No housing units would be demolished; thus, no replacement housing units would be needed. The State Farm campus site and the City Corporation Yard would be removed and redeveloped as part of the Station Center subarea, which would permit commercial, residential, and park/open space uses. The proposed plan would not displace substantial numbers of people, necessitating the construction of replacement housing elsewhere. Therefore, the impact on population and housing from implementation of the proposed plan would be *less than significant*.

5.6 PUBLIC SERVICES

State CEQA Guidelines Appendix G states that a significant impact related to public services may result if the proposed plan would:

- result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered governmental facilities, the construction of which

¹ This employment total is based on assumed employment factors, representing average totals in the San Francisco Bay Area region from data collected by ABAG and assumes 450 square feet per employee for commercial retail/service uses; 350 square feet per employee for office and public-institutional uses; and 650 square feet per employee for industrial uses.

could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services.

Implementing the proposed plan would add 835 new residential units and 822,324 square feet of nonresidential development (retail or service commercial, office, public-institutional, and industrial) to the plan area. Under existing conditions the plan area accommodates 1,390 residential units for an estimated population of 2,780 people² and includes a total of 2,717,414 square feet of nonresidential development. The total development potential of the proposed plan would result in a total population of 4,450 people and 3,249,337 square feet of total nonresidential development in the plan area at build-out. Build-out of the plan area would represent an increase of approximately 40 percent in the total existing residential population of the plan area, and an increase of approximately 30 percent over the nonresidential development currently existing in the plan area.

5.6.1 Fire Protection

The Rohnert Park Department of Public Safety currently adheres to National Fire Protection Agency standards, which are a recommended 4-minute response time, with 67 percent of calls having an average response time of 4 minutes, 23 seconds. In addition, the City's Fire Division has two fire stations in the vicinity of the plan area, with travel time to the plan area of approximately 2 minutes for the first responder (Southern Station). This would meet the Fire Division's response time goal of 4 minutes, 23 seconds to 67 percent of calls (City of Rohnert Park, 2014a). In addition, the backup responder (Northern Station) has a travel time to the plan area of approximately 4 minutes, which would also meet the Fire Division's response time goal.

Furthermore, facilities in the plan area would be required to comply with applicable building and fire safety codes, including availability of water for fire suppression, emergency vehicle access, and fire safety regulations for various building types in the plan area. The Fire Division also would be notified of any temporary and short-term impacts on fire protection services resulting from construction activities, such as street closures. In addition, General Plan Policy HS-26 requires that new development in the northwest portion of the city (north of Business Park Drive and west of U.S. 101) contribute funds to the public facilities financing plan associated with the Wilfred-Dowdell Village development for construction of a fire station facility, as such new development would benefit from the additional fire protection services. Development of the plan area may require additional staff and equipment. However, stipulations in the General Plan require that new development contribute to the cost of service needs, including fire protection.

In summary, the response times to the plan area of the Southern Station and backup Northern Station are within the Fire Division's adopted response time standard of 4 minutes, 23 seconds to 67 percent of calls and no new fire station facilities are required to serve the plan area. General Plan build-out includes development of the plan area in a quantity that would surpass the planned build-out of the proposed plan. Therefore, the impact related to fire protection would be *less than significant*.

² The anticipated buildout year for the proposed plan, with an estimated 2.0 persons per household. The City's person per household rate of 2 people per unit is based on City Municipal Code Section 17.19.040, "Phasing and Pace of Development—Facts and Assumption" (City Ordinance 755 § 4, 2006; Ord. 711 § 2[part], 2004; Ord. 695 §3, 2003).

5.6.2 Police Protection

The City's Police Division is headquartered at 500 City Center Drive, within the northeastern segment of the plan area. Development of the plan area may require additional police protection services as the implementation of the proposed plan would include up to 1,670 new residences, 1,900 new jobs, and an unquantifiable number of visitors associated with correlated new businesses and services. Additional police protection services associated with the city's build-out is anticipated in the General Plan. New development projects located within the city limits are required to contribute to the cost of service needs, including police protection and related facilities to ensure the City provides adequate police protection services, consistent with stipulated General Plan Policy HO-18.8 (provide equitable public services throughout the city). The City's public safety building was recently constructed in the City Center subarea and is within the plan area. With this existing facility, no additional facilities for police protection services would be needed to serve the plan area. Therefore, the impact related to police protection would be *less than significant*.

5.6.3 Schools

Implementation of the proposed plan would include up to 1,670 new residences and 1,900 new jobs for new residents expected to relocate to the City as a result. This would increase the demand for school services, provided by the Cotati-Rohnert Park Unified School District (CRPUSD). As of the 2013–2014 school year, CRPUSD schools (which provide elementary, middle, and high school education), except for Lawrence Jones Middle School and Technology High School, were operating below maximum student capacity (CRPUSD, 2014). Additional school services associated with the city's build-out is anticipated in the General Plan. All development in the plan area associated with the proposed plan would comply with General Plan Policy PF-2 (work with CRPUSD to provide adequate high school sites) by complying with General Plan Policy PF-3 (requiring developers to help dedicated any necessary new school sites). Development (residential and commercial) associated with the proposed plan would generate school impact fees to be collected by CRPUSD in compliance with General Plan Policies PF-2 and PF-3 (City of Rohnert Park, 2014a). In accordance with Section 65996 of the California Government Code, payment of such school impact fees would mitigate the impact of the proposed plan area development on school services. Furthermore, according to the *City of Rohnert Park General Plan Revised Draft Environmental Impact Report*, elementary school enrollment is expected to decline and middle school enrollment is expected to stagnate in the future (City of Rohnert Park, 2000). No new schools are needed to serve the plan area; therefore, the impact related to schools for the plan area would be *less than significant*.

5.6.4 Parks

The population increase that would result from plan area build-out (1,670 new residents) would require 8.4 acres³ of new parkland to meet the standard outlined in the General Plan and Municipal Code⁴ of 5 acres per 1,000 residents. A total of 8.5 acres of public parks/open space uses are included in the proposed plan. Approximately 6 acres would be part of redevelopment in the Station Center subarea. The other 2.5 acres of open space would be provided for open space and bike and pedestrian access in the Triangle Business subarea. Therefore, the proposed

³ Acreage was calculated by multiplying the projected number of persons by the required acreage percentage. For example, 5 acres of City park per 1,000 persons is equivalent to 0.0005 acre per person, and 0.0005 person x 1,670 (population increase from the implementation of the plan area) = 8.4.

⁴ Park dedication requirements are stipulated in Municipal Code Section 16.14.020(D)(2), "Park Dedication" (Ord. 787 §§ 1-3, 2007; Ord. 744 § 1 [part], 2005).

plan would include dedicated parkland that exceeds City requirements and the impact on parks would be *less than significant*.

5.6.5 Libraries

The Rohnert Park–Cotati Library is located in the City Center subarea, within the plan area. Designed to serve up to 73,463 people by 2025, the library currently serves a total of approximately 54,654 people; thus, it can accommodate an additional 18,809 people by 2025 (SCL, 2015). Furthermore, the library was designed for and is intended to accommodate future expansion onto the second floor, so that it could serve a larger population in the future. The library has the available capacity to serve the estimated 1,670 new residents projected to live within the plan area at build-out of the proposed plan. Therefore, the impact related to libraries would be *less than significant*.

5.7 RECREATION

State CEQA Guidelines Appendix G states that a significant impact related to recreation may result if the proposed plan would:

- increase the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; or
- include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.

Along the west side of Commerce Boulevard, the City maintains 16.7 acres of existing public open space adjacent to U.S. 101 along accessible, marked trails in the existing Copeland Creek and Hinebaugh Creek corridors and interconnecting paseos. The proposed plan would generate an additional estimated 1,670 residents, and thus would likely increase the use of existing recreational facilities. A total of 8.5 additional acres of public parks, open space, and recreational uses have been identified in the plan area. Approximately 6 acres have been identified as part of redevelopment in the Station Center subarea and 2.5 acres of open space are suggested for an approximately 25-foot-wide paseo between Professional Drive and Utility Court and for other open space, to improve bike and pedestrian access in the Triangle Business subarea.

Additionally, the proposed plan would require new development in the plan area to comply with park, open space, and facility standards in the General Plan and Municipal Code. SMART will construct a multiuse pathway along the eastern edge of the plan area. The proposed plan would include trail connectivity improvements, such as along the creek corridors and paseos, to fill the gaps in the City’s regional bicycle trail network and connect to the SMART multiuse pathway. Parks, plazas, open space, or other recreational facilities would be provided and dispersed within the plan area, as shown in the Park and Open Space concept (see Figure 2-7).

Therefore, a total of 25.2 acres of public parks/open space uses (including the existing 16.7 acres of open space) are proposed in the plan area, based on site studies for the plan area. Additional parks/open space uses that would be required to be provided for new development in compliance with City standards are not factored into the park/open space totals for the plan area. Furthermore, trail connectivity improvements along the planned SMART

multiuse path and surrounding public roadways in the city would be provided along the two existing creeks (see Figure 2-7).

The proposed plan would accommodate an estimated increase of 1,670 new residents in the plan area at build-out (based on a total of 835 units multiplied by two people per household⁵). Based on the City's goal of 5 acres of parkland per 1,000 residents, build-out of the proposed plan would generate a demand for 8.4 additional acres of park/open space in the plan area. The proposed plan would provide a minimum of 8.5 acres of parkland acreage and increased trail connectivity and access, as discussed in Chapter 2.0, "Project Description." With additional parks and open space uses required for new development in the plan area, the proposed plan would be able to satisfy the parkland target for the plan area. Furthermore, it is not expected that future residents in the plan area would substantially increase demand on other City facilities and cause deterioration of those facilities.

The proposed plan also includes Policy CS-1.1, which requires new development to provide park and open space facilities in accordance with City parkland requirements. The additional 8.5 acres of public parks/open space and trail system would be constructed using low-impact development design components discussed in Chapter 2.0, "Project Description," as guided by the *City of Santa Rosa and County of Sonoma Stormwater Low Impact Development Technical Design Manual*. These design components would reduce construction-related and operational impacts by managing stormwater runoff and preserving natural hydrologic regimes in the plan area. Other potential effects associated with construction and operation of the proposed recreational facilities are covered as part of the overall plan, and are evaluated under each individual topic in this environmental impact report. Therefore, the recreation impacts of implementing the proposed plan would be *less than significant*.

5.8 UTILITIES AND SERVICE SYSTEMS

State CEQA Guidelines Appendix G states that a significant impact on utilities and service systems may result if the proposed plan would:

- exceed wastewater treatment requirements of the applicable regional water quality control board (RWQCB);
- require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- fail to have sufficient water supplies available to serve the project from existing entitlements and resources, or require new or expanded entitlements;
- fail to result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments;
- 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;
- be served by a landfill without sufficient permitted capacity to accommodate the project's solid waste disposal needs;
- fail to comply with federal, state, and local statutes and regulations related to solid waste; or

⁵ The City's person per-household rate of two people per unit is based on City Municipal Code Section 17.19.040, "Phasing and Pace of Development—Facts and Assumption" (City Ordinance 755 § 4, 2006; Ord. 711 § 2[part], 2004; Ord. 695 § 3, 2003).

- create demand for electricity or natural gas service that would require facility improvements or additional energy infrastructure, the construction or operation of which would cause significant environmental impacts.

State CEQA Guidelines Appendix F states that a significant impact on utilities and service systems may result if the proposed plan would:

- encourage activities that would result in large amounts of fuel, water, or energy use, or use of these in a wasteful manner; or
- conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing energy use, particularly nonrenewable energy use (often referred to as energy efficiency standards, and can be applicable to projects, buildings, appliances, etc.).

5.8.1 Wastewater

Build-out of the proposed plan would result in the treatment and disposal of an additional 0.18 million gallons per day (gpd) of wastewater. Wastewater generated by developments associated with the proposed plan would not contain hazardous materials or other constituents that would require pretreatment and potentially cause violations of established water quality standards. As such, wastewater generated by build-out of the proposed plan could be safely discharged to the City's existing sanitary sewer system.

The plan area is currently served by the City's sewer collection system. This system consists of 77 miles of gravity sewers, 7.5 miles of force mains, 16 inverted siphons, and three pump stations that convey sewage to the treatment facility. Most facilities were installed between 1956 and 1980 and the average age is estimated to be 30 years (City of Rohnert Park, 2014b). Pipe sizes in the plan area range from 6 inches to 42 inches (see Figure 2-12 in Chapter 2.0, "Project Description"). The City's two main interceptor sewers cross the plan area. In the northerly portion of the plan area, the 27-inch College Trunk Sewer crosses through the Triangle Business subarea near Executive Court, collects effluent on the east side of U.S. 101 at Commerce Boulevard, and continues west under the freeway and follows the road alignment of J Rogers Lane. At the southern edge of the plan area, the 27- to 42-inch Eastside Trunk Sewer traverses Santa Alicia Drive and Avram Avenue, collects effluent at the east side of U.S. 101 at Commerce Boulevard, continues west under the freeway, and follows Redwood Boulevard to the terminal pump station. The Eastside Trunk Sewer was designed both to provide capacity for new development in eastern part of the city and to resolve capacity problems in the College Trunk Sewer and other portions of the collection system. The construction of the Eastside Trunk Sewer rerouted some flow that historically drained to the 27-inch-diameter sewer that parallels U.S. 101 along the western border of the plan area, resolving the plan area's only known capacity problem. Together, the two trunk sewers provide a high degree of capacity and flexibility for serving development in the plan area, although localized collection system infrastructure may require improvements to serve specific development proposals.

Wastewater treatment and disposal is provided by the Santa Rosa Subregional Water Reclamation System, which also serves the cities of Santa Rosa, Sebastopol, and Cotati. Wastewater from the Subregional System is treated at the Laguna Water Reclamation Plant, located about 2 miles northwest of Rohnert Park. The City owns capacity rights to 3.43 million gallons per day (MGD) at the Laguna Water Reclamation Plant and has an agreement with the City of Santa Rosa to use up to 4.46 MGD of capacity rights. Under the Subregional System's approved Incremental Recycled Water Program, the City can acquire up to 5.15 MGD of capacity (City of Santa Rosa,

2008). The City's current capacity needs are approximately 3.0 MGD, meaning that up to 2.15 MGD of capacity is available to serve new development. As discussed above, build-out of the plan area would generate up to 0.18 MGD of additional wastewater flow or 8 percent of the available build-out capacity. Because the capacity required to serve the plan area can be accommodated by the City's existing approved wastewater capacity and would not result in the need for any new off-site wastewater system expansions that are not already documented in the approved Incremental Recycled Water System Program EIR, the impacts of implementing the proposed plan would be *less than significant*.

5.8.2 Water Supply

As required by state law, the City has prepared a water supply assessment (WSA) to evaluate the impacts of the plan (City of Rohnert Park, 2015b). This WSA, included as Appendix F, documents that build-out of the plan area would generate demand for an additional 213 acre-feet per year (AFY) of water above the demand generated by General Plan build-out. The discussion below summarizes the information and analysis included in the WSA.

The City has three water sources: Sonoma County Water Agency (SCWA) supply, local groundwater, and recycled water. The City manages these supplies using a "conjunctive use" strategy, drawing on SCWA and recycled-water supplies first and using its local groundwater to manage peak demands. The total supply available to the City through these three sources is 11,427 AFY, including 10,077 AFY of potable water and 1,350 AFY of recycled water (City of Rohnert Park, 2015b).

The City's contract for water supply with SCWA is the Restructured Agreement for Water Supply. Under this contract, the City has access to as much as 7,500 AFY, although a number of conditions can limit the SCWA supply. Because of these limitations, the City uses 6,372 AFY as its reliable supply from SCWA under all hydrologic conditions. Over the past 10 years, the City has used between 2,500 and 5,000 AFY of SCWA supply, which is significantly less than its maximum allocation (City of Rohnert Park, 2015b).

The City's local groundwater supply is from the Santa Rosa Plain Subbasin of the Santa Rosa Valley Groundwater Basin. The City manages its groundwater supply in accordance with its 2004 Water Policy Resolution, which limits groundwater pumping to 2,577 AFY. The City's 2004 City-wide Water Supply Assessment provides the technical support for this maximum pumping rate. The City participates actively in the implementation of the *Santa Rosa Plain Watershed Groundwater Management Plan* and is currently working with other water suppliers in the basin to implement the requirements of the Groundwater Sustainability Act of 2014. Modeling and monitoring data collected by the City and others indicate that groundwater levels are generally rising around the City's well field, an indication of stable supply. Over the past 10 years the City has used between 350 and 1,600 AFY of groundwater, significantly less than its policy limitation on groundwater use (City of Rohnert Park, 2015b).

The City's tertiary-treated recycled-water supply is produced by the Santa Rosa Subregional Water Reclamation System (Subregional System). The City and the Subregional System have recently entered into a producer/distributor agreement that provides the City with access to 1,350 AFY of recycled water. The City uses recycled water primarily for irrigation purposes; demand for recycled water has varied between 800 and 1,100 AFY over the past 10 years (City of Rohnert Park, 2015b).

The City has recently completed its 2015 Urban Water Management Plan Water Demand and Water Conservation Measures Update. This analysis, which is based on ABAG population and job projections, including projections for both the plan area and the Sonoma Mountain Village Priority Development Area, projects the City's potable water demands through 2040. This demand is expected to range between 5,600 and 6,100 AFY, depending on the level of water conservation undertaken by the City. This projected demand is significantly less than the City's available water supplies. This analysis also indicates that the City has the potential to secure approximately 500 AFY (the difference between 5,600 and 6,100 AFY) by undertaking more aggressive water conservation activities (City of Rohnert Park, 2015b).

Water Delivery Infrastructure

The City's SCWA water supply is delivered through 13 turnout connections from the SCWA aqueduct system. There are five aqueduct turnouts in the plan area and a City-owned, 12-inch aqueduct pressure transmission main runs along the Hinebaugh Creek channel through the plan area. The City's groundwater is supplied by a well field consisting of 42 municipal supply wells, 29 of which are active. The City's wells are connected directly to the distribution system (City of Rohnert Park, 2015b).

In the plan area, the water distribution system consists primarily of 6- and 8-inch water mains (see Figure 2-11 in Chapter 2.0, "Project Description"). The City has a planned capital improvement project that will parallel the 4-inch distribution mains at the north end of the plan area with an 8-inch distribution main to improve the overall performance of the distribution system.

Recycled water is delivered through the City's high-pressure system, which consists of a 24-inch backbone transmission pipe running along the Copeland Creek channel. Two turnouts from the recycled-water system are located in the plan area. One turnout runs south to serve City Hall (located in the Creekside Neighborhood subarea) and the second turnout runs north, parallel to the SMART rail line right-of-way, and serves the City Center subarea. Recycled-water service was historically provided to the Station Center subarea, but this service is no longer active.

In general, the existing water supply sources and facilities are expected to be sufficient to provide an adequate supply of water to meet the plan area's current and future demands. A planned capital improvement project will remove the one restriction in the distribution system that serves the plan area. The proposed plan alone would not result in the need for new water treatment or storage facilities, other than the on-site facilities included as part of the plan. In addition, the proposed plan alone would not require SCWA to increase its existing water entitlements; as discussed above, SCWA has an adequate supply to meet the demands associated with the plan area. Furthermore, the proposed plan's impacts on water would be reduced further with implementation of policies included in the General Plan, including use of reclaimed water, discharge reduction programs, and water metering. Additionally, the proposed plan includes Policy U-1.1, which requires ensuring that an adequate water supply is available to serve the plan area. With the implementation of water conservation programs implemented by the City, reducing the City's demand by 384–556 AFY by build-out of the proposed plan, the City would effectively offset the potential increase in demand from the proposed plan. Therefore, the water supply and related facility impacts would be *less than significant*.

5.8.3 Stormwater

The plan area is served by the City's existing storm drainage system, which conveys stormwater through closed conduits (pipes) to SCWA's system of open channels, which in turn divert major drainage flows west toward the Laguna de Santa Rosa. In the plan area, Hinebaugh and Copeland Creeks convey storm drainage from east to west. The existing storm drainage infrastructure in the plan area is operating within its design capacity, although the system's design does allow street flooding (but not building flooding) near Commerce Boulevard, Avram Avenue, and Enterprise Drive in severe storm events.

No portions of any parcel in the plan area have been designated as being located in a Federal Emergency Management Agency Flood Hazard Zone that may be subject to localized flooding during a 100-year or 500-year storm event (FEMA, 2008). The May 29, 2009, technical memorandum "Storm Water System Model Study–Phase IV" recommended improving the Copeland Creek culverts and channel to reduce modeled flooding for a 100-year storm event. As an option to culvert and channel improvements, the memorandum also suggested reducing the peak 100-year discharge by constructing a detention pond in the upper reach of the watershed. The City is currently partnering with SCWA on the design and implementation of the upstream detention basin.

Although some of the land in the plan area is currently underused, the area is largely developed and paved, and implementing the proposed plan would not result in significant changes in runoff volume or velocity. However, all new development or site redevelopment of any scale would need to comply with the City's storm drain standards, including the City of Santa Rosa and County of Sonoma's *Low Impact Development Technical Design Manual* (LID Manual). Design requirements include the requirements to treat all runoff generated by the 85th percentile, 24-hour storm and to ensure that the volume of runoff from the site in the 85th percentile, 24-hour storm does not increase as a result of development or redevelopment. The LID Manual includes a menu of best management practices that can be used to capture, infiltrate, and/or reuse stormwater on-site. Some of the LID Manual's best management practices are also incorporated in the design guidelines for the plan area. Because the existing stormwater system provides adequate protection to the plan area and because existing design requirements and plan policies will minimize any increases in stormwater runoff or changes in stormwater quality, the stormwater-related impacts would be *less than significant*.

5.8.4 Solid Waste

The North Bay Corporation provides solid waste disposal and composting of organic materials in the city. Build-out of the plan area would result in an additional 1,670 residents and 1,900 employees.⁶ Using the 2011 daily per capita disposal rate from Sonoma County Waste Management Agency (SCWMA), uses associated with the proposed plan would generate approximately 12.696 tons of solid waste per day. This amount represents 0.5 percent of the Central Disposal Landfill's maximum daily throughput of 2,500 tons per day. Long term, it is speculative as to whether wastes would be disposed at the Central Disposal Landfill; however, any future waste export agreement between the City and the SCWMA would be subject to its own environmental review. Furthermore, the proposed plan includes Policy U-1.5 to ensure that existing solid disposal services could meet the demand from the existing and proposed development in the plan area. Based on the available information, the

⁶ 1,670 residents multiplied by 3.6 pounds per person per day equals 6,012 pounds per day. 1,900 employees multiplied by 10.2 pounds per person per day equals 19,380 pounds per day. (6,012 plus 19,380 pounds per day) divided by 2,000 pounds per ton equals 12.696 tons per day.

impact of the proposed plan related to an increase in demand for solid waste collection and disposal in the city would be *less than significant*.

Assembly Bill (AB) 939 requires the City to develop and implement a solid waste management program. PRC Section 41780(a)(2) also requires cities and counties to divert 50 percent of the solid waste produced within their respective jurisdictions through source reduction, recycling, and/or composting activities. Since 2007, Senate Bill 1016 has required cities to report to the California Integrated Waste Management Board (now known as CalRecycle) the amount of garbage disposed in the landfill per person per day. According to CalRecycle's jurisdiction/disposal rate detail for SCWMA for the 2011 reporting year (CalRecycle, 2013), SCWMA's residential disposal target is 7.1 pounds per person per day. Rohnert Park's annual residential disposal rate of 3.6 pounds per person per day met this target in 2014. The employee disposal target (18.3 pounds per employee per day) was also met, with an actual employee disposal rate of 10.2 pounds per employee per day. Waste reduction and disposal framework developed by the City and SCWMA would guide any future development in the plan area. The plan area would not contain features that would generate waste flows at rates that would exceed typical disposal rates for the City (City of Rohnert Park, 2014a); therefore, this impact would be *less than significant*.

5.8.5 Electricity and Natural Gas

Equipment used during construction under the proposed plan would run on diesel fuel. Therefore, demand for electricity and natural gas resources would not increase. Furthermore, Tier 3 (energy-efficient) construction equipment would be used whenever possible, and diesel-fueled equipment would not be left idling. The plan area would be served by Pacific Gas and Electric Company (PG&E) for both electricity and natural gas service. Using the Energy Consumption Data Management System for total energy and natural gas demand from Sonoma County, residential uses in the plan area would demand approximately 0.98 kilowatt-hour of electricity per person each day (U.S. Census Bureau, 2013b). In addition, implementing the proposed plan would generate demand for residential, commercial, and industrial consumption of natural gas. The City is served by PG&E, which allocates its existing supply of natural gas based on demand. Therefore, increased demand for electricity and natural gas attributable to the proposed plan would not exceed the capacity of existing or planned PG&E service systems. Therefore, the impact related to electricity and natural gas consumption would be *less than significant*.

Because the proposed plan would follow applicable Title 24 standards related to energy efficiency, implementing the proposed plan would not encourage or result in activities that consume large amounts of fuel, water, or energy in an inefficient manner. Furthermore, the proposed plan includes Policy CD-2.2, promoting sustainable development practices that result in more energy- and water-efficient development. Therefore, the impact would be *less than significant*.

The *Sonoma County Community Climate Action Plan*, along with the *Rohnert Park Greenhouse Gas Emissions Reduction Plan*, reflects the City's primary strategies for ensuring that build-out of the General Plan would not conflict with implementation of AB 32. The proposed plan would not conflict with this or any other applicable plan, policy, or regulation adopted for the purpose of reducing energy use, particularly nonrenewable energy use. Therefore, the impact would be *less than significant*.

5.9 REFERENCES

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6.0 ALTERNATIVES

This chapter presents the objectives of the proposed plan, summarizes its significant impacts, and describes the alternatives selected for evaluation. This chapter also analyzes the comparative effects of the alternatives relative to the proposed plan. As required by Section 15126.6(e) of the California Environmental Quality Act (CEQA) Guidelines (State CEQA Guidelines), the environmentally superior alternative is identified.

6.1 INTRODUCTION

The purpose of the alternatives evaluation in an environmental impact report (EIR), as stated in Section 15126.6(c) of the State CEQA Guidelines, is to ensure that “the range of potential alternatives to the proposed project shall 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” identified under the proposed plan.

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. Pursuant to Section 15126.6 of the State CEQA Guidelines, an analysis of alternatives to the plan is presented in this EIR to provide the public and decision makers with a range of possible alternatives to consider.

6.1.1 Focus of Alternatives

Section 15126.6[a] of the State CEQA Guidelines requires that an EIR (1) describe a range of reasonable alternatives to a proposed project, or to the location of the project, that would feasibly attain most of the basic project objectives but would avoid or substantially lessen any of the significant effects of the project; and (2) evaluate the comparative merits of the alternatives. Therefore, a key goal of the alternatives analysis included in an EIR is to consider alternatives with the potential to “avoid or substantially lessen one or more of the significant effects” of the proposed project (State CEQA Guidelines, Section 15126.6[c]).

Chapter 3 of this EIR has found that potentially significant impacts of the proposed plan can be mitigated to a less than significant level, excepting the significant and unavoidable impacts associated with a projected increase in traffic volumes along U.S. Highway 101 (U.S. 101). As discussed below as part of the alternatives analysis, it is not possible to develop an alternative with the potential to avoid or substantially lessen this significant and unavoidable traffic impact of the proposed plan and meet the plan’s key objectives to support transit-oriented development while creating and achieving the community’s vision for a Downtown for Rohnert Park. Therefore, notwithstanding Sections 21159.28(a) and 21094.5(b)(1) of the California Public Resources Code, alternatives that avoid or substantially lessen the significant impact of the proposed plan on traffic and transportation (the proposed plan’s key significant and unavoidable impact) are addressed in this chapter for informational purposes.

The State CEQA Guidelines (Section 15126.6[c]) recommend that an EIR briefly describe the rationale for selecting the alternatives to be discussed, identify any alternatives that were considered by the lead agency but rejected as infeasible, and briefly explain the reasons underlying the lead agency’s determination.

6.1.2 Reasonable Range of Alternatives

The State CEQA Guidelines state that an EIR shall describe a reasonable range of alternatives that would avoid or substantially lessen any significant effects of the project, but need not consider every conceivable alternative. The range of alternatives required to be evaluated 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 EIR need examine in detail only those alternatives that the lead agency determines could feasibly attain most of the basic project objectives, taking into account factors that include site suitability; economic viability; availability of infrastructure; general plan consistency; other plans or regulatory limitations; jurisdictional boundaries; and control or access to alternative sites (State CEQA Guidelines, Section 15126.6[f]). The State CEQA Guidelines further state that “the discussion of alternatives shall focus on alternatives to the project or its location [that] 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 project objectives, or would be more costly” (Section 15126.6[b]).

An EIR also must evaluate a “no-project” alternative, which represents “what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services” (State CEQA Guidelines, Section 15126.6[e][2]). For the proposed plan, the plan area is already developed, and the No Project/No Development Alternative analyzed in this EIR assumes that existing uses would continue in the plan area, with no new development.

6.1.3 Feasibility of Alternatives

Alternatives in an EIR must be potentially feasible (State CEQA Guidelines, Section 15126.6[a]). The feasibility of an alternative may be determined based on a variety of factors (State CEQA Guidelines, Section 15126.6[f][1]). Under 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” (State CEQA Guidelines, Section 15364). The concept of feasibility also encompasses the question of whether a particular alternative promotes the underlying goals and objectives of a project. Moreover, “feasibility” under CEQA encompasses “desirability” to the extent that desirability is based on a reasonable balancing of the relevant economic, environmental, social, legal, and technological factors.

6.1.4 Consideration of Alternatives

The lead agency’s decision-making body—in this case, the Rohnert Park City Council—has the discretion to select a project alternative in lieu of the proposed plan. Approval of any alternative, however, cannot occur unless the alternative has received sufficient review regarding planning and infrastructure issues, and has been subjected to adequate CEQA review. The required CEQA Findings of Fact, including a mitigation monitoring plan, must be prepared, and must identify the alternative as the project selected for approval.

6.1.5 Project Objectives

The selection of alternatives also takes into account the proposed plan objectives provided in Chapter 2, “Project Description,” of this EIR. The objectives of the proposed plan, provided below, were factored into the development and evaluation of the alternatives presented in this chapter:

- Support the creation of a Downtown for Rohnert Park. Downtown should have the following features:
 - A distinct character building upon the community’s existing assets (including redwood tree-lined streets, creek trail corridors, neighborhood sections with distinct centers, and rich cultural and recreational amenities).
 - A pedestrian-oriented development pattern, with a walkable street grid, a compact building footprint, and plenty of community open space.
 - A mix of uses, with emphasis on lifestyle and specialty retail, entertainment, urban-style living options, public spaces, and other transit-supportive uses (e.g., jobs, housing, and services).
 - A variety of public spaces to serve the community.
- Take advantage of the transit-oriented opportunities adjacent to the Sonoma-Marín Area Rail Transit (SMART) rail station to establish distinct subareas with unique community roles.
- Focus growth within the one-half mile radius of the SMART rail station, as guided by the transit-oriented development objectives of the Priority Development Area, (PDA) Focusing Our Vision (FOCUS) program and regional guidance provided by the Metropolitan Transportation Commission’s *Station Area Planning Manual* (MTC, 2007). The *Station Area Planning Manual* identifies Rohnert Park as a “Transit Town Center” place type, defined as a local-serving economic and community activity center offering a mix of single-family and multifamily housing and neighborhood serving retail, employment, and civic uses.
- Create and reinforce a consistent urban design theme and identity for Central Rohnert Park and the Downtown District.
- Support the transition of the Triangle Business subarea from primarily light industrial uses to a mixed-use business environment, with a mix of light office, light industrial, and more retail and service uses.
- Support transit ridership by promoting new infill growth in the plan area, focused within the one-half-mile radius of the SMART rail station.
- Plan for transportation improvements, including bus or other circulation opportunities and additional transit stops, to connect the community to SMART rail service and the plan area centers.
- Support City General Plan Goals TR-I, TR-K, TR-L, and TR-R and Policies TR-24-TR-34, TR-41, and TR-42 to reduce traffic congestion by encouraging transportation demand management programs for businesses and workplaces and parking standards that help reduce automobile trips, and promoting alternative transportation modes.
 - Support safe and convenient transit, bicycle, and pedestrian travel modes and connections within the plan area.
 - Improve the safety of crossing the railroad tracks and roadways that serve as neighborhood barriers (i.e., the SMART rail line and Rohnert Park Expressway [RPX]).

- Continue to improve creek corridors as major east-west travel routes, serving the community and support their future connections to the planned SMART Multi-Use Path (MUP).
- Provide a safe and continuous bike and pedestrian trail network, integrated with transit and providing connections to and within the existing shopping centers, commercial areas, and employment centers.
- Support investment in placemaking strategies, such as public plazas, sidewalk and landscape improvements, bike/pedestrian connections, and gateway and district wayfinding signage.

6.1.6 Significant Effects of the Proposed Plan

The environmental effects associated with implementation of the proposed plan are discussed in detail throughout Chapter 3, “Environmental Setting and Impacts,” of this EIR. As discussed in this EIR, the proposed plan would result in the following significant and unavoidable adverse impact:

- Under future baseline conditions without the proposed plan, three freeway segments are projected to operate at level of service (LOS) F at peak hours. The addition of plan-generated vehicular traffic would lead to further degradation of operation on these segments. In particular, the proposed plan would be responsible for increasing the volume-to-capacity (v/c) ratio by 0.04 on northbound U.S. 101 between Golf Course Drive and Santa Rosa Avenue during the p.m. peak hour; by 0.06 on northbound U.S. 101 during the p.m. peak hour; and by 0.04 during the a.m. peak hour and 0.03 during the p.m. peak hour on southbound U.S. 101 between Todd Road and Golf Course Drive. According to the California Department of Transportation’s (Caltrans’) thresholds of significance for U.S. 101 freeway segments, the proposed plan’s contribution to unacceptable LOS conditions at these locations is considered a *significant and unavoidable* impact. A summary of freeway segment LOS is shown in Table 17 and Table 18 of Appendix E.

Other impacts associated with implementation of the proposed plan could be reduced to a less-than-significant level through compliance with existing regulations and through mitigation imposed upon the plan, as described throughout Chapter 3 of this EIR.

6.2 IDENTIFICATION OF ALTERNATIVES TO THE PROPOSED PLAN

In identifying alternatives to the proposed plan, primary consideration was given to alternatives that could reduce the significant and unavoidable traffic impacts resulting from the proposed plan. Traffic impacts at three freeway segments, already projected to operate at LOS F at peak hours under future conditions, could worsen with the addition of the proposed plan, as described in the previous section and in Section 3.9, “Transportation and Traffic,” of this EIR. Future reductions in vehicle miles traveled (VMT) resulting from operation of the SMART rail line, mixed-use development, and increases in pedestrian activity are not fully taken into account by this analysis because they are unknown at this time.

To reduce traffic impacts on these freeway segments in the northern portion of the plan area while achieving the project objectives, the alternatives considered land use changes that would reduce traffic impacts on the freeway by supporting transit-oriented development closer to the SMART rail station and supporting the use of transit and other alternative transportation modes besides the automobile.

6.2.1 Alternatives Considered and Dismissed from Further Consideration

Other potential alternatives were explored as part of the alternatives analysis for the proposed plan. These alternatives proposed a different proportion and mix of retail, office, and residential uses in the plan area, focused primarily on the Station Center subarea opportunity site. These concepts included:

- a residentially focused plan supporting a mix of medium- and high-density residential development in the Station Center subarea with an average target density of approximately 25 dwelling units per acre; and
- a commercially focused plan, with retail blocks oriented to RPX and State Farm Drive along the major roadways that bound the Station Center subarea; mixed-use development in the blocks central to the Station Center subarea, with a nonresidential floor area ratio range of 0.5 to 1.5; and medium- and high-density residential uses in the blocks adjacent to the SMART rail corridor, with a target density of 55 units per acre.

These two alternatives did not meet the community's criteria for a Downtown adjacent to the future SMART rail station or were greater in density/intensity than the alternatives analyzed. Therefore, these alternatives were rejected from further consideration.

The residentially focused plan would generate fewer trips from the Station Center subarea and result in less a.m. and p.m. peak-hour traffic; however, like Alternative 3 considered in this EIR, the residentially focused plan would only marginally reduce traffic impacts. This site option is inconsistent with the primary objective of the PDA Plan to create a pedestrian-friendly, mixed-use downtown destination, as it does not provide enough retail to support a downtown environment. This alternative proposed an average residential density of 25 units per acre, consistent with the allowed current density in the PDA. The Central Rohnert Park PDA, however, is most closely associated with the "Transit Town Center" place type, as defined in the Metropolitan Transportation Commission's *Station Area Planning Manual* (MTC, 2007). Housing development guidelines for the Transit Town Center encourage existing housing at the current density of 25 units per acre and future density projected at 40 units per acre.

The commercially focused plan concept proposed more commercial retail development at greater densities and intensities than the proposed plan. The larger amount of retail uses would generate more single-occupancy vehicle trips, and retail uses are generally less supportive of transit use than office or residential uses. Thus, the commercially focused plan would generate more single-occupancy vehicle trips than the proposed plan and worsen traffic and related air quality and greenhouse gas (GHG) emissions.

None of these alternatives would have lessened the proposed plan's significant and unavoidable traffic impact. Thus, these alternatives have been eliminated from further consideration.

6.3 ALTERNATIVES CONSIDERED IN THIS EIR

This section describes the range of alternatives to the proposed plan that are analyzed in this EIR and presents how specific impacts differ in severity from those associated with the proposed plan.

As with the proposed plan, the significant impacts of the alternatives (except for transportation and traffic impacts) can be mitigated to a less-than-significant level through adoption of mitigation measures identified in Chapter 3 of this EIR, which contains the environmental analysis for the proposed plan. All of the mitigation measures identified for this project are included in Chapter 3. It also should be noted that each of those mitigation measures can be

applied to each of the alternatives outlined in this section to further reduce potential environmental effects. Each of the mitigation measures identified in the EIR as necessary to reduce a potentially significant impact to a less-than-significant level also would be required to reduce the potentially significant effects of Alternatives 2 and 3 to a less-than-significant level, with the exception of impacts related to transportation and traffic.

To varying degrees, the following alternatives also would avoid and/or lessen project impacts, including the significant and unavoidable impact related to transportation and traffic, but would not reduce this impact to a less-than-significant level. The alternatives to the proposed plan analyzed in this EIR are:

- Alternative 1:** No Project/No Development
- Alternative 2:** No Regional Commercial Overlay Zone
- Alternative 3:** Station Center Office and Residential Focus

Table 6-1 presents a comparison of various characteristics of the three alternatives and the proposed plan.

Table 6-1: Comparison of Alternatives

	Alternative 1	Alternative 2	Alternative 3	Proposed Plan
Proposed Plan Additional Development Potential				
1. Residential Units	0	835	822	835
2. Nonresidential Building Footprint	0	1,043,125	828,423	822,324
<i>Retail or Service Commercial Area (square feet)</i>	<i>0</i>	<i>416,899</i>	<i>368,577</i>	<i>440,886</i>
<i>Office Area (square feet)</i>	<i>0</i>	<i>189,315</i>	<i>267,723</i>	<i>189,315</i>
<i>Public-Institutional Area (square feet)</i>	<i>0</i>	<i>62,807</i>	<i>62,807</i>	<i>62,807</i>
<i>Industrial Area (square feet)</i>	<i>0</i>	<i>153,430</i>	<i>129,315</i>	<i>129,315</i>
<i>Hotel Rooms</i>	<i>0</i>	<i>250</i>	<i>500</i>	<i>500</i>
3. Park/Open Space (acre)	0	8.5	8.3	8.5
Total Development Potential				
1. Residential Units	1,390	2,225	2,212	2,225
2. Nonresidential Building Footprint	2,717,414	3,201,365	3,255,438	3,249,337
<i>Total Retail or Service Commercial Area (square feet)</i>	<i>700,728</i>	<i>1,117,627</i>	<i>1,069,305</i>	<i>1,141,614</i>
<i>Total Office Area (square feet)</i>	<i>1,081,780</i>	<i>987,865</i>	<i>1,066,273</i>	<i>987,865</i>
<i>Total Public-Institutional Area (square feet)</i>	<i>166,477</i>	<i>222,116</i>	<i>222,116</i>	<i>222,116</i>
<i>Total Industrial Area (square feet)</i>	<i>768,429</i>	<i>921,860</i>	<i>897,744</i>	<i>897,744</i>
<i>Total New Hotel Rooms</i>	<i>0</i>	<i>250</i>	<i>500</i>	<i>500</i>
3. Park/Open Space (acre)	16.7	25.2	25.0	25.2

Source: Data compiled by AECOM in 2015

6.3.1 Alternative 1: No Project/No Development Alternative

Under CEQA, the No Project Alternative must consider the effects of not developing the project, or in this case, the proposed plan. The No Project/No Development Alternative describes the environmental conditions that exist at the time that the environmental analysis commences (State CEQA Guidelines, Section 15126.6[e][2]). In the case of the proposed plan, the plan area is already developed, so continuation of existing conditions would involve continuing existing uses as currently zoned. Existing conditions are described in the Environmental Setting of each section in Chapter 3 of this EIR.

Under Alternative 1, the City Council would not approve any project, and none of the mitigation measures identified in this EIR would be implemented. No demolition would occur under Alternative 1, because existing structures, landscape features, and site layout would remain. The State Farm campus would remain as an office use.

Without the proposed plan, several intersections and freeway segments of U.S. 101 would be expected to operate at unacceptable conditions during the a.m. and p.m. peak hours, because of future development projected in the city. The No Project/No Development Alternative would not further worsen these conditions with added traffic under the proposed plan; however, this alternative also would not support traffic intersection improvements and nonvehicular circulation improvements under the proposed plan, as identified in Table 10 of Appendix E, to help improve intersection traffic operations to acceptable conditions and maintain existing LOS standards at these intersections.

The currently allowed density and intensity in the plan area under the City's Zoning Code is higher than the actual existing density and intensity in the plan area (Table 6-2).

Table 6-2: No Project/No Development Alternative—Existing and Allowed Density/Intensity

	Existing Plan Density/Intensity	Maximum Allowable Plan Density/Intensity
Residential Use Designations	21.3 units per gross acre	24 units per gross acre
Retail Designations	0.24 FAR	0.4 FAR
Office Designations	0.22 FAR	1.0 FAR
Mixed-Use Designations	0.325 FAR	1.5 FAR for nonresidential projects; 2.0 FAR for residential mixed-use projects
Public-Institutional Use Designation	0.21 FAR	0.5 FAR
Industrial Use Designations	0.25 FAR (I-L zone); 0.30 FAR (I-L/O zone)	0.5 FAR; 1.0 FAR is allowed for projects approved by the Planning Commission that meet criteria in the City's approved design guidelines

Notes: City = City of Rohnert Park; FAR = floor area ratio; I-L = Industrial; I-L/O = Industrial with Office Overlay

Source: Data compiled by AECOM in 2015

Alternative 1 would forgo the opportunity to increase residential density or commercial retail and office intensity adjacent to the future SMART rail station for Rohnert Park. As such, this option is not consistent with the objectives of the PDA Plan or the transit-oriented development objectives of the PDA program. PDA program objectives support additional high-density residential and supporting retail and service uses near the SMART rail station.

6.3.2 Alternative 2: No Regional Commercial Overlay Zone

Alternative 2, the No Regional Commercial Overlay Zone Alternative, proposes removing the Regional Commercial Overlay zone from portions of the Industrial zone that abut U.S. 101 in the Triangle Business subarea. This alternative supports some modest infill growth of existing vacant properties and the reuse of existing structures in the Triangle Business subarea. Based on project assumptions and the area's large size, the increase in industrial development under this alternative would further intensify development and associated traffic impacts adjacent to the U.S. 101 freeway segment north of Golf Course Drive (an impact that is already considered significant) under future conditions with the future build-out of other areas of the city.

Figure 6-1 illustrates the overall zoning concept for Alternative 2. This alternative would not change the land use concept for the Station Center planned development as described in the proposed plan. A total of 28.4 acres in the Regional Commercial Overlay zone is proposed to remain in the current Industrial zoning district.

The total nonresidential building footprint of Alternative 2, 921,860 square feet, would be greater than the nonresidential building footprint for the proposed plan (822,324 square feet). This alternative would include more development and building area than the proposed plan: 153,430 square feet of industrial uses and 416,899 square feet of retail and support service uses, compared to the 440,886 square feet of new retail and service uses and 129,315 square feet of industrial uses in the proposed plan (Table 6-1). Alternative 2 does not propose any changes to the amount of office or public-institutional uses, number of residential units, or amount of park and open space area compared to the proposed plan.

Alternative 2 proposes greater density/intensity of industrial uses and overall building footprint and slightly less retail area than the proposed plan, based on plan assumptions. The difference in the amount of industrial and residential building areas between Alternative 2 and the proposed plan is small, and industrial uses generally result in fewer customer and employee trips. Thus, overall, Alternative 2 would result in lesser impacts related to traffic and air pollutant emissions than would result from the proposed plan. Like Alternative 1, this alternative would have a slightly lesser impact on U.S. 101 than the proposed plan, but it would not reduce the significant and unavoidable impact for the segment of U.S. 101 north of Golf Course Drive to a less-than-significant level.

6.3.3 Alternative 3: Station Center Office and Residential Focus Alternative

Alternative 3, the Station Center Office and Residential Focus Alternative does not propose changes to the zoning in the proposed plan (Figure 6-2). However, it does propose modifying the land use concept within the Station Center planned development/subarea. This subarea, located adjacent to the SMART rail station, is envisioned to have the potential for the greatest change in the plan area. Alternative 3 proposes less retail development than the proposed plan and more office and high-density residential uses placed near the future SMART rail station (Figure 6-3).

As discussed in Section 3.9, "Transportation and Traffic," extensive research has shown that population and employment densities can influence transportation mode choice, supporting increased walking and transit trips and reducing single-occupancy vehicle use for both work and shopping trips. Trip generation factors used in Table 11, "Trip Generation Summary," of the project's traffic impact study indicate that a plan with less retail development and more residential and office development would reduce the number of daily trips and potentially a.m. and p.m. peak-hour trips.

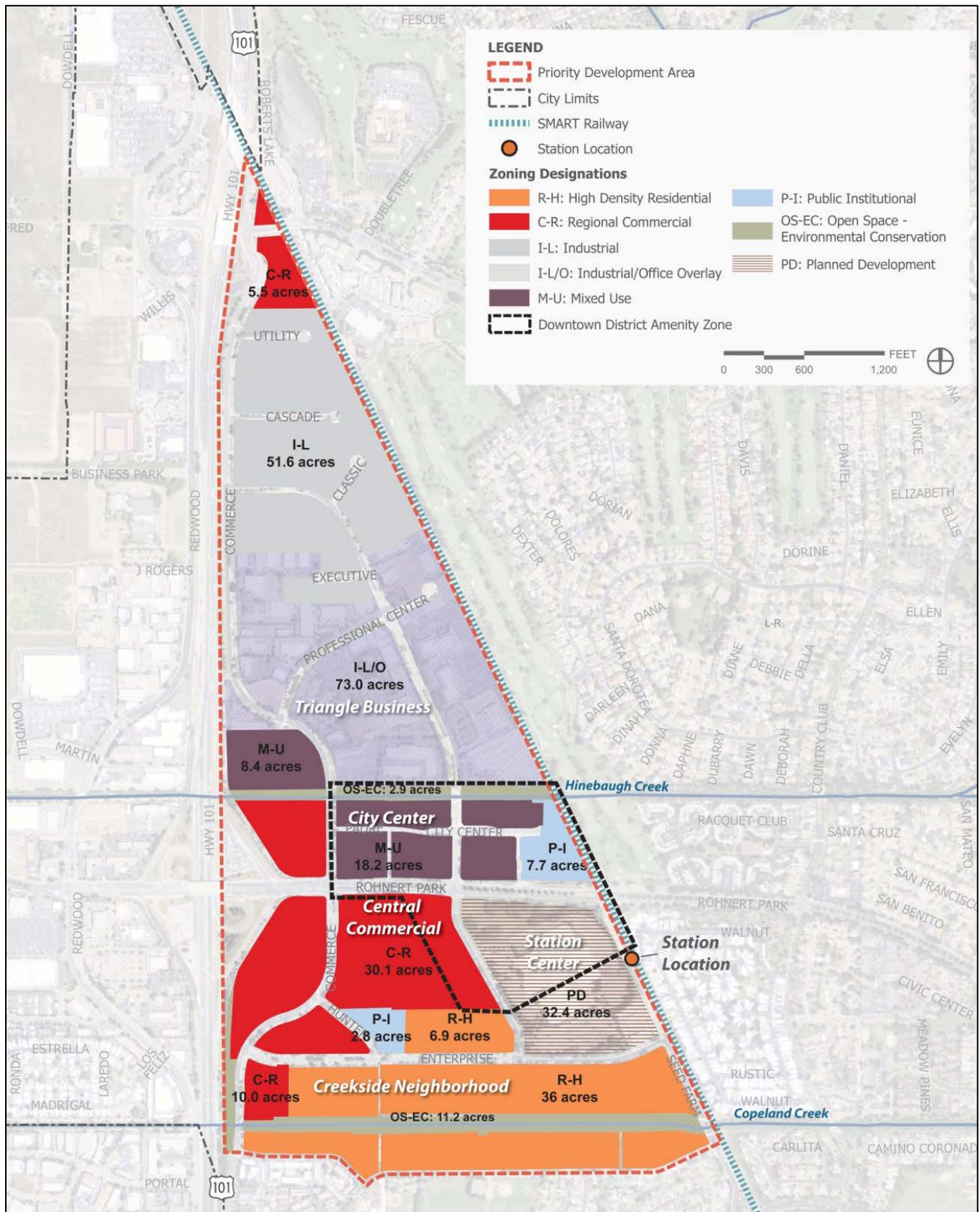


Figure 6-1: CEQA Alternative 2 Proposed Zoning Concept

Alternative 3 employs this strategy, proposing a balance of residential, office, and retail uses intended to reduce traffic impacts and support increased walking and transit trips. This strategy is intended to support station area employment targets and intensities for the Transit Town Center place type, based on guidance provided in the Metropolitan Transportation Commission *Station Area Planning Manual* (MTC, 2007). The strategy is consistent with the goals of the PDA program to (1) support additional housing and jobs in PDAs; and (2) efficiently manage regional growth to support nonvehicular travel modes that help minimize vehicular impacts. This approach is also consistent with goals and policies of the *City of Rohnert Park General Plan* and *Sonoma County General Plan 2020* to support shifting a portion of automobile trips to other modes of transit, including biking, walking, and public transit.

Alternative 3 proposes slightly fewer residential units than the proposed plan: 402 units compared to 415 units. This alternative proposes a total nonresidential building footprint of 828,423 square feet, which is slightly greater than the proposed plan, which proposes 822,324 square feet. This alternative would include 267,723 square feet of office uses and 368,577 square feet of retail and support service uses with no changes to industrial or public-institutional uses, compared to the 189,315 square feet of office uses and 440,886 square feet of new retail and service uses in the proposed plan.

Because of the mix of office and residential development and lesser amount of retail uses, Alternative 3 is anticipated to better support transit use, and thus, to reduce daily trips and p.m. trips, slightly reducing traffic impacts and air pollutant emissions relative to the proposed plan. This alternative would slightly reduce impacts on U.S. 101 compared to the proposed plan, but would not lessen the significant and unavoidable impact on the segment of U.S. 101 north of Golf Course Drive to a less-than-significant level. Alternative 3 also would be less effective in supporting the community's desire or the plan's objective for a Downtown retail environment, with substantial retail uses adjacent to the SMART rail station.

6.3.4 Relative Impacts of the Alternatives

In an EIR, the relative environmental effects of alternatives can be described using different organizational approaches. When alternatives are designed to address different potentially significant effects or are substantially different from one another, it may be advantageous to organize the impact evaluation by alternative. For this project, the alternatives are focused on reducing traffic impacts. For other environmental topics, the impacts of the different alternatives are relatively similar to one another. This section is organized by EIR impact topic to provide a more reader-friendly explanation of the alternatives.

For each resource area, summary statements have been provided at the conclusion of the discussion of each alternative to indicate whether the impacts of the alternative on the resource area would be greater than, similar to, or less than those of the proposed plan.

Air Quality

Alternative 1: No Project/No Development Alternative

The No Project/No Development Alternative (Alternative 1) would include land use changes from other approved plans, but no direct changes associated with the proposed plan. Therefore, Alternative 1 would not result in a net increase in any air pollutant emissions that would impact regional ambient air quality goals or sensitive receptors.

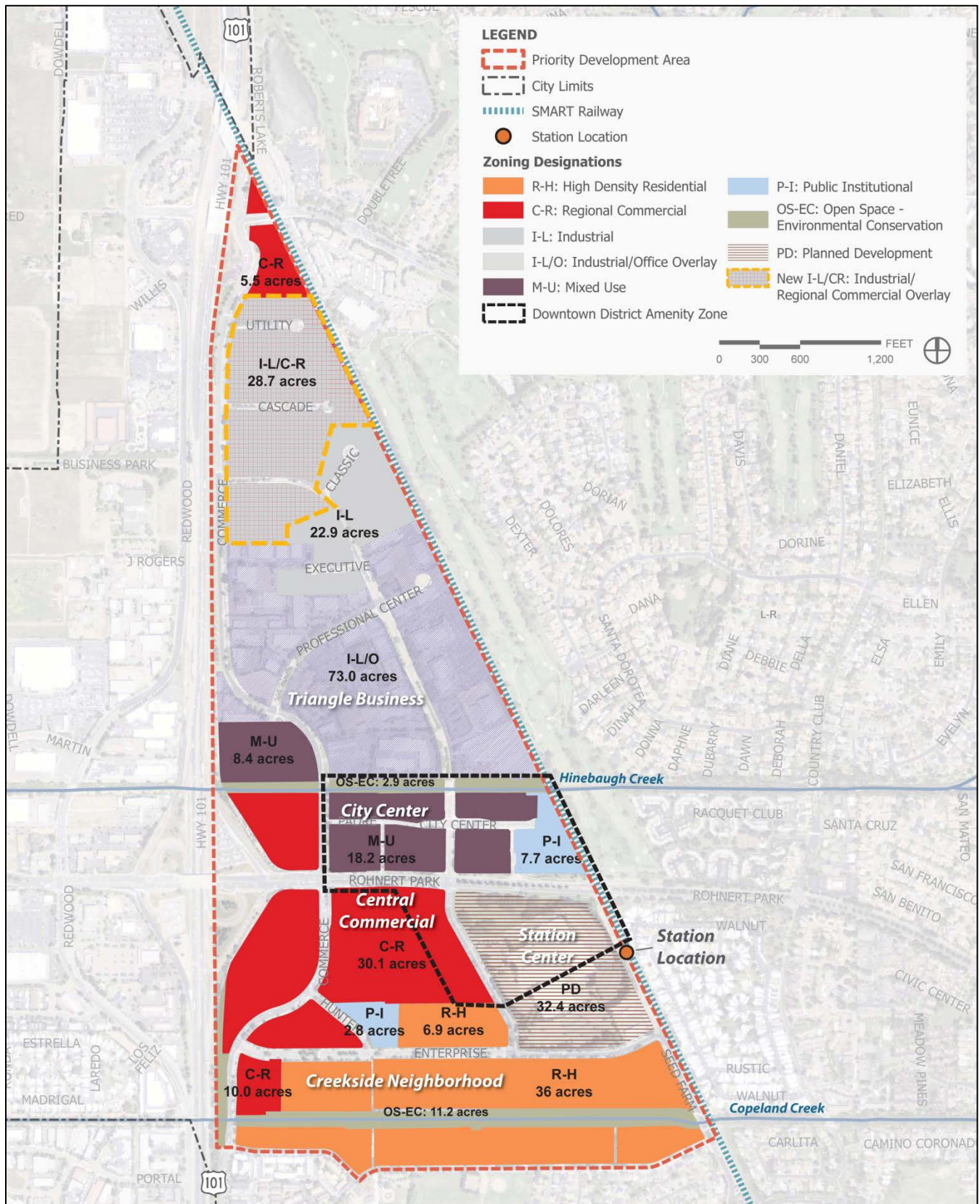


Figure 6-2:

CEQA Alternative 3 Proposed Zoning Concept



Figure 6-3:

CEQA Alternative 3 Station Center Subarea Land Use Concept

Alternative 1 would have no impact. Overall, the air quality impacts of Alternative 1 would be *less than* those of the proposed plan.

Alternative 2: No Regional Commercial Overlay Zone Alternative

The No Regional Commercial Overlay Zone Alternative (Alternative 2) would remove the Industrial Overlay Zone from the Triangle Business subarea. Alternative 2 would result in slightly more industrial and slightly fewer retail/service land uses than the proposed plan (see Table 6-1 for detailed land use differences between alternatives). The additional industrial and slightly fewer retail/service land uses associated with Alternative 2 is anticipated to result in slightly greater overall construction activities, because construction is expected to still occur but in the form of more nonresidential building square footage. Long-term operational area- and stationary-source emissions would likely increase above the emissions associated with the proposed plan, because more industrial uses would be built and such uses typically are more energy intensive. However, Alternative 2 would result in slightly fewer vehicle trips than the proposed plan, and, therefore, mobile sources would be slightly less.

Although Alternative 2 would result in slightly higher overall construction emissions than the proposed plan, construction activities would likely occur at the same intensity. In other words, the same amount of daily construction would occur but for more overall days than under the proposed plan. Therefore, Alternative 2 would also generate daily construction emissions that would exceed Bay Area Air Quality Management District (BAAQMD) construction thresholds of significance. Similar to the proposed plan, Alternative 2's construction emissions would be considered potentially significant. However, implementation of Mitigation Measures 3.1a-1 to 3.1a-4 would reduce Alternative 2 impacts to a less-than-significant level.

At full build-out, daily operational activities under Alternative 2 would result in slightly fewer vehicle trips and VMT than those for the proposed plan. In addition, because of the increased industrial land uses, Alternative 2 would result in higher overall operational emissions of air pollutants (area- and energy-related emissions) than the proposed plan. However, similar to the proposed plan, Alternative 2's daily operational emissions would likely continue to exceed BAAQMD thresholds of significance. However, implementation of Mitigation Measures 3.1a-4 and 3.1a-5 would reduce operational impacts of Alternative 2 would be reduced to a less-than-significant level.

With respect to exposing sensitive receptors to substantial pollutant concentrations, Alternative 2 would slightly increase the total construction emissions (i.e., construction health risk impacts) and operational emissions from area- and energy-related sources (i.e., operational health risk impacts), compared to the proposed plan. These potential impacts would be slightly higher under Alternative 2 than under the proposed plan, and it is anticipated that similar to the proposed plan, these impacts could be potentially significant. However, implementation of Mitigation Measures 3.1d-1, 3.1d-2, and 3.1d-3 would reduce Alternative 2 health-risk impacts from construction and operational activities to a less-than-significant level.

The increased nonresidential land uses associated with Alternative 2 would result in slightly greater construction-related and operational odor sources (e.g., diesel exhaust emissions and potential retail land uses, respectively) than would be associated with the proposed plan. Like the proposed plan, Alternative 2 would result in retail/services near residential receptors and would have the potential to expose receptors to objectionable odor sources. With implementation of Mitigation Measure 3.1e-1, similar to the proposed plan, odor emissions under Alternative 2 would be reduced to a less-than-significant level.

Overall, the air quality impacts of Alternative 2 would be *less than* those of the proposed plan.

Alternative 3: Station Center Office and Residential Focus Alternative

The Station Center Office and Residential Focus Alternative (Alternative 3) would reduce the amount of retail land uses and dwelling units while increasing office land uses. Compared to the proposed plan, this alternative would result in approximately 6,099 additional square feet of net total nonresidential land uses and 13 fewer dwelling units (see Table 6-1 for detailed land use differences between alternatives). It is anticipated that the net increase in nonresidential land uses and decrease in residential land uses associated with Alternative 3 would result in comparable overall construction activities (i.e., less square footage to construct) and fewer operational emissions as a result of fewer vehicle trips.

Alternative 3 would result in overall construction emissions comparable to those of the proposed plan. Although commercial land uses would increase and residential land uses would decrease, it is anticipated that construction activities would occur at similar intensities to the proposed plan. Therefore, Alternative 3 would likely also generate daily construction emissions that would exceed BAAQMD thresholds of significance. Similar to the proposed plan, Alternative 3's construction emissions would be considered potentially significant. However, implementation of Mitigation Measures 3.1a-1 to 3.1a-4 would reduce Alternative 3 impacts to a less-than-significant level.

At full buildout, daily operational activities under Alternative 3 would result in slightly fewer vehicle trips and VMT than those for the proposed plan. Alternative 3 is anticipated to generate comparable area- and energy-related operational emissions to those of the proposed plan. Therefore, similar to the proposed plan, Alternative 3's daily operational emissions would likely exceed BAAQMD thresholds of significance. However, implementation of Mitigation Measures 3.1a-4 and 3.1a-5 would reduce operational impacts of Alternative 3 to a less-than-significant level.

With respect to exposing sensitive receptors to substantial pollutant concentrations, Alternative 3 would result in a similar amount of total construction emissions (i.e., construction health risk impacts) and operational emissions from area- and energy-related sources, compared to the proposed plan. The additional office land uses associated with Alternative 3 would not be major sources of toxic air contaminants (TACs); thus, operational TAC impacts would be similar to those of the proposed plan. Alternative 3 would generate fewer operational vehicle trips than the proposed plan, and as a result, its impact on potential carbon monoxide hotspots would be less than the impact of the proposed plan. Because Alternative 3 would result in TAC impacts similar to or slightly less than those of the proposed plan, it is anticipated that similar to the proposed plan, these impacts could be potentially significant. However, implementation of Mitigation Measures 3.1d-1, 3.1d-2, and 3.1d-3 would reduce Alternative 3 health-risk impacts to a less-than-significant level.

The reduced retail, increased office, and decreased residential land uses associated with Alternative 3 would result in construction-related odor sources comparable to those of the proposed plan. However, because Alternative 3 would reduce retail land uses (which are a potential odor source) and increase office land uses (which are not typically large odor sources), it is anticipated that Alternative 3's odor impacts would be less than those of the proposed plan. Like the proposed plan, Alternative 3 would result in retail/services near residential receptors and would have the potential to expose receptors to objectionable odor sources. With implementation of Mitigation

Measure 3.1e-1, similar to the proposed plan, odor emissions under Alternative 3 would be reduced to a less-than-significant level.

Overall, the air quality impacts of Alternative 3 would be *less than* those of the proposed plan.

Biological Resources

Alternative 1: No Project/No Development Alternative

No new development would occur under the No Project/No Development Alternative (Alternative 1). Thus, there would be no 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. This includes special-status plants, fish, amphibians, mammals, invertebrates, reptiles, and birds, as well as migratory birds. Alternative 1 would not result in any new construction, and thus, would not 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.

This alternative includes no ground-disturbing activities and would not have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. Alternative 1 also would not involve the construction of any new structures; therefore, this alternative would not interfere 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. Alternative 1 would not involve any construction, and thus, would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, nor would it conflict with the provisions of an adopted habitat conservation plan; natural community conservation plan; or other approved local, regional, or state habitat conservation plan.

Overall, the impacts of Alternative 1 on biological resources would be *less than* those of the proposed plan.

Alternative 2: No Regional Commercial Overlay Zone Alternative

The overall square footage of development under the No Regional Commercial Overlay Zone Alternative (Alternative 2) would be slightly greater than that under the proposed plan. Thus, the construction activities under this alternative also would be slightly increased. However, construction for Alternative 2 would involve similar equipment as construction for the proposed plan. Therefore, similar to the proposed plan, construction-related activities for Alternative 2 could result in impacts on special-status species and the degradation of aquatic habitat for special-status species (particularly aquatic habitat for amphibian, reptile, and fish species). With the implementation of Mitigation Measures 3.2-1, 3.2-2, and 3.2-4, preconstruction surveys for special-status plants and wildlife species would reduce the potential for impacts on special-status wildlife. In addition, Mitigation Measures 3.2-3, 3.9-1, and 3.9-2 would require that proper erosion control devices be used to reduce the potential for erosion and sedimentation of nearby watercourses and wetlands (special-status species aquatic habitat), and would ensure that no materials that could harm special-status wildlife would be used. Mitigation Measures 3.2-1

through 3.2-4, 3.9-1, and 3.9-2 would reduce the impact on special-status plants and wildlife species to a less-than-significant level.

Like the proposed plan, Alternative 2 would not result in construction in riparian areas or wetlands. Project-related runoff or accidental spills could enter riparian habitats or wetlands, thus resulting in increased turbidity or pollutants and degradation of aquatic habitat, and making the habitats or wetlands less useful for wildlife. Implementation of Mitigation Measures 3.2-3, 3.9-1, and 3.9-2 would reduce the impact of Alternative 2 on water features and riparian sensitive natural communities and U.S. Army Corps of Engineers Section 404 jurisdictional water features to a less-than-significant level.

The two perennial streams that traverse the plan area are the only wildlife corridors in the area. These two features accommodate the movement of wildlife within the area, from east to west. Similar to the proposed plan, Alternative 2 would not result in development activities within these two features. In addition, with the exception of the two perennial stream features, the remainder of the plan area does not function as an important corridor between larger open space wildlife areas, because it is composed of dense urban development and is bordered on all sides by dense urban development. Therefore, the impact of Alternative 2 on wildlife corridors would be less than significant.

Similar to the proposed plan, Alternative 2 would likely require removing trees that meet the definition of “protected tree” under the City’s Zoning Ordinance and Municipal Code, to “address tree preservation and protection.” The impact from the loss of these trees during construction would be potentially significant. Implementation of Mitigation Measure 3.2-5 would address compliance with the ordinance and code.

No drafted or adopted conservation plans are in place that would apply to Alternative 2 or affect the plan area. Therefore, no impact would occur.

Overall, the impacts of Alternative 2 on biological resources would be *similar to* those of the proposed plan.

Alternative 3: Station Center Office and Residential Focus Alternative

The Station Center Office and Residential Focus Alternative (Alternative 3) is an action alternative and is generally similar to the proposed plan, but this alternative has a slightly different set of proposed land use changes and a slightly smaller footprint. As described for Alternative 2, mitigation measures and adherence to state and local regulatory requirements would reduce the impacts of Alternative 3 on biological resources to a less-than-significant level. Overall, the impacts of Alternative 3 on biological resources would be *similar to* those of the proposed plan.

Cultural Resources

No cultural resources, either archaeological or built-environment resources, have been identified in the plan area. The plan area is located within a geologic formation area that is not considered paleontologically sensitive, and the potential for the presence of unique paleontological resources is minimal. In addition, no sacred or traditional Native American tribal cultural resources associated with the plan area have been identified, and the area is not considered sensitive for tribal cultural resources. However, the potential exists for subsurface archaeological resources and human remains to be present in the plan area.

Alternative 1: No Project/No Development Alternative

No activities are proposed under the No Project/No Development Alternative (Alternative 1) that would cause a substantial adverse change to any historical resources as defined in State CEQA Guidelines Section 15064.5, or that would disturb potential subsurface archaeological or paleontological resources or human remains. Alternative 1 would have no impact on historical resources. Overall, the cultural resources impacts of Alternative 1 would be *less than* those of the proposed plan.

Alternative 2: No Regional Commercial Overlay Zone Alternative

Similar to the proposed plan, no activities are proposed under the No Regional Commercial Overlay Zone Alternative (Alternative 2) that would cause a substantial adverse change to any historical resources as defined in State CEQA Guidelines Section 15064.5. Proposed activities involving excavation and ground disturbance have the potential to inadvertently affect subsurface archaeological resources or human remains. With implementation of Mitigation Measures 3.3-1 and 3.3-2, Alternative 2 would result in a less-than-significant impact with mitigation incorporated for archaeological resources or human remains. Overall, the cultural resources impacts of Alternative 2 would be *similar to* those of the proposed plan.

Alternative 3: Station Center Office and Residential Focus Alternative

Similar to the proposed plan and Alternative 2, no activities are proposed under the Station Center Office and Residential Focus Alternative (Alternative 3) that would cause a substantial adverse change to any historical resources as defined in State CEQA Guidelines Section 15064.5. Proposed activities involving excavation and ground disturbance have the potential to inadvertently affect subsurface archaeological resources or human remains. With implementation of Mitigation Measures 3.3-1 and 3.3-2, the plan would result in a less-than-significant impact with mitigation incorporated for archaeological resources or human remains. Overall, the cultural resources impacts of Alternative 3 would be *similar to* those of the proposed plan.

Geology and Soils***Alternative 1: No Project/No Development Alternative***

No activities or operations are proposed under the No Project/No Development Alternative (Alternative 1) that would cause a substantial adverse change related to geology and soils. Alternative 1 would have no impact on geology and soils. Overall, the geology and soils impacts of Alternative 1 would be *less than* those of the proposed plan.

Alternative 2: No Regional Commercial Overlay Zone Alternative

Similar to the proposed plan, no activities are proposed under the No Regional Commercial Overlay Zone Alternative (Alternative 2) that would cause a substantial adverse change related to geology and soils. Proposed construction activities would involve excavation and ground disturbance. Under the Rohnert Park Municipal Code, all projects involving engineered grading require a site-specific geotechnical report, a soils report, and a liquefaction analysis, and inspection by the geotechnical engineer is required during the construction process for each project. Furthermore, no Alquist-Priolo Earthquake Fault Zone is located in the plan area. With

implementation of Mitigation Measure 3.4-1, Alternative 2 would result in a less-than-significant impact with mitigation incorporated with respect to geology and soils. Overall, the geology and soils impacts of Alternative 2 would be *similar to* those of the proposed plan.

Alternative 3: Station Center Office and Residential Focus Alternative

Similar to the proposed plan and Alternative 2, no activities are proposed under the Station Center Office and Residential Focus Alternative (Alternative 3) that would cause a substantial adverse change related to geology and soils. Proposed construction activities would involve excavation and ground disturbance; however, a similar extent of construction activities would occur under Alternative 3 compared to the proposed plan. Under the Rohnert Park Municipal Code, all projects involving engineered grading require a site-specific geotechnical report, a soils report, and a liquefaction analysis, and inspection by the geotechnical engineer is required during the construction process for each project. Furthermore, no Alquist-Priolo Earthquake Fault Zone is located in the plan area. With implementation of Mitigation Measure 3.4-1, Alternative 3 would result in a less-than-significant impact with mitigation incorporated with respect to geology and soils. Overall, the geology and soils impacts of Alternative 2 would be *similar to* those of the proposed plan.

Greenhouse Gas Emissions

Alternative 1: No Project/No Development Alternative

The No Project/No Development Alternative (Alternative 1) would include land use changes from other approved plans but no direct changes associated with the proposed plan, and thus would not include any construction-related GHG emissions. However, all land uses under the proposed plan would be built to meet the most current energy efficiency standards. As a result, Alternative 1 would likely result in greater long-term operational GHG emissions than the proposed plan because older and existing buildings would still be used under this alternative. In addition, the GHG efficiency of Alternative 1 would be less than that of the proposed plan, because of the lack of the mixed-use, transit-oriented, and infill features that would allow jobs and populations to operate in a manner resulting in lower GHG emissions. Alternative 1 would not result in a net increase in GHG emissions from construction activities, but would operate at a higher level of GHG emissions than the proposed plan. Overall, the GHG emissions impacts of Alternative 1 would be *greater than* those of the proposed plan.

Alternative 2: No Regional Commercial Overlay Zone Alternative

The No Regional Commercial Overlay Zone Alternative (Alternative 2) would remove the Commercial Overlay Zone from the Triangle Business subarea, which would reduce the total amount of retail land uses and increase the total industrial land uses compared to the proposed plan. Under Alternative 2, total nonresidential land uses would increase compared to the proposed plan and result in slightly higher overall construction-related GHG emissions. Furthermore, even with the slight reduction in operational mobile-source activities associated with Alternative 2, long-term annual operational emissions under Alternative 2 (with amortized construction emissions) would continue to exceed BAAQMD thresholds of significance (i.e., annual emissions and GHG efficiency thresholds). Similar to the proposed plan, Mitigation Measures 3.5a-1, 3.5a-2, and 3.5a-3 would reduce Alternative 2's construction and operational emissions to a less-than-significant level.

Although Alternative 2 would result in reduced retail and increased industrial land uses compared to the proposed plan, this alternative would continue to be an infill, mixed-use, and transit-oriented development. In addition, Policy L-8.3 and Mitigation Measure 3.5a-1 would ensure that development in the plan area under Alternative 2 would comply with the applicable GHG reduction strategies of the Rohnert Park GHG Reduction Plan and Sonoma County Community Climate Action Plan (CAP). In addition, the slightly reduced VMT associated with Alternative 2 compared to the proposed plan would contribute to an overall reduction in regional mobile-source GHG emissions, consistent with the goals of Assembly Bill (AB) 32. Therefore, Alternative 2 would continue to incorporate the types of design measures (i.e., infill, mixed-use, transit-oriented) necessary to support and serve population growth in the state while also helping achieve the GHG emission reduction goals of AB 32. Therefore, like the proposed plan, Alternative 2 would not conflict with any plan, policy, or regulation adopted for the purpose of reducing GHG emissions. This impact would be less than significant.

Overall, the GHG emissions impacts of Alternative 2 would be *similar to* those of the proposed plan.

Alternative 3: Station Center Office and Residential Focus Alternative

The Station Center Office and Residential Focus Alternative (Alternative 3) would reduce the overall dwelling units and retail land uses while increasing office land uses compared to the proposed plan. Alternative 3 would result in overall construction-related GHG emissions comparable to those of the proposed plan. With respect to long-term operational emissions, Alternative 3 would generate slightly less mobile-source GHG emissions due to reduced daily trips. Other operational emissions are anticipated to be comparable to the proposed land and therefore even with the reduction in vehicle trips and VMT, Alternative 3's long-term annual operational emissions (with amortized construction emissions) would continue to exceed BAAQMD thresholds of significance (i.e., annual emissions and GHG efficiency thresholds). Similar to the proposed plan, Mitigation Measures 3.5a-1, 3.5a-2, and 3.5a-3 would reduce Alternative 3's construction and operational emissions to a less-than-significant level.

Although Alternative 3 would result in a slight decrease in residential and retail land uses and an increase in commercial land uses compared to the proposed plan, this alternative would continue to be an infill, mixed-use, and transit-oriented development. In addition, Policy L-8.3 and Mitigation Measure 3.5a-1 would ensure that development in the plan area under Alternative 3 would comply with the applicable GHG reduction strategies of the Rohnert Park GHG Reduction Plan and Sonoma County Community CAP. In addition, the reduced VMT associated with Alternative 3 compared to the proposed plan would contribute an overall reduction in regional mobile-source GHG emissions compared to the proposed plan, consistent with the goals of AB 32. Therefore, Alternative 3 would continue to incorporate the types of design measures (i.e., infill, mixed-use, transit-oriented) necessary to support and serve population growth in the state while also helping achieve the GHG emission reduction goals of AB 32. Therefore, like the proposed plan, Alternative 3 would not conflict with any plan, policy, or regulation adopted for the purpose of reducing GHG emissions. This impact would be less than significant.

Overall, the GHG emissions impacts of Alternative 3 would be *less than* those of the proposed plan.

Hazards and Hazardous Materials

Alternative 1: No Project/No Development Alternative

No activities or operations are proposed under the No Project/No Development Alternative (Alternative 1) that would cause a substantial adverse change related to hazards and hazardous materials. Alternative 1 would have no impact on hazards and hazardous materials. Overall, the hazards and hazardous materials impacts of Alternative 1 would be *less than* those of the proposed plan.

Alternative 2: No Regional Commercial Overlay Zone Alternative

Similar to the proposed plan, activities proposed under the No Regional Commercial Overlay Zone Alternative (Alternative 2) that would not cause a substantial adverse change related to hazards and hazardous materials. There are three known sites in the plan area where hazardous materials contamination has occurred as well as structures that may contain asbestos and lead-based paint that could be disturbed by construction activities; however, similar construction activities would occur under Alternative 2 or the proposed plan. The Rohnert Park Municipal Code requires all projects to minimize risk to life and property from the generation, storage, and transportation of hazardous materials and waste. Projects must comply with all applicable regulations and provisions for the storage, use, and handling of hazardous substances as established by federal (U.S. Environmental Protection Agency [EPA]), state (California Department of Toxic Substances Control [DTSC], Regional Water Quality Control Board [RWQCB], California Occupational Safety and Health Administration [Cal-OSHA], California Environmental Protection Agency [Cal EPA]), and local (Sonoma County, City of Rohnert Park) regulations, and assure the proper disposal of all hazardous waste that may be generated. With implementation of Mitigation Measures 3.6-1a, 3.6-1b, and 3.6-2, Alternative 2 would result in a less-than-significant impact with mitigation incorporated with respect to hazards and hazardous materials. Overall, the hazards and hazardous materials impacts of Alternative 2 would be *similar to* those of the proposed plan.

Alternative 3: Station Center Office and Residential Focus Alternative

Similar to the proposed plan and Alternative 2, no activities are proposed under the Station Center Office and Residential Focus Alternative (Alternative 3) that would cause a substantial adverse change related to hazards and hazardous materials. Proposed construction activities would involve excavation and ground disturbance; however, a similar extent of construction activities would occur under Alternative 3 compared to the proposed plan. The Rohnert Park Municipal Code requires all projects to minimize risk to life and property from the generation, storage, and transportation of hazardous materials and waste. Projects must comply with all applicable regulations and provisions for the storage, use, and handling of hazardous substances as established by federal (EPA), state (DTSC, RWQCB, Cal-OSHA, Cal EPA), and local (Sonoma County, City of Rohnert Park) regulations, and assure the proper disposal of all hazardous waste that may be generated. With implementation of Mitigation Measures 3.6-1a, 3.6-1b, and 3.6-2, Alternative 3 would result in a less-than-significant impact with mitigation incorporated with respect to hazards and hazardous materials. Overall, the hazards and hazardous materials impacts of Alternative 2 would be *similar to* those of the proposed plan.

Hydrology and Water Quality

Alternative 1: No Project/No Development Alternative

No new development would occur under the No Project/No Development Alternative (Alternative 1). There would not be any construction activities under this alternative that could result in water quality impacts in the

vicinity of the plan area. Therefore, temporary water quality impacts would not occur. Alternative 1 would not result in new construction; thus, associated changes in drainage patterns from conversion of existing undeveloped areas into developed, impervious areas would not occur. In addition, without the construction of new urban surfaces, stormwater would not carry different, possibly higher, concentrations of pollutants into receiving waters. Temporary construction dewatering would not be required and groundwater recharge would not be reduced. Without dewatering, there also would be no potential for adverse water quality impacts under this alternative.

Because most of the plan area is developed, redevelopment of existing sites and buildings could improve water quality as new low-impact development (LID) techniques are implemented, as required by the City's MS4 permit and associated City of Santa Rosa and County of Sonoma 2011 *Storm Water Low Impact Development Technical Design Manual* (LID Manual). Without new development or redevelopment, LID techniques would not be implemented. However, it is expected that even with the implementation of required LID, overall impervious surfaces in the plan area would likely increase. Overall, the hydrology and water quality impacts of Alternative 1 would be *less than* those of the proposed plan.

Alternative 2: No Regional Commercial Overlay Zone Alternative

The overall square footage of development under the No Regional Commercial Overlay Zone Alternative (Alternative 2) would be slightly more than that under the proposed plan, which may result in a slightly greater impact footprint. Thus, the construction activities under Alternative 2 also would be similar to, or slightly greater than, construction activities under the proposed plan. However, construction for Alternative 2 and for the proposed plan would involve similar equipment. Therefore, as under the proposed plan, construction-related activities under Alternative 2 would have the potential to degrade water quality if not managed properly. Implementation of Policy L-7.1 in the proposed plan and Mitigation Measures 3.9-1 and 3.9-2, adherence to applicable local regulations, and compliance with grading plan requirements would adequately avoid violations of water quality standards under Alternative 2 and would reduce construction-related impacts of this alternative on water quality to a less-than-significant level.

Like the proposed plan, Alternative 2 would not result in a net increase of impervious surfaces. Through compliance with the Municipal Separate Storm Sewer System Permit requirements, including adherence to the City's Storm Water Management Plan (SWMP), Alternative 2 would not increase runoff volumes compared to existing conditions, because 100 percent of any increase in stormwater volume would be infiltrated and/or reused on-site. In addition, Sonoma County Water Agency (SCWA) reviews project drainage system plans for compliance with its *Flood Control Design Criteria*. Compliance with these regulations would ensure that storm drainage systems are adequately sized to convey post development runoff.

Although the square footage of development and development footprint under Alternative 2 would be slightly greater than that under the proposed plan, this alternative could still affect drainage patterns and water quality by converting existing undeveloped areas into developed, impervious areas. Design and construction of drainage systems per SCWA's *Flood Control Design Criteria* would ensure that storm drainage systems are adequately sized. Alternative 2 would require implementation of Policy U-1.7 and Policy U-1.6 and adherence to the City's Revised Phase II National Pollutant Discharge Elimination System (NPDES) SWMP. Policy U-1.7 requires new development to upgrade or install storm drainage facilities, including on-site facilities, as needed to serve the plan area; Policy U-1.6 requires new development and capital improvement projects to reduce pollution and runoff

affecting plan area creeks by following the adopted *City of Santa Rosa and Sonoma County Storm Water Low Impact Development Technical Design Manual*. Implementation of Mitigation Measures 3.9-1 and 3.9-2, which include postconstruction best management practices, and adherence to the City's SWMP and state and local regulatory requirements would reduce potential water quality and runoff impacts of Alternative 2 from changes to the plan area's land use and runoff to a less-than-significant level.

Although the square footage of development and development footprint under Alternative 2 would be slightly greater than that under the proposed plan, temporary construction dewatering could reduce groundwater infiltration and recharge, thereby resulting in a decrease in groundwater levels. Adverse water quality impacts or illicit discharges to the stormwater drainage system could occur during construction dewatering activities if water is not properly stored and disposed of. Mitigation Measure 3.9-4 would be implemented to reduce these impacts of Alternative 2. As under the proposed plan, implementation of this mitigation measure and adherence to state and local regulatory requirements as part of NPDES Construction General Permit requirements would reduce the potential water quality impact from dewatering under Alternative 2 to a less-than-significant level.

Neither Alternative 2 nor the proposed plan would include the placement of housing with a 100-year flood hazard area or the placement of structures within a 100-year flood hazard area; would expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam. Therefore, no impacts would occur and the impacts of Alternative 2 with regard to these issues would be similar to those of the proposed plan. As under the proposed plan, development under Alternative 2 would occur on flat terrain where soils are primarily Clear Lake clays, which typically have low erosion potential. Therefore, similar to the proposed plan, potential impacts of Alternative 2 related to mudflows would be less than significant.

Overall, the hydrology and water quality impacts of Alternative 2 would be *similar to* those of the proposed plan.

Alternative 3: Station Center Office and Residential Focus Alternative

The Station Center Office and Residential Focus Alternative (Alternative 3) is an action alternative and is generally similar to the proposed plan, but this alternative has a slightly different set of proposed land use changes. As with Alternative 2, the impacts of Alternative 3 on hydrology and water quality would be similar to those of the proposed plan. These impacts would be reduced to less-than-significant levels with the implementation of mitigation measures, adherence to state and local regulatory requirements, and implementation of Policies L-7.1, U-1.7, and U-1.6. Overall, the hydrology and water quality impacts of Alternative 3 would be *similar to* the impacts of the proposed plan.

Noise

Alternative 1: No Project/No Development Alternative

No new development would occur under the No Project/No Development Alternative (Alternative 1). Thus, there would not be any construction activities under this alternative that would generate additional noise or vibration in the vicinity of the plan area. The temporary increase in existing ambient noise at the existing residential uses located near the construction areas would not occur under Alternative 1.

Alternative 1 would not introduce new on-site noise sources (e.g., mechanical equipment). As such, the noise levels generated from on-site stationary sources in the plan area would remain at existing levels. However, the noise levels from off-site mobile noise sources (i.e., traffic volumes) would increase along the nearby roadways because of the increase in the traffic volumes from other projects in the area. The future traffic volumes for this alternative would be equivalent to the Future without Project conditions in 2040. Relative to existing conditions, future (cumulative) off-site traffic noise levels under Alternative 1 (i.e., Future without Project conditions) would increase by a maximum of 4.1 A-weighted decibels (dBA) day-night level (L_{dn}), compared to a maximum 4.2-dBA L_{dn} increase under the proposed plan (Future with Project conditions).

Overall, the noise impacts of Alternative 1 would be *less than* those of the proposed plan.

Alternative 2: No Regional Commercial Overlay Zone Alternative

The overall square footage of development under the No Regional Commercial Overlay Zone Alternative (Alternative 2) would be slightly greater than that under the proposed plan. Thus, the construction activities under Alternative 2 also would be expected to increase. However, construction for Alternative 2 would involve similar equipment as construction for the proposed plan. Therefore, similar to the proposed plan, construction-related activities under Alternative 2 would generate noise levels up to 86.3 dBA at 50 feet from the construction area (during the building construction phase). As such, the construction activities under this alternative would temporarily increase the existing ambient noise level at the existing residential uses near the construction area. As under the proposed plan, construction activities under Alternative 2 would be required to comply with the City's allowable hours (daytime hours between 8:00 a.m. and 6:00 p.m.). As under the proposed plan, Mitigation Measure 3.12d-1 would be implemented under Alternative 2, which would ensure that construction noise impacts would be less than significant. Therefore, construction-related noise under Alternative 2 would be similar to the proposed plan and, like the proposed plan, would result in a less-than-significant noise impact.

Similar to the proposed plan, construction activities under Alternative 2 would generate groundborne vibration levels up to 78 vibration decibels (VdB) at 50 feet from the operation of heavy construction equipment (i.e., large bulldozer and caisson drilling). Therefore, groundborne vibration levels from construction activities at off-site residential uses, which are a minimum of 100 feet from the project construction areas, would be further attenuated to well below the threshold of 80 VdB. As under the proposed plan, the existing on-site residential uses could be exposed to groundborne vibration up to 87 VdB when construction equipment is operating within 25 feet of the residential uses. However, construction activities would comply with the City's allowable construction hours and would be limited to the daytime hours, thereby avoiding the normal sleeping hours (i.e., nighttime hours). Thus, vibration impacts from the Alternative 2 construction activities would be similar to the impacts from the proposed plan and would be less than significant.

Alternative 2 would result in a small reduction of project-generated vehicle traffic relative to the proposed plan, from 27,777 daily trips to 27,022 daily trips (approximately 3 percent reduction). The 3 percent reduction in project-related traffic generation represents a 0.1-dBA reduction in the project-related noise contribution, compared to the proposed plan. This change is considered negligible. Therefore, noise associated with off-site traffic under Alternative 2 would be slightly less than under the proposed plan and noise impacts would be similar to the impacts of the proposed plan, less than significant.

There would be no changes to the locations or number of residential units under Alternative 2 as compared to the proposed plan. As under the proposed plan, Mitigation Measure 3.12a-1 would be implemented to ensure that the interior noise levels at the future residential use under Alternative 2 would meet the City's interior noise requirement of 45 dBA L_{dn} , and Mitigation Measure 3.12a-2 would be implemented to ensure that the exterior noise levels at the residential outdoor uses do not exceed 60 dBA L_{dn} . Therefore, operational noise impacts under Alternative 2 would be reduced to a less-than-significant level.

Overall, the noise impacts of Alternative 2 would be *similar to* those of the proposed plan.

Alternative 3: Station Center Office and Residential Focus Alternative

The Station Center Office and Residential Focus Alternative (Alternative 3) would reduce the overall dwelling units and retail land uses while increasing office land uses compared to the proposed plan. However, Alternative 3 would involve construction activities and equipment similar to the activities and equipment for the proposed plan. Similar to the proposed plan, construction-related activities under this alternative would generate noise levels up to 86.3 dBA at 50 feet from the construction area (during the building construction phase). Therefore, the construction activities for Alternative 3, like the construction activities for the proposed plan, would temporarily increase the existing ambient noise level at the existing residential uses near the construction area. Like the proposed plan, construction activities under this alternative would be required to comply with the City's allowable hours (daytime hours between 8:00 a.m. and 6:00 p.m.). As under the proposed plan, Mitigation Measure 3.12d-1 would be implemented under Alternative 3 to ensure that construction noise impacts would be less than significant. Therefore, construction-related noise levels under Alternative 3 would be similar to construction noise under the proposed plan and the impact would be less than significant.

As under the proposed plan, construction activities under Alternative 3 would generate groundborne vibration levels up to 78 VdB at 50 feet from the heavy construction equipment (i.e., large bulldozer and caisson drilling). Therefore, the groundborne vibration levels from construction activities at off-site residential uses, which are a minimum of 100 feet from the project construction areas, would be well below the threshold of 80 VdB. As under the proposed plan, under Alternative 3 the existing on-site residential uses could be exposed to groundborne vibration up to 87 VdB when construction equipment is operating within 25 feet of the residential uses. However, construction activities would comply with the City's allowable construction hours and would be limited to the daytime hours, thereby avoiding the normal sleeping hours (i.e., nighttime hours). As such, vibration impacts from Alternative 3 construction activities would be similar to impacts of the proposed plan and would be less than significant.

Alternative 3 would result in a slight reduction in project-generated vehicle traffic relative to the proposed plan, from 27,777 daily trips to 25,830 daily trips (7 percent reduction). The 7 percent reduction in project-related traffic generation represents a 0.3-dBA reduction in project noise contribution compared to the proposed plan. This change is considered negligible. Therefore, noise associated with off-site traffic under Alternative 3 would be less than under the proposed plan and noise impacts would be similar, less than significant. Alternative 3 proposes fewer residential units than the proposed plan, 402 units compared to 415 units. The residential uses under Alternative 3 would be placed near the future SMART rail station, as in the proposed plan. As under the proposed plan, Mitigation Measure 3.12a-1 would be implemented under Alternative 3 to ensure that the interior noise levels at the future residential use would meet the City's interior noise requirement of 45 dBA L_{dn} , and

Mitigation Measure 3.12a-2 would be implemented to ensure that the exterior noise levels at the residential outdoor uses would not exceed 60 dBA L_{dn} . Therefore, operational noise impacts under Alternative 3 would be reduced to a less-than-significant level.

Overall, the noise impacts of Alternative 3 would be *less than* those of the proposed plan.

Transportation/Traffic

Alternative 1: No Project/No New Development Alternative

The No Project/No New Development Alternative (Alternative 1) includes foreseeable changes to land use and the transportation network that have already been approved, but none of the changes included in the proposed plan.

Under Alternative 1, the proposed plan would not be implemented, and none of the proposed changes to land use or improvements to transportation facilities proposed under the plan would take effect under this alternative. As a result, no impact would occur related to a conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system. The impact of Alternative 1 with regard to this issue would be less than the impact of the proposed plan, which would result in a significant and unavoidable impact under future cumulative conditions..

Because of future development in the city, however, operations at several study intersections and freeway segments would be expected to degrade to unacceptable conditions under Alternative 1. The following intersections would operate at unacceptable conditions in the future under this alternative:

- Commerce Boulevard/State Farm Drive (p.m. peak hour),
- RPX/Commerce Boulevard (p.m. peak hour),
- RPX/State Farm Drive (a.m. and p.m. peak hours), and
- Enterprise Drive/State Farm Drive (p.m. peak hour).

The proposed plan would add traffic to these intersections, but would include traffic signal or lane geometry improvements to improve intersection operations to acceptable conditions or mitigate the effects of the additional traffic. As a result, the proposed plan would result in less-than-significant impacts on intersection operations. The proposed plan also would create more opportunity to complete the intersection improvements as nearby properties are developed and redeveloped. These improvements may not be made under the No-Project Alternative.

The following freeway segments also would be expected to operate at unacceptable conditions in the future under Alternative 1:

- northbound U.S. 101 between Golf Course Drive and Santa Rosa Avenue (p.m. peak hour),
- northbound U.S. 101 between Santa Rosa Avenue and Todd Road (p.m. peak hour), and
- southbound U.S. 101 between Todd Road and Golf Course Drive (a.m. and p.m. peak hours).

The proposed plan would add traffic to these freeway segments, which would continue to operate at LOS F but with an increase in the v/c ratio in excess of Caltrans' thresholds of significance. As a result, the proposed plan would result in a significant and unavoidable impact at these locations under future cumulative conditions.

Under Alternative 1, the proposed plan would not be implemented and none of the land use changes or transportation facility improvements included in the proposed plan would take effect. As a result, no impact would occur related to a conflict with an applicable congestion management system. With regard to this issue, Alternative 1 would generate an impact less than that of the proposed plan, which would result in a less-than-significant impact.

Neither Alternative 1 nor the proposed plan would result in a change in air traffic patterns—either an increase in air traffic levels or a change in location that would result in substantial safety risks during construction or operation. The closest airports to the plan area, the Sonoma County Airport and Petaluma Municipal Airport, are both located more than 10 miles away. There would be no safety risks associated with proximity to airports; therefore, no impact would occur regarding a potential change in air traffic patterns, and Alternative 1 would generate an impact similar to that of the proposed plan.

Neither Alternative 1 nor the proposed plan would include any hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses, and neither would alter design features developed to mitigate such hazards during construction or operations. Therefore, no impact would occur related to a substantial increase in hazards due to a design feature, and Alternative 1 would generate an impact similar to that of the proposed plan.

Because none of the land use changes or transportation facility improvements included in the proposed plan would take effect under Alternative 1, no impact related to the adequacy of emergency access would occur under this alternative. Alternative 1 would generate an impact less than that of the proposed plan, which would result in a less-than-significant impact.

In addition, because Alternative 1 would not include the proposed plan's land use changes and transportation facility improvements, this alternative would fail to meet Goal CT-1 (and Objectives CT-1.4, CT-1.5, and CT-1.8 and Policy CT-1k), Goal CT-2, and Goal CT-3 (and Objectives CT-3.3 and CT-3.8) of the *Sonoma County General Plan 2020* and Goal TR-L of the *City of Rohnert Park General Plan*. The proposed plan was expressly developed to help address and achieve these goals, objectives, and policies. Therefore, Alternative 1 would result in a significant impact related to a conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities or other decrease in the performance or safety of such facilities. With regard to this issue, the impact of this alternative would be greater than that of the proposed plan, which would result in a less-than-significant impact.

Overall, the transportation and traffic impacts of Alternative 1 would be *less than* those of the proposed plan, but also Alternative 1 does not support the improvements of the proposed plan, consistent with adopted General Plan goals and policies.

Alternative 2: No Regional Commercial Overlay Zone Alternative

The No Regional Commercial Overlay Zone Alternative (Alternative 2) is an action alternative and is generally similar to the proposed plan, but this alternative has a slightly different set of proposed land use changes. Alternative 2 would reduce the amount of regional commercial uses permitted in the Triangle Business subarea; otherwise, this alternative proposes the same land use changes as the proposed plan.

Under the proposed plan, future development permitted in the plan area would generate approximately 27,777 additional vehicle-trips per day, including 1,352 vehicle-trips during the a.m. peak hour and 1,973 vehicle-trips during the p.m. peak hour. In contrast, future development under Alternative 2 would generate approximately 27,022 additional vehicle-trips per day, including 1,356 vehicle-trips during the a.m. peak hour and 1,955 vehicle-trips during the p.m. peak hour. As a result, Alternative 2 would generate similar vehicle-trips to the proposed plan: four more trips during the a.m. peak hour, but 18 fewer trips during the p.m. peak hour. This represents a vehicle-trip increase of less than 1 percent during the a.m. peak hour and a vehicle-trip decrease of 1 percent during the p.m. peak hour under Alternative 2, compared to the proposed plan.

The projected increase in vehicle-trips of less than 1 percent during the a.m. peak hour and decrease in vehicle-trips of 1 percent during the p.m. peak hour under Alternative 2 would be spread across two directions (inbound and outbound) and across various roadways serving the plan area. The effect of this difference on any specific transportation facility likely would be relatively small. Thus, Alternative 2 would generate an impact similar to that of the proposed plan related to a conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system. This alternative would result in a significant impact under future cumulative conditions. For the same reason, Alternative 2 would generate an impact similar to that of the proposed plan related to a conflict with an applicable congestion management system. This alternative would result in a less-than-significant impact.

Neither Alternative 2 nor the proposed plan would result in a change in air traffic patterns—either an increase in air traffic levels or a change in location that would result in substantial safety risks during construction or operation. The closest airports to the plan area, the Sonoma County Airport and Petaluma Municipal Airport, are both located more than 10 miles away. There would be no safety risks associated with proximity to airports; therefore, no impact would occur regarding a potential change in air traffic patterns, and Alternative 2 would generate an impact similar to that of the proposed plan.

Neither Alternative 2 nor the proposed plan would include any hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses, and neither would alter design features developed to mitigate such hazards during construction or operations. Therefore, no impact would occur related to a substantial increase in hazards due to a design feature, and Alternative 2 would generate an impact similar to that of the proposed plan.

Neither Alternative 2 nor the proposed plan would interfere with emergency access or result in inadequate emergency access, and both would be designed consistent with City and Caltrans standards as required to provide adequate emergency access. Therefore, no impact would occur related to the adequacy of emergency access, and Alternative 2 would generate an impact similar to that of the proposed plan.

Alternative 2 would feature a slightly different set of land use changes than the proposed plan, but would be fundamentally identical to the proposed plan with regard to improvements to transportation facilities. This alternative would be expected to generate slightly more vehicle-trips during the a.m. peak hour and slightly fewer vehicle-trips during the p.m. peak hour than the proposed plan; however, the magnitude of this difference is on the order of zero to 1 percent, spread across two directions (inbound and outbound) and across various roadways serving the plan area. As a result, any change in the magnitude of potential effects on public transit, bicycle, or pedestrian facilities because of additional vehicle-trips would be relatively small. Any such effects under Alternative 2 would likely be similar to those identified for the proposed plan. As a result, Alternative 2 would generate an impact similar to that of the proposed plan related to a conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities or other decrease in the performance or safety of such facilities. With regard to this issue, this alternative would result in a less-than-significant impact.

Overall, the transportation and traffic impacts of Alternative 2 would be *similar to* those of the proposed plan.

Alternative 3: Station Center Office and Residential Focus Alternative

The Station Center Office and Residential Focus Alternative (Alternative 3) is an action alternative and is generally similar to the proposed plan, but this alternative has a slightly different set of proposed land use changes. In particular, Alternative 3 would slightly adjust the nonresidential land use mix in the Station Center subarea by reducing the amount of retail/service uses and increasing the amount of office uses.

Under the proposed plan, future development permitted in the plan area would generate approximately 27,777 additional vehicle-trips per day, including 1,352 vehicle-trips during the a.m. peak hour and 1,973 vehicle-trips during the p.m. peak hour. In contrast, future development permitted in the plan area under Alternative 3 would generate approximately 25,830 additional vehicle-trips per day, including 1,401 vehicle-trips during the a.m. peak hour and 1,930 vehicle-trips during the p.m. peak hour. As a result, relative to the proposed plan, Alternative 3 would generate slightly more vehicle-trips (49) during the a.m. peak hour but slightly fewer vehicle-trips (43) during the p.m. peak hour. This represents a vehicle-trip increase of approximately 4 percent during the a.m. peak hour and decrease of approximately 2 percent during the p.m. peak hour, compared to the proposed plan.

The projected 4 percent increase and 2 percent decrease in vehicle-trips during the a.m. and p.m. peak hours, respectively, under Alternative 3 would be spread across two directions (inbound and outbound) and across various roadways serving the plan area. The effect of these differences on any specific transportation facility would likely be relatively small. Thus, Alternative 3 would generate an impact similar to that of the proposed plan related to a conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system. With regard to this issue, Alternative 3 would result in a significant impact under future cumulative conditions. For the same reason, Alternative 3 would generate an impact similar to that of the proposed plan with regard to a conflict with an applicable congestion management program. This alternative would result in a less-than-significant impact.

Neither Alternative 3 nor the proposed plan would result in a change in air traffic patterns—either an increase in air traffic levels or a change in location that would result in substantial safety risks during construction or operation. The closest airports to the plan area, the Sonoma County Airport and Petaluma Municipal Airport, are both located more than 10 miles away. There would be no safety risks associated with proximity to airports;

therefore, no impact would occur regarding a potential change in air traffic concerns. With regard to this issue, Alternative 3 would generate an impact similar to that of the proposed plan.

Neither Alternative 3 nor the proposed plan would include any hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses, and neither would alter design features developed to mitigate such hazards during construction or operations. Therefore, no impact would occur related to a substantial increase in hazards due to a design feature. With regard to this issue, Alternative 3 would generate an impact similar to that of the proposed plan.

Neither Alternative 3 nor the proposed plan would interfere with emergency access or result in inadequate emergency access, and both would be designed consistent with City and Caltrans standards as required to provide adequate emergency access. Therefore, no impact would occur related to the adequacy of emergency access, and Alternative 3 would generate an impact similar to that of the proposed plan.

Alternative 3 would feature a slightly different set of land use changes than the proposed plan, but would be fundamentally identical to the proposed plan with regard to improvements to transportation facilities. This alternative would be expected to generate slightly more vehicle-trips during the a.m. peak hour and slightly fewer vehicle-trips during the p.m. peak hour than the proposed plan; however, the magnitude of this difference is on the order of 2 to 4 percent, spread across two directions (inbound and outbound) and across various roadways serving the plan area. As a result, any change in the magnitude of potential effects on public transit, bicycle, or pedestrian facilities because of additional vehicle-trips would be relatively small. Any such effects under Alternative 3 would likely be similar to those identified for the proposed plan. Thus, Alternative 3 would generate an impact similar to that of the proposed plan related to a conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities or other decrease in the performance or safety of such facilities. With regard to this issue, this alternative would result in a less-than-significant impact.

Overall, the transportation and traffic impacts of Alternative 3 would be *less than* those of the proposed plan.

6.3.5 Environmentally Superior Alternative

The State CEQA Guidelines (Section 15126.6[e][2]) require that an EIR identify the environmentally superior alternative. If the environmentally superior alternative is the “No Project” Alternative, the EIR must identify an environmentally superior alternative from among the other alternatives. Alternative 1, the No Project/No Development Alternative, would minimize the significant impacts of the proposed plan related to transportation and traffic would have less severe impacts in all other issue areas. Because the No Project/No Development Alternative is the environmentally superior alternative, an environmentally superior alternative must be identified from among the other development alternatives.

Table 6-3 presents a comparison of the alternative impacts. Alternatives 2 and 3 would achieve the greater reduction in terms of contribution to the significant and unavoidable traffic impact by reducing the amount of regional commercial uses permitted in the plan area. However, similar to the proposed plan, in both instances this impact would still be significant and unavoidable.

Alternative 3, the Station Center Office and Residential Focus Alternative, would have less severe traffic impacts than the proposed plan by slightly adjusting the nonresidential land use mix in the Station Center subarea through

a reduction in the amount of retail/service uses and an increase in the amount of office uses. However, similar to the proposed plan, this transportation impact would still be significant and unavoidable under this alternative.

Table 6-3: Comparison of the Impacts of the Alternatives with Those of the Proposed Plan

	Alternative 1	Alternative 2	Alternative 3
Air Quality	Less	Less	Less
Biological Resources	Less	Similar	Similar
Cultural Resources	Less	Similar	Similar
Geology and Soils	Less	Similar	Similar
GHG Emissions	Greater	Similar	Less
Hazards and Hazardous Materials	Less	Similar	Similar
Hydrology and Water Quality	Less	Similar	Similar
Noise and Vibration	Less	Similar	Less
Transportation and Traffic	Less	Similar	Less

Source: Data compiled by AECOM in 2015

Alternative 3 would be the environmentally superior alternative, given it would result in less traffic, noise, and greenhouse gas emissions impacts compared to the proposed plan and Alternative 2. Alternative 3 would meet the majority of the plan's objectives (presented in detail in Section 6.1.5), but to a lesser extent than the proposed plan and Alternative 2. Alternative 3 would meet the majority of the plan objectives but would be less effective in supporting the community's desire or the plan's objective for a Downtown retail environment, with substantial retail uses adjacent to the SMART rail station.

Furthermore, all of the alternatives would deliver fewer of the Downtown retail and entertainment benefits desired by the community than the proposed plan. The plan area has the potential for retail and employment infill opportunities near transit. Reduction of some of the retail and residential development in the alternatives would not support the plan's objectives or leverage the advantages of the coming SMART rail station to the support the creation of a downtown for the city.

6.4 REFERENCES

Metropolitan Transportation Commission. 2007 (October 18). *Station Area Planning Manual*. Prepared by Reconnecting America, Center for Transit-Oriented Development.

MTC. *See* Metropolitan Transportation Commission.

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